

**NUCLEAR REGULATORY COMMISSION  
ISSUANCES**

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

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January 1, 2013 – June 30, 2013

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## PREFACE

This is the seventy-seventh volume of issuances (1–355) 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, 2013, to June 30, 2013.

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.

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

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**COMMISSIONERS:**

**Allison M. Macfarlane**, Chairman  
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**George Apostolakis**  
**William D. Magwood, IV**  
**William C. Ostendorff**

**In the Matter of**

**Docket No. 40-3392-MLA**

**HONEYWELL INTERNATIONAL, INC.**  
**(Metropolis Works Uranium Conversion**  
**Facility)**

**January 9, 2013**

**REGULATIONS: 10 C.F.R. § 40.36**

**SOURCE MATERIAL LICENSEES**

**DECOMMISSIONING**

With limited exceptions, section 40.36 of our regulations requires source material licensees to demonstrate that they can pay for the decommissioning of their regulated facilities. Generally, a nongovernment licensee must demonstrate such financial assurance by using one of three methods — (1) prepayment; (2) use of a surety method, insurance, or other guarantee method; or (3) use of an external sinking fund.

**DECOMMISSIONING (OTHER GUARANTEE METHOD)**

As a form of “other guarantee method,” section 40.36(e)(2) permits bond-issuing licensees to provide a self-guarantee of funds for decommissioning costs based on a financial test set forth in Appendix C of Part 30.

## **DECOMMISSIONING: DECOMMISSIONING FUNDING PLAN**

The objective of decommissioning is to remove a facility or site safely from service, and to reduce residual radioactivity to a level that permits either release of the property for unrestricted use or release under restricted conditions, followed by termination of the NRC license. To meet this objective, we require source materials licensees to submit a Decommissioning Funding Plan far in advance of submitting the actual plans for decommissioning. This Plan must include a periodically adjusted cost estimate and specify the method for assuring that sufficient funds will be available when needed. The licensee also must certify that the amount assured for decommissioning meets or exceeds estimated decommissioning costs.

## **DECOMMISSIONING: UNRESTRICTED USE**

“Unrestricted use” means that, from a radiological standpoint, no hazards exist at the site, the license can be terminated, and the site can be considered an unrestricted area. In practical terms, the objective of decommissioning is to reduce residual radioactivity in structures, soils, groundwater, and other media at the site so that the concentration of each radionuclide that could contribute to residual radioactivity is indistinguishable from the background radiation concentration for that nuclide.

## **DECOMMISSIONING: INTANGIBLE ASSETS**

We recently promulgated a new rule to permit licensees to include *intangible* assets in their proposed “net worth” calculations, based on our conclusion that this change would not unduly risk a shortfall in decommissioning funds. Our new rule, which went into effect in late 2012, reflects this new feature. The financial test in section II.A.1 of Appendices A, C, and D of Part 30 “allow[s] the use of intangible assets . . . to meet specified criteria in the financial tests for . . . self-guarantees.” This new provision will be balanced by a new *minimum* tangible net worth requirement for the self-guarantee financial test applicable to bond-issuing companies. The financial tests in 10 C.F.R. Part 30, Appendix A (parent companies), Appendix C (bond-issuing companies), and Appendix D (companies without rated bonds) impose different tangible net worth requirements. The new rule will impose a *minimum* tangible net worth requirement for all self-guaranteeing licensees, using a cost-adjustment feature to reflect inflation. For licensees covered by Part 30, Appendix C, the adjusted cost at the time of the rule’s adoption will be \$21 million.

## **DECOMMISSIONING: EXEMPTIONS**

A licensee can seek an exemption from the decommissioning financial assurance requirements pursuant to section 40.14(a) of our regulations. That section provides that “[t]he Commission may . . . grant such exemptions from the requirements of the regulation[s] in this part as it determines are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest.” Although our regulations thus authorize exemptions, we consider an exemption to be an “extraordinary” equitable remedy to be used only “sparingly.”

## **DECOMMISSIONING: EXEMPTIONS**

### **REGULATIONS: COLLATERAL ATTACK**

The reason for this high standard is simple. Every NRC regulation has gone through the rulemaking process, including public notice-and-comment, and its underlying rationale has been explained in our Statements of Considerations. Although our authority under the Atomic Energy Act and other statutes to adopt rules of general application “entails a concomitant authority to provide exemption procedures in order to allow for special circumstances,” our rules presumably apply until an exemption requester has met the high burden we place upon such requests. Our exemption regulations are in place to provide equitable relief only when supported by compelling reasons — they are not intended to serve as a vehicle for challenging the fundamental basis for the rule itself. Challenges to the rule itself are more appropriately lodged through a request for rulemaking. To the extent such challenges are presented in an adjudication, they also contravene our rule prohibiting collateral attacks on regulations.

## **EXEMPTION**

### **HEARING: RIGHT**

An exemption standing alone does not give rise to an opportunity for hearing under our rules. But when a licensee requests an exemption in a related license amendment application, we consider the hearing rights on the amendment application to encompass the exemption request as well.

### **APPEALS: FACTUAL REVIEW (DEFERENCE; “CLEAR ERROR” STANDARD)**

In analyzing a board’s findings of fact, we apply the deferential “clear error” standard. Our deference to the Board’s findings in this adjudication is grounded in

the fact that exemption requests are by their very nature equitable — and therefore fact-driven. This level of deference is particularly high where a board’s factual determinations are based in significant part on its assessment of expert testimony and the credibility of the witnesses offering that testimony.

**BOARD: STANDARD OF REVIEW**

**EXEMPTIONS: STANDARD OF REVIEW**

At Honeywell’s request (and without objection by the Staff), the Board reviewed the legal aspects of the exemption request *de novo*. LBP-12-6, 75 NRC 256, 268 (2012). But the Board did not consider the difference between a license amendment, which is something to which a licensee is *entitled* if it satisfies our regulatory requirements, and an exemption, which is an action solely within the Staff’s *discretion* to provide. Here, the exemption was the essence of the requested relief, and the license amendment’s sole function was to document the exemption. For this reason, the Board should have applied the “abuse of discretion” standard of review applicable to an exemption determination rather than the *de novo* standard applicable to a Staff decision on a license amendment application. This conclusion is consistent with our own standards when reviewing other discretionary Staff actions not subject to a hearing opportunity.

**RULEMAKING: PROPOSED RULE**

A proposed rule, by its very nature, cannot impose regulatory criteria upon licensees.

**REGULATIONS: COLLATERAL ATTACK**

We have repeatedly stated — and our hearing rules explicitly provide — that our adjudications are not the proper arena for challenges to our regulations. Under the APA, changes to our regulatory regime must result from a deliberative rulemaking proceeding that provides the public with both notice of the proposed regulation and the opportunity to comment. Otherwise, our agency necessarily would address, on a case-by-case basis, the inevitable multitude of requests for individual exemptions — with the resulting diversion of resources that would be better allocated to the agency’s primary mission of ensuring that licensees comply with safety and environmental standards.

## MEMORANDUM AND ORDER

This proceeding stems from a request for hearing filed by Honeywell International, Inc. (Honeywell) in response to the NRC Staff's denial of Honeywell's request for an exemption from our decommissioning financial assurance requirements for its Metropolis Works uranium conversion facility (Metropolis facility).<sup>1</sup> The Staff issued its denial in 2011, after the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) remanded an earlier Staff decision that had denied the same exemption request.<sup>2</sup> Honeywell was granted a hearing by the Licensing Board and challenged the Staff's 2011 decision denying Honeywell's request for an exemption and license amendment authorizing use of an alternate method — “self-funding” or “self-guarantee” — to demonstrate decommissioning funding assurance for the Metropolis facility. In LBP-12-6, the Board denied Honeywell's request for an exemption.<sup>3</sup> Honeywell has petitioned for review of that decision.<sup>4</sup>

We take review of LBP-12-6 and affirm the Board's decision to deny the requested exemption. Honeywell fails to show clear error in the Board's findings of fact, and fails to show legal error in the Board's decision to restrict its inquiry to facts available to the Staff at the time it issued its denial of the exemption. We also agree with the Board that Honeywell failed to satisfy the requirements for an exemption under 10 C.F.R. § 40.14.

### I. REGULATORY STANDARDS REGARDING DECOMMISSIONING FINANCIAL ASSURANCE AND EXEMPTIONS

With limited exceptions, section 40.36 of our regulations requires source material licensees to demonstrate that they can pay for the decommissioning of their regulated facilities.<sup>5</sup> Generally, a nongovernment licensee such as Honeywell must demonstrate such financial assurance by using one of three methods — (1) prepayment; (2) use of a surety method, insurance, or *other guarantee method*;

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<sup>1</sup> Request for Hearing on Denial of Decommissioning License Amendment Request (June 22, 2011) (Request for Hearing).

<sup>2</sup> *Honeywell v. NRC*, 628 F.3d 568 (D.C. Cir. 2010) (*Honeywell*).

<sup>3</sup> 75 NRC 256 (2012).

<sup>4</sup> See Honeywell's Petition for Review of LBP-12-06 (Mar. 22, 2012) (Petition for Review); Honeywell's Reply Brief in Support of Petition for Review of LBP-12-06 (Apr. 11, 2012) (Honeywell Reply).

<sup>5</sup> 10 C.F.R. § 40.36.

or (3) use of an external sinking fund.<sup>6</sup> As a form of “other guarantee method,” section 40.36(e)(2) permits bond-issuing licensees such as Honeywell to provide a self-guarantee of funds for decommissioning costs based on a financial test set forth in Appendix C of Part 30.<sup>7</sup> In the period relevant here, Appendix C provides that, to qualify for the alternative method of self-funding, a licensee must have, among other things, a bond rating of “A” or better, as issued by Standard and Poor’s or Moody’s<sup>8</sup> and tangible net worth at least ten times the total current decommissioning cost estimate (a 10:1 ratio requirement).<sup>9</sup>

This financial test is designed to assure that adequate funds are available to decommission licensed source materials facilities when operations cease. Like other licensees, Honeywell will be required to submit a decommissioning plan in accordance with 10 C.F.R. § 40.42 when it decides to cease NRC-licensed activities at its Metropolis facility. The objective of decommissioning is to remove a facility or site safely from service, and to reduce residual radioactivity to a level that permits either release of the property for unrestricted use or release under restricted conditions,<sup>10</sup> followed by termination of the NRC license.

To meet this objective, we require source materials licensees like Honeywell to submit a Decommissioning Funding Plan far in advance of submitting the actual plans for decommissioning.<sup>11</sup> This Plan must include a periodically adjusted cost estimate and specify the method for assuring that sufficient funds will be available when needed. The licensee also must certify that the amount assured for decommissioning meets or exceeds estimated decommissioning costs.<sup>12</sup>

These requirements evolved from a rulemaking proceeding that began in 1978, when we set out to review our requirements for decommissioning licensed facilities.<sup>13</sup> We were concerned that the then-current “regulatory requirements and guidance [we]re not specific enough in many critical areas,” including financial

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<sup>6</sup> *Id.* § 40.36(e)(1)-(3) (emphasis added).

<sup>7</sup> *Id.* § 40.36(e)(2).

<sup>8</sup> *Id.* Part 30, App. C, § II.A.3.

<sup>9</sup> *Id.* Part 30, App. C, § II.A.1.

<sup>10</sup> “Unrestricted use” means that, “from a radiological standpoint, no hazards exist at the site, the license can be terminated, and the site can be considered an unrestricted area.” Final Rule: “General Requirements for Decommissioning Nuclear Facilities,” 53 Fed. Reg. 24,018, 24,020 (June 27, 1988). In practical terms, “the objective of decommissioning is to reduce residual radioactivity in structures, soils, groundwater, and other media at the site so that the concentration of each radionuclide that could contribute to residual radioactivity is indistinguishable from the background radiation concentration for that nuclide.” Final Rule: “Radiological Criteria for License Termination,” 62 Fed. Reg. 39,058, 39,059 (July 21, 1997). *See generally* 10 C.F.R. §§ 20.1402, 20.1403(a).

<sup>11</sup> *See* 10 C.F.R. § 40.36(a), (d)-(e).

<sup>12</sup> *See id.* § 40.36(d).

<sup>13</sup> Advance Notice of Proposed Rulemaking, Decommissioning Criteria for Nuclear Facilities, 43 Fed. Reg. 10,370 (Mar. 13, 1978).

assurance of funds necessary to complete facility decommissioning.<sup>14</sup> Following lengthy technical and environmental studies, we instituted a rulemaking on the technical and financial criteria for decommissioning licensed facilities.<sup>15</sup> An integral part of the final rule was the financial test of Part 30, Appendix A (parent companies), Appendix C (bond-issuing companies) and Appendix D (companies without rated bonds) — all of which were adopted to assure that licensees would be financially capable of completing decommissioning.<sup>16</sup> We noted at the time that, given “the number and complexity of facilities that will require decommissioning . . . in the near future,” inadequate attention to decommissioning financial assurance “could result in significant adverse health, safety and environmental impacts.”<sup>17</sup>

In that rulemaking, we considered a suggestion that NRC adopt a “case-by-case” financial test rather than generic rules.<sup>18</sup> But we rejected the suggested *ad hoc* approach “because of the potential for changing licensee financial conditions and the fairly lengthy time period involved before decommissioning would take place,” plus concerns over “additional staff time [that] could be necessary to monitor the financial status of a number of licensees.”<sup>19</sup>

The self-guarantee funding mechanism used by Honeywell was adopted in 1993 “to reduce the licensee’s cost burden” in fees for letters of credit, surety bonds, and other forms of third-party financial assurance, but “without causing adverse effects on public health and safety.”<sup>20</sup> We noted that the tangible net worth requirement would nonetheless be an “important factor” in the requirements for self-guarantee.<sup>21</sup> Thus, while dropping a much higher net worth requirement originally proposed, we did adopt a requirement that licensees have a tangible net worth at least ten times the decommissioning costs to qualify for self-guarantee.<sup>22</sup> Our approach under this new self-guarantee provision was deliberately conservative:

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<sup>14</sup> Notice of Availability of Draft Generic Environmental Impact Statement, Decommissioning Criteria for Nuclear Facilities, 46 Fed. Reg. 11,666, 11,667 (Feb. 10, 1981).

<sup>15</sup> See Proposed Rule: “Decommissioning Criteria for Nuclear Facilities,” 50 Fed. Reg. 5600 (Feb. 11, 1985).

<sup>16</sup> See generally Final Rule: “General Requirements for Decommissioning Nuclear Facilities,” 53 Fed. Reg. 24,018, 24,037-38 (June 27, 1988).

<sup>17</sup> *Id.* at 24,019. See also *id.* at 24,033 (“adequate funds [must be] available so that decommissioning can be carried out in a safe and timely manner and that lack of funds does not result in delays that may cause potential health and safety problems”).

<sup>18</sup> See *id.* at 24,035.

<sup>19</sup> *Id.*

<sup>20</sup> Final Rule: “Self-Guarantee as an Additional Financial Assurance Mechanism,” 58 Fed. Reg. 68,726, 68,726 (Dec. 29, 1993).

<sup>21</sup> *Id.* at 68,728.

<sup>22</sup> *Id.*

This is the first instance in which self-guarantee is being allowed under the Commission's decommissioning regulations. The Commission prefers that the more conservative criteria be used. At some future time, when the Commission has gained some experience with self-guarantee, it may consider an appropriate revision of the financial criteria.<sup>23</sup>

This prudent approach likewise marked our decommissioning rulemaking in 2008, where we sought to "reduce the likelihood that any current operating facility will become a legacy site," defined as "a facility that is in decommissioning status with complex issues and an owner who cannot complete the decommissioning work for technical or financial reasons."<sup>24</sup> To achieve this goal, we sought to "reduce the number of funding shortfalls caused in the past by: (1) Overly optimistic decommissioning assumptions; (2) Lack of adequate updating of cost estimates during operation; and (3) Licensees falling into financial distress with financial assurance funds unavailable for decommissioning."<sup>25</sup>

In our 2008 proposed rule, we also considered loosening the self-guarantee requirements to allow a licensee's *intangible* assets to meet some financial tests requiring *tangible* assets. The NRC regulations that were in effect in 2008 and remain in effect today allow self-guarantee for financial assurance by licensees that meet the generic financial test prescribed in Appendices A, C, and D of 10 C.F.R. Part 30, as applicable.

After carefully considering the matter, we recently promulgated a new rule that revised those Appendices to permit licensees to include *intangible* assets in their proposed "net worth" calculations, based on our conclusion that this change would not unduly risk a shortfall in decommissioning funds.<sup>26</sup> Our new rule, which went into effect late last year, reflects this new feature. The financial test in section II.A.1 of Appendices A, C, and D of Part 30 "allow[s] the use of intangible assets . . . to meet specified criteria in the financial tests for . . . self-guarantees."<sup>27</sup>

This new provision will be balanced by a new *minimum* tangible net worth requirement for the self-guarantee financial test applicable to bond-issuing companies like Honeywell. The financial tests in 10 C.F.R. Part 30, Appendix A (parent companies), Appendix C (bond-issuing companies), and Appendix D (companies without rated bonds) impose different tangible net worth requirements. The new rule will impose a *minimum* tangible net worth requirement for

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<sup>23</sup> *Id.*

<sup>24</sup> Ex. NRC000014, Proposed Rule: "Decommissioning Planning," 73 Fed. Reg. 3812, 3812-13 (Jan. 22, 2008) (Proposed Rule, Decommissioning Planning).

<sup>25</sup> *Id.* at 3822.

<sup>26</sup> Ex. NRC000015, Final Rule: "Decommissioning Planning," 76 Fed. Reg. 35,512, 35,524 (June 17, 2011) (Final Rule, Decommissioning Planning).

<sup>27</sup> *Id.*



all self-guaranteeing licensees, using a cost-adjustment feature to reflect inflation. For licensees covered by Part 30, Appendix C, the adjusted cost at the time of the rule's adoption will be \$21 million.<sup>28</sup>

Having explained the parameters of our financial assurance program for materials licensees, we now turn to NRC's exemption provisions for self-guaranteeing licensees like Honeywell. A licensee can seek an exemption from the decommissioning financial assurance requirements pursuant to section 40.14(a) of our regulations.<sup>29</sup> That section provides that "[t]he Commission may . . . grant such exemptions from the requirements of the regulation[s] in this part as it determines are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest."<sup>30</sup> Although our regulations thus authorize exemptions, we consider an exemption to be an "extraordinary" equitable remedy<sup>31</sup> to be used only "sparingly."<sup>32</sup>

The reason for this high standard is simple. Every NRC regulation has gone through the rulemaking process, including public notice-and-comment, and its underlying rationale has been explained in our Statements of Considerations. Although our authority under the Atomic Energy Act of 1954, as amended (AEA), and other statutes to adopt rules of general application "entails a concomitant authority to provide exemption procedures in order to allow for special circumstances,"<sup>33</sup> our rules presumably apply until an exemption requester has met the high burden we place upon such requests. Our exemption regulations are in place to provide equitable relief only when supported by compelling reasons — they are not intended to serve as a vehicle for challenging the fundamental basis for the rule itself. Challenges to the rule itself are more appropriately lodged through a request for rulemaking.<sup>34</sup> To the extent such challenges are presented

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<sup>28</sup> See *id.* at 35,524-25.

<sup>29</sup> As noted above, the financial assurance provisions of section 40.36(e)(2) governing source materials licensees like Honeywell incorporate by reference the financial test in Appendix C to Part 30. Therefore, the exemption provisions of section 40.14 apply here.

<sup>30</sup> 10 C.F.R. § 40.14(a).

<sup>31</sup> See *U.S. Department of Energy* (Clinch River Breeder Reactor Plant), CLI-82-23, 16 NRC 412, 426, remanded on other grounds, *Natural Resources Defense Council, Inc. v. NRC*, 695 F.2d 623, 625 (D.C. Cir. 1982); *Washington Public Power Supply System* (WPPSS Nuclear Project Nos. 3 and 5), CLI-77-11, 5 NRC 719, 723 (1977).

<sup>32</sup> *Clinch River*, CLI-82-23, 16 NRC at 426; *WPPSS*, CLI-77-11, 5 NRC at 723.

<sup>33</sup> *United States v. Allegheny-Ludlum Steel Corp.*, 406 U.S. 742, 755 (1972). See also *Alabama Power Co. v. Costle*, 636 F.2d 323, 357 (D.C. Cir. 1979) ("[L]imited grounds for the creation of exemptions are inherent in the administrative process," and agencies may use "equitable discretion . . . to afford case-by-case treatment taking into account circumstances peculiar to individual parties in the application of a general rule . . . or even in appropriate cases to grant dispensation from the rule's operation.") (internal quotation marks omitted).

<sup>34</sup> *E.g.*, *Connecticut Yankee Atomic Power Co.* (Haddam Neck Plant), CLI-03-7, 58 NRC 1, 7 & n.14 (2003).

in an adjudication, they also contravene our rule prohibiting collateral attacks on regulations.<sup>35</sup>

An exemption standing alone does not give rise to an opportunity for hearing under our rules.<sup>36</sup> But when a licensee requests an exemption in a related license amendment application, we consider the hearing rights on the amendment application to encompass the exemption request as well.<sup>37</sup> In 2006, Honeywell requested an exemption to the financial test of Part 30, Appendix C as part of its license renewal application (which involved a license amendment); Honeywell's subsequent exemption requests sought extensions of that original request by further amendment of its license. Thus, Honeywell's amendment application entitled it to an adjudicatory hearing once the Staff denied its 2009 license amendment and exemption request.

## II. BACKGROUND<sup>38</sup>

For most of the period from 1994 until late 2006, Honeywell qualified for the self-funding "decommissioning funding assurance" option under Appendix C.<sup>39</sup> But in November 2006, Honeywell notified the NRC that it no longer satisfied the financial test for self-funding.<sup>40</sup> Specifically, Honeywell explained that its

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<sup>35</sup> See 10 C.F.R. § 2.335(a).

<sup>36</sup> AEA § 189a(1)(A), 42 U.S.C. § 2239(a)(1)(A) (providing for a hearing opportunity in certain specified proceedings). See, e.g., *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), CLI-00-5, 51 NRC 90, 94-98 (2000) (discussing the legislative and adjudicatory background of NRC exemption hearings, and concluding that exemption requests are not entitled to a hearing under section 189a).

<sup>37</sup> See *Honeywell*, 628 F.3d at 575-76 (the court based its own jurisdictional finding on the NRC's treatment of the exemption request as an amendment to Honeywell's license); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-12, 53 NRC 459, 465-67 (2001) ("Because resolution of the exemption request directly affects the licensability of the proposed ISFSI, the exemption raises material questions directly connected to an agency licensing action and thus comes within the hearing rights of interested parties"); *Clinch River*, CLI-82-23, 16 NRC at 421 ("for there to be any statutory right to a hearing on the granting of an exemption, such a grant must be part of a proceeding for the granting, suspending, revoking, or amending of any license or construction permit under the Atomic Energy Act") (addressing 10 C.F.R. § 50.12).

<sup>38</sup> We provide a detailed background discussion in light of the case's complex and multilayered procedural history.

<sup>39</sup> See LBP-12-6, 75 NRC at 261. In 2002, Honeywell "briefly fell out of compliance with the 10:1 tangible net worth requirement." *Id.* at 261-62. As the Board noted, Honeywell obtained a temporary exemption and returned to compliance in mid-2003. *Id.* at 262.

<sup>40</sup> See Ex. HNY000004, Honeywell Metropolis Works (Docket No. 40-3392) — Request for Exemption from Decommissioning Financial Assurance Requirements (Dec. 1, 2006) (2006 Exemption Request).

tangible net worth had declined to \$1.929 billion, to the point where it no longer satisfied the 10:1 ratio requirement.<sup>41</sup> On December 1, 2006, Honeywell filed the first of three applications under 10 C.F.R. § 40.14, seeking permission to include in its 10:1 ratio calculation the intangible asset of “goodwill.”<sup>42</sup>

In that first exemption request, Honeywell acknowledged that licensees traditionally have not been permitted to include goodwill in the calculation of their tangible net worth for purposes of Part 30, Appendix C.<sup>43</sup> Honeywell argued, however, that “allowance for goodwill would provide an equivalent level of assurance.”<sup>44</sup> According to Honeywell, a strict application of the NRC’s “tangible net worth” test would inaccurately reflect Honeywell’s “financial strength, stability and low risk of default.”<sup>45</sup> To justify this conclusion, Honeywell sought to distinguish its diversified financial portfolio from the less-diversified portfolios of NRC-regulated electric utilities and mining companies that rely on a relatively narrow category of tangible assets to generate cash.<sup>46</sup> By contrast, Honeywell claimed that, as a multi-industry conglomerate, it can rely on a wide variety of revenue streams.<sup>47</sup> Honeywell pointed out that, from 2002 to 2006, it had generated approximately \$3 billion in goodwill through acquisitions of other companies.<sup>48</sup> Further, Honeywell observed that it had maintained “an ‘A’ rating

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<sup>41</sup> *See id.* at 5; Ex. NRC000006, Neuman, Jeffrey, Honeywell Fluorine Products, Letter to Document Control Desk, U.S. Nuclear Regulatory Commission (Nov. 3, 2006), “Exhibit A: Honeywell Historical Financial Assurance Data.”

<sup>42</sup> *See* Supplemental Information: Honeywell Metropolis Works Request for Extension of Exemption from Decommissioning Financial Assurance Requirements (undated) at 5 (goodwill represents “the future economic benefits arising from other assets acquired in a business combination that are not individually identified and separately recognized”), appended to Ex. HNY000008, Cope, David, Honeywell, Letter to Document Control Desk, U.S. Nuclear Regulatory Commission, Supplemental Information to Honeywell Metropolis Works Request for Extension of Exemption from Decommissioning Financial Assurance Requirements (Oct. 13, 2009) (2009 Supplemental Information); Ex. NRC000023, “Generally Accepted Accounting Principles Guide” (undated), § 23.04 (nonpublic) (GAAPG) (ADAMS Accession No. ML11349A253). *See also* Request for Hearing at 3 n.2:

In almost all business combinations, the consideration paid by the acquiring company exceeds the book value of the assets acquired and liabilities assumed from the target. The reason for this excess of goodwill is that the acquired company is valued on the basis of its cash flow or net income generating potential, not on the simple book value of its assets and liabilities. Thus, in the case of an acquisitive company like Honeywell, goodwill may make up a considerable portion of its assets. This is in contrast to “tangible assets,” which include, for example, a company’s buildings, factories, and machinery.

<sup>43</sup> Ex. HNY000004, 2006 Exemption Request, at 1.

<sup>44</sup> *Id.* at 3.

<sup>45</sup> *Id.* at 1.

<sup>46</sup> *See id.* at 4.

<sup>47</sup> *See id.* at 4. *See also id.* at 1, 3 (regarding cash flow).

<sup>48</sup> *See id.* at 4.

from both Moody's and Standard & Poor's since 1992,"<sup>49</sup> and had generated \$2.2 billion in free cash flow from 2002 to 2006.<sup>50</sup> Honeywell also maintained that a "rigid application of the tangible net worth test would require Honeywell to divert substantial financial resources to obtain a letter of credit or some other third party credit support," but would benefit neither operational safety nor public safety nor the common defense and security.<sup>51</sup>

In 2007, the Staff granted Honeywell's exemption request. In the accompanying Technical Evaluation Report (TER), the Staff explained that the purpose of the NRC's decommissioning financial assurance requirement is to assure that the licensee's funds for decommissioning are available whenever they are needed — both under normal circumstances and in times of financial distress.<sup>52</sup>

The Staff also explained that, when evaluating a licensee's ability to pay under conditions of financial distress, the Staff considers the licensee's bond rating and the ratio of assets to decommissioning liability.<sup>53</sup> The Staff recognized that Honeywell's tangible net worth was insufficient to enable Honeywell to meet the 10:1 ratio, but found that the inclusion of goodwill would raise the ratio to a level exceeding 10:1.<sup>54</sup> The Staff concluded that Honeywell's tangible and goodwill assets were, together, sufficient to assure decommissioning funds in times of financial distress.<sup>55</sup>

The Staff therefore granted the requested exemption.<sup>56</sup> Accordingly, the Staff issued License Condition 27 authorizing Honeywell to include goodwill assets when determining whether it satisfied the 10:1 ratio test.<sup>57</sup> Our regulations require a

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<sup>49</sup> *Id.* at 1, 2.

<sup>50</sup> *Id.* at 3 & n.2.

<sup>51</sup> *Id.* at 1. *See also id.* at 5-6.

<sup>52</sup> *See* Ex. HNY000009, Technical Evaluation Report for the Renewal of Source Materials License SUB-526 for Honeywell Metropolis Works UF<sub>6</sub> Conversion Plant[,] Metropolis, Illinois, Docket 40-3392, at 51-55 (May 11, 2007) (containing only those five pages of the TER). *See also* Janosko, Gary S., U.S. Nuclear Regulatory Commission, Letter to David Edwards, Honeywell, "Renewal of Honeywell Metropolis Works Source Materials License No. SUB-526" (May 11, 2007), at 1 (ADAMS Accession No. ML062140705) (explaining that the review of Honeywell's exemption request "is documented in Section 11.4 of the TER, and a time limited exemption was granted as reflected in License Condition 27"). The entire TER is appended to Mr. Janosko's letter as Enclosure 1 (ADAMS Accession No. ML062640369).

<sup>53</sup> Ex. HNY000009, TER at 53.

<sup>54</sup> *Id.* at 51.

<sup>55</sup> *Id.* at 53.

<sup>56</sup> *Id.* at 54, 55.

<sup>57</sup> *Id.* at 55. *See also* Ex. HNY000010, Extension of One-Year Exemption from the Requirements of 10 CFR 30, Appendix C, Regarding Decommissioning Financial Assurance (TAC No. L32432), at 4 (undated) (2008 Grant of Extension), appended as Enclosure 1 to Dorman, Daniel H., U.S. Nuclear Regulatory Commission, Letter to Mitch Tillman, Honeywell (Aug. 22, 2008), at 1.

self-guaranteeing licensee to pass the financial test annually.<sup>58</sup> The Staff therefore included in License Condition 27 a one-year limit to the term of the exemption, to allow the Staff to “reassess Honeywell’s financial situation.”<sup>59</sup> Also, the NRC concurrently was considering whether to initiate a notice of proposed rulemaking on decommissioning financial assurance. At that time, the Staff was considering, among other things, whether to promulgate a regulation allowing the value of goodwill to be included in Part 30, Appendix C’s financial test.<sup>60</sup>

In January 2008, we published the proposed rule.<sup>61</sup> There, we proposed to amend Appendix C of Part 30 to include the value of goodwill when calculating net worth and performing the 10:1 financial test.<sup>62</sup> However, we also proposed to require tangible net worth of at least \$19 million for licensees seeking to invoke the 10:1 financial test.<sup>63</sup>

Honeywell sought, on April 11, 2008, to extend its exemption,<sup>64</sup> which was otherwise scheduled to expire on May 11, 2008.<sup>65</sup> On August 22, 2008, the Staff extended the exemption until either May 11, 2009, or the effective date of a final decommissioning planning rule.<sup>66</sup> The Staff concluded that the basis for the original exemption still applied.<sup>67</sup> The Staff noted at the time that Honeywell had retained its A-level bond rating and that its net-worth-to-decommissioning-cost ratio would be 21:1 if goodwill were included.<sup>68</sup>

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<sup>58</sup> 10 C.F.R. Part 30, App. C, § II.B.3.

<sup>59</sup> Ex. HNY000009, TER at 55.

<sup>60</sup> *See generally id.* at 53-54. Were such a rule to be proposed and adopted, it would require considering the value of goodwill in any exemption request. Accordingly, Honeywell argued that promulgation of such a regulatory provision would render Honeywell’s license amendment unnecessary. Request for Hearing at 5.

<sup>61</sup> *See generally* Ex. NRC000014, Proposed Rule, Decommissioning Planning.

<sup>62</sup> *Id.* at 3831.

<sup>63</sup> *Id.* at 3825, 3831. The subsequent final rule, which became effective December 17, 2012, permits — for the first time — the use of intangible assets, including goodwill, to satisfy the 10:1 ratio requirement in Appendix C. The final rule retains the current bond-rating requirement and imposes a new requirement that a licensee’s minimum tangible net worth total at least \$21 million. Ex. NRC000015, Final Rule, Decommissioning Planning, 76 Fed. Reg. at 35,524-25.

<sup>64</sup> Ex. HNY000005, Honeywell Metropolis Works (Docket No. 40-3392) — Request for Extension of Exemption from Decommissioning Financial Assurance Requirements Contained in License Condition 27 in SUB-526, Issued on May 11, 2007 (Apr. 11, 2008), as supplemented, Ex. HNY000007, Honeywell Metropolis Works — Request for Extension of Exemption from Decommissioning Financial Assurance Requirements (May 15, 2008).

<sup>65</sup> Ex. HNY000010, 2008 Grant of Extension at 2.

<sup>66</sup> *Id.* at 4.

<sup>67</sup> *Id.* at 2.

<sup>68</sup> *Id.* at 2. However, Honeywell’s tangible net worth had declined further, to negative \$1.451 billion  
(Continued)

As the second 1-year exemption neared expiration, Honeywell filed its third and current exemption request by letter dated April 1, 2009, as supplemented on October 13, 2009 — seeking a further extension until the earlier of May 11, 2010, or the effective date of the final decommissioning planning rule.<sup>69</sup> Honeywell argued that its third request was essentially the same as the second request, which the Staff had granted, and further that the request was fully compatible with the proposed rule.<sup>70</sup>

This time, however, the Staff denied Honeywell's request.<sup>71</sup> According to the Staff, Honeywell's tangible net worth in 2009 had declined significantly when compared with similar figures in 2007 and 2008.<sup>72</sup> The Staff relied specifically on the fact that Honeywell's tangible net worth had declined by a further \$3.814 billion since the Staff granted the 2008 exemption request, resulting in a negative tangible net worth of \$5.265 billion.<sup>73</sup> The Staff concluded that this further drop in tangible net worth rendered Honeywell unable to satisfy the financial test in Appendix C, and the Staff disagreed with Honeywell's assertion that "the exemption is entirely consistent with [the 2008] proposed rule."<sup>74</sup> The Staff calculated that Honeywell's ratio of tangible net worth to decommissioning costs was a negative 34:1. The Staff further calculated that Honeywell would have needed to use significantly more goodwill — \$6.8 billion in 2009, compared to \$3.7 billion in 2008 — to pass the 10:1 financial test.<sup>75</sup>

Honeywell appealed the Staff's decision directly to the D.C. Circuit, which vacated the agency's decision and remanded the case to the NRC. The court ruled on the dual grounds that the NRC's decision denying the exemption was inconsistent with the agency's precedent of granting Honeywell's prior exemption requests, and that the Staff had not explained adequately its reasons for the 2009

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as of December 31, 2007. Ex. HNY000011, Denial of Exemption Request from 10 CFR Part 30, Appendix C, Regarding Decommissioning Financial Assurance Requirements, Honeywell Metropolis Works, Material License No. SUB-526 (TAC No. L32718) (Dec. 11, 2009) at 2 (Exemption Denial).

<sup>69</sup> Ex. HNY000006, Honeywell Metropolis Works (Docket No. 40-3392) — Request for Extension of Exemption from Decommissioning Financial Assurance Requirements Contained in License Condition 27 in SUB-526, Issued on May 11, 2007 (Apr. 1, 2009), at 1-2 (2009 Exemption Request), as supplemented, Ex. HNY000008, 2009 Supplemental Information.

<sup>70</sup> Ex. HNY000006, 2009 Extension Request at 2.

<sup>71</sup> Ex. HNY000011, Exemption Denial.

<sup>72</sup> *Id.* at 2.

<sup>73</sup> *Id.* at 2, 3.

<sup>74</sup> *Id.* at 2 (quoting, without attribution, Ex. HNY000006, 2009 Extension Request at 2). Honeywell, not the Staff, first raised the issue of the relevance of the proposed rule to the exemption request. *See* Ex. HNY000006, 2009 Exemption Request at 2.

<sup>75</sup> Ex. NRC000001, NRC Staff's Testimony Regarding Honeywell's 2009 Exemption Request (Oct. 14, 2011) at 15 (A.33) (Przygodzki) (NRC Direct Testimony). *See also* Ex. NRC000021, Tangible Net Worth Shortfall to Meet 10-to-1 Test of 10 CFR 30, Appendix C (undated).

denial of Honeywell's exemption request.<sup>76</sup> First, the court found that on the record before it, a decline in Honeywell's tangible net worth did not necessarily support the Staff's 2009 decision because Honeywell's tangible net worth had been declining when the Staff granted the 2007 and 2008 exemptions.<sup>77</sup> Similarly, the court found that Honeywell's negative tangible net worth in 2009 provided an inadequate basis for the Staff's denial because Honeywell's 2008 tangible net worth was also negative.<sup>78</sup> Further, the court rejected as irrelevant the Staff's reliance on the fact that "the proposed rule would require a licensee to have \$19 million in tangible net worth before allowing consideration of goodwill." The court reasoned that the proposed rule was published before the second exemption was granted in 2008, and the governing regulations had remained unchanged since Honeywell received its exemption in 2007.<sup>79</sup>

In April 2011, following the remand, the Staff again denied Honeywell's third exemption request.<sup>80</sup> The Staff found that numerous factors, some specific to Honeywell and others broader in scope, weighed against granting the exemption.<sup>81</sup> The Staff relied (as before) on the fact that Honeywell's tangible net worth had declined significantly from 2007 to the end of 2008.<sup>82</sup> Consequently, according to the Staff, "Honeywell would have needed to rely on significantly more intangible assets in order to meet the 10-to-1 test in Section II of Appendix C."<sup>83</sup> Those assets, concluded the Staff, were "relatively illiquid."<sup>84</sup> The Staff also found significant the fact that 2009 was the third consecutive year in which Honeywell had sought the same exemption — increasing the Staff's concern that the circumstances underlying Honeywell's exemption requests were no longer "temporary."<sup>85</sup>

The Staff further concluded that, because of the weakening economy during

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<sup>76</sup> *Honeywell*, 628 F.3d at 579-81.

<sup>77</sup> *Id.* at 581.

<sup>78</sup> *Id.*

<sup>79</sup> *Id.*

<sup>80</sup> Ex. HNY000012, "Staff Evaluation for Denial of Exemption Request from Title 10 of the *Code of Federal Regulations* Part 30, Appendix C, Regarding Decommissioning Financial Assurance Requirements," appended to Kinneman, John D., U.S. Nuclear Regulatory Commission, Letter to Larry Smith, Honeywell, "Response to Court Remand on Denial of Exemption Request from Title 10 of the *Code of Federal Regulations* Part 30, Appendix C, regarding Decommissioning Financial Assurance Requirements, Honeywell Metropolis Works" (Apr. 25, 2011) (Kinneman Letter).

<sup>81</sup> *Id.*

<sup>82</sup> *Id.* at 3-7.

<sup>83</sup> NRC Staff's Opposition to Hearing Request (July 15, 2011) at 5. *See also* Transcript (Tr.) at 25 (Clark), 120 (Clark) (Dec. 15, 2011, Evidentiary Hearing).

<sup>84</sup> Ex. NRC000001, NRC Direct Testimony at 15 (A.34) (Przygodzki). *See also id.* at 17 (A.37) (Przygodzki, Fredrichs), 23 (A.49) (Przygodzki, Kline, Fredrichs), 30 (A.63) (Przygodzki), 31 (A.64) (Przygodzki).

<sup>85</sup> Ex. HNY000012, Kinneman Letter, at 3, 4, 7.

2008 and 2009, the public interest was better served by more narrowly granting exemptions from Appendix C.<sup>86</sup> Specifically, the Staff expressed a concern about the global economy's sharp downward turn in late 2008 and the high level of uncertainty associated with future business conditions in 2009.<sup>87</sup> Further, the Staff was unwilling to continue its past reliance upon Honeywell's bond rating because, by 2009, the ongoing financial crisis had raised doubts as to the reliability of bond ratings generally.<sup>88</sup> The Staff recognized that an increasing number of U.S. companies were taking "goodwill impairment" charges, and that the amount of these charges was far higher than in previous years.<sup>89</sup> It was in this context that Honeywell had requested the Staff's permission to use both an unprecedented amount and an unprecedented percentage of its goodwill to support its exemption request.<sup>90</sup>

Honeywell challenged the Staff's April 2011 decision and requested a hearing, which the Board granted.<sup>91</sup> Following 7 months of prehearing, hearing, and post-hearing activity, the Board denied Honeywell's exemption request in LBP-12-6.

The Board examined the facts underlying the Staff's denial of Honeywell's 2009 exemption request and found that the Staff's decision had ample factual support. As relevant here, the Board concluded that it must evaluate Honeywell's exemption request on the basis of information that was available as of 2009.<sup>92</sup> The Board examined the Staff's April 25, 2011, decision using the *de novo* standard of review.<sup>93</sup> The Board then reached two alternative conclusions of law — each of which independently supported its affirmance of the Staff's decision to deny Honeywell's exemption request.

Looking to 10 C.F.R. § 50.12, the Board concluded that Honeywell's exemption request did not involve "special circumstances," and that the request therefore must be denied as a matter of law. The Board considered the following three factors in reaching this conclusion: (i) the circumstances on which Honeywell

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<sup>86</sup> *Id.* at 4-5.

<sup>87</sup> *Id.* at 4.

<sup>88</sup> *Id.* at 4-6.

<sup>89</sup> *See, e.g.*, NRC Staff's Proposed Findings of Fact and Conclusions of Law at 32 (Feb. 10, 2012) (citing Ex. NRC000040, Press Release, KPMG, Goodwill Impairment in 2009 (June 12, 2009) (ADAMS Accession No. ML11349A258) (nonpublic) (KPMG Press Release) (According to a recent study by KPMG, goodwill impairment in the U.S. "in 2008 more than doubled to US \$339.6 billion, with the median charge going up tenfold. . . . The number of companies in the U.S. study that had impairment in 2008 increased to nearly 20 percent; up almost three-fold from the previous year.")).

The Board explained that goodwill "[i]mpairment occurs when the fair market value of goodwill is less than [a company's] stated value." LBP-12-6, 75 NRC at 292.

<sup>90</sup> Ex. NRC000001, NRC Direct Testimony at 18 (A.40) (Przygodzki), 30 (A.63) (Przygodzki).

<sup>91</sup> *See* LBP-11-19, 74 NRC 61 (2011).

<sup>92</sup> LBP-12-6, 75 NRC at 272.

<sup>93</sup> *Id.* at 268.



relied in support of its request are not expected to be temporary, (ii) the Commission considered those same circumstances when promulgating the rule from which Honeywell sought a waiver, and (iii) these first two factors are applicable regardless of whether the Board considered Honeywell's circumstances as of 2009 or as of the time it issued LBP-12-6.<sup>94</sup>

Alternatively, the Board concluded that Honeywell's exemption request failed to satisfy the requirements specifically laid out in 10 C.F.R. § 40.14. The Board reasoned that a grant of the requested exemption could adversely affect the availability of adequate decommissioning funds for Honeywell's Metropolis facility and that, therefore, such a grant could endanger life or property and would be contrary to the public interest.<sup>95</sup> The Board reached this second conclusion without referring to or relying upon the "special circumstances" requirement set forth in 10 C.F.R. § 50.12.

Honeywell has petitioned for review of LBP-12-6.<sup>96</sup> The Staff opposes the petition.<sup>97</sup>

### III. ANALYSIS

As a threshold matter, we conclude that Honeywell has satisfied the regulatory standards for our discretionary review of LBP-12-6, and we grant its petition. Honeywell has identified a substantial question as to whether the Board decision reaches at least one "necessary legal conclusion without governing precedent" or addresses at least one "substantial and important question of law, policy or discretion."<sup>98</sup> Specifically, Honeywell argues that the scope of the Board's evidentiary analysis should not have been limited to the facts as they existed in 2009 — more than 2 years prior to the decision's issuance. Honeywell also raises

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<sup>94</sup> *Id.* at 294-95.

<sup>95</sup> *Id.* at 295.

<sup>96</sup> See generally Petition for Review; Honeywell Reply.

<sup>97</sup> See NRC Staff's Answer to Honeywell's Petition for Review (Apr. 6, 2012) (Staff Answer).

<sup>98</sup> 10 C.F.R. § 2.341(b)(4)(ii), (iii). Under section 2.341(b)(4), we may exercise our discretion to grant a petition for review, giving due weight to the existence of a substantial question with respect to any of the following considerations:

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

numerous challenges to the Board’s findings of fact, which rest on a complex record.<sup>99</sup>

We begin our analysis below by examining and rejecting Honeywell’s challenges to the Board’s findings of fact supporting the Staff’s denial of Honeywell’s exemption request. We then affirm the Board’s ruling that the Staff appropriately excluded from its review the facts relevant to the period after 2009.<sup>100</sup> And finally, we affirm the Board’s ruling that Honeywell’s 2009 request for an exemption fails to satisfy the requirements specified in 10 C.F.R. § 40.14.<sup>101</sup>

### A. Findings of Fact

In analyzing a board’s findings of fact, we apply the deferential “clear error” standard.<sup>102</sup> Our deference to the Board’s findings in this adjudication is grounded in the fact that exemption requests are by their very nature equitable — and therefore fact-driven.<sup>103</sup> This level of deference is particularly high where a board’s factual determinations are based in significant part on its assessment of expert testimony and the credibility of the witnesses offering that testimony.<sup>104</sup> Such deference is applicable in this proceeding, where the Board heard, questioned, and evaluated testimony from two Honeywell witnesses and five Staff witnesses.<sup>105</sup>

In reviewing the Board’s determination, we provide here only an overview of the Board’s analysis sufficient to assess Honeywell’s claims of error. Our factual inquiry is focused on whether, given the record as a whole, the Board committed clear error in the way it weighed the Staff’s and Honeywell’s conflicting evidence. We need not address every instance where the Board referred to or analyzed

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<sup>99</sup> *Id.* § 2.341(b)(4)(i).

<sup>100</sup> LBP-12-6, 75 NRC at 272.

<sup>101</sup> Because we affirm this ruling, we need not address the Board’s alternative ruling and associated factual findings — which Honeywell challenges on appeal — that “special circumstances” must exist under section 50.12 before the Staff may grant Honeywell’s requested exemption. *See id.* at 269-70.

<sup>102</sup> *David Geisen*, CLI-10-23, 72 NRC 210, 224-25 & n.61 (2010) (requiring a showing that the Board’s “findings are not even plausible in light of the record viewed in its entirety”) (internal quotation marks deleted); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 25-27 (2003).

<sup>103</sup> We defer to board rulings on exemptions both in terms of factual determinations and associated balancing of the equities. We have held that exemption decisions “should take into account the *equities* of each situation,” and we have given examples of the kinds of *facts* that must be weighed when determining whether to grant an exemption. *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-84-8, 19 NRC 1154, 1156 n.3 (1984) (emphasis added).

<sup>104</sup> *See PFS*, CLI-03-8, 58 NRC at 26 (ruling on the Board’s review of an exemption request) (“Our deference to the Board as factfinder is particularly great where, as here, the Board bases its findings of fact in significant part on the credibility of the witnesses”).

<sup>105</sup> *See* LBP-12-6, 75 NRC at 274.

Honeywell’s factual assertions and arguments. Nonetheless, we have reviewed this extensive record thoroughly and have found substantial evidence in the record to support each Board finding, including those which we do not address in particular. Because the issues in this case have been sharply contested, we will explain our view of the case in some detail.<sup>106</sup>

At bottom, Honeywell argued to the Board that the company’s proposed alternative test for determining whether Honeywell met the 10:1 ratio criterion — a test that included the intangible asset of goodwill — would provide a “more than ample basis for the NRC to conclude that . . . decommissioning funds will be available for the [Metropolis facility].”<sup>107</sup> Honeywell would have us conclude either that the Board’s findings to the contrary were “not even plausible” or that they “do not adequately support the conclusions reached in the decision.”<sup>108</sup>

As explained below, we do not find clear error in the Board’s weighing of the evidence, in its findings of fact, or in how its findings of fact supported its conclusions of law. The Board’s findings of fact make clear that the Board reasonably considered evidence from both Honeywell and the Staff in reaching its ultimate determination.<sup>109</sup> The presence of evidence in Honeywell’s favor — to which Honeywell repeatedly directs our attention on appeal — does not, without more, warrant reversal of the Board’s decision.<sup>110</sup> The question before us is not whether we would have made different factual findings than those of the Board. Rather, it is whether this Board’s findings of fact are so lacking in record support as to be “clearly erroneous.”<sup>111</sup> Our review of the record confirms that the Staff presented credible evidence supporting its denial of the 2009 exemption, and refutes Honeywell’s claim that the Board’s findings of fact are “not even plausible.”<sup>112</sup> We examine below the five specific categories of factual findings

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<sup>106</sup> See *Geisen*, CLI-10-23, 72 NRC at 220.

<sup>107</sup> Ex. HNY000001, Testimony of John Tus and Bruce Den Uyl (Oct. 14, 2011) at 6 (Honeywell Direct Testimony) (quoted in LBP-12-6, 75 NRC at 275).

<sup>108</sup> Petition for Review at 12.

<sup>109</sup> The Board considered both parties’ lines of argument, and it provided a detailed description of them and its underlying facts in its decision. LBP-12-6, 75 NRC at 274-94. Ultimately, however, after weighing the conflicting evidence and arguments, the Board found that Honeywell’s proffered facts and arguments, when taken in their entirety, were less persuasive than those of the Staff.

<sup>110</sup> Honeywell essentially challenges the way the Board accorded weight to Honeywell’s and the Staff’s evidence — the kind of determination about which we have consistently declined to second-guess our boards. See, e.g., *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-12-1, 75 NRC 39, 46 (2012) (“While we have the authority to undertake a *de novo* factual review, where a Board’s decision rests on a *weighing* of extensive fact-specific evidence presented by technical experts we generally will defer to the Board’s factual findings, unless there appears to be a ‘clearly erroneous’ factual finding or related oversight”) (emphasis added, footnote omitted).

<sup>111</sup> *Id.*; *Geisen*, CLI-10-23, 72 NRC at 224-25 & n.61; *PFS*, CLI-03-8, 58 NRC at 26.

<sup>112</sup> Petition for Review at 12.

Honeywell challenges on appeal, and find sufficient evidence in the record to support each one.

### *1. Access to Alternate Sources of Funds*

Honeywell proffers two challenges to the Board’s findings of fact on this topic. First, it challenges the Board’s finding that “Honeywell’s access to funds under its [revolving] credit facility could be terminated if Honeywell were to fall into financial distress.”<sup>113</sup> Honeywell directs our attention to its \$2.8 billion 5-year committed revolving credit facility that contains no financial covenants and that, therefore, could be drawn upon immediately for decommissioning funds — “even if Honeywell were in some hypothetical financial distress just short of default.”<sup>114</sup> According to Honeywell, this conclusion was neither contradicted nor challenged, thereby rendering the Board’s finding “clearly erroneous and contrary to the record.”<sup>115</sup>

We recognize, as did the Board, that Honeywell has access to this \$2.8 billion revolving credit facility.<sup>116</sup> Nonetheless, one of Honeywell’s own exhibits indicates that the credit facility did contain conditions, even if it did not contain covenants.<sup>117</sup> Also, as the Staff observes, “Honeywell’s credit facility is not an asset owned by the company — it is listed under ‘Long-term Debt and Credit Agreements’ on Honeywell’s 10-K report for 2008 ([Ex.] HNY000018, at 76) — nor is it a source of funding that is committed for NRC decommissioning

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<sup>113</sup> *Id.* at 13 (quoting LBP-12-6, 75 NRC at 294 (Finding 95)).

<sup>114</sup> Petition for Review at 13. According to the U.S. Court of Appeals for the Fifth Circuit, the term “credit facility” carries various definitions, such as:

“a business system set up to offer credit services to those who possess personal or business credit;” . . . “arrangement with a bank or supplier to have credit so as to buy goods;” “[a]n agreement between a bank and a company that grants the company a line of credit with the bank;” credit facilities are “usually documented by a formal loan agreement” and constitute “a legally binding commitment of the bank.”

*Mullins v. TestAmerica, Inc.*, 564 F.3d 386, 410 n.10 (5th Cir. 2009) (citations omitted). A “revolving credit” arrangement is one type of credit facility, *id.*, and “may be used repeatedly up to the limit specified after partial or total repayments have been made.” *Webster’s Third New International Dictionary of the English Language, Unabridged* 1945 (2002).

<sup>115</sup> Petition for Review at 13.

<sup>116</sup> LBP-12-6, 75 NRC at 287. More generally, the Board also concluded that, in 2009, Honeywell was a financially sound company. *Id.* at 285.

<sup>117</sup> Ex. HNY000018, Honeywell International, Inc., SEC Form 10-K (Feb. 13, 2009), at 76-77. The Board cited this exhibit to support its finding that “[a]lthough Honeywell contends that its revolving credit facility might be used to pay decommissioning costs, Honeywell’s access to funds under its credit facility could be terminated if Honeywell were to fall into financial distress.” LBP-12-6, 75 NRC at 294 (Finding 95).

purposes.”<sup>118</sup> According to the Staff, “Honeywell would be assuming additional liabilities that could further limit its ability to obtain decommissioning funding” if it were to draw on the credit facility for other purposes.<sup>119</sup> Finally, Honeywell’s statement that it could draw down its line of credit even if it “were in some hypothetical financial distress *just short of default*,”<sup>120</sup> acknowledges by clear inference that Honeywell could *not* draw down on its credit line if it *were actually* in default on its bond payment obligations.

Honeywell’s second challenge is directed to the Board’s finding that “obtaining alternate financial assurance could be difficult during a period of tightening loan conditions, giving rise to the risk that a licensee could be unable to provide financial assurance.”<sup>121</sup> According to Honeywell, the Board erroneously focused on “NRC licensees *generally*, rather than Honeywell *specifically*.”<sup>122</sup> In support, Honeywell directs our attention to another of the Board’s findings of fact — that Honeywell did not experience any limitations on its ability to access the commercial paper markets throughout the recent financial crisis.<sup>123</sup> In addition, Honeywell claims that the Board erred “by making a *predictive* finding when, in fact, there is a contrary *historic* record.”<sup>124</sup>

Honeywell disregards the Staff’s evidence that a default is not the only circumstance about which the NRC is concerned, and that a licensee such as Honeywell could find it more difficult to obtain third-party financial assurance if its bond rating were downgraded.<sup>125</sup> We see no error in the Board focusing on licensees generally or in the Board’s “predictive finding.” In doing so, the Board responded to Honeywell’s arguments regarding other investment-grade companies and Honeywell’s own anticipated ability to obtain alternative financial

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<sup>118</sup> Staff Answer at 16 n.52.

<sup>119</sup> *Id.*

<sup>120</sup> Petition for Review at 13 (emphasis added).

<sup>121</sup> *Id.* (paraphrasing LBP-12-6, 75 NRC at 291 (Finding 68)).

<sup>122</sup> *Id.* (emphases in original).

<sup>123</sup> *Id.* at 13-14 (referring to LBP-12-6, 75 NRC at 286, (Finding 28)).

<sup>124</sup> *Id.* at 14 (emphases in original).

<sup>125</sup> Ex. NRC000053, NRC Staff’s Reply Testimony (Nov. 3, 2011) at 8-9 (A.13) (Przygodzki, Bailey) (NRC Reply Testimony):

Circumstances short of default could also have affected Honeywell’s ability to timely fund decommissioning activities. If Honeywell’s bond rating dropped significantly in a short period of time, it might have difficulty meeting the Appendix C requirement that it establish alternate financial assurance within 120 days after notifying the NRC of its downgrade. Obtaining alternate financial assurance in a timely manner could have been difficult during a credit crunch like [the one] we saw in 2008 and 2009, when there was a sudden tightening of loan conditions.

*Accord id.* at 19 (A.32) (Przygodzki, Kline, Collier).

assurance.<sup>126</sup> As we interpret LBP-12-6, the Board did not find that Honeywell would have problems securing funding, but rather concluded that the economic climate and decreased reliability of bond ratings raised reasonable concerns about Honeywell's ability to demonstrate financial assurance by referring to its general financial health. The Board therefore found Honeywell's reliance upon indicia of its financial health to be significantly complicated — and, from a regulatory standpoint, rendered more questionable — by broader economic developments.

In assessing Honeywell's reasons for an exemption based on its financial health, the Board appropriately considered the larger economic context and its potential to significantly affect Honeywell's access to the funds necessary to satisfy its decommissioning funding obligations. Indeed, the Board examined this larger context in other, related findings of fact.<sup>127</sup> Taking into account the economic climate in 2009, the Board reasonably concluded that widespread economic concerns (especially regarding bond ratings) in that period created substantial uncertainty as to whether Honeywell might experience sudden financial changes that could jeopardize its decommissioning funding assurance.<sup>128</sup>

## 2. *Reliability of Bond Ratings*

Honeywell presents two arguments regarding the reliability of bond ratings. First, without more, it asserts that the record fails to support the Board's finding that Honeywell's bond ratings are not a reliable indication of the company's financial strength.<sup>129</sup> Honeywell does not dispute the presence of contrary evidence in the record, but instead merely reiterates its earlier arguments on the merits of this issue. We find ample evidence to support the Board's finding. For instance, during its review of the 2009 exemption request, the Staff identified significant concerns about the reliability of bond ratings.<sup>130</sup> Fourteen companies with investment-grade bond ratings defaulted in 2008, and eleven such companies in 2009 — compared to just two investment-grade defaults for Moody's and

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<sup>126</sup> Regarding Honeywell's arguments as to other companies, *see* Petition for Review at 14-16, 17 n.54, and cited portions of the record. Regarding Honeywell's anticipated ability to obtain alternative financial assurance, *see* Petition for Review at 18 and cited portions of the record.

<sup>127</sup> *See* LBP-12-6, 75 NRC at 288-90 (Findings 47-67).

<sup>128</sup> *See, e.g., id.* at 288 (Findings 49, 51).

<sup>129</sup> Petition for Review at 14 (citing LBP-12-6, 75 NRC at 287 (Finding 46)). We repeatedly have expressed our disapproval of parties presenting cursory arguments on appeal. *See, e.g., Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-97-2, 45 NRC 3, 4 (1997) ("A 'cursory assertion' is insufficient to raise an issue for appeal" (quoting *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 272 (1996))).

<sup>130</sup> *See* Staff Answer at 17-18.

five for Standard & Poor's between 2002 and 2007.<sup>131</sup> In this respect, the Board acknowledged, but ultimately rejected, Honeywell testimony that “bond ratings [were] strong indicators of Honeywell’s financial strength.”<sup>132</sup> For example, the Board reasonably relied upon the Staff’s testimony that “the global economic downturn in late 2008 had cast doubts on corporate bond ratings — which partially constituted the grounds upon which the NRC Staff had relied in granting Honeywell’s 2006 and 2008 exemption requests,”<sup>133</sup> that “the global financial crisis had entered a far more serious phase by the time the NRC Staff was reviewing Honeywell’s 2009 exemption request,” and that as a result, “the reliability of the bond ratings was being called into question.”<sup>134</sup> In sum, even if

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<sup>131</sup> *Id.* at 17 & nn.55-56 (citing Ex. HNY000024, Moody’s Global Credit Policy, Corporate Default and Recovery Rates, 1920-2008 (ADAMS Accession No. ML11349A209) (Feb. 2009), at 19 (nonpublic), available at <http://www.moody.com/sites/products/DefaultResearch/2007400000578875.pdf> (last visited Jan. 7, 2013); Ex. HNY000025, Moody’s Corporate Default and Recovery Rates, 1920-2009, at 24 (ADAMS Accession No. ML11349A210) (nonpublic) (2009 Default and Recovery Rates), available at [http://ismymoneysafe.org/pdf/Moody's\\_corporate\\_default\\_and\\_recovery\\_rates\\_2009.pdf](http://ismymoneysafe.org/pdf/Moody's_corporate_default_and_recovery_rates_2009.pdf) (last visited Jan. 7, 2013); Ex. HNY000026, Moody’s Corporate Default and Recovery Rates, 1920-2010 (Feb. 2011), at 15 (ADAMS Accession No. ML11349A211) (nonpublic) (2010 Default and Recovery Rates), available at <http://efinance.org.cn/cn/FEben/Corporate%20Default%20and%20Recovery%20Rates,1920-2010.pdf> (last visited Jan. 7, 2013); Ex. HNY000030, Standard and Poor’s, Default, Transition and Recovery: 2008 Annual Global Corporate Default Study and Rating Transitions (Apr. 2, 2009), at 9, Table 4 (ADAMS Accession No. ML11349A215) (nonpublic) (2008 S&P Annual Default Study), available at <http://www.valuation.co.il/data/wacc/SnP-Default-Transition-and-Recovery-2008.pdf> (last visited Jan. 7, 2013); Ex. HNY000031, Standard & Poor’s, Default, Transition, and Recovery: 2009 Annual Global Corporate Default Study and Rating Transitions, at 1-2, Table 1 (ADAMS Accession No. ML11287A279) (nonpublic) (2009 S&P Annual Default Study), available at <http://www.standardandpoors.com/ratings/articles/en/us/?assetID=1245207201119> (last visited Jan. 7, 2013)).

<sup>132</sup> LBP-12-6, 75 NRC at 275. See also *id.* at 275-76 & nn.118-22 (citing Ex. HNY000001, Honeywell Direct Testimony at 8-13, 15, 25-26, 30-31, 33-35, 38; Ex. HNY000059, Rebuttal Testimony of John Tus and Bruce Den Uyl (Nov. 3, 2011), at 4-5; Tr. at 35-37 (Tus), 43-47 (Tus) (Honeywell Rebuttal Testimony)).

<sup>133</sup> LBP-12-6, 75 NRC at 265 (citing Ex. HNY000012, Kinneman Letter at 4-6; Ex. NRC000001, NRC Direct Testimony at 7).

<sup>134</sup> LBP-12-6, 75 NRC at 280 (citing Ex. NRC000001, NRC Direct Testimony at 9-13, 29; Ex. NRC000053, NRC Reply Testimony at 3, 9, 11-12). See LBP-12-6, 75 NRC at 280-81 (citing Ex. NRC000001, NRC Direct Testimony at 12; Ex. NRC000053, NRC Reply Testimony at 5-9, 15) (footnotes omitted):

the NRC Staff witnesses [Messrs. Przygodzki, Kline, and Fredrichs] cited a 2009 World Bank report stating that “[i]n the United States . . . faulty credit ratings and flawed rating processes are widely perceived as being among the key contributors to the global financial crisis . . . .” Specifically, Mr. Przygodzki stated that the NRC Staff was concerned that the credit rating agencies either might not timely react to market events or might be reluctant to downgrade the ratings of certain companies for fear of the adverse impact that a downgrade could have

(Continued)

the overall number of business defaults remained small during the relevant period, the record still supports the Board's conclusion that, when the Staff reviewed the exemption request in 2009, significant concerns existed regarding the reliability of bond ratings, including those for companies with the same bond ratings as Honeywell.

Honeywell also argues that the Board failed "to provide plausible record support for its assertion that bond credit ratings agencies are reluctant to downgrade ratings."<sup>135</sup> We disagree. The Board found that, by 2009, the World Bank and many others (e.g., the U.S. Securities and Exchange Commission, European Union, G-20 leadership<sup>136</sup>) were questioning the rating agencies' methods for generating their bond ratings — a point on which the Board explicitly relied.<sup>137</sup> More generally, the Board found record support for its following conclusion:

By 2009, the financial downturn in late 2008 also had raised significant questions about the reliability of bond ratings in general. Credit rating agencies came under widespread scrutiny in 2008 and 2009 for failing to accurately rate companies that had fallen into financial distress. For example, Standard & Poor's did not downgrade

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on the company. Even if bond ratings were reliable in 2009, Messrs. Przygodzki, Kline, and Fredrichs all reiterated that "although bonds ratings are relevant to whether a licensee can self-guarantee decommissioning funding, they by no means address all of the NRC's concerns in this area."

*See also* LBP-12-6, 75 NRC at 282 ("Mr. Przygodzki testified that the April 2011 denial letter found that the unreliability of bond ratings during the global financial crisis, together with Honeywell's increased reliance on relatively illiquid goodwill, all elevated the risk that funds might not be available to decommission the [Metropolis] facility when needed") (citing Tr. at 81; Ex. NRC000001, NRC Direct Testimony at 20).

<sup>135</sup> Petition for Review at 15 (referring to LBP-12-6, 75 NRC at 289).

<sup>136</sup> *See* Ex. NRC000001, NRC Direct Testimony at 12 (A.25) (Przygodzki); Ex. NRC000044, Jonathan Katz, Emanuel Salinas & Constantinos Stephanou, *The World Bank Group, Credit Rating Agencies: No Easy Regulatory Solutions* (Oct. 2009) (World Bank Group); Ex. NRC000046, Richard J. Herring, *Pew Financial Reform Project, Policy Issues Concerning the Reform of the Credit Rating Agencies* (2009) (ADAMS Accession No. ML11349A262) (nonpublic), available at <http://fic.wharton.upenn.edu/fic/policy%20page/Securitization-2.pdf> (last visited Jan. 7, 2013); Ex. NRC000053, NRC Reply Testimony at 9 (A.14) (Bailey, Przygodzki, Kline), 11-12 (A.17) (Przygodzki, Bailey), 13 (A.20) (Bailey), 15 (A.24) (Przygodzki, Kline); Ex. NRC000060, U.S. Securities and Exchange Commission, *Summary Report of Issues Identified in the Commission Staff's Examinations of Select Credit Rating Agencies* (July 2008).

<sup>137</sup> Ex. NRC000057, Press Release, U.S. Securities and Exchange Commission, *SEC Votes on Measures to Further Strengthen Oversight of Credit Rating Agencies* (Sept. 17, 2009); Ex. NRC000058, Fact Sheet, U.S. Securities and Exchange Commission, *Strengthening Oversight of Credit Rating Agencies* Open Meeting of the Securities and Exchange Commission (Sept. 17, 2009); Ex. NRC000044, World Bank Group at 5. *See generally* LBP-12-6, 75 NRC at 289-90 & nn.230-32 (Findings 57-62) (citing these exhibits).



the “A” bond rating of Lehman Brothers until the very same day the company filed for bankruptcy, September 15, 2008.<sup>138</sup>

In sum, the evidence sufficiently supports the Board’s findings of fact regarding the potential unreliability of bond ratings.

### 3. *Basis for Presumption of “Near-Instantaneous” Default*

Honeywell argues that the record does not support the Board’s assumption that Honeywell itself could experience “near-instantaneous” default, particularly given the company’s strong financial condition.<sup>139</sup> Honeywell further asserts that, given the NRC’s requirement that Honeywell annually perform the financial test in Part 30, Appendix C, the Board lacked grounds for presuming that Honeywell’s bonds could decline from an “A” rating to default within a year.<sup>140</sup>

We find no error in the Board’s consideration of general economic facts in addition to those specific to Honeywell in ruling on its exemption request.<sup>141</sup> Indeed, Honeywell itself presented an abundance of evidence regarding other companies and general economic conditions.<sup>142</sup> A licensee’s use of the self-guarantee mechanism to satisfy our decommissioning funding requirements is necessarily predictive, requiring an inquiry into how other, similar companies have performed in the past to forecast assurance of the licensee’s ready access to

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<sup>138</sup> LBP-12-6, 75 NRC at 289 & n.226 (Finding 55) (citing Ex. NRC000026, Standard & Poor’s, Research Update: Lehman Bros. Holdings Downgraded to “Selective Default”; Other Lehman Entities to “BB-” or “R” (Sept.15, 2008) (ADAMS Accession No. ML11349A255) (nonpublic), available at <http://www.standardandpoors.com/ratings/articles/en/us/?assetID=1245210943266> (last visited Jan. 7, 2013)). See also LBP-12-6, 75 NRC at 280-81, 282, and cited record evidence.

<sup>139</sup> Petition for Review at 16-17.

<sup>140</sup> *Id.* at 17. Honeywell considers this assumption to underlie Findings 62, 67, 79, 91, 94, and 95. *Id.* at 16-17 (citing LBP-12-6, 75 NRC at 290, 292, 294).

<sup>141</sup> Regarding corporate defaults generally, the Board relied on evidence submitted by both Honeywell and the Staff. See LBP-12-6, 75 NRC at 288 & n.222-24 (citing Ex. HNY000025, 2009 Default and Recovery Rates at 3 (nonpublic); Ex. NRC000039, David Wessel, *Another Milestone: U.S. Corporate Defaults to Date Match Total for All '08*, Wall Street Journal (May 29, 2009) (ADAMS Accession No. ML11349A257) (nonpublic) (Wessel), available at <http://blogs.wsj.com/economics/2009/05/29/another-milestone-us-corporate-defaults-to-date-match-total-for-all-08/> (last visited Jan. 7, 2013); Ex. NRC000041, *U.S. Corporate Defaults*, The Economist (June 18, 2009) (ADAMS Accession No. ML11349A260) (nonpublic) (Economist), available at <http://www.economist.com/node/13872815> (last visited Jan. 7, 2013); Ex. NRC000043, Chelsea Emery & Emily Chasan, *Unprecedented U.S. Corp. Defaults Seen for '09*, Reuters Business and Financial News (Sept. 29, 2009) (ADAMS Accession No. ML11349A261) (nonpublic) (Reuters), available at <http://www.reuters.com/assets/print?aid=USTRE58R4QO20090929> (last visited Jan. 7, 2013)), 290 & nn.234-36 (citing Ex. HNY000030, 2008 S&P Annual Default Study at 9, Table 4; Ex. HNY000031, 2009 S&P Annual Default Study at 1-2, Table 1 (nonpublic)); Ex. HNY000026, 2010 Default and Recovery Rates at 15 (nonpublic)).

<sup>142</sup> See, e.g., exhibits cited in note 131, *supra*.

decommissioning funds when needed. Here, record evidence does demonstrate an increase, between late 2008 and the end of 2009, in the number of defaults by investment-grade companies in less than a year, and also that the general problems with bond ratings at the time might have been obscuring financial distress *already under way* even at companies with ratings like Honeywell's.<sup>143</sup> The Board therefore reasonably considered economic facts not specific to Honeywell to provide the correct and accurate context for the Board's predictive analysis.

#### **4. Availability and Liquidity of Asset Classes**

Honeywell argues that the record does not support the Board's findings regarding the relative availability and liquidity of different classes of assets. In particular, Honeywell objects to the Board's finding that, "compared to tangible assets . . . in certain circumstances goodwill may be relatively illiquid and difficult to convert promptly into cash," and to findings that "selling a business or business line can involve numerous steps" and "is often much more complicated and more time-consuming than the sale of only tangible assets like buildings, vehicles, or equipment."<sup>144</sup> Honeywell cites evidence "showing that, in many circumstances, sale of intangible assets is actually quicker than selling used equipment piecemeal[.]" offers examples of intangible assets claimed to be more fungible than tangible assets, and asserts that "the record contains no examples of delays in converting intangible assets to cash or, for that matter, quick sales of tangible assets."<sup>145</sup>

The Board, however, relied on other evidence supporting its finding to the contrary<sup>146</sup> that the sale of a business or business line can involve many steps, such that selling an entire business "is often much more complicated and more

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<sup>143</sup> See, e.g., Ex. NRC000001, NRC Direct Testimony at 11-12 (A.25) (Przygodzki), 20 (A.43) (Przygodzki), 26 (A.56) (Przygodzki, Kline, Fredrichs), 29 (A.61) (Przygodzki), 29-30 (A.63) (Przygodzki); Ex. NRC000053, NRC Reply Testimony at 6-7 (A.10) (Bailey, Przygodzki), 7-8 (A.11) (Przygodzki, Kline), 8 (A.12) (Bailey, Przygodzki), 8-9 (Przygodzki, Bailey), 9 (A.14) (Bailey, Przygodzki, Kline).

<sup>144</sup> Petition for Review at 18 (quoting LBP-12-6, 75 NRC at 291 (Findings 72, 75 & 76)).

<sup>145</sup> *Id.* at 19.

<sup>146</sup> See Ex. NRC000053, NRC Reply Testimony at 18-19 (A.30) (Przygodzki, Collier) and (A.31) (Collier) (*cited in* LBP-12-6, 75 NRC at 291 & nn.244-45). See also Ex. NRC000011, Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities; Financial Requirements, Revised Interim Final Rules, 47 Fed. Reg. 15,032, 15,035 (Apr. 7, 1982); Ex. NRC000001, NRC Direct Testimony at 16-17 (A.37) (Przygodzki, Fredrichs); Ex. NRC000053, NRC Reply Testimony at 17-18 (A.29) (Przygodzki, Collier), 18 (A.30) (Przygodzki, Collier), 18-19 (A.31) (Collier), 20 (A.34) (Przygodzki, Collier), 21-22 (A.36) (Przygodzki, Fredrichs); Tr. at 34-35 (Tus), 69-70 (Tus), 81-82 (Przygodzki), 94-97 (Fredrichs).

time-consuming than the sale of only tangible assets.”<sup>147</sup> The possibility that select intangible assets might be more liquid than certain tangible assets does not undermine the Board’s conclusions as to the relative illiquidity of intangible assets. That Honeywell provided exceptions to this general principle does not demonstrate clear error by the Board.

As discussed above, the Board was not required to address every piece of record evidence. Its decision not to do so here does not constitute clear error, nor does it indicate that the Board did not take that evidence into account.

Honeywell also argues that the Board erred in finding that bond indentures may restrict its ability to sell certain properties and thereby raise cash from the sale of goodwill associated with those properties. According to Honeywell, the Board erred because Honeywell’s bond indentures only prohibit it from using properties as collateral for loans, not from selling the properties.<sup>148</sup> Here, however, the Board found that Honeywell’s goodwill could be encumbered *either* by restrictions on the sale of properties *or* by restrictions preventing Honeywell from using properties as collateral for loans,<sup>149</sup> and Honeywell has acknowledged that it is subject to the second kind of restriction.<sup>150</sup> As a result, Honeywell has not demonstrated that the Board erred in considering these restrictions.

## 5. *Goodwill Impairment*

Finally, Honeywell challenges “the Board’s concern that Honeywell might experience goodwill impairment of a magnitude that could impact the financial test outcome.”<sup>151</sup> Honeywell points out that it has taken no goodwill impairment charges since at least 2006 and further asserts that the two examples cited by the Board and the NRC Staff (Western Nuclear and Tyco) provide no insights into Honeywell’s financial condition.<sup>152</sup>

We find no error in the Board’s reliance upon the experience of two major corporations in goodwill impairment charges. Even if Honeywell were correct as to these points (an issue we need not reach), it does not follow that the Board’s

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<sup>147</sup> LBP-12-6, 75 NRC at 291 & nn.244-45.

<sup>148</sup> Petition for Review at 20-21 (citing LBP-12-6, 75 NRC 292 (Findings 77 & 78)).

<sup>149</sup> See LBP-12-6, 75 NRC at 292.

<sup>150</sup> See Honeywell’s Proposed Findings of Fact and Conclusions of Law (Feb. 10, 2012) at 38 n.167 (Honeywell Proposed Findings) (“The covenants assure that facilities that generate income are not being used as collateral for loans and therefore will be available to generate cash to pay for decommissioning”); Petition for Review at 20 (same, citing Ex. HNY000065, Affidavit of John Tus (Jan. 4, 2012); Ex. HNY000066, Affidavit of John Tus (Jan. 12, 2012)).

<sup>151</sup> Petition for Review at 21. The Board repeatedly addresses goodwill impairment in LBP-12-6. See 75 NRC at 287 (Findings 41-42), 292-94 (Findings 84-90)).

<sup>152</sup> Petition for Review at 21-22.

finding lacked evidentiary support. Honeywell overlooks other evidence upon which the Board relied.<sup>153</sup> KPMG cautioned that goodwill valuation “is not an exact science and that it has never been more difficult than it is now to ascribe a value to an entity.”<sup>154</sup> It reported that, in the United States, “goodwill impairment in 2008 more than doubled to US\$339.6 billion, with the median charge going up ten-fold . . . [and] [t]he number of companies in the U.S. study that had impairment in 2008 increased to nearly 20 percent; up almost three-fold from the previous year.”<sup>155</sup> Indeed, KPMG predicted at the time that “the situation could actually worsen still further during the remainder of 2009.”<sup>156</sup> As discussed, we consider economic projections like this to provide a relevant context for the Staff’s (and the Board’s) decisions. Given that the record supports the Board’s findings on goodwill impairment,<sup>157</sup> Honeywell’s assertions of “clear error” are without merit.

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In sum, we conclude that Honeywell has failed to demonstrate that the Board committed clear error in its findings of fact regarding access to alternate sources of funds, reliability of bond ratings, rapid default, the availability and liquidity of asset classes, and goodwill impairment.

## **B. Conclusions of Law**

We reject Honeywell’s interrelated arguments that the Board should have considered financial facts that became available only after 2009 and should have extended the scope of the exemption past its 1-year period. We then consider the Board’s conclusion that Honeywell failed to satisfy the criteria of section 40.14. Next, we address this agency’s lack of reliance upon either the 2008

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<sup>153</sup> See LBP-12-6, 75 NRC at 292-94 & nn.250-57. The Board’s findings on goodwill impairment are supported by: Ex. NRC000001, NRC Direct Testimony at 17-19 (A.39-A.40) (Przygodzki); Ex. NRC000018, Honeywell Financial Data Relied on in Exemption Requests (Sept. 15, 2011); Ex. NRC000033, Press Release, Federal Deposit Insurance Corporation, Emergency Economic Stabilization Act of 2008 Temporarily Increases Basic FDIC Insurance Coverage from \$100,000 to \$250,000 per Depositor (Oct. 7, 2008); Ex. NRC000036, Freeport-McMoRan Copper & Gold Inc., 2008 Form 10-K, at 141; Ex. NRC000040, KPMG Press Release; Ex. NRC000051, Tyco International Ltd., Amendment No. 2 on Form 10-K/A to Form 10-K (for the fiscal year ended Sept. 30, 2002), at 94-95; Ex. NRC000053, NRC Reply Testimony at 23-24 (A.39) (Przygodzki, Kline, Fredrichs); and Tr. at 86 (Przygodzki), 88 (Fredrichs), 92-93 (Przygodzki, Fredrichs).

<sup>154</sup> Ex. NRC000040, KPMG Press Release; LBP-12-6, 75 NRC at 293.

<sup>155</sup> Ex. NRC000040, KPMG Press Release; LBP-12-6, 75 NRC at 293.

<sup>156</sup> Ex. NRC000040, KPMG Press Release; LBP-12-6, 75 NRC at 293.

<sup>157</sup> The Board gave substantial attention to goodwill impairment. See 75 NRC at 287 (Findings 41-42), 292-94 (Findings 84-90).

proposed rule or the 2012 final rule on decommissioning funding. Finally, we reject Honeywell's *de facto* challenge to the current section 40.14.<sup>158</sup>

### ***1. Consideration of Post-2009 Information***

Honeywell argues that the Board erred in ruling that its evaluation of the exemption request was limited to the information available to the Staff in December 2009, excluding the more recent information that Honeywell had provided.<sup>159</sup> In support, Honeywell asserts that the Board erred in placing itself “in the shoes of the NRC Staff as of the time that request was initially ruled upon.”<sup>160</sup> Honeywell asserts that, in making these rulings, the Board took an overly narrow reading of the D.C. Circuit's remand decision.<sup>161</sup>

According to Honeywell, implicit in the D.C. Circuit's decision is the assumption that, if the NRC lacks sufficient information to reach an informed decision, then the agency has a duty under the Administrative Procedure Act (APA)<sup>162</sup> to collect further information and conduct further analysis.<sup>163</sup> Honeywell argues that the Board should have considered the “current and up-to-date information in order to satisfy its obligation under the APA to assess *all* material information before

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<sup>158</sup> At Honeywell's request (and without objection by the Staff), the Board reviewed the legal aspects of the exemption request *de novo*. LBP-12-6, 75 NRC at 268. But the Board did not consider the difference between a license amendment, which is something to which a licensee is *entitled* if it satisfies our regulatory requirements, and an exemption, which is an action solely within the Staff's *discretion* to provide. Here, the exemption was the essence of the requested relief, and the license amendment's sole function was to document the exemption. For this reason, the Board should have applied the “abuse of discretion” standard of review applicable to an exemption determination rather than the *de novo* standard applicable to a Staff decision on a license amendment application. This conclusion is consistent with our own standards when reviewing other discretionary Staff actions not subject to a hearing opportunity. *See, e.g., Northern Indiana Public Service Co.* (Bailly Generating Station, Nuclear-1), CLI-78-7, 7 NRC 429, 433 (1978) (involving a Director's denial of a request to initiate an enforcement proceeding), *aff'd, Porter County Chapter of Izaak Walton League v. NRC*, 606 F.2d 1363 (D.C. Cir. 1979); *Consolidated Edison Co. of New York, Inc.* (Indian Point, Units 1, 2, and 3), CLI-75-8, 2 NRC 173, 175-76 (1975) (involving a Director's denial of a show-cause order). *See also Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-03-8, 57 NRC 293, 544 (“adequate justification” for the Staff's grant of an exemption request), *petition for review denied*, CLI-03-8, 58 NRC 11, 33 (2003). We conclude, however, that the Board's error is harmless, given that it found in the Staff's favor using the more rigorous standard.

<sup>159</sup> Petition for Review at 8 (“The Board erred by limiting its review to information that was available as of 2009”), 9 (“The Board erred in refusing to consider information that post-dates the NRC Staff's initial decision to deny the amendment in December 2009.”).

<sup>160</sup> *Id.* at 9 (quoting LBP-12-6, 75 NRC at 273. Honeywell's discussion of this issue (Petition for Review at 8-12) refers generally to LBP-12-6, 75 NRC at 272-74.

<sup>161</sup> Petition for Review at 9.

<sup>162</sup> 5 U.S.C. §§ 551-559.

<sup>163</sup> Petition for Review at 9.

it at the time of its decision.”<sup>164</sup> Essentially, Honeywell argues that the court has imposed on the NRC a mandate to reconsider its exemption request in light of new factual developments that transpired *after* the Staff’s 2009 decision.

We disagree. We do not find in that decision the assumption and implication to which Honeywell refers. The court stated that, on remand, “the Commission’s determination whether to grant an exemption will turn on specific facts regarding Honeywell’s financial net worth *at the relevant time*.”<sup>165</sup> We find that the relevant time is the period prior to the Staff’s denial of Honeywell’s 2009 exemption request, i.e., the period ending in December 2009. This was the period that the Staff considered when making its decision, and the reasonableness of that decision is at issue in this adjudication.<sup>166</sup>

In determining which exhibits fall within this relevant time period and may therefore be considered, the Board did not limit its consideration to documents dated December 2009 or earlier. In several instances, the Board considered post-2009 documents that described facts occurring or conditions existing during or before December 2009. Although Honeywell criticizes the Board’s refusal to consider documents that became available after 2009,<sup>167</sup> we understand Honeywell is not fundamentally concerned about the dates at the top of the documents.<sup>168</sup> Rather, Honeywell expresses concern about the time period for the facts and conditions that were described within those documents.<sup>169</sup>

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<sup>164</sup> *Id.* (footnote omitted, emphasis in original).

<sup>165</sup> *Honeywell*, 628 F.3d at 578 (emphasis added).

<sup>166</sup> See note 159, *supra*.

<sup>167</sup> Petition for Review at 2, 8-9.

<sup>168</sup> In fact, Honeywell pointed out an essential problem with using document dates:

While the new documents were arguably “available” to the agency in the broadest sense of the term because they had been published prior to the NRC’s December 2009 decision, they presumably were not available to the agency in the sense that the agency had them in their possession and reviewed them in reaching a decision.

Honeywell Proposed Findings at 20 n.83.

<sup>169</sup> See, e.g., Petition for Review at 8 (“The Board erred by limiting its review to *information* that was available as of 2009”), 9 (“The Board erred in refusing to consider information that post-dates the NRC Staff’s initial decision to deny the amendment in December 2009”); Honeywell Proposed Findings at 17 (“There are no restrictions in the regulations on the *dates of information* that can be considered by the Board”), 21 (“there is no basis for limiting the record to *information that pre-dates the [2009 Staff] decision*”) (emphasis added); Honeywell Reply at 4-5:

[B]y adding facts and analysis to the record to support their ultimate conclusion (denial of the exemption) while ignoring new data and information that undermines that conclusion, the Board and the NRC Staff were allowed . . . to referee the Super Bowl having already decided which team should win the championship trophy. . . . On remand, an agency must consider all information to satisfy the Administrative Procedure Act — not just information that supports its initial position.

While we agree in principle with Honeywell that the Board should not “place [itself] in the shoes of the NRC Staff” at the time the Staff made its decision in December 2009,<sup>170</sup> Honeywell has not demonstrated that the Board committed this error. The Board considered post-2009 documents that were unavailable to the Staff when it issued its December 2009 decision, though the Board considered them only insofar as they shed additional light on the facts that existed and events that occurred during or before 2009. In fact, Honeywell recognizes, and objects to, the Board’s consideration of eleven purportedly post-2009 documents, which Honeywell claims were submitted by the Staff.<sup>171</sup> Honeywell complains that the Board failed to consider similar post-2009 exhibits that it had submitted.

Honeywell’s objection is flawed. Honeywell itself submitted one of the exhibits about which it complains<sup>172</sup> — weakening its argument of disparate treatment. Also, eight of the eleven exhibits *predated* the December 2009 exemption denial.<sup>173</sup> While the three remaining exhibits were dated after December 2009, the Board cited these exhibits solely for their descriptions of events that

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<sup>170</sup> Petition for Review at 9 (referring to LBP-12-6, 75 NRC at 273).

<sup>171</sup> *Id.* at 10 nn.27 & 29 (footnote omitted). Honeywell focuses on this date because it was the month in which the Staff rendered its denial of Honeywell’s third exemption request. *Id.* at 9.

<sup>172</sup> HNY000025, 2009 Default and Recovery Rates.

<sup>173</sup> See Petition for Review at 10 n.29, citing:

Ex. NRC000023, GAAPG § 23.04, Intangible Assets (cited in LBP-12-6, 75 NRC at 291 n.242) (nonpublic). According to the Staff, this document was published in 2008. *NRC Staff’s Initial Statement of Position* (Oct. 14, 2011) at 30 n.90.

Ex. NRC000028, Jon Hilsenrath, Serena Ng, & Damian Paletta, *Worst Crisis Since ‘30s, with No End Yet in Sight*, Wall St. J. (Sept. 18, 2008) (cited in LBP-12-6, 75 NRC at 288 n.218) (ADAMS Accession No. ML11349A256) (nonpublic), available at <http://online.wsj.com/article/SB122169431617549947.html> (last visited Jan. 7, 2013).

Ex. NRC000034, Ingo Fender & Jacob Gyntelberg, *Overview: Global Financial Crisis Spurs Unprecedented Policy Actions*, BIS Quarterly Review (Dec. 2008), at 1 (cited in LBP-12-6, 75 NRC at 288 n.219).

Ex. NRC000037, Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2009 to 2019* (Jan. 2009), at 4 (cited in LBP-12-6, 75 NRC at 288 n.221).

Ex. NRC000039, Wessel (May 19, 2009) (cited in LBP-12-6, 75 NRC at 288 n.223).

Ex. NRC000041, Economist (June 18, 2009) (cited in LBP-12-6, 75 NRC at 288 n.224).

Ex. NRC000043, Reuters (Sept. 29, 2009) (cited in LBP-12-6, 75 NRC at 288 n.224).

Ex. NRC000044, World Bank Group at 1 (Oct. 2009) (cited in LBP-12-6, 75 NRC at 289 n.227).

occurred or financial climate that existed prior to 2010.<sup>174</sup> The Board’s reliance on these eleven exhibits is consistent with our own conclusion, above, regarding the appropriate temporal scope of this proceeding.<sup>175</sup>

## **2. *Honeywell’s Decision Not to Amend Exemption Request to Include a Later Period***

The Board, in explaining why it did not consider information that was available after 2009, pointed out that Honeywell had chosen not to file the form necessary to expand the scope of its 2009 exemption request (which asked for an exemption only through May 11, 2010).<sup>176</sup> The Board observed that Honeywell had informed the Staff that it intended to submit “a new, updated request for an exemption . . . once the NRC completes its review of the pending request.”<sup>177</sup>

Honeywell asserts that the Board placed too much weight on the fact that Honeywell had not sought “to amend its application for an exemption to specifically incorporate new information or change the dates of the exemption request.”<sup>178</sup> Honeywell acknowledges that it could have either amended its exemption request to revise the dates or filed a new exemption request, but objects that either approach would render its 2009 exemption request moot, thus escaping Commission review.

The court of appeals squarely addressed this argument when it rejected the NRC’s mootness argument. The NRC had argued that the period for which

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<sup>174</sup> See Petition for Review at 10 n.29, citing:

Ex. HNY000025, 2009 Default and Recovery Rates at 3 (Feb. 2010) (cited in LBP-12-6, 75 NRC at 288 n.222 (Finding 51)) (nonpublic). This exhibit addresses the period from 1920 through December 2009.

Ex. NRC000047, Financial Crisis Inquiry Commission, “Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States” (Jan. 2011), at 353-86 (cited in LBP-12-6, 75 NRC at 288 n.218 (Finding 47)). This report addresses the events in the financial crisis from September 2008 to September 2009. Although the report refers to post-2009 events and documents, those references are not relevant to Finding 47, which referred solely to financial developments in 2007.

Ex. NRC000048, Federal Reserve Bank of St. Louis, “The Financial Crisis: A Timeline of Events and Policy Actions” (undated, but providing a chronology of financial developments through April 13, 2011), at 6-9 (cited in LBP-12-6, 75 NRC at 288 n.219 (Finding 48)). The four cited pages concern events that occurred solely in 2008.

<sup>175</sup> Even assuming that the Board erred in considering documents published after December 2009, any error was harmless, given the abundant evidence otherwise supporting the Board’s findings.

<sup>176</sup> LBP-12-6, 75 NRC at 272-73.

<sup>177</sup> *Id.* (emphasis omitted, ellipsis in original) (citing Ex. HNY000040, Smith, Larry A., Plant Manager, Honeywell, Letter to NRC Document Control Desk (Mar. 8, 2011), at unnumbered page 3).

<sup>178</sup> Petition for Review at 11 (citing LBP-12-6, 75 NRC at 272-73).



Honeywell had sought an exemption had come and gone, and that Honeywell had not kept the issue alive by filing a new request for 2010, effectively abandoning its position. The court of appeals, however, found that Honeywell's claim was *not* moot, and that resolution of the 2009 application would have "a *reasonable chance* of affecting the parties' future relations."<sup>179</sup> Hence, Honeywell could have applied for a post-2009 exemption without mooting its 2009 application.<sup>180</sup>

As the Board correctly held, we did not delegate authority to the Board to issue a new exemption, particularly where a request was not made to the Staff in the first instance.<sup>181</sup> We see no error in the Board's refusal to grant an exemption request for the post-May 2010 period that Honeywell never requested and that the Board was powerless to grant.

### 3. *Criteria of Section 40.14*

Honeywell challenges a number of the factual findings underlying the Board's legal ruling that Honeywell had failed to satisfy the criteria in section 40.14, but Honeywell has not challenged the legal ruling itself.<sup>182</sup> On appeal, Honeywell refers to this ruling only once, and even then only summarily.<sup>183</sup>

In Part III.A, above, we thoroughly review the Board's findings of fact, and conclude that the Board did not commit clear error in its conclusion that Honeywell did not satisfy the criteria of section 40.14. We therefore agree with the Board that those findings support the Staff's determination that Honeywell's

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<sup>179</sup> *Honeywell*, 628 F.3d at 577 (emphasis in original).

<sup>180</sup> Moreover, the court acknowledged the Staff's annual review process under Part 30, Appendix C. *Id.* at 580 ("The Commission's approvals, and the accompanying reports, gave fair warning that the appropriateness of the time-limited exemption would be reevaluated each year. Indeed, in granting the original one-year exemption resulting in License Condition 27, the Commission advised Honeywell that the exemption 'will expire' and that Honeywell's options upon expiration would be to *re-apply for an exemption*, comply with the self-guarantee financial test without including the value of its goodwill, or have an alternative surety in place.") (emphasis added).

<sup>181</sup> LBP-12-6, 75 NRC at 273 ("the Commission has delegated to the Board authority to adjudicate the issues raised by Honeywell's hearing request, [but] has not empowered the Board to serve as an initial reviewer of exemption requests") (footnotes omitted). *Cf.* *Honeywell International Inc.; Establishment of Atomic Safety and Licensing Board*, 76 Fed. Reg. 41,312 (July 13, 2011) (the Board "is being established to preside over . . . [t]his proceeding . . . [which] involves a Request for Hearing . . . challeng[ing] the NRC Staff's decision . . . [to] den[y] Honeywell's request for a license amendment authorizing use of an alternative method for demonstrating decommissioning funding assurance").

<sup>182</sup> *See* Petition for Review at 2-12, 12-24; LBP-12-6, 75 NRC at 295.

<sup>183</sup> Petition for Review at 12-13 & n.39.

exemption request could endanger life or property and would not be in the public interest.<sup>184</sup>

#### 4. *Other Matters*

##### a. *Reliance upon Proposed or Final Decommissioning Planning Rule*

The record of this proceeding reflects some confusion about whether — or how — the Staff took into account the then-ongoing decommissioning planning rulemaking. We observe that Honeywell, in its 2009 exemption request, asserted that its proposed 1-year extension of the existing exemption would be “entirely consistent” with the proposed decommissioning planning rule,<sup>185</sup> and that the Staff, in its Exemption Denial, rejected this argument.<sup>186</sup> We read the Staff’s reference to the proposed rule in that context as no more than a response to Honeywell’s inaccurate assertion that its exemption request was fully compatible with the proposed rule; we do not read the reference as constituting an independent or additional basis for denying the 2009 exemption request. Indeed, the Staff twice acknowledged that the proposed rule was still pending adoption as a final rule.<sup>187</sup> As the D.C. Circuit ruled, a proposed rule, by its very nature, cannot impose regulatory criteria upon licensees.<sup>188</sup>

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<sup>184</sup> As noted above, we need not and do not address Honeywell’s challenge to the Board’s imposition of “special circumstances” criteria to the exemption request.

<sup>185</sup> Ex. HNY000006, 2009 Extension Request at 2.

<sup>186</sup> Ex. HNY000011, Exemption Denial at 2-3.

<sup>187</sup> *Id.* at 2-3 (“The proposed . . . rule [is] . . . still pending before the Commission”), 3 (concluding that Honeywell had satisfied “neither the current 10 CFR Part 30, Appendix C, requirements, nor the proposed requirements . . . pending before the Commission”).

<sup>188</sup> *Honeywell*, 628 F.3d at 581. To the extent Honeywell argues that its rationale for the requested exemption satisfies the spirit, if not the letter, of the revised decommissioning planning rule, we need not reach that issue. *Cf.* Petition for Review at 25 (“Honeywell . . . requests that the Commission grant an exemption to Honeywell permitting it to use the alternate financial test until the effective date of the decommissioning planning rule, which is December 17, 2012”). The rule did not take effect until December 2012 and is therefore inapplicable to this proceeding. *See* NRC000015, Final Rule: “Decommissioning Planning,” 76 Fed. Reg. at 35,512. Moreover, following remand, the Staff did not rely upon the provisions of either the proposed or final rule. *See* Ex. NRC000001, NRC Direct Testimony at 25-26:

Q.55. Did you use the criteria in the proposed rule to reject Honeywell’s exemption request?

A.55. (R. Przygodzki) No. We mentioned the proposed rule in our December 2009 and April 2011 decisions because Honeywell cited the proposed rule in support of its exemption request. If Honeywell had not relied on the proposed rule, there would have been no need for us to address it. However, because Honeywell claimed its request was consistent with the rule or with the intent of the rule, the Staff responded to those claims.

(Continued)

*b. Collateral Attack on Existing Decommissioning Funding Rule*

As we have stated, we are satisfied that the Board’s factfinding underlying its application of section 40.14 criteria is well supported by the record and without discernible error. Underlying Honeywell’s appeal, however, is not only the question whether it has satisfied the requirements for an exemption, but also Honeywell’s dissatisfaction with the decommissioning funding rule itself. In addition to presenting a rationale for exempting it from the financial test of Part 30, Appendix C, Honeywell attacks its justification. At bottom, Honeywell contends that “[o]verall, we do not believe that a minimum tangible net worth criteria is useful or relevant.”<sup>189</sup>

We have repeatedly stated — and our hearing rules explicitly provide — that our adjudications are not the proper arena for challenges to our regulations.<sup>190</sup>

Under the APA, changes to our regulatory regime must result from a deliberative rulemaking proceeding that provides the public with both notice of the proposed regulation and the opportunity to comment. Otherwise, our agency necessarily would address, on a case-by-case basis, “the inevitable multitude of requests for individual exemptions” — with the resulting diversion of “resources that [would be] better allocated to the agency’s primary mission of ensuring that licensees comply with safety and environmental standards.”<sup>191</sup>

Here, Honeywell took full advantage of our recent decommissioning rulemaking and, through the comment process, sought to amend our regulations in a way that, at least prospectively, would have provided it the same relief it otherwise has sought in this adjudication.<sup>192</sup> Honeywell’s rulemaking comments

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Finally, the Board referred to the proposed and final rules only in a general discussion of Commission policy rather than applicable law. LBP-12-6, 75 NRC at 271-72 (regarding “special circumstances” under 10 C.F.R. § 50.12).

<sup>189</sup> Ex. HNY000001, Honeywell Direct Testimony at 29. This was not an isolated comment. Throughout the proceeding, Honeywell set out to prove that “[a] minimum tangible net worth test bears no relation to the overall financial condition of Honeywell” (Tr. 42 (Tus)); that the underlying proposed rule contained “no recent analysis to support the use of a minimum tangible net worth” (Ex. HNY000001, Honeywell Direct Testimony at 43); and that “[a] minimum net worth test [i.e., one not limited to *tangible* net worth] makes more sense and would better reflect the strength of a company’s ability to provide decommissioning financial assurance” (Ex. HNY000001, Honeywell Direct Testimony at 45). See also *Honeywell’s Written Statement of Initial Position* (Oct. 14, 2011) at 40 (“the minimum tangible net worth criterion is not particularly meaningful, at least as applied to large diversified companies such as Honeywell”), 45 (“A negative tangible net worth is not correlated with poor financial performance”).

<sup>190</sup> 10 C.F.R. § 2.335(a); *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-12-6, 75 NRC 352, 357 & nn.10-11 (2012); *Entergy Nuclear Vermont Yankee LLC* (Vermont Yankee Nuclear Power Station), CLI-07-3, 65 NRC 13, 17-18 (2007).

<sup>191</sup> LBP-12-6, 75 NRC at 271.

<sup>192</sup> See Tillman, Mitch, Honeywell, Letter to Secretary, U.S. Nuclear Regulatory Commission (May 8, 2008) (ADAMS Accession No. ML081340194).

mirror its hearing testimony challenging the usefulness of our tangible net worth requirements.

Honeywell's arguments in this vein before the Board amounted to a challenge to the tangible net worth requirement. As the Board observed, we already considered those arguments, "either explicitly or by necessary implication, in the rulemaking proceeding leading to the [currently effective] rule sought to be waived."<sup>193</sup> If, as we discussed above, a licensee objects to the philosophy of an NRC rule — here, the tangible net worth requirement — the remedy is a petition to change the rule, not a series of exemption requests.

*c. Consistency of the 2007, 2008, and 2009 Exemption Decisions*

As discussed above, the court of appeals found the Staff's decision to deny Honeywell's 2009 exemption request inconsistent with the Staff's 2007 and 2008 decisions granting Honeywell's similar exemption requests for those years, and that the Staff offered an inadequate explanation of its 2009 decision.<sup>194</sup> Although the merits of the 2007 and 2008 exemptions were not the subject of Commission review and are not before us now,<sup>195</sup> we observe that on remand before the Board, the Staff offered substantial testimony explaining and distinguishing its decisions in 2007 and 2008, from 2009.

For example, the Staff highlighted the change in its view of bond ratings.<sup>196</sup> By 2009, the global financial crisis caused the Staff to view bond ratings differently than in 2007 and 2008, particularly because action by the rating agencies tended to be slow — the agency might not downgrade until a company experienced serious difficulties, or might be slow to downgrade due to the adverse impact a downgrade might have on the company.<sup>197</sup> Honeywell disagreed with the Staff's approach to bond ratings, arguing that they have been demonstrated to be reliable over long periods of time, and investment grade issuers such as Honeywell

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<sup>193</sup> LBP-12-6, 75 NRC at 295.

<sup>194</sup> 628 F.3d at 580.

<sup>195</sup> Inasmuch as the Staff granted rather than denied Honeywell exemptions in 2007 and 2008, we did not review the Staff's action. As a general matter, certain licensing responsibilities, including exemption requests, for facilities such as the Metropolis facility are delegated to the office "division" level." See "Office of Nuclear Material Safety and Safeguards Delegation of Authority" (May 2008) at 8 (ADAMS Accession No. ML081330671).

<sup>196</sup> Ex. NRC000001, NRC Direct Testimony at 9 (A.20) (Przygodzki). See *id.* at 9-11 (A.21 through A.24) (Przygodzki).

<sup>197</sup> *Id.* at 11-12 (A.25) (Przygodzki). Regarding the 2008 exemption, the Staff observed that, while the global financial crisis was at hand at the time the exemption was granted, soon thereafter, the economy "experienced another sharp downward turn." *Id.* at 12-13 (A.26) (Przygodzki, Kline).

“generally possess sufficient financial strength to weather a recession.”<sup>198</sup> The Staff noted that its assessment of bond ratings constituted only part of its review and explained its consideration of bond ratings in the context of decommissioning funding: while bond ratings serve as a general indicator of a licensee’s ability to pay specific debts over the long term, the tangible net worth requirement is in place to provide assurance that a licensee will be able to provide decommissioning funding in the near term.<sup>199</sup>

The Staff also discussed Honeywell’s tangible net worth at the time of each exemption request.<sup>200</sup> In retrospect, given the decline in Honeywell’s tangible net worth from 2007 to 2008, the justification for the Staff’s decision to grant the 2008 request was not obvious, and the Staff characterized the 2008 approval as “a much closer call” than the 2007 decision.<sup>201</sup> Comparing the 2008 and 2009 exemption requests, the Staff emphasized the significant decrease in Honeywell’s tangible net worth (negative \$1.451 billion versus negative \$5.265 billion, resulting in Honeywell’s need to rely considerably more on goodwill to meet the 10:1 test). Honeywell argued that allowing it to use goodwill to meet the Appendix C test in question provided adequate assurance “that timely decommissioning can be carried out following shutdown.”<sup>202</sup> As discussed in greater detail above, the Staff explained that funding must be available when needed — which may be in advance of a planned shutdown.<sup>203</sup> To convert goodwill into cash, “a company like Honeywell would have to negotiate for the sale of an entire business or business line . . . .”<sup>204</sup> In short, extra time may be needed to obtain assets in order to support decommissioning, resulting in the potential for harm to the public from the delay

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<sup>198</sup> Ex. HNY000001, Honeywell Direct Testimony at 37 (A.48) (Den Uyl). See Ex. HNY000059, Honeywell Rebuttal Testimony at 3-7 (A.7 through A.12 (Den Uyl), 14-15 (A.22) (Tus, Den Uyl). But as the Staff indicated, it did not focus on Honeywell’s financial condition generally, but rather on its ability to fund decommissioning promptly. See, e.g., Ex. NRC000053, NRC Reply Testimony at 3-4 (A.4) (Przygodzki, Kline), 5 (A.7) (Przygodzki, Kline, Fredrichs), 5-6 (A.9) (Przygodzki, Fredrichs), 7-8 (A.11) (Przygodzki, Kline), 8 (A.12) (Bailey, Przygodzki), 8-9 (A.13) (Przygodzki, Bailey), 9 (A.14) (Bailey, Przygodzki, Kline), 9-10 (A.15) (Bailey, Przygodzki, Fredrichs), 10-11 (A.16) (Przygodzki, Bailey), 11-12 (A.17) (Przygodzki, Bailey), 12-13 (A.18) (Przygodzki, Kline), 13 (A.19) (Przygodzki, Kline, Fredrichs), 13 (A.20) (Bailey), 14 (A.21) (Przygodzki, Bailey), 14 (A.22) (Przygodzki, Kline), 14-15 (A.23) (Przygodzki, Kline, Bailey), 15 (A.25) (Przygodzki, Kline).

<sup>199</sup> See Ex. NRC000053, NRC Reply Testimony at 10 (A.16) (Bailey, Przygodzki, Fredrichs).

<sup>200</sup> See, e.g., LBP-12-16, 75 NRC at 279-80.

<sup>201</sup> Ex. NRC000001, NRC Direct Testimony, at 7 (A.14) (Kline); Ex. HNY000012, Kinneman Letter, Enclosure, “Staff Evaluation for Denial of Exemption Request from Title 10 of the *Code of Federal Regulations* Part 30, Appendix C, Regarding Decommissioning Financial Assurance Requirements,” at 3.

<sup>202</sup> Ex. HNY000001, Honeywell Direct Testimony at 24-28 (A.36) (Tus, Den Uyl).

<sup>203</sup> See, e.g., Ex. NRC000053, NRC Reply Testimony at 19 (A.32) (Przygodzki, Kline, Collier).

<sup>204</sup> Ex. NRC000001, NRC Direct Testimony at 15-16 (A.34) (Przygodzki).

in decommissioning.<sup>205</sup> While this question about goodwill was a concern at the time the Staff granted the 2007 and 2008 exemptions, the Staff stated that the concern was not “at the same level” as it had become in 2009;<sup>206</sup> “the decline was accelerating.”<sup>207</sup>

Finally, the *Honeywell* court posed questions as to how the agency considers tangible net worth as a general matter.<sup>208</sup> As the Staff observed, our regulations do not — and need not — contain such a test.<sup>209</sup> As we stated at the outset of this decision, the NRC reviews exemption requests on a case-by-case basis, considering all matters relevant to the particular request. In this case, the Staff, in denying Honeywell’s 2009 exemption request, considered a number of factors, including: the reliability of bond ratings in the economic climate, and the liquidity of goodwill, compared to other assets, particularly taking into account Honeywell’s financial condition. In responding to the question on remand before the Board, the Staff explained and distinguished its 2007 and 2008 decisions from its 2009 decision.

#### IV. CONCLUSION

For the reasons discussed above, we *grant* Honeywell’s Petition for Review and, as a result of our review, *affirm* the Board’s denial of Honeywell’s exemption request.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK  
Secretary of the Commission

Dated at Rockville, Maryland,  
this 9th day of January 2013.

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<sup>205</sup> *Id.* at 16-17 (A.35 through A.37) (Przygodzki, Fredrichs). The Staff’s reply testimony provides additional insight into the actions a company would need to take to convert goodwill into cash. Ex. NRC000053, NRC Reply Testimony, at 18-19 (A.31) (Collier).

<sup>206</sup> Ex. NRC000001, NRC Direct Testimony at 17 (A.38) (Przygodzki, Kline, Fredrichs).

<sup>207</sup> *Id.*

<sup>208</sup> 628 F.3d at 581 (“[H]ow far must the tangible net worth decline and over what period before goodwill will not be considered adequate? How does a decline in tangible net worth affect the reliability of the “A” bond rating and other assets previously considered, and the high ratio of net worth to decommissioning liability when goodwill is included?”).

<sup>209</sup> Ex. NRC000001, NRC Direct Testimony at 30-31 (A.64) (Przygodzki).

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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**William D. Magwood, IV**  
**William C. Ostendorff**

**In the Matters of**

**ALL OPERATING BOILING WATER  
REACTOR LICENSEES WITH MARK I  
AND MARK II CONTAINMENTS:  
ORDER MODIFYING LICENSES  
WITH REGARD TO RELIABLE  
HARDENED CONTAINMENT VENTS  
(EFFECTIVE IMMEDIATELY)**

**Docket No. EA-12-050**

**ALL POWER REACTOR LICENSEES  
AND HOLDERS OF CONSTRUCTION  
PERMITS IN ACTIVE OR DEFERRED  
STATUS: ORDER MODIFYING  
LICENSES WITH REGARD TO  
RELIABLE SPENT FUEL POOL  
INSTRUMENTATION (EFFECTIVE  
IMMEDIATELY)**

**Docket No. EA-12-051**

**January 31, 2013**

**ENFORCEMENT ORDERS**

**HEARING REQUESTS**

Before any hearing is granted on an order issued pursuant to 10 C.F.R. § 2.202, a threshold question, intertwined with both standing and contention admissibility issues, is whether the hearing requests are within the scope of the proceeding.

The issue to be determined at hearing is whether the order should be sustained or denied, not whether the order should be enhanced. *Bellotti v. NRC*, 725 F.2d 1380, 1382 (D.C. Cir. 1983), *aff'g Boston Edison Co.* (Pilgrim Nuclear Power Station), CLI-82-16, 16 NRC 44 (1982); *FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station), CLI-04-23, 60 NRC 154, 157 (2004).

#### **ENFORCEMENT ORDERS**

#### **HEARING REQUESTS**

Where an enforcement order imposes measures to enhance safety, a petitioner cannot obtain a hearing to litigate whether additional safety measures should be imposed. *Alaska Department of Transportation and Public Facilities*, CLI-04-26, 60 NRC 399, 408 (2004), *reconsideration denied*, CLI-04-38, 60 NRC 652 (2004).

#### **ENFORCEMENT ORDERS**

#### **HEARING REQUESTS**

As a result of the *Bellotti* decision and subsequent Commission rulings, a petitioner may obtain a hearing on a section 2.202 order only if the measures to be taken under the order would, *in themselves*, harm the petitioner.

#### **ENFORCEMENT ORDERS**

#### **HEARING REQUESTS**

The Commission rejected the argument that *Bellotti* should apply only to enforcement orders involving “discretionary punishments.” The Commission also rejected the reasoning that the reactors subject to the section 2.202 confirmatory orders would have to shut down if the orders were not sustained, which in turn would benefit the petitioners.

### **MEMORANDUM AND ORDER**

Pilgrim Watch has appealed the decision of the Atomic Safety and Licensing Board to deny its petitions to intervene and requests for a hearing in the captioned



matters.<sup>1</sup> As discussed below, the Board did not err in its interpretation of the law relating to requests for hearing on enforcement orders. We affirm the Board's decision.

## I. BACKGROUND

As part of the NRC's ongoing and multifaceted response to the tsunami-triggered nuclear accident at the six-unit Fukushima Dai-ichi nuclear power plant site, in March 2012 the Staff issued, pursuant to 10 C.F.R. § 2.202, three immediately effective Orders, two of which are at issue here. The first challenged Order requires certain licensees of boiling water reactor facilities with Mark I and Mark II containments to install reliable hardened venting systems to preserve core and containment cooling in order to prevent core damage in the event of an accident.<sup>2</sup> The second challenged Order requires identified licensees to enhance spent fuel pool instrumentation, to ensure that operators have a reliable means of remotely monitoring wide-range spent fuel pool levels to effectively prioritize event mitigation and recovery actions during a beyond-design-basis external event.<sup>3</sup>

As relevant here, each Order stated that the licensee and "any other person adversely affected" by the Order could request a hearing on the Order.<sup>4</sup> Each Order also specified that "[i]f a hearing is held, the issue to be considered at such hearing shall be whether this Order should be sustained." None of the licensees to whom the Orders were addressed requested a hearing. Entergy Nuclear Operations, Inc. (Entergy), the license holder for the Pilgrim Nuclear Power Station in Plymouth, Massachusetts (Pilgrim), expressly consented to the Orders with respect to Pilgrim.<sup>5</sup>

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<sup>1</sup> See Pilgrim Watch's Petition for Review of Memorandum and Order (Denying Petitions for Hearing), LBP-12-14, July 10, 2012 (July 20, 2012) (Petition for Review).

<sup>2</sup> See In the Matter of All Boiling Water Reactor Licensees with Mark I and Mark II Containments: Order Modifying Licenses with Regard to Reliable Hardened Containment Vents (Effective Immediately), 77 Fed. Reg. 16,098, 16,099-100 (Mar. 19, 2012) (Hardened Vents Order).

<sup>3</sup> See In the Matter of All Power Reactor Licensees and Holders of Construction Permits in Active or Deferred Status: Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Effective Immediately), 77 Fed. Reg. 16,082, 16,084 (Mar. 19, 2012) (Spent Fuel Pool Instrumentation Order). The third Order, relevant to strategies to address beyond-design-basis external events, is not at issue here.

<sup>4</sup> See Spent Fuel Pool Instrumentation Order, 77 Fed. Reg. at 16,085; Hardened Vents Order, 77 Fed. Reg. at 16,100-01.

<sup>5</sup> See Entergy's Answer to the March 12, 2012, Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051) Pilgrim Nuclear Power  
(Continued)

Pilgrim Watch — an organization that represents certain individuals living near, and potentially affected by activities at, Pilgrim — requested hearings on both Orders.<sup>6</sup> Pilgrim Watch argued that the Orders were inadequate to protect public health and safety in various specific respects. First, Pilgrim Watch argued, the Hardened Vents Order should require the installation of filters in the direct torus vents to prevent a radioactive release when the vents are opened.<sup>7</sup> Second, Pilgrim Watch asserted that the Hardened Vents Order should require a passive release mechanism, such as a rupture disc, that would open the direct torus vents without active operator intervention.<sup>8</sup> Finally, Pilgrim Watch claimed that the Spent Fuel Pool Instrumentation Order is inadequate because it does not require the licensee to reduce density of fuel in the pools, or to remove fuel assemblies that are 5 years old or greater to dry cask storage.<sup>9</sup> Pilgrim Watch requested hearings to “redress inadequacies of past and future modifications to containment with respect to [each section 2.202 order].”<sup>10</sup>

Several of the licensees to whom the Orders were addressed, as well as the NRC Staff, opposed Pilgrim Watch’s hearing request.<sup>11</sup> The Board, noting that Pilgrim Watch had established standing, “if at all,” only with respect to Pilgrim, directed that oral argument be held in Boston with representatives of Pilgrim

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Station (Mar. 30, 2012) (ADAMS Accession No. ML12093A343); Entergy’s Answer to the March 12, 2012, Commission Order Modifying Licenses with Regard to Reliable Hardened Containment Vents (Order Number EA-12-050) Pilgrim Nuclear Power Station (Mar. 30, 2012) (ADAMS Accession No. ML12093A342).

<sup>6</sup> Pilgrim Watch Request for Hearing Regarding Insufficiency of Order Modifying Licenses with Regard to Reliable Hardened Containment Vents (Apr. 2, 2012) (Hardened Vents Hearing Request), Pilgrim Watch Request for Hearing Regarding Insufficiency of Order Modifying Licenses with Regard to Spent [sic] Reliable Spent Fuel Pool Instrumentation (Apr. 2, 2012) (Spent Fuel Pool Hearing Request).

<sup>7</sup> Hardened Vents Hearing Request at 3.

<sup>8</sup> *Id.*

<sup>9</sup> Spent Fuel Pool Hearing Request at 6.

<sup>10</sup> *See* Hardened Vents Hearing Request at 2; Spent Fuel Pool Hearing Request at 2.

<sup>11</sup> *See* Entergy’s Answer to Pilgrim Watch Request for Hearing Regarding Insufficiency of Order Modifying Licenses with Regard to Reliable Hardened Containment Vents (Apr. 27, 2012); Joint Answer Opposing Hearing Requests Regarding Sufficiency of Order EA-12-051 Modifying Licenses with Regard to Spent Fuel Pool Instrumentation (Apr. 27, 2012); Answer of Detroit Edison Company to Requests of Pilgrim Watch and Beyond Nuclear for Hearing Regarding Alleged Insufficiency of NRC Orders Modifying Licenses with Regard to Hardened Containment Vents and Spent Fuel Pool Instrumentation (Apr. 27, 2012). Because Pilgrim Watch’s hearing requests concerned the Orders generally, these licensees took the position that the hearing requests potentially would affect a large number of licensees, not just Entergy.

Watch, Entergy, and the Staff.<sup>12</sup> The Board considered the filings of the other licensees as *amicus curiae* briefs.<sup>13</sup>

The Board rejected Pilgrim Watch's hearing requests because the concerns raised therein are beyond the proceedings' scope. Relying on the 1983 decision in *Bellotti v. NRC*,<sup>14</sup> the Board held that Pilgrim Watch cannot enter these proceedings in order to argue that safety modifications additional to those in the Orders should be implemented. Citing a long line of Commission case law developed in the years after the *Bellotti* decision, the Board found that measures intended to "strengthen" an order issued under the provisions of 10 C.F.R. § 2.202 are not within the limited scope of the proceedings.<sup>15</sup> The Board held that "Pilgrim Watch's contentions — on their face — fall squarely within the *Bellotti* rule because those contentions explicitly complain that the safety enhancements in the Enforcement Orders are insufficient and require additional safety measures."<sup>16</sup> Accordingly, the Board found it unnecessary to address Pilgrim Watch's standing separately.<sup>17</sup>

Pilgrim Watch's petition for review followed. Both Entergy and the Staff oppose Pilgrim Watch's petition.<sup>18</sup>

## II. DISCUSSION

We find that the Board followed applicable law in rejecting Pilgrim Watch's request for a hearing on the "inadequacies of past and future modifications to containment."<sup>19</sup> At bottom, Pilgrim Watch seeks additional NRC actions, beyond

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<sup>12</sup> Memorandum and Order (Scheduling Oral Argument) (May 9, 2012) (unpublished). Oral argument was held on June 7, 2012.

<sup>13</sup> *Id.* at 3 n.5.

<sup>14</sup> 725 F.2d 1380 (D.C. Cir. 1983), *aff'g Boston Edison Co.* (Pilgrim Nuclear Power Station), CLI-82-16, 16 NRC 44 (1982).

<sup>15</sup> See LBP-12-14, 76 NRC 1, 5-7 (2012) (citing *Bellotti*, 725 F.2d at 1381, 1383; *Pilgrim*, CLI-82-16, 16 NRC at 46-47; *Alaska Department of Transportation and Public Facilities*, CLI-04-26, 60 NRC 399, 401-04, *reconsideration denied*, CLI-04-38, 60 NRC 652 (2004); *Maine Yankee Atomic Power Co.* (Maine Yankee Atomic Power Station), CLI-04-5, 59 NRC 52 (2004); *Detroit Edison Co.* (Fermi Power Plant Independent Spent Fuel Storage Installation), CLI-10-3, 71 NRC 49 (2010)).

<sup>16</sup> *Id.* at 7. See 10 C.F.R. § 2.309(f)(1) (among other requirements, a petition must "(iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding").

<sup>17</sup> LBP-12-14, 76 NRC at 4.

<sup>18</sup> See Answer of Entergy Nuclear Operating Company and Entergy Nuclear Operations, Inc. in Opposition to Pilgrim Watch's Petition for Review (July 30, 2012); NRC Staff's Answer to Pilgrim Watch's Petition for Review of Memorandum and Order (Denying Petitions for Hearing), LBP-12-14, July 10, 2012, and Accompanying Brief (July 30, 2012).

<sup>19</sup> See Hardened Vents Hearing Request at 2; Spent Fuel Pool Hearing Request at 2.

those imposed by the Staff in the Orders at issue here. The Board correctly denied the hearing requests.

#### A. Standard of Review

Because this matter concerns the denial of Pilgrim Watch's hearing requests, Pilgrim Watch may appeal as of right, pursuant to 10 C.F.R. § 2.311(c).<sup>20</sup>

The Board's ruling rests on its interpretation of law, specifically the limits of section 189a of the Atomic Energy Act of 1954 (AEA) and the provisions of 10 C.F.R. § 2.202. Section 189a allows "any person whose interest may be affected" to request a hearing in a proceeding "granting, suspending, revoking or amending" any license. An order issued under 10 C.F.R. § 2.202, such as those in these proceedings, alters the requirements of a license and therefore falls generally under the terms of AEA § 189a. Before any hearing is granted on such an order, a threshold question, intertwined with both standing and contention admissibility issues, is whether the hearing requests are within the scope of the proceeding outlined in the section 2.202 order itself; that is, whether the confirmatory order should be sustained.<sup>21</sup>

*Bellotti* upheld an earlier Commission decision — coincidentally, also involving Pilgrim — to restrict the scope of a section 2.202 proceeding to the narrow issues of "whether the facts stated in the order are true and whether the remedy

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<sup>20</sup> See *Fermi*, CLI-10-3, 71 NRC at 51 n.4 (petitioners' appellate pleading in a matter involving the denial of an intervention petition on an enforcement order was appropriately considered under 10 C.F.R. § 2.311(c)). Pilgrim Watch cites 10 C.F.R. § 2.341, which provides for discretionary Commission review of decisions. Petition for Review at 1. While section 2.341 specifically allows a petitioner to reply to its opponent's answer, section 2.311 does not provide the opportunity to reply. Compare 10 C.F.R. § 2.341(b)(3) with 10 C.F.R. § 2.311(b). Pilgrim Watch filed replies in this matter. See Pilgrim Watch Reply to July 20, 2012 Answer of Entergy Nuclear Operating Company and Entergy Nuclear Operation, Inc. in Opposition to Pilgrim Watch's Petition for Review (Aug. 6, 2012) (Pilgrim Watch Reply Brief); Pilgrim Watch Reply to NRC Staff's Answer to Pilgrim Watch's Petition for Review of Memorandum and Order (Denying Petitions for Hearing), LBP-12-14, July 10, 2012, and Accompanying Brief (Aug. 6, 2012). Pilgrim Watch's procedural misstep is understandable, however, both because the Board did not direct the litigants' attention to the applicable regulation for appeal, and Pilgrim Watch is not represented by counsel on appeal. Although we took Pilgrim Watch's replies into account, we observe that the reply to Entergy focuses its arguments primarily on the perceived shortcomings of the Hardened Vents and Spent Fuel Instrumentation Orders, which are matters we do not reach today. The reply to the Staff reiterates arguments made in Pilgrim Watch's petition for review.

<sup>21</sup> *Bellotti*, 725 F.2d at 1382; *FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station), CLI-04-23, 60 NRC 154, 157 (2004). The Orders themselves articulate this standard. See Hardened Vents Order, 77 Fed. Reg. at 16,101; Spent Fuel Pool Instrumentation Order, 77 Fed. Reg. at 16,085.

selected is supported by those facts.”<sup>22</sup> Given the narrow scope of such proceedings, we have excluded from hearing petitioners who argue that the subject order is inadequate and should be strengthened. Simply put, where an enforcement order imposes measures to enhance safety, no hearing will be granted to litigate additional measures the petitioner would like to see imposed.<sup>23</sup> The upshot of the post-*Bellotti* cases is that a petitioner may obtain a hearing only if the measures to be taken under the order would *in themselves* harm the petitioner.

## **B. The Limited Scope of Proceedings Under 10 C.F.R. § 2.202**

### ***1. Bellotti’s Origin and Reach***

*Bellotti* held that when the NRC issues orders that require “additional or better safety measures,” AEA § 189a does not provide a vehicle for third parties to seek a hearing “on any issue some member of the public may wish to litigate.”<sup>24</sup> Our practice of limiting the scope of a section 2.202 proceeding to the terms of the order offers several advantages. First, this approach allows safety improvements to be put in place quickly, without the delay of litigation over whether additional measures are also warranted.<sup>25</sup> In addition, the terms of section 2.202 orders often have been negotiated with the affected licensee or licensees, who would have little incentive to negotiate if so doing would expose them to formal litigation over additional terms or requirements that third-party petitioners would like to see

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<sup>22</sup> *Pilgrim*, CLI-82-16, 16 NRC at 45.

<sup>23</sup> *See Alaska DOT*, CLI-04-26, 60 NRC at 408.

<sup>24</sup> *Bellotti*, 725 F.2d at 1383. Pilgrim Watch claims that *Bellotti* states that “[w]here the public health and safety are concerned the right to a hearing is absolute.” Petition for Review at 3. But Pilgrim Watch misunderstands the court’s ruling. As noted by Entergy in its answer (at 5), the *Bellotti* decision states, “[p]ublic participation is automatic with respect to all Commission actions that are potentially harmful to the public health and welfare. The upshot is that automatic participation at a hearing may be denied only when the Commission is seeking to make a facility’s operation safer.” *Bellotti*, 725 F.2d at 1383. As discussed further below, Pilgrim Watch has not asserted that the actions proposed in the challenged Orders will be “potentially harmful” to public health and safety.

<sup>25</sup> Indeed, the pendency of the filtered vent issue illustrates this concern: the Staff recently has made recommendations to us on the addition of filtered containment venting systems, as a matter separate from the Hardened Vents Order. *See* “Consideration of Additional Requirements for Containment Venting Systems for Boiling Water Reactors with Mark I and Mark II Containments,” Commission Paper SECY-12-0157 (Nov. 26, 2012) (ADAMS Accession No. ML12325A704). *See also* Hardened Vents Order, 77 Fed. Reg. at 16,099 (“The staff has determined that there are policy issues that need to be resolved before any regulatory action can be taken to require Licensees to install filtered vents . . . [including] consideration of severe accident conditions in the design and operation of the vent, addition of filters to hardened reliable vent systems, and consideration of vents in areas other than primary containment”). We currently are evaluating the merits of the Staff’s recommendations. Litigation before the Board on filtered vents not only falls outside the scope of the Hardened Vents Order, but also would be premature.

imposed.<sup>26</sup> Moreover, the scope of the proceeding is not so limited as to preclude any hearing. An interested stakeholder who stands to benefit from an order's safety measures may intervene in a contested enforcement proceeding to protect its interest in ensuring that the order is upheld as issued.<sup>27</sup> And a third-party petitioner also would have standing where the terms of the order, as written, would harm the petitioner.<sup>28</sup>

In sum, the *Bellotti* rule precludes litigation of either different or additional enforcement measures; a petitioner only may demonstrate standing if he will be harmed by the order, and if his injury is attributable to the order itself. Therefore, it is no matter if the petitioner would be better off if a different, hypothetical, order were imposed, or if the petitioner is no better off with the order than without it.<sup>29</sup> "The critical inquiry under *Bellotti* . . . is whether the order improves the licensee's health and safety conditions. If it does, no hearing is appropriate."<sup>30</sup>

## **2. Pilgrim Watch's Hearing Requests Fail Under *Bellotti***

### *a. Pilgrim Watch Does Not Claim That the Orders Diminish Safety*

Pilgrim Watch argues that it is entitled to a hearing on both Orders under AEA § 189 notwithstanding the holding of *Bellotti*, and makes several attempts to distinguish the instant proceedings from the post-*Bellotti* line of cases. We find its arguments unconvincing.

Pilgrim Watch argues that both the Hardened Vent Order and the Spent Fuel Pool Instrumentation Order "admit" that the status quo does not adequately protect public health and safety.<sup>31</sup> Pilgrim Watch reasons that if the Orders are not sustained, then either the Orders will have to be strengthened (and reissued), or Pilgrim will have to shut down.<sup>32</sup> Pilgrim Watch argues that it "would be better off

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<sup>26</sup> See, e.g., *Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), CLI-80-10, 11 NRC 438, 441 (1980).

<sup>27</sup> *Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), LBP-94-5, 39 NRC 54, 65-66 (1994) (the Board determined that the petitioner had standing because the petitioner sought to intervene to ensure that the enforcement order would be upheld). The Commission affirmed the Board's ruling on standing. *Sequoyah Fuels Corp. and General Atomics*, CLI-94-12, 40 NRC 64 (1994).

<sup>28</sup> See *Alaska DOT*, CLI-04-26, 60 NRC at 406 n.28 ("an order conceivably may remove a restriction upon a licensee or otherwise have the effect of worsening the safety situation. Such an order remains open to challenge.") (citing LBP-04-16, 60 NRC at 122 n.4 (Bollwerk, J., dissenting)).

<sup>29</sup> See *id.* at 406 ("That the corrective measures outlined in the Confirmatory Order do not improve [the petitioner's] personal situation does not provide grounds to rescind the Confirmatory Order").

<sup>30</sup> *Id.* at 408.

<sup>31</sup> Petition for Review at 3. See also Pilgrim Watch Reply Brief at 1.

<sup>32</sup> Petition for Review at 3-4. See also *id.* at 15.

under either option.”<sup>33</sup> According to Pilgrim Watch, this argument distinguishes it from petitioners in prior post-*Bellotti* cases, who sought to intervene only for the purposes of strengthening an enforcement order.<sup>34</sup> Further, Pilgrim Watch argues that the cases the Board cited in its ruling all involved “discretionary” enforcement proceedings, whereas the instant Orders involve a “non-discretionary statutory duty . . . to provide reasonable assurance that public health and safety are protected.”<sup>35</sup>

As an initial matter, we observe that Pilgrim Watch is mistaken that any of the facilities at which the Orders are directed (including Pilgrim) would have to shut down if the Orders are not sustained. On the contrary, the Near-Term Task Force convened following the Fukushima accident found that “continued operation and continued licensing activities do not pose an imminent risk to public health and safety.”<sup>36</sup> Since then, we have agreed with the Staff’s recommendations to proceed in a stepwise fashion to take appropriate actions to enhance safety at domestic facilities.<sup>37</sup> Further, both Orders reiterate that, in view of current regulatory requirements and existing plant capabilities, “continued operation and continued licensing activities do not pose an imminent threat to public health and safety.”<sup>38</sup> In short, if the Orders were not sustained, the licensing bases of the subject licensees would return to the status quo. This action would not leave Pilgrim Watch better off, as it claims, and is not what Pilgrim Watch truly seeks in its hearing requests.<sup>39</sup>

Pilgrim Watch is incorrect that the challenged Orders are unlike other post-*Bellotti* cases, which, it argues, involved “discretionary punishments” for regulatory violations.<sup>40</sup> *Maine Yankee* also involved an order modifying licenses,

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<sup>33</sup> *Id.*

<sup>34</sup> *Id.* at 14-16.

<sup>35</sup> *Id.* at 15.

<sup>36</sup> See “Recommendations for Enhancing Reactor Safety in the 21st Century, The Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident” (July 12, 2011) (Near-Term Report) (transmitted to the Commission via SECY-11-0093, “Near-Term Report and Recommendations for Agency Actions Following the Events in Japan” (July 12, 2011) (ADAMS Accession No. ML11186A950 (package)) (cited in *Union Electric Co.* (Callaway Plant, Unit 2), CLI-11-5, 75 NRC 141, 147-48 & n.6 (2011)).

<sup>37</sup> See, e.g., Staff Requirements — SECY-11-0137 — Prioritization of Recommended Actions to be Taken in Response to Fukushima Lessons Learned (Dec. 15, 2011) (ADAMS Accession No. ML11272A111).

<sup>38</sup> Hardened Vents Order, 77 Fed. Reg. at 16,099; Spent Fuel Pool Instrumentation Order, 77 Fed. Reg. at 16,083.

<sup>39</sup> Compare *Alaska DOT*, CLI-04-26, 60 NRC at 405 (in seeking rescission of an enforcement order, “[a]lthough [the petitioner] says he is not seeking a harsher penalty against [Alaska DOT], that is precisely what he wants”).

<sup>40</sup> See Petition for Review at 4.

procedurally similar to those in these proceedings, which imposed enhanced security measures at spent fuel storage facilities after the events of September 11, 2001.<sup>41</sup> *Fermi* involved a similar order, issued later to the Fermi licensee specifically.<sup>42</sup> Neither order was based on a violation, nor did they impose penalties on the licensees. Each order found (with wording similar to that upon which Pilgrim Watch bases its “adequate protection” argument) that the requirements to be imposed would “provide the Commission with reasonable assurance that the public health and safety and common defense and security continue to be adequately protected in the current threat environment.”<sup>43</sup> And in both *Maine Yankee* and *Fermi*, the Boards rejected the petitioners’ attempts to frame their concerns in terms of “opposing” the orders to evade the limits of *Bellotti*.

We expect our boards to look beyond claims of opposition which are, at bottom, attempts to expand improperly the scope of the proceedings. In *Maine Yankee*, the petitioner argued against the order unless it were modified to clarify various points, including the costs of state and local law enforcement resources that would be needed to implement the order.<sup>44</sup> The *Maine Yankee* Board, however, based its analysis on whether the petitioner had shown that the requirements, as stated in the order, would make the facility “less safe.”<sup>45</sup> The Board held that “whether and to what extent the measures the State seeks [were] needed to make the facility ‘safer’ [was] essentially irrelevant” because those additional measures were outside the scope of the order.<sup>46</sup> In *Fermi*, we rejected the petitioners’ argument opposing an order which imposed additional security measures at a spent fuel storage facility, because it created a “false sense of security.”<sup>47</sup> We observed that the *Fermi* petitioners did not explain how they would be better off without the measures in the order, “whose security benefits Petitioners do not question.”<sup>48</sup>

Fundamentally, Pilgrim Watch’s petition suffers from the same defect. Pilgrim Watch’s claimed “opposition” to the Orders does not open the door to a hearing on additional or different safety measures, not included in the Orders. With respect to both Orders, the question for hearing is whether the implementation of any of the

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<sup>41</sup> See *Maine Yankee*, CLI-04-5, 59 NRC at 54; Order Modifying Licenses (Effective Immediately), 67 Fed. Reg. 65,150 (Oct. 23, 2002) (*Maine Yankee Order*).

<sup>42</sup> See *Fermi*, CLI-10-3, 71 NRC at 50; In the Matter of Detroit Edison Company, Fermi Power Plant; Independent Spent Fuel Installation; Order Modifying License (Effective Immediately), 74 Fed. Reg. 17,890 (Apr. 17, 2009) (*Fermi Order*).

<sup>43</sup> See *Maine Yankee Order*, 67 Fed. Reg. at 65,150; *Fermi Order*, 74 Fed. Reg. at 17,891.

<sup>44</sup> *Maine Yankee Atomic Power Co.* (*Maine Yankee Atomic Power Station*), LBP-03-26, 58 NRC 396, 401 (2003), *aff’d*, CLI-04-5, 59 NRC 52 (2004).

<sup>45</sup> *Id.* at 402.

<sup>46</sup> *Id.*

<sup>47</sup> *Fermi*, CLI-10-3, 71 NRC at 53.

<sup>48</sup> *Id.*



requirements in the Orders would adversely affect the safe and secure operation of the facility, and thereby harm Pilgrim Watch. Pilgrim Watch has offered neither argument nor evidence that the Orders, or any specific requirement within them, will diminish the margin of safety at Pilgrim.<sup>49</sup> Therefore, we conclude that the Board properly denied the hearing requests.

*b. Standing*

Pilgrim Watch, the Staff, and Entergy all reiterate their arguments, raised before the Board, regarding Pilgrim Watch's standing — an issue the Board did not reach. We note that the proceedings' limited scope undermines Pilgrim Watch's claim of standing as well as the materiality of its proposed contentions.<sup>50</sup> Standing requires the petitioner to show a "concrete and particularized" harm, stemming from the challenged action, and redressable by a favorable decision.<sup>51</sup> But Pilgrim Watch has shown neither harm nor redressability here. As discussed above, Pilgrim Watch does not show — or claim — that the measures called for in the Orders, in themselves, increase the likelihood or severity of a potential accident at Pilgrim. Rather, the root of Pilgrim Watch's argument is that the Orders do little to ameliorate the potential harm of such an accident.<sup>52</sup> Pilgrim Watch does not meet the redressability requirement for standing, because vacating the orders would not ameliorate the injury of which Pilgrim Watch complains.<sup>53</sup>

*c. Factual Challenges*

We need not reach what Pilgrim Watch characterizes as its "factual challenges" to the Orders.<sup>54</sup> Pilgrim Watch claims that the facts as stated in both Orders are inaccurate, but it goes on to state that it challenges the "factual assumption" that the

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<sup>49</sup> Pilgrim Watch was given the express opportunity at oral argument to explain its claims, and Pilgrim Watch's counsel did not argue that the existing level of safety would be reduced by the Orders:

Judge Hawkens: You're saying safety would not be enhanced, the status quo would be actually — safety would be diminished by implementing both of these orders?

Mr. Webster: Not quite, your Honor. What we're saying is that the level of safety enhancement that's required by these orders is insufficient to meet adequate protection.

Tr. at 62. See LBP-12-14, 76 NRC at 7-8 & n.36.

<sup>50</sup> See *Davis-Besse*, CLI-04-23, 60 NRC at 158.

<sup>51</sup> *Sequoyah Fuels Corp.* (Gore, Oklahoma Site Decommissioning), CLI-01-2, 53 NRC 9, 13 (2001).

<sup>52</sup> Petition for Review at 3, 8-11.

<sup>53</sup> See *Fermi*, CLI-10-3, 71 NRC at 52-53. The Board lacks the authority to amend the Orders to add the proposed safety measures Pilgrim Watch endorses.

<sup>54</sup> See Petition for Review at 8-11.

Orders provide adequate protection.<sup>55</sup> This argument is merely a repackaging of its principal argument that additional measures would make the affected reactors safer. As discussed above, such additional measures are beyond the scope of these proceedings.

Finally, we stress that the agency's efforts on post-Fukushima lessons learned are ongoing on many fronts and we continue to consider additional actions to improve the safety of U.S. licensed facilities post-Fukushima.<sup>56</sup>

### III. CONCLUSION

For the foregoing reasons, the Board's decision in LBP-12-14 is *affirmed*.<sup>57</sup>  
IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK  
Secretary of the Commission

Dated at Rockville, Maryland,  
this 31st day of January 2013.

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<sup>55</sup> *Id.* (Pilgrim Watch claims, for example, that reactor operators may decide not to open unfiltered vents for fear of radiological release; that human error or power failure could forestall opening the vents, leading to containment failure; and that improved instrumentation would aid only in identifying, but not remedying, problems in the spent fuel pool).

<sup>56</sup> *See generally* "Recommended Actions to Be Taken Without Delay from the Near-Term Task Force Report," Commission Paper SECY-11-0124 (Sept. 9, 2011) (ADAMS Accession No. ML11245A127); SRM-SECY-11-0137, "Tier 3 Program Plans and 6-Month Status Update in Response to Lessons Learned from Japan's March 11, 2011 Great Tohoku Earthquake and Subsequent Tsunami," Commission Paper SECY-12-0095 (July 13, 2012) (ADAMS Accession No. ML12208A208); Station Blackout, Advance Notice of Proposed Rulemaking, 77 Fed. Reg. 16,175 (Mar. 20, 2012); Onsite Emergency Response Capabilities, Advance Notice of Proposed Rulemaking, 77 Fed. Reg. 23,161 (Apr. 18, 2012). As to filtered vents, *see* note 25, *supra*.

<sup>57</sup> A majority of the Board correctly observed that, "should Pilgrim Watch wish to have Entergy implement additional safety measures, its recourse is to petition for rulemaking pursuant to 10 C.F.R. § 2.802, or to petition for license modification, suspension, or revocation pursuant to 10 C.F.R. § 2.206." LBP-12-14, 76 NRC at 7 n.36. Judge Rosenthal appended a concurring opinion questioning whether a section 2.206 petition is truly a "realistic alternative to an adjudicatory hearing." *Id.* at 13 (Additional Opinion). *See generally* Memorandum and Order (Requesting Filing on Petitions Under 10 C.F.R. § 2.206) (May 17, 2012) (unpublished). On appeal, Pilgrim Watch points to Judge Rosenthal's Additional Opinion in support of its argument that it is entitled to a hearing. Petition for Review at 17-19. We disagree. We recently reaffirmed the vitality of the section 2.206 process, finding that it "provides stakeholders a forum to advance their concerns and to obtain full or partial relief, or written reasons why the requested relief is not warranted." *See Southern California Edison Co.* (San Onofre Nuclear Generating Station, Units 2 and 3), CLI-12-20, 76 NRC 437, 439-40 (2012).

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**COMMISSIONERS:**

**Allison M. Macfarlane**, Chairman  
**Kristine L. Svinicki**  
**George Apostolakis**  
**William D. Magwood, IV**  
**William C. Ostendorff**

**In the Matter of**

**Docket No. 50-443-LR**

**NEXTERA ENERGY SEABROOK, LLC**  
**(Seabrook Station, Unit 1)**

**February 20, 2013**

**RULES OF PRACTICE: APPEALS**

Appeals of contention admissibility rulings under section 2.311 are available in two limited circumstances — (1) upon the denial of a petition to intervene and/or request for hearing, on the question of whether it should have been granted; or (2) upon the grant of a petition to intervene and/or request for hearing, on the question of whether it should have been wholly denied.

**RULES OF PRACTICE: INTERLOCUTORY APPEALS**

Interlocutory review under 10 C.F.R. § 2.341(f)(2) is discretionary, and we will grant it only upon a showing that the issue for which review is sought: (i) Threatens the party adversely affected by it with immediate and serious irreparable impact which, as a practical matter, could not be alleviated through a petition for review of the presiding officer's final decision; or (ii) Affects the basic structure of the proceeding in a pervasive or unusual manner. These criteria, as well as Commission precedent, reflect disfavor of piecemeal review of licensing board rulings during ongoing proceedings.

## **RULES OF PRACTICE: INTERLOCUTORY APPEALS**

The Commission will address such rulings after a licensing board has issued a final decision in a case, barring “extraordinary circumstances.” As a general matter, the Commission does not consider contention admissibility decisions to be extraordinary, particularly where the petitioner has been admitted as a party and has other contentions pending.

## **MEMORANDUM AND ORDER**

Friends of the Coast and New England Coalition (collectively, Friends/NEC) seek review of the Licensing Board’s denial of their motion for leave to file a new contention regarding concrete degradation.<sup>1</sup> For the reasons set forth below, we deny, without prejudice, Friends/NEC’s petition for interlocutory review.

### **I. BACKGROUND**

In October 2010, Friends/NEC requested a hearing concerning NextEra Energy Seabrook, LLC’s (NextEra) application to renew the operating license for Seabrook Station, Unit 1, submitting four proposed contentions.<sup>2</sup> The Board granted Friends/NEC’s hearing request and admitted limited versions of three contentions.<sup>3</sup> On appeal, we affirmed in part and reversed in part the Board’s ruling.<sup>4</sup> Our decision left portions of one Friends/NEC contention for litigation, Contention 4B/4D, an environmental contention concerning various aspects of the severe accident mitigation alternatives analysis.<sup>5</sup> Contention 4B/4D remains pending before the Board.

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<sup>1</sup>New England Coalition and Friends of the Coast’s Notice of Appeal of ASLBP No. 10-906-02-LR-BD01 to NextEra Energy Seabrook, LLC (Nov. 19, 2012); Brief in Support of the New England Coalition and Friends of the Coast Appeal of ASLBP No. 10-906-02-LR-BD01 (Denying Motion for Leave to File New Contention) (Nov. 19, 2012) (Petition).

<sup>2</sup>Friends of the Coast and New England Coalition Petition for Leave to Intervene, Request for Hearing, and Admission of Contentions (dated Oct. 20, 2010; filed Oct. 21, 2010).

<sup>3</sup>LBP-11-2, 73 NRC 28, 79 (2011).

<sup>4</sup>CLI-12-5, 75 NRC 301 (2012). Beyond Nuclear, the Seacoast Anti-Pollution League, and the New Hampshire Sierra Club (collectively, Beyond Nuclear) jointly filed a request for hearing with one proposed contention, which the Board granted. LBP-11-2, 73 NRC at 79. We reversed the Board’s ruling with regard to Beyond Nuclear’s hearing request. *See* CLI-12-5, 75 NRC at 343, *petition for review denied*, *Beyond Nuclear v. NRC*, 704 F.3d 12 (1st Cir. 2013).

<sup>5</sup>CLI-12-5, 75 NRC at 326-27, 329 (declining to disturb the Board’s admission of subparts 4B and 4D of Contention 4).

In the fall of 2010, NextEra discovered cracks in safety-related concrete structures at Seabrook that were caused when alkalis and silica in the concrete combined with water to form an expanding gel.<sup>6</sup> The contention now before us challenges the adequacy of NextEra's program for monitoring the effects of this "alkali-silica reaction."<sup>7</sup> NextEra submitted the program as a supplement to its license renewal application on May 16, 2012.<sup>8</sup>

The Board rejected the new contention on timeliness grounds, finding that it should have been filed at least 2 months before Friends/NEC submitted it on August 27, 2012.<sup>9</sup> Friends/NEC ask us to reverse the Board's decision and admit the contention, asserting that it was timely filed and that it raises a genuine dispute with NextEra's license renewal application.<sup>10</sup> For their part, NextEra and the Staff argue, and we agree, that Friends/NEC's appeal does not meet the standards for interlocutory review and must await the end of the case.<sup>11</sup>

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<sup>6</sup> See NextEra's Answer Opposing Admission of Contention Concerning Alkali-Silica Reaction (Sept. 21, 2012) at 2.

<sup>7</sup> See Friends of the Coast and New England Coalition's Motion for Leave to File a New Contention Concerning NextEra Energy Seabrook's Amendment of Its Aging Management Program for Safety-Related Concrete Structures (Aug. 27, 2012) (corrected Sept. 19, 2012; supplemented Sept. 21, 2012).

<sup>8</sup> See SBK-L-12101, Seabrook Station, NextEra Energy Seabrook License Renewal Application, Structures Monitoring Program Supplement-Alkali-Silica Reaction (ASR) Monitoring (May 16, 2012) (ADAMS Accession No. ML12142A323). NextEra developed its May 16, 2012 supplement to augment its proposed license renewal Structures Monitoring Program. *Id.* at 1. The Staff has issued several requests for additional information as it reviews NextEra's plans to manage the effects of alkali-silica reaction cracking during the 20-year license renewal period. NRC Staff's Answer to Intervenor's Motion for Leave to File New Contention Concerning Safety-Related Concrete Structures (Sept. 21, 2012) at 3-7 (Staff Answer to Motion). As a separate matter, the Staff is reviewing the extent of cracking to determine its impact on the safety of current operations. NRC Staff's Answer to Intervenor's Supplement to Motion for Leave to File a New Contention Concerning Safety-Related Concrete Structures (Oct. 16, 2012) at 4-6 (Staff Answer to Motion Supplement).

<sup>9</sup> See Memorandum and Order (Denying Motion for Leave to File New Contention) (Nov. 8, 2012) at 3-6 (unpublished).

<sup>10</sup> See Petition at 6. Friends/NEC further request us to issue a "clarifying opinion providing concise workable definitions" of "sufficient basis," "material dispute," and "new information" as they are used in NRC regulations and case law. *Id.* Because we deny the petition for interlocutory review without prejudice, we need not address Friends/NEC's request at this time.

<sup>11</sup> NextEra's Answer Opposing New England Coalition and Friends of the Coast's Notice of Appeal (Dec. 14, 2012) at 1 (NextEra Answer to Petition); NRC Staff Answer to FOTC/NEC Appeal (Dec. 14, 2012) at 1 (Staff Answer to Petition). NextEra and the Staff alternatively assert that Friends/NEC have not shown that the Board erred or abused its discretion in rejecting the contention. NextEra Answer to Petition at 1; Staff Answer to Petition at 1. We do not reach those arguments today.

## II. DISCUSSION

Friends/NEC's petition is styled as a 10 C.F.R. § 2.311 notice of appeal and supporting brief. Appeals of contention admissibility rulings under section 2.311, however, are available in two limited circumstances — (1) upon the denial of a petition to intervene and/or request for hearing, on the question of whether it should have been granted; or (2) upon the grant of a petition to intervene and/or request for hearing, on the question of whether it should have been wholly denied.<sup>12</sup> Friends/NEC's request for hearing was granted, and they currently have an admitted contention pending before the Board. Consequently, their appeal does not lie under section 2.311, but rather under section 2.341(f)(2), which governs petitions for interlocutory review, including board rulings on new contentions.<sup>13</sup> We therefore construe Friends/NEC's appeal as a petition for interlocutory review under section 2.341(f)(2).

Because they appealed under section 2.311, Friends/NEC did not address the standards for interlocutory review under section 2.341(f)(2). Even if they had addressed these standards, the record does not indicate that interlocutory review is warranted under the circumstances presented here. Interlocutory review under this section is discretionary, and we will grant it only upon a showing that the issue for which review is sought:

- (i) Threatens the party adversely affected by it with immediate and serious irreparable impact which, as a practical matter, could not be alleviated through a petition for review of the presiding officer's final decision; or
- (ii) Affects the basic structure of the proceeding in a pervasive or unusual manner.<sup>14</sup>

These criteria, as well as Commission precedent, reflect disfavor of piecemeal review of licensing board rulings during ongoing proceedings.<sup>15</sup> We will address such rulings after a licensing board has issued a final decision in a case, barring

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<sup>12</sup> 10 C.F.R. § 2.311(c), (d)(1); *South Texas Project Nuclear Operating Co.* (South Texas Project, Units 3 and 4), CLI-10-16, 71 NRC 486, 489 (2010).

<sup>13</sup> See *South Texas*, CLI-10-16, 71 NRC at 490.

<sup>14</sup> 10 C.F.R. § 2.341(f)(2).

<sup>15</sup> Compare 10 C.F.R. § 2.311(a), (c), (d), with 10 C.F.R. § 2.341(a), (b). See also *Strata Energy, Inc.* (Ross In Situ Uranium Recovery Project), CLI-12-12, 75 NRC 603, 607 (2012); *Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-04-31, 60 NRC 461, 465-66 (2004); Final Rule: "Amendments to Adjudicatory Process Rules and Related Requirements," 77 Fed. Reg. 46,562, 46,565 (Aug. 3, 2012); Final Rule: "Changes to Adjudicatory Process," 69 Fed. Reg. 2182, 2187, 2225 (Jan. 14, 2004).

“extraordinary circumstances.”<sup>16</sup> As a general matter, we do not consider contention admissibility decisions to be extraordinary, particularly where, as here, the petitioner has been admitted as a party and has other contentions pending.<sup>17</sup> Friends/NEC will have an opportunity to challenge the Board’s ruling on their new contention, as well as any other interlocutory Board decisions, at the end of the case, and we find nothing to suggest that waiting until that time will threaten Friends/NEC with immediate and serious irreparable impact or affect the basic structure of the proceeding in a pervasive or unusual manner.<sup>18</sup>

That said, we do not diminish the seriousness with which the agency is reviewing the effect of alkali-silica reaction on concrete structures, particularly at Seabrook. The Staff has recognized that this “is an important issue at Seabrook, one which the Staff continues to thoroughly review.”<sup>19</sup> Through its oversight of Seabrook’s ongoing operations, the Staff is working to ensure that the plant can operate safely now and through the end of its original operating license term.<sup>20</sup> And through its review of NextEra’s license renewal application, the Staff is working to determine whether the effects of aging, including those related to alkali-silica reaction, can be managed safely if NextEra’s operating license for Seabrook is renewed.<sup>21</sup>

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<sup>16</sup> See, e.g., *Entergy Nuclear Operations, Inc.* (Indian Point, Units 2 and 3), CLI-10-30, 72 NRC 564, 568-69 (2010); *South Texas*, CLI-10-16, 71 NRC at 489-90.

<sup>17</sup> *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-00-2, 51 NRC 77, 80 (2000). See also *Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 365 (2009); *Clinton*, CLI-04-31, 60 NRC at 466-67.

<sup>18</sup> Friends/NEC’s perceived harm is not of a kind that cannot be addressed later on appeal. Cf. *Duke Energy Corp.* (Catawba Nuclear Station, Units 1 and 2), CLI-04-6, 59 NRC 62, 71 (2004) (“Review at the end of the case would be meaningless because the Commission cannot later, on appeal from a final Board decision, rectify an erroneous disclosure order. A bell cannot be unring. ‘Because the adverse impact of that release would occur now, the alleged harm is immediate.’” (quoting *Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-94-5, 39 NRC 190, 193 (1994)) (emphasis in original)); *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-02-7, 55 NRC 205, 213-14 (2002) (“We typically turn down petitions to review interlocutory board orders summarily, without engaging in extensive merits discussion. Here, though, . . . [the] petition questions the very structure of our announced two-step licensing process. We find this question suitable for our consideration.”).

<sup>19</sup> Staff Answer to Petition at 2. See also Staff Answer to Motion at 2. In addition, the Staff has issued an information notice to alert other applicants and licensees to the possibility of concrete degradation from alkali-silica reaction. See generally NRC Information Notice 2011-20: Concrete Degradation by Alkali-Silica Reaction (Nov. 18, 2011) (ADAMS Accession No. ML112241029).

<sup>20</sup> See Staff Answer to Motion Supplement at 4-6.

<sup>21</sup> See Staff Answer to Motion at 3-7.

### III. CONCLUSION

For the reasons set forth above, we *deny* the petition for interlocutory review without prejudice. Friends/NEC may challenge the Board's rejection of their new contention at the end of the case.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK  
Secretary of the Commission

Dated at Rockville, Maryland,  
this 20th day of February 2013.



UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**ATOMIC SAFETY AND LICENSING BOARD**

**Before Administrative Judges:**

**William J. Froehlich, Chairman**  
**Dr. Michael F. Kennedy**  
**Dr. William E. Kastenber**

**In the Matter of**

**Docket Nos. 50-352-LR**  
**50-353-LR**  
**(ASLBP No. 12-916-04-LR-BD01)**

**EXELON GENERATION**  
**COMPANY, LLC**  
**(Limerick Generating Station, Units 1**  
**and 2)**

**February 6, 2013**

In this proceeding under 10 C.F.R. Part 54 regarding the application of Exelon Generation Co., LLC, to renew the operating licenses for Limerick Generating Station, Units 1 and 2, the Licensing Board denied petitioner Natural Resources Defense Council's (NRDC's) petition for waiver of 10 C.F.R. § 51.53(c)(3)(ii)(L), but referred the ruling to the Commission pursuant to 10 C.F.R. § 2.323(f)(1), as it related to a novel issue of law.

**RULES OF PRACTICE: WAIVER OF RULES OR REGULATIONS**

Generally, NRC regulations may not be challenged in any NRC adjudicatory proceeding. However, a petitioner that believes a regulation should not be applied in a particular proceeding may seek a waiver of that regulation pursuant to 10 C.F.R. § 2.335(b). Section 2.335(b) states:

The sole ground for petition of waiver or exception is that special circumstances with respect to the subject matter of the particular proceeding are such that the application

of the rule or regulation (or a provision of it) would not serve the purposes for which the rule or regulation was adopted.

**RULES OF PRACTICE: WAIVER OF RULES OR REGULATIONS**

The Commission has elaborated on this standard in its case law, establishing a more arduous four-part test for waiver petitions. The Commission stated in its *Millstone* decision that for a waiver to be granted, a petitioner must demonstrate the following:

- (i) the rule’s strict application would not serve the purposes for which it was adopted;
- (ii) the movant has alleged special circumstances that were not considered, either explicitly or by necessary implication, in the rulemaking proceeding leading to the rule sought to be waived; (iii) those circumstances are unique to the facility rather than common to a large class of facilities; and (iv) a waiver of the regulation is necessary to reach a significant safety problem.

*Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 559-60 (2005). The Commission made clear that “all four factors must be met” for a waiver to be granted.

**RULES OF PRACTICE: WAIVER OF RULES OR REGULATIONS  
(ROLE OF LICENSING BOARDS)**

The role of the Board when a request for a waiver is filed is limited to determining whether the petitioner has made a prima facie showing that it has satisfied 10 C.F.R. § 2.335(b). If not, the Board “may not further consider the matter.” *Id.* § 2.335(c). However, where the petitioner has successfully made such a prima facie showing, the Board “shall, before ruling on the petition, certify the matter directly to the Commission,” and the Commission shall determine whether to grant or deny the waiver request. *Id.* § 2.335(d).

**RULES OF PRACTICE: WAIVER OF RULES OR REGULATIONS**

It is clear to us that the *Millstone* test establishes an appreciably higher burden for would-be waiver seekers than does 10 C.F.R. § 2.335(b). Indeed, on its face, section 2.335(b) appears to only require a petitioner to satisfy the first two prongs of the *Millstone* test. In other words, section 2.335(b) does not require petitioners to demonstrate that their complaint is “unique” to the facility in question or that their complaint reflects a “significant safety issue.”

**RULES OF PRACTICE: WAIVER OF RULES OR REGULATIONS**

To determine whether a petitioner has demonstrated that application of a regulation “would not serve the purposes for which [it] was adopted,” a board must first determine the purpose of rule or regulation for which waiver is sought. 10 C.F.R. § 2.335(b).

**REGULATIONS: INTERPRETATION (10 C.F.R. § 51.53(c)(3)(ii)(L))**

The language of 10 C.F.R. § 51.53(c)(3)(ii)(L) makes its purpose quite clear. It states, “If the staff has not previously considered severe accident mitigation alternatives for the applicant’s plant . . . , a consideration of alternatives to mitigate severe accidents must be provided.” The clear implication of this language is that, once the Staff has considered severe accident mitigation alternatives for the applicant’s plant, no further consideration of alternatives to mitigate severe accidents is needed. Indeed, subsection (L) evidences a Commission determination that, in effect, one SAMA analysis is enough. Once an applicant has performed a SAMA analysis, even if it was performed almost 25 years ago, the applicant does not need to perform another, regardless of whether new SAMA candidates have been discovered in the interim.

This plain-meaning reading of 10 C.F.R. § 51.53(c)(3)(ii)(L) is bolstered by looking to the Statement of Considerations accompanying the Commission’s final rule adopting subsection (L). The Commission stated, “NRC staff considerations of severe accident mitigation alternatives have already been completed and included in an EIS or supplemental EIS for Limerick, Comanche Peak, and Watts Bar. Therefore, severe accident mitigation alternatives need not be reconsidered for these plants for license renewal.” It is noteworthy that the Commission did not say that those severe accident mitigation alternatives considered in the previous analysis need not be reconsidered. Rather, the Commission made a general statement that mitigation alternatives, as a class of items, need not be reconsidered at license renewal. As such, we find that the purpose of subsection (L) is to exempt those plants that have already performed SAMA analyses from considering severe accident mitigation alternatives at license renewal.

**RULES OF PRACTICE: WAIVER OF RULES OR REGULATIONS**

**REGULATIONS: INTERPRETATION (10 C.F.R. § 51.53(c)(3)(ii)(L))**

If the purpose of 10 C.F.R. § 51.53(c)(3)(ii)(L) is simply to grant to a set of plants an exemption from the otherwise applicable requirement to consider severe accident mitigation alternatives at license renewal, then that purpose will always be met if no further analysis is required or submitted by the applicant.

Accordingly, it is unclear how any petitioner could ever demonstrate that the purpose of subsection (L) is frustrated by the application of subsection (L). Even if a petitioner could demonstrate that there exists a group of cost-effective SAMA candidates that would greatly reduce the impacts of severe accidents and that have not been considered in the previous analysis, that petitioner could not successfully seek a waiver of subsection (L), because the purpose of subsection (L) — to grant the plant an exemption from considering any SAMA candidates at license renewal — is not frustrated. Given its clear purpose, subsection (L) becomes, in effect, unwaivable.

**RULES OF PRACTICE: WAIVER OF RULES OR REGULATIONS**

**REGULATIONS: INTERPRETATION (10 C.F.R. § 51.53(c)(3)(ii)(L))**

When it enacted 10 C.F.R. § 51.53(c)(3)(ii)(L) the Commission understood that technology would change, and that new SAMA candidates could emerge over time. However, the possibility that new SAMA candidates may become available cannot be the basis for a successful waiver petition, because the Commission knew that SAMA technology would change, but was confident that processes, other than the SAMA analysis process, would adequately address any such developments.

**ORDER**

**(Denying Petition for Waiver of 10 C.F.R. § 51.53(c)(3)(ii)(L) and Referring This Decision to the Commission)**

Before the Board is a November 21, 2012 petition for waiver of 10 C.F.R. § 51.53(c)(3)(ii)(L) filed by the Natural Resources Defense Council (NRDC).<sup>1</sup> For the reasons discussed herein, and in accordance with 10 C.F.R. § 2.335(b), the Board denies NRDC's petition. However, because the legal issue presented by NRDC's petition is novel and worthy of the Commission's immediate attention, we refer this decision to the Commission pursuant to 10 C.F.R. § 2.323(f)(1).

**I. BACKGROUND**

On August 8, 1985, the Commission issued a full-power operating license for Limerick Generating Station, Unit 1, to the Philadelphia Electric Company

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<sup>1</sup>Natural Resources Defense Council's Petition, by Way of Motion for Waiver of 10 C.F.R. § 51.53(c)(3)(ii)(L) as Applied to Application for Renewal of Licenses for Limerick Units 1 and 2 (Nov. 21, 2012) [hereinafter Waiver Petition].

(PECO), now a subsidiary of Exelon Generation Company, LLC (Exelon).<sup>2</sup> A group, Limerick Ecology Action, Inc. (LEA), challenged the granting of this full-power license in part on the ground that the NRC did not consider Severe Accident Mitigation Alternatives (SAMAs) during its review of PECO's operating license application.<sup>3</sup> At the time, NRC regulations did not require applicants to consider SAMAs.<sup>4</sup> In 1989, the United States Court of Appeals for the Third Circuit ruled on LEA's challenge, holding that the National Environmental Policy Act (NEPA) requires the NRC to consider SAMAs.<sup>5</sup> In response to this decision, the NRC Staff considered SAMAs "in the Final Environmental Impact Statement for the Limerick 1 and 2 and Comanche Peak 1 and 2 operating license reviews, and in the Watts Bar Supplemental Final Environmental Statement for an operating license."<sup>6</sup>

In 1996, the NRC amended its regulations regarding environmental reviews for operating license renewals.<sup>7</sup> One of the regulations derived from this amendment process was 10 C.F.R. § 51.53(c)(3)(ii)(L), which reads as follows:

If the staff has not previously considered severe accident mitigation alternatives for the applicant's plant in an environmental impact statement or related supplement or in an environmental assessment, a consideration of alternatives to mitigate severe accidents must be provided.<sup>8</sup>

In promulgating that regulation the Commission noted that because SAMAs had already been considered for Limerick, Comanche Peak, and Watts Bar, "[SAMAs] need not be reconsidered for these plants for license renewal."<sup>9</sup>

On June 22, 2011, Exelon submitted an application for renewal of the operating licenses for the Limerick Generating Station, Units 1 and 2 (Limerick) for an additional 20 years.<sup>10</sup> On November 22, 2011, NRDC submitted a petition to

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<sup>2</sup> See Philadelphia Electric Company, Docket No. 50-352, Limerick Generating Station, Unit 1, Facility Operating License, License No. NPF-39 (Aug. 8, 1985) (ADAMS Accession No. ML011520196).

<sup>3</sup> See *Limerick Ecology Action v. NRC*, 869 F.2d 719, 722-23 (3d Cir. 1989).

<sup>4</sup> Indeed, the Commission issued a policy statement in 1985 declaring that individual licensing proceedings were *not* the appropriate forum for evaluating SAMAs. *Id.* at 727.

<sup>5</sup> *Id.* at 739.

<sup>6</sup> Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 61 Fed. Reg. 28,467, 28,481 (June 5, 1996).

<sup>7</sup> See generally *id.*

<sup>8</sup> 10 C.F.R. § 51.53(c)(3)(ii)(L).

<sup>9</sup> 61 Fed. Reg. at 28,481.

<sup>10</sup> See Notice of Acceptance for Docketing of the Application and Notice of Opportunity for Hearing Regarding Renewal of Facility Operating License Nos. NPF-39 and NPF-85 for an Additional 20-Year Period; Exelon Generation Co., LLC, Limerick Generating Station, 76 Fed. Reg. 52,992, 52,992 (Aug. 24, 2011).

intervene, proffering four contentions.<sup>11</sup> One of the central issues presented by NRDC's petition was the interplay between two seemingly contradictory NRC regulations: 10 C.F.R. § 51.53(c)(3)(ii)(L) [subsection (L)] and 10 C.F.R. § 51.53(c)(3)(iv) [subsection (iv)]. Whereas the former states that an applicant for license renewal need not consider SAMAs if the NRC Staff has already considered SAMAs for that plant, the latter states, "The environmental report must contain any new and significant information regarding the environmental impacts of license renewal of which the applicant is aware." The question then facing the Board was what effect, if any, the subsection (L) exemption had on an applicant's duty under subsection (iv) to consider new and significant information related to SAMAs and, concomitantly, a petitioner's ability to challenge that consideration (or lack thereof).

In LBP-12-8, we granted NRDC's petition to intervene, admitting portions of one contention.<sup>12</sup> We also noted there that the parties did not dispute that Exelon must consider new and significant information regarding SAMAs pursuant to subsection (iv).<sup>13</sup> The dispute between the parties thus centered on whether the exemption provided in subsection (L) converted the issue of SAMAs from a so-called "Category 2" issue to a so-called "Category 1" issue for Limerick.<sup>14</sup>

The effect of this categorization would have significant implications for the environmental review of this (and other) license renewal applications in that Category 1 issues are those issues that the Commission has dealt with generically and that may not be challenged during license renewal absent a waiver.<sup>15</sup> On the other hand, Category 2 issues are plant-specific and may be challenged during license renewal without a waiver.<sup>16</sup> In LBP-12-8 we held that the issue of SAMAs was a Category 2 issue for Limerick, because NRC regulations explicitly list SAMAs as a Category 2 issue,<sup>17</sup> and because we could find no regulatory basis for the notion that a Category 2 issue could be converted into a Category 1 issue without evidence of the Commission's express intent to do so.<sup>18</sup> As such, we held that NRDC was free to challenge Exelon's consideration of new and significant information regarding SAMAs in this license renewal proceeding.<sup>19</sup>

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<sup>11</sup> Natural Resources Defense Council Petition to Intervene and Notice of Intention to Participate (Nov. 22, 2011).

<sup>12</sup> LBP-12-8, 75 NRC 539, 570-71 (2012).

<sup>13</sup> *Id.* at 550.

<sup>14</sup> *See* Tr. at 43-52, 59-68, 80-85, 108-09, 118-25, 132-34, 172-76, 266.

<sup>15</sup> *See* 61 Fed. Reg. at 28,474.

<sup>16</sup> *See id.*

<sup>17</sup> *See* 10 C.F.R. Part 51, Subpart A, App. B, tbl. B-1.

<sup>18</sup> LBP-12-8, 75 NRC at 552-53.

<sup>19</sup> *Id.* at 16.

Exelon and the NRC Staff appealed this ruling to the Commission, which reversed our decision, holding that “the exception in [subsection (L)] operates as the functional equivalent of a Category 1 issue, removing SAMAs from litigation in this, as well as certain other, case-by-case license renewal adjudications.”<sup>20</sup> Therefore, the Commission held that “the proper procedural avenue for NRDC to raise its concerns [regarding Exelon’s consideration of new and significant information] is to seek a waiver of the relevant provision in [subsection (L)].”<sup>21</sup> The Commission then remanded this proceeding to us, instructing NRDC to submit a waiver petition for Board consideration by November 27, 2012.<sup>22</sup>

NRDC submitted the instant waiver petition on November 21, 2012,<sup>23</sup> and Exelon and the NRC Staff submitted their responses opposing the waiver petition on December 14, 2012.<sup>24</sup> NRDC submitted a reply brief on December 21, 2012.<sup>25</sup>

## II. LEGAL STANDARDS

Generally, NRC regulations may not be challenged in any NRC adjudicatory proceeding.<sup>26</sup> However, a petitioner that believes a regulation should not be applied in a particular proceeding may seek a waiver of that regulation pursuant to 10 C.F.R. § 2.335(b). Section 2.335(b) states:

The sole ground for petition of waiver or exception is that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation (or a provision of it) would not serve the purposes for which the rule or regulation was adopted.<sup>27</sup>

The Commission has elaborated on this standard in its case law, establishing a more arduous four-part test for waiver petitions.<sup>28</sup> The Commission stated in its

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<sup>20</sup> CLI-12-19, 76 NRC 377, 386 (2012).

<sup>21</sup> *Id.*

<sup>22</sup> *Id.* at 389.

<sup>23</sup> See Waiver Petition.

<sup>24</sup> See Exelon’s Response Opposing NRDC’s Petition for Waiver of 10 C.F.R. § 51.53(c)(3)(ii)(L) (Dec. 14, 2012) [hereinafter “Exelon Response”]; NRC Staff Answer to [NRDC] Petition for Waiver of 10 C.F.R. § 51.53(c)(3)(ii)(L) (Dec. 14, 2012) [hereinafter “NRC Response”].

<sup>25</sup> See Reply of [NRDC] in Support of Petition, by Way of Motion, for Waiver of 10 C.F.R. § 51.53(c)(3)(ii)(L) as Applied to Application for Renewal of Licenses for Limerick Units 1 and 2 (Dec. 21, 2012).

<sup>26</sup> 10 C.F.R. § 2.335(a).

<sup>27</sup> *Id.* § 2.335(b).

<sup>28</sup> See *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 559-60 (2005).

*Millstone* decision that for a waiver to be granted, a petitioner must demonstrate the following:

- (i) the rule’s strict application would not serve the purposes for which it was adopted;
- (ii) the movant has alleged special circumstances that were not considered, either explicitly or by necessary implication, in the rulemaking proceeding leading to the rule sought to be waived; (iii) those circumstances are unique to the facility rather than common to a large class of facilities; and (iv) a waiver of the regulation is necessary to reach a significant safety problem.<sup>29</sup>

The Commission made clear that “*all four* factors must be met” for a waiver to be granted.<sup>30</sup>

The role of the Board when a request for a waiver is filed is limited to determining whether the petitioner has made a *prima facie* showing that it has satisfied 10 C.F.R. § 2.335(b). If not, the Board “may not further consider the matter.”<sup>31</sup> However, where the petitioner has successfully made such a *prima facie* showing, the Board “shall, before ruling on the petition, certify the matter directly to the Commission,” and the Commission shall determine whether to grant or deny the waiver request.<sup>32</sup>

### III. ANALYSIS AND RULING

It is clear to us that the *Millstone* test establishes an appreciably higher burden for would-be waiver seekers than does 10 C.F.R. § 2.335(b). Indeed, on its face, section 2.335(b) appears to only require a petitioner to satisfy the first two prongs of the *Millstone* test. In other words, section 2.335(b) does not require petitioners to demonstrate that their complaint is “unique” to the facility in question *or* that their complaint reflects a “significant safety issue.” Because, as we will explain, we believe that NRDC has not satisfied the lower threshold of 10 C.F.R. § 2.335(b), we will apply that section of the Commission’s regulations, rather than the more stringent *Millstone* test.

#### A. The Purpose of 10 C.F.R. § 51.53(c)(3)(ii)(L)

To determine whether NRDC has demonstrated that application of 10 C.F.R.

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<sup>29</sup> *Id.* (quotations and citations omitted). Hereinafter, we will refer to this four-part test as “the *Millstone* test.”

<sup>30</sup> *Id.* (emphasis in original).

<sup>31</sup> 10 C.F.R. § 2.335(c).

<sup>32</sup> *Id.* § 2.335(d). We were unable to find any reported instances in which the Commission has granted a waiver request pursuant to section 2.335(d) submitted by an intervenor/petitioner.



§ 51.53(c)(3)(ii)(L) “would not serve the purposes for which [it] was adopted,”<sup>33</sup> we must first determine the purpose of subsection (L). In its Waiver Petition, NRDC argues that the purpose of subsection (L) “was simply to limit the analysis during relicensing to exclude ‘consideration of *such alternatives* regarding plant operation’ that were previously considered.”<sup>34</sup> In other words, NRDC argues, subsection (L) was intended to excuse license renewal applicants that have already performed a SAMA analysis “from being forced to reconsider *specific alternatives previously considered*, from which it necessarily follows that any *new* alternatives that would mitigate severe accidents should be subject to the standard for ‘new and significant information.’”<sup>35</sup>

Exelon and the NRC Staff, however, contend that the purpose of subsection (L) was to exempt license renewal applicants that have already performed a SAMA analysis from performing another SAMA analysis, even if new mitigation alternatives have emerged since the performance of the original SAMA analysis.<sup>36</sup>

This distinction is subtle, but important in license renewal proceedings. A “mitigation alternative,” or a “SAMA candidate,” is, as the name suggests, an alternative that may mitigate the impacts of a severe accident. A “SAMA analysis,” on the other hand, is an analysis of a class of SAMA candidates using probabilistic risk assessment techniques to determine whether any of the SAMA candidates would be cost-beneficial.<sup>37</sup> So, to contrast the parties’ positions, NRDC maintains that the purpose of subsection (L) is to excuse applicants from considering specific SAMA candidates that they have already considered, while Exelon and the NRC Staff argue that its purpose is to excuse applicants from performing another SAMA analysis altogether, meaning such applicants need not consider *any* additional SAMA candidates.

We do not find NRDC’s argument compelling for several reasons. First, we believe the language of subsection (L) makes its purpose quite clear. It states, “If the staff has not previously considered severe accident mitigation alternatives for the applicant’s plant . . . , a consideration of alternatives to mitigate severe accidents must be provided.”<sup>38</sup> The clear implication of this language is that, once the Staff has considered severe accident mitigation alternatives for the applicant’s plant, no further consideration of alternatives to mitigate severe accidents is needed. NRDC’s interpretation seems to be that if the Staff has previously considered certain severe accident mitigation alternatives, a consideration of

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<sup>33</sup> *Id.* § 2.335(b).

<sup>34</sup> Waiver Petition at 17 (*quoting* 61 Fed. Reg. at 28,480) (emphasis in original).

<sup>35</sup> *Id.* (emphasis in original).

<sup>36</sup> *See* Exelon Response at 20-21; NRC Staff Response at 13-15.

<sup>37</sup> For a more detailed discussion of how SAMA analyses are conducted, see *FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station, Unit 1), LBP-12-27, 76 NRC 583, 592-94 (2012).

<sup>38</sup> 10 C.F.R. § 51.53(c)(3)(ii)(L).

those specific alternatives need not be provided, but a consideration of other alternatives must be provided. This is a strained and inappropriate reading of subsection (L). Rather, the purpose of subsection (L) seems quite clear: it evidences a Commission determination that, in effect, one SAMA analysis is enough. Once an applicant has performed a SAMA analysis, even if it was performed almost 25 years ago, the applicant does not need to perform another, regardless of whether new SAMA candidates have been discovered in the interim.

This plain-meaning reading of subsection (L) is bolstered by looking to the Statement of Considerations accompanying the Commission's final rule adopting subsection (L). The Commission stated, "NRC staff considerations of severe accident mitigation alternatives have already been completed and included in an EIS or supplemental EIS for Limerick, Comanche Peak, and Watts Bar. Therefore, severe accident mitigation alternatives need not be reconsidered for these plants for license renewal."<sup>39</sup> It is noteworthy that the Commission did *not* say that those severe accident mitigation alternatives considered in the previous analysis need not be reconsidered. Rather, the Commission made a general statement that mitigation alternatives, as a class of items, need not be reconsidered at license renewal. As such, we find that the purpose of subsection (L) is to exempt those plants that have already performed SAMA analyses from considering severe accident mitigation alternatives at license renewal.

As noted above, in order to obtain a waiver of a regulation, a petitioner must demonstrate that application of the regulation "would not serve the purposes for which [it] was adopted."<sup>40</sup> Considering this requirement, it becomes abundantly clear why NRDC provided such a strained reading of the purpose of subsection (L). After all, if the purpose of subsection (L) is simply to grant to a set of plants an exemption from the otherwise applicable requirement to consider severe accident mitigation alternatives at license renewal, then that purpose will *always* be met if no further analysis is required or submitted by the applicant. Accordingly, it is unclear how *any* petitioner could ever demonstrate that the purpose of subsection (L) is frustrated by the application of subsection (L). Even if a petitioner could demonstrate that there exists a group of cost-effective SAMA candidates that would greatly reduce the impacts of severe accidents and that have not been considered in the previous analysis, that petitioner could not successfully seek a waiver of subsection (L), because the purpose of subsection (L) — to grant the plant an exemption from considering any SAMA candidates at license renewal — is not frustrated. Given its clear purpose, subsection (L) becomes, in effect, unwaivable.

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<sup>39</sup> 61 Fed. Reg. at 28,481.

<sup>40</sup> 10 C.F.R. § 2.335(b).

## **B. The Application of 10 C.F.R. § 51.53(c)(3)(ii)(L)**

The Commission stated in CLI-12-19 that subsection (L) “operates as the functional equivalent of a Category 1 issue, removing SAMAs from litigation in this, as well as certain other, case-by-case license renewal adjudications.”<sup>41</sup> This is certainly true as to the preclusive effect of subsection (L), but is not necessarily the case relative to the “waivability” of subsection (L). Indeed, in this regard subsection (L) seemingly functions very differently than Table B-1 of 10 C.F.R. Part 51, Subpart A, Appendix B, which lists certain issues and then categorizes them as Category 1 or Category 2.

To illustrate the difference, let us consider, as an example, bird collisions with cooling towers. Table B-1 lists this issue as Category 1, stating that “[t]hese collisions have not been found to be a problem at operating nuclear power plants and are not expected to be a problem during the license renewal term.”<sup>42</sup> The finding that an issue like this is a Category 1 issue seems to be based on then-current factual information, as subjected to appropriate scientific analysis. But there is nothing in this designation that precludes a later finding associated with a waiver petition that bird collisions with cooling towers *would* have to be considered at license renewal for a certain plant should matters change. And indeed, one can readily imagine a set of circumstances where a petitioner could successfully seek a waiver of this Category 1 finding. For instance, if changes in the migratory habits of a certain bird during the initial operating term led to a large number of collisions with the cooling towers at a specific plant, a petitioner might well be able to satisfy 10 C.F.R. § 2.335(b) and the *Millstone* test and, therefore, challenge the applicant’s lack of consideration of bird collisions with cooling towers in an adjudicatory license renewal proceeding. This possibility is based on the understanding that factual circumstances and scientific analysis can change over time. That is, while bird collisions may not have posed a problem for plants generally at the time the generic determination was made, they may pose a problem *now*, at a specific facility seeking license renewal. The waiver process provides, then, a mechanism through which such new information and analysis may be brought to the Commission’s attention.

However, the same argument simply does not apply to subsection (L). When it enacted subsection (L) the Commission understood that technology would change, and that new SAMA candidates could emerge over time.<sup>43</sup> The emergence of

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<sup>41</sup> CLI-12-19, 76 NRC at 386.

<sup>42</sup> 10 C.F.R. Part 51, Subpart A, App. B, tbl. B-1.

<sup>43</sup> In the Statement of Considerations accompanying the final rule adopting subsection (L), the Commission stressed that it had three other ongoing processes whereby the NRC Staff would be evaluating alternatives to mitigate severe accidents: the Containment Performance Improvement (CPI)

(Continued)

new SAMA candidates is, it seems, the equivalent of the new data regarding bird collisions in our example above. However, in the case of bird collisions, the possibility that new data could become available also provides the basis for a potential successful waiver petition. Here, the possibility that new SAMA candidates may become available cannot be the basis for a successful waiver petition, because the Commission knew that SAMA technology would change, but was confident that processes, other than the SAMA analysis process, would adequately address any such developments.<sup>44</sup> To put it another way, for most Category 1 issues, there is an implicit understanding that information and analysis may change, and such new information may be presented in a waiver petition. However, for subsection (L), for this “functional equivalent” of a Category 1 issue, there can be no such understanding. Indeed, the Commission certainly enacted subsection (L) knowing that new SAMA candidates likely could and would emerge during the time between the initial SAMA analysis and license renewal.

### C. Conclusions Regarding 10 C.F.R. § 51.53(c)(3)(ii)(L)

So, this leaves us in a difficult and ambiguous situation. Has NRDC demonstrated that the purpose of subsection (L) will be frustrated by applying subsection (L) to Limerick? No, but through no fault of their representatives, who seem to have done the most they could in a confusing situation. Ultimately, given the purpose of subsection (L), NRDC was faced with the seemingly impossible task of demonstrating that the purpose of subsection (L) (i.e., to grant Limerick an exemption from the SAMA requirement) would be frustrated by granting Limerick an exemption from the SAMA requirement. In CLI-12-19, the Commission remanded to the Board review of a waiver petition to be filed by NRDC. This implies to the Board that, on some level, the Commission believed that a petitioner or party could be granted a waiver of 10 C.F.R. § 51.53(c)(3)(ii)(L) under section 2.335(b). Our review of the regulations leads us to conclude that this is an impossibility.

For the foregoing reasons, we are compelled to find that NRDC has not presented a *prima facie* case that it has satisfied 10 C.F.R. § 2.335(b), and therefore we must deny its waiver petition. However, NRDC’s petition has

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program, the Individual Plant Examination (IPE) program, and the Individual Plant Examination for External Events (IPEEE) program. 61 Fed. Reg. at 28,481. The Commission noted that the IPE and IPEEE programs “have resulted in a number of plant procedural or programmatic improvements and some plant modifications that will further reduce the risk of severe accidents.” *Id.*

<sup>44</sup> *See id.*

presented us with such a “catch-22” situation<sup>45</sup> that we also feel compelled to refer this decision to the Commission, not under 10 C.F.R. § 2.335(d), but under 10 C.F.R. § 2.323(f)(1). We trust the Commission, in its review of our decision, will shed light on the interplay of 10 C.F.R. § 51.53(c)(3)(ii)(L) and 10 C.F.R. § 2.335(b).

#### IV. CONCLUSION

For the foregoing reasons, NRDC’s petition for a waiver of 10 C.F.R. § 51.53(c)(3)(ii)(L) is DENIED, and this decision of the Board is hereby REFERRED to the Commission pursuant to 10 C.F.R. § 2.323(f)(1).<sup>46</sup>

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<sup>45</sup> A catch-22 is a paradoxical situation in which an individual cannot or is incapable of avoiding a problem because of contradictory constraints or rules. Random House Dictionary (2012).

<sup>46</sup> We note that our denial of NRDC’s waiver petition does not terminate this proceeding. On July 9, 2012, NRDC filed with the Board a motion to admit a new environmental contention that challenges the failure of Exelon’s Environmental Report to address the environmental impacts of spent fuel pool leakage and fires, as well as the environmental impacts that may occur if a spent fuel repository does not become available. *See* NRDC’s Motion for Leave to File a New Contention Concerning Temporary Storage and Ultimate Disposal of Nuclear Waste at Limerick (July 9, 2012) [hereinafter New Contention Motion]. The New Contention Motion is based on the United States Court of Appeals for the District of Columbia Circuit’s decision in *State of New York v. NRC*, 681 F.3d 471 (D.C. Cir. 2012) which invalidated the NRC’s Waste Confidence Decision Update (75 Fed. Reg. 81,037 (Dec. 23, 2010)) and the NRC’s final rule regarding Consideration of Environmental Impacts of Spent Fuel After Cessation of Reactor Operation (75 Fed. Reg. 81,032 (Dec. 23, 2010)).

On August 7, 2012, the Commission issued CLI-12-16, wherein it found, “[I]n view of the special circumstances of this case, as an exercise of our inherent supervisory authority over adjudications, we direct that these [Waste Confidence] contentions — and any related contentions that may be filed in the near term — be held in abeyance pending our further order.” *Calvert Cliffs 3 Nuclear Project, LLC* (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-12-16, 76 NRC 63, 68-69 (2012). The Commission noted that “should we determine at a future time that case-specific challenges are appropriate for consideration, our normal procedural rules will apply.” *Id.* at 69 n.11. In an August 8, 2012 Order we held any participant or Board activity concerning this new contention in abeyance pending further Commission directive. *See* Order (Suspending Procedural Date Related to Proposed Waste Confidence Contention) (Aug. 8, 2012) (unpublished).

It is so ORDERED.

THE ATOMIC SAFETY AND  
LICENSING BOARD

William J. Froehlich, Chairman  
ADMINISTRATIVE JUDGE

Dr. Michael F. Kennedy  
ADMINISTRATIVE JUDGE

Dr. William E. Kastenber  
ADMINISTRATIVE JUDGE

Rockville, Maryland  
February 6, 2013

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**ATOMIC SAFETY AND LICENSING BOARD**

**Before Administrative Judges:**

**E. Roy Hawkens**, Chairman  
**Dr. Anthony J. Baratta**  
**Dr. Gary S. Arnold**

**In the Matter of**

**Docket Nos. 50-361-CAL  
50-362-CAL  
(ASLBP No. 13-924-01-CAL-BD01)**

**SOUTHERN CALIFORNIA  
EDISON COMPANY  
(San Onofre Nuclear Generating  
Station, Units 2 and 3)**

**February 8, 2013**

The Board denies a motion seeking sanctions against Petitioner for violating the governing Protective Order and Non-Disclosure Agreement, but imposes a document-review requirement upon Petitioner in light of its misconduct and to enhance future compliance with the proceeding's Protective Order.

**RULES OF PRACTICE: MOTIONS FOR SANCTIONS**

The regulatory authority empowering a Licensing Board to impose sanctions is found in 10 C.F.R. §§ 2.314(c) and 2.319.

**RULES OF PRACTICE: MOTIONS FOR SANCTIONS**

In determining whether to impose a sanction, and in determining what sanction is appropriate, a Licensing Board must consider the totality of circumstances in accordance with the following multifactor sanction test announced by the

Commission: “In selecting a sanction, boards should consider [1] the relative importance of the unmet obligation, [2] its potential for harm to other parties or the orderly conduct of the proceeding, [3] whether its occurrence is an isolated incident or a part of a pattern of behavior, [4] the importance of the safety or environmental concerns raised by the party, and [5] all of the circumstances.” *Statement of Policy on Conduct of Licensing Proceedings*, CLI-81-8, 13 NRC 452, 454 (1981).

**RULES OF PRACTICE: MOTIONS FOR SANCTIONS**

“Boards should attempt to tailor sanctions to mitigate the harm caused by the failure of a party to fulfill its obligations and bring about improved future compliance.” *Id.*

**RULES OF PRACTICE: MOTIONS FOR SANCTIONS; RELATIVE IMPORTANCE OF UNMET OBLIGATION**

Although Petitioner’s inadvertent publication of protective information was a serious offense that exposed the movant to potential economic harm and undermined the integrity of this adjudicative proceeding, the significance of Petitioner’s misconduct is alleviated to some degree by the immediate corrective action taken by Petitioner.

**RULES OF PRACTICE: MOTIONS FOR SANCTIONS; POTENTIAL HARM TO OTHER PARTIES OR THE PROCEEDING**

The harm factor of the sanction test has two components, requiring the Licensing Board to consider the potential harm to the other parties and the potential harm to the orderly conduct of the proceeding.

**RULES OF PRACTICE: MOTIONS FOR SANCTIONS; WHETHER THE DISCLOSURE WAS AN ISOLATED INCIDENT OR PART OF A PATTERN OF BEHAVIOR**

When considering whether a disclosure of proprietary information was an isolated incident or part of a pattern of behavior, the Licensing Board may consider, *inter alia*, the circumstances underlying the disclosure, the corrective action taken, and Petitioner’s representation that no disclosure will occur in the future.



**RULES OF PRACTICE: MOTIONS FOR SANCTIONS;  
IMPORTANCE OF THE SAFETY OR ENVIRONMENTAL  
CONCERNS RAISED BY PETITIONER**

An important health and safety issue referred to a Licensing Board by the Commission satisfies the importance factor of the multifactor sanction test.

**ORDER  
(Denying SCE's Motion for Sanctions Against  
Friends of the Earth for Violating the Protective Order,  
but Imposing an Enhanced Document-Review Requirement)**

**I. BACKGROUND**

On November 8, 2012, the Commission in CLI-12-20 referred to the Atomic Safety and Licensing Board Panel (ASLBP) two issues from the June 18, 2012 intervention petition filed by Friends of the Earth (Petitioner) challenging a Confirmatory Action Letter (CAL) issued by the NRC to Southern California Edison Company (SCE) on March 27, 2012.<sup>1</sup>

Following its establishment on November 19, 2012,<sup>2</sup> this Licensing Board held a conference call to discuss the procedural path forward.<sup>3</sup> On December 7, 2012, we issued an Order that, *inter alia*, directed SCE, in coordination with Petitioner, to submit a proposed Protective Order and Non-Disclosure Agreement regarding proprietary documents that appear to be relevant to the issue of whether the CAL constitutes a *de facto* license amendment.<sup>4</sup>

On December 10, 2012, we granted a joint motion from SCE and Petitioner for entry of a Protective Order and Non-Disclosure Agreement,<sup>5</sup> and on December 12,

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<sup>1</sup> See CLI-12-20, 76 NRC 437, 440-41 (2012). The Commission referred the following two issues to the ASLBP: (1) whether the CAL issued to SCE constitutes a *de facto* license amendment that is subject to a hearing opportunity; and (2) whether Petitioner's hearing request meets the agency's standing and contention admissibility requirements. *See id.*

<sup>2</sup> See Southern California Edison Co.; Establishment of Atomic Safety and Licensing Board, 77 Fed. Reg. 70,487 (Nov. 26, 2012).

<sup>3</sup> See Licensing Board Order (Scheduling Conference Call) (Nov. 26, 2012) (unpublished).

<sup>4</sup> See Licensing Board Order (Conference Call Summary and Directives Relating to Briefing) (Dec. 7, 2012) at 4 (unpublished).

<sup>5</sup> See Licensing Board Order (Granting Joint Motion for Entry of a Protective Order and Non-Disclosure Agreement) (Dec. 10, 2012) (unpublished) [hereinafter Protective Order]. As relevant here, the Protective Order (and the Non-Disclosure Agreement, which effectively incorporates the terms of the Protective Order) includes the following provisions: (1) only persons who execute a

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2012, SCE transmitted the specified proprietary documents to Petitioner and this Board.<sup>6</sup>

Pursuant to the briefing schedule in this Board's December 20, 2012 Order,<sup>7</sup> Petitioner filed its opening brief with attachments on January 11, 2013. Petitioner filed two versions of its brief — a redacted version from which Petitioner purported to have removed all references to proprietary information from the brief and attachments, and an unredacted version. Consistent with standard adjudicative practice, the NRC posted the redacted version of the pleading to the publicly accessible Agency Documents Access and Management System (ADAMS) database; Petitioner also posted the redacted version on its website. Petitioner provided the unredacted version of its pleading only to the Board and SCE.

On January 22, 2013, SCE moved for sanctions against Petitioner, stating that Petitioner violated the Protective Order and Non-Disclosure Agreement by improperly including proprietary information in an affidavit attached to the redacted version of its brief, which was made accessible to the public on the NRC ADAMS database and on Petitioner's website.<sup>8</sup> SCE urges this Board to strike all protected information from Petitioner's pleadings and to prohibit the further use of protected information by Petitioner.<sup>9</sup>

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Non-Disclosure Affidavit shall be authorized access to information designated by SCE as proprietary (*id.* at 1, 2); (2) Petitioner "shall not provide [proprietary information] to anyone not authorized to receive it" and "shall take all reasonable precautions to ensure that [proprietary information] is not distributed to unauthorized persons" (*id.* at 2); and (3) "[a]ny violation of the Protective Order or any Non-Disclosure Affidavit executed hereunder may result in the imposition of sanctions as the [Licensing Board] or the Commission may deem to be appropriate." *Id.* at 4.

<sup>6</sup> See Letter from Steven P. Frantz, SCE counsel, to Board, Transmittal of Proprietary Documents per Licensing Board's December 7, 2012 Order (Dec. 12, 2012).

<sup>7</sup> See Licensing Board Order (Granting in Part and Denying in Part Petitioner's Motion for Clarification and Extension) (Dec. 20, 2012) (unpublished).

<sup>8</sup> See [SCE's] Motion for Sanctions Against Friends of the Earth for Violating the Protective Order (Jan. 22, 2013) [hereinafter Motion for Sanctions].

Several days earlier, on January 18, 2013, Petitioner's counsel, Richard Ayres, filed a letter with this Board in which he acknowledged that Petitioner's expert, John Large, had "inadvertently described and/or included proprietary information" in his affidavit attached to the publicly disclosed copy of Petitioner's opening brief. See Letter from Richard Ayres, Petitioner's Counsel, to Board (Jan. 18, 2013) [hereinafter Ayres Jan. 18 Letter]. As corrective action, Mr. Ayres (1) took prompt steps to have the offending affidavit removed from the NRC ADAMS database and Petitioner's website, and (2) promptly provided the Board and SCE with a corrected (i.e., properly redacted) affidavit. See *id.*; *infra* Part II.B.1.

<sup>9</sup> See Motion for Sanctions at 7. SCE states (*id.* at 5) that Petitioner made unauthorized disclosures of proprietary information in four separate places in the Affidavit of John Large (Large Affidavit). To minimize the risk of contributing further to the dissemination of protected information, we will only refer to the disclosures generally.

On January 25, 2012, Petitioner filed an opposition to SCE's motion, arguing that its violation of the Protective Order and Non-Disclosure Agreement was unintentional and, in the totality of the circumstances, does not warrant the severe sanctions sought by SCE.<sup>10</sup> The NRC Staff filed an answer in which it declined to take a position with respect to what sanctions, if any, the Board should impose on Petitioner.<sup>11</sup>

## II. ANALYSIS

### A. Petitioner Violated the Protective Order and Thus Committed a Potentially Sanctionable Offense

As the party moving for sanctions, SCE has the burden of establishing by a preponderance of the evidence that Petitioner violated the Protective Order. *See* 10 C.F.R. § 2.325. That burden has been satisfied here, because Petitioner concedes it inadvertently disclosed proprietary information in derogation of the Protective Order. *See* Petitioner's Answer at 2; Ayres Jan. 18 Letter at 1.

The violation of any adjudicative order is a serious, and potentially sanctionable, offense. As the Commission has stated, every participant in an NRC adjudicative proceeding has the duty to "fulfill the obligations imposed by and in accordance with applicable law," and "[w]hen a participant fails to meet its obligations, a [licensing] board should consider the imposition of sanctions against the offending party." *Statement of Policy on Conduct of Licensing Proceedings*, CLI-81-8, 13 NRC 452, 453, 454 (1981).<sup>12</sup>

Consistent with the above principle, SCE asks this Board to impose the following sanctions (Motion for Sanctions at 7): (1) strike all protected information in Petitioner's pleadings; (2) require all individuals who signed Non-Disclosure Agreements to return or destroy all protected information; and (3) modify the Protective Order to prohibit further use by Petitioner of protected information in this proceeding. SCE acknowledges that these sanctions are "strict," but it claims they are necessary to protect against future harm to its proprietary interests as well as to safeguard the integrity of the NRC adjudicatory process. *Id.*<sup>13</sup>

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<sup>10</sup> *See* Friends of the Earth's Answer to [SCE's] Motion for Sanctions Against Friends of the Earth (Jan. 25, 2013) [hereinafter Petitioner's Answer].

<sup>11</sup> *See* NRC Staff's Answer to SCE's Motion for Sanctions (Jan. 28, 2013).

<sup>12</sup> The regulatory authority for imposing the type of sanctions sought by SCE is 10 C.F.R. § 2.319, which confers on Licensing Boards "all the powers necessary" to perform its duties (*id.*), including the powers to "regulate the . . . conduct of the participants" (*id.* § 2.310(g)), and to "issue orders necessary to carry out [its] duties and responsibilities" (*id.* § 2.310(q)).

<sup>13</sup> SCE correctly notes that other, more severe, sanctions can be appropriate for failing to comply  
(Continued)

Determining whether to impose a sanction, and determining what sanction is appropriate, are issues that require this Board to consider the totality of circumstances in accordance with the following multifactor sanction test announced by the Commission:

In selecting a sanction, boards should consider [1] the relative importance of the unmet obligation, [2] its potential for harm to other parties or the orderly conduct of the proceeding, [3] whether its occurrence is an isolated incident or a part of a pattern of behavior, [4] the importance of the safety or environmental concerns raised by the party, and [5] all of the circumstances.

*Statement of Policy on Conduct of Licensing Proceedings*, CLI-81-8, 13 NRC at 454. “Boards should attempt to tailor sanctions to mitigate the harm caused by the failure of a party to fulfill its obligations and bring about improved future compliance.” *Id.*

**B. Applying the Commission’s Multifactor Sanction Test, We Conclude That the Severe Sanctions Requested by SCE Are Not Warranted**

We now proceed to apply the Commission’s multifactor sanction test, and for the reasons given below, we conclude that, in the totality of the circumstances presented, the severe sanctions sought by SCE are not warranted. In reaching this conclusion, we do not mean to minimize the seriousness of Petitioner’s offense. Petitioner unquestionably should have had a more effective review process in place to avoid violating this Board’s Order and improperly disclosing SCE’s proprietary information. Accordingly, consistent with our responsibility to endeavor to “bring about improved future compliance” with the Protective Order (CLI-81-8, 13 NRC at 454), we direct Petitioner to comply with the enhanced document-review process described *infra* Part III.

**1. The Relative Importance of Petitioner’s Unmet Obligation**

Petitioner’s violation of the Protective Order is a serious offense. The Protective Order imposed an explicit and unambiguous obligation on Petitioner to prevent the disclosure of proprietary information to unauthorized persons.

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with orders, “such as dismissing contentions, sanctioning counsel, or dismissing a party from a proceeding.” Motion for Sanctions at 7; *see also* 10 C.F.R. § 2.314(c) (authorizing Licensing Boards to impose on contumacious parties or their representatives reprimands, censures, or suspensions from proceedings). SCE seeks none of these harsher sanctions, nor would they be warranted in the present circumstances in any event.

Moreover, Petitioner executed an affidavit that acknowledged and accepted that obligation. Petitioner's failure to comply with the obligation embedded in this Board's Protective Order was misconduct that exposed SCE to potential economic harm and that undermined the integrity of this adjudicative proceeding. Such misconduct is rightly deserving of objurgation.<sup>14</sup>

Although we view Petitioner's violation of the Protective Order as significant misconduct, we conclude that the significance of Petitioner's misconduct is alleviated to some degree by the immediate corrective action taken by Petitioner. SCE notified Petitioner about the wrongful disclosure of proprietary information contained in the Large Affidavit on the morning of January 18, 2013. *See* Motion for Sanctions at 3. That same day, in compliance with paragraph 8 of the Protective Order, Petitioner's counsel notified the Board about the disclosures (*see* Ayres Jan. 18 Letter at 1), and he represented that (1) the Large Affidavit would be removed from the NRC ADAMS database, and (2) Mr. Large was reviewing the offending affidavit to assure that all proprietary information would be redacted. *See id.* at 1-2.<sup>15</sup> Additionally, Petitioner represents (and SCE does not dispute) that it removed the Large Affidavit from Petitioner's website within 4 hours of being notified. *See* Petitioner's Answer at 4. Petitioner states that these corrective actions "demonstrate the seriousness with which [it] views its obligations under the Protective Order," and it declares that such disclosures "will not happen in the future." *Id.* at 5.<sup>16</sup>

In our view, Petitioner's prompt and seemingly good-faith remedial actions mitigate the significance of its misconduct and militate against a severe sanction.

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<sup>14</sup> Throughout this decision, we refer to Petitioner's misconduct, when in fact, it was Petitioner's expert and Petitioner's counsel who are blameworthy — the former because he negligently failed to redact all proprietary information from the public version of his affidavit, and the latter because they should have had more effective review systems in place to avoid the wrongful disclosures of proprietary information. Nevertheless, as the Supreme Court has explained, in our system of representative litigation, to the extent that Petitioner's counsel is blameworthy, Petitioner may be held accountable:

Petitioner voluntarily chose this attorney as his representative in the action, and he cannot now avoid the consequences of the acts or omissions of this freely selected agent. Any other notion would be wholly inconsistent with our system of representative litigation, in which each party is deemed bound by the acts of his lawyer-agent . . . .

*Link v. Wabash Railroad Co.*, 370 U.S. 626, 633-34 (1962).

<sup>15</sup> On January 23, 2012, Petitioner filed a correctly redacted version of the Large Affidavit on the NRC ADAMS database. *See* Petitioner's Answer at 3.

<sup>16</sup> In its Answer, Petitioner included a memorandum from Mr. Large in which he "apologi[z]ed to the [Licensing Board] for any inconvenience that this quite unintentional error on [his] part may have caused." *See* Attachment 1 to Petitioner's Answer. We view Mr. Large's apology, coupled with Petitioner's prompt corrective actions and its representation that no wrongful disclosures will recur, as indicators in support of Petitioner's claim that its violation was inadvertent. *See infra* Part II.B.3.

## **2. *Potential for Harm to SCE or to the Orderly Conduct of the Proceeding***

This factor has two components, requiring us to consider the potential harm to SCE and the potential harm to this proceeding. Regarding the former, there can be no serious question that the unauthorized disclosure of SCE's proprietary information exposes SCE to potential harm. The Protective Order put Petitioner on notice of this fact by stating that "any actual or anticipated unauthorized disclosure of [proprietary information] constitutes immediate and irreparable harm." Protective Order at 5.

We stress that we do not read the above sentence from the Protective Order as establishing at this juncture that SCE suffered actual economic injury, much less irreparable harm; rather, this sentence, when read in its entirety, is designed to provide SCE with an uncontested basis for seeking "an injunction and other equitable remedies" if it encounters "actual or anticipated unauthorized disclosure of [proprietary information]." Protective Order at 5. Nor does SCE assert that it has suffered, or is at imminent risk of suffering, particularized harm due to Petitioner's unauthorized disclosures. Under these circumstances, and especially in light of Petitioner's immediate corrective actions (*supra* Part II.B.1), we conclude that the first component of this factor — i.e., the potential harm of Petitioner's misconduct on SCE — does not weigh in favor of the severe sanctions sought by SCE.<sup>17</sup>

Regarding the second component of this factor — i.e., the potential harm of Petitioner's misconduct on this proceeding — it cannot be gainsaid that a party's failure to fulfill the legal obligations imposed by an adjudicative order casts a pall on the integrity, fairness, and orderly conduct of the adjudicative proceeding. *Cf. Statement of Policy on Conduct of Licensing Proceedings*, CLI-81-8, 13 NRC at 454 ("Fairness to all involved in NRC's adjudicatory procedures requires that every participant fulfill the obligations imposed by and in accordance with applicable law and Commission regulations."). Nevertheless, Petitioner's prompt remedial actions and its representation that similar disclosures will not occur in the future minimize the risk of harm to the orderly conduct of this proceeding, which allays the need for a severe sanction. *See supra* Part II.B.1 & n.16.

## **3. *Whether the Disclosure Was an Isolated Incident or Part of a Pattern of Behavior***

Petitioner represents that its wrongful disclosure of SCE's proprietary informa-

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<sup>17</sup> Should the potential harm to SCE ripen into actual economic injury, the Protective Order provides that the parties agree that the "participant effectuating the actual . . . unauthorized disclosure shall be liable . . . for legal damages." Protective Order at 5. Of course, our action here does not impinge on the ability of any party to take appropriate action under this provision.

tion was an isolated and unintentional incident that will not recur. *See* Petitioner’s Answer at 3-4. We accept this representation for the following reasons.

As Petitioner states (Petitioner’s Answer at 3, 4), the “four pieces of [improperly disclosed] proprietary information” were in the Large Affidavit, which was a “highly technical expert affidavit, a 62-page attachment” to Petitioner’s opening brief. Mr. Large represents that his failure to redact that information was an “unintentional error on [his] part” (Attachment 1 to Petitioner’s Answer), and he apologized for his oversight. *See id.* Counsel for Petitioner likewise represents that the wrongful disclosure was “unintentional” (Petitioner’s Answer at 1), as evidenced by the fact that (1) Petitioner did nothing to highlight the existence of these pieces of proprietary information (*see id.* at 4),<sup>18</sup> (2) as soon as Petitioner became aware of the accidental disclosures, it took prompt steps to notify this Board and to remove the Large Affidavit from the public domain (*see id.*; Ayres Jan. 18 Letter at 1-2), and (3) Mr. Large promptly reviewed his redacted affidavit to assure that all proprietary information was properly expunged. *See* Ayres Jan. 18 Letter at 1; Attachment 1 to Petitioner’s Answer. Finally, Petitioner’s counsel represents that Petitioner is acutely mindful of its obligations under the Protective Order and “assures the Board that [Petitioner] will take steps to ensure that . . . inadvertent disclosures will not happen in the future.” Petitioner’s Answer at 5.

The above circumstances support a conclusion that Petitioner’s disclosure of SCE’s proprietary information was an isolated incident that will not recur, which militates against a severe sanction.

#### ***4. Importance of the Safety or Environmental Concerns Raised by Petitioner***

Finally, we have no difficulty concluding that the issue advanced by Petitioner and referred to us by the Commission in CLI-12-20 raises important concerns related to the safety of the steam generators at San Onofre Nuclear Generating Station — namely, whether the CAL issued to SCE constitutes a *de facto* license amendment that should be subject to a hearing opportunity. As Petitioner states (Petitioner’s Answer at 5), “[w]hat is at stake in this case is whether the health

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<sup>18</sup>In the publicly accessible version of its opening brief, Petitioner made no argument that referenced the wrongfully disclosed proprietary information. *See* Petitioner’s Answer at 3.

Petitioner seemingly attempts to blame SCE for allegedly casting a public spotlight on the proprietary information, asserting that, whereas Petitioner “did not . . . spotlight the accidental disclosures” (Petitioner’s Answer at 1 n.1), “SCE has made the proprietary information inadvertently disclosed *more* available to the public by highlighting in its Motion exactly which proprietary information was disclosed.” *Id.* at 4. Contrary to Petitioner’s intimation, SCE is not to be faulted for explaining to this Board with specificity the scope of Petitioner’s misconduct.

and safety risks to millions of people will be fully vetted in a proper license amendment proceeding.” We agree with Petitioner that this important concern will “best [be] served by continuing to allow all relevant information to be used in arguments before the Board, including SCE’s [relevant] proprietary information.” *Id.* Our determination in this regard counsels against the severe sanctions sought by SCE.

### III. CONCLUSION

After considering the totality of the circumstances in the framework of the Commission’s multifactor sanction test, we conclude that SCE’s motion for sanctions must be *denied*. Nevertheless, in light of the seriousness of Petitioner’s misconduct (*supra* Part II.B.1), and in furtherance of our responsibility to enhance future compliance with the Protective Order (*see* CLI-81-8, 13 NRC at 454), we impose on Petitioner the following document-review requirement. For any future document filed by Petitioner that uses SCE’s proprietary information, Petitioner shall initially file its redacted version as a proprietary filing, and SCE will have 1 week to review the document to verify that it contains no proprietary information. If SCE verifies that the redacted version contains no proprietary information, Petitioner shall promptly coordinate with the NRC Office of the Secretary (SECY) to have the document refiled as nonproprietary. On the other hand, if, upon review, SCE and Petitioner determine that a revised version of the redacted document must be filed, Petitioner will coordinate with SECY to remove the previously filed redacted document from the docket, and Petitioner will promptly file the revised (i.e., properly redacted) version in the public docket.



It is so ORDERED.

THE ATOMIC SAFETY AND  
LICENSING BOARD

E. Roy Hawkens, Chairman  
ADMINISTRATIVE JUDGE

Dr. Anthony J. Baratta  
ADMINISTRATIVE JUDGE

Dr. Gary S. Arnold  
ADMINISTRATIVE JUDGE

Rockville, Maryland  
February 8, 2013

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**ATOMIC SAFETY AND LICENSING BOARD**

**Before Administrative Judges:**

**Alan S. Rosenthal**, Chairman  
**Ronald M. Spritzer**  
**Brian K. Hajek**

**In the Matter of**

**Docket No. 55-23694-SP**  
**(ASLBP No. 13-925-01-SP-BD01)**

**CHARLISSA C. SMITH**  
**(Denial of Senior Reactor Operator**  
**License)**

**February 19, 2013**

An applicant for a Senior Reactor Operator (SRO) license filed a demand for hearing pursuant to 10 C.F.R. § 2.103(b)(2) after she was denied a license. The Board grants the applicant's demand for hearing.

**REGULATIONS: INTERPRETATION (10 C.F.R. §§ 2.103(b)(2), 2.309(f)(1))**

Section 2.103(b)(2) of 10 C.F.R. grants SRO license applicants who have been denied a license "[t]he right . . . to demand a hearing within twenty (20) days from the date of the [denial notice]." By contrast, the requirement of 10 C.F.R. § 2.309(f)(1) to file contentions, and thus the requirement to satisfy the contention admissibility requirements, applies only to "hearing requests" and "petitions to intervene."

**REGULATIONS: REGULATORY INTERPRETATION**

A person authorized to make a “demand” is generally understood to have the right to the matter that is the subject of the demand. One authorized to make a “request,” by contrast, is merely given permission to ask for something, not to demand it.

**REGULATIONS: REGULATORY INTERPRETATION**

The usual rule of regulatory interpretation is that “different language is intended to mean different things.” *Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site Decontamination and Decommissioning Funding), LBP-94-5, 39 NRC 54, 72 (1994) (citing *United States v. Stauffer Chemical Co.*, 684 F.2d 1174, 1186 (6th Cir. 1982), *aff’d*, 464 U.S. 165 (1984)). The application of this precept may be suspended if the purpose or regulatory history behind the language shows that no difference was intended.

**REGULATIONS: INTERPRETATION (10 C.F.R. §§ 2.103(b)(2), 2.309(f)(1))**

A hearing “demand” under 10 C.F.R. § 2.103(b)(2) is not the same as a “hearing request” under 10 C.F.R. § 2.309(f)(1). Therefore, a hearing demand under 10 C.F.R. § 2.103(b)(2) need not meet the admissibility standards of section 2.309(f)(1).

**REGULATIONS: REGULATORY INTERPRETATION**

“[E]quivalent words have equivalent meaning when repeated in the same statute.” *Cohen v. de la Cruz*, 523 U.S. 213, 220 (1998) (citing *Ratzlaf v. United States*, 510 U.S. 135, 143 (1994)).

**REGULATIONS: REGULATORY INTERPRETATION**

The rules of interpretation applicable to statutes are equally germane in determining a regulation’s meaning. *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Unit 1), LBP-95-17, 42 NRC 137, 143 (1995), *rev’d on other grounds*, CLI-96-13, 44 NRC 315 (1996).

**REGULATIONS: INTERPRETATION (10 C.F.R. §§ 2.103(b)(2), 2.309(f)(1))**

An applicant denied an SRO license has the right to demand a hearing, rather

than being required to negotiate the contention admissibility requirements and a possible appeal.

**RULES OF PRACTICE: DENIAL LETTERS**

An applicant for an SRO license is entitled to take an NRC-issued denial letter at face value, including its instructions and references to applicable regulations.

**RULES OF PRACTICE: DENIAL LETTERS**

The NRC Staff cannot saddle an applicant with the consequences of its having improvidently furnished her a denial letter that contained apparent boilerplate that was incomplete and perforce misleading. This does not accord with concepts of fundamental fairness.

**REGULATIONS: NRC STAFF RESPONSIBILITIES**

Section 2.103(b) of 10 C.F.R. requires the appropriate office director to “inform” the SRO applicant of the right to demand a hearing. If the applicant indeed must comply with section 2.309(f)(1), but the office director failed to comply with his responsibility to “inform” the applicant of such a requirement, then the agency cannot take advantage of the applicant’s ignorance of information the agency itself was obligated to provide.

**RULES OF PRACTICE: COMMISSION EXPECTATIONS**

The Commission justifiably expects that all applicable provisions of the Rules of Practice will be observed in adjudicatory submissions. It is reasonable to assume, however, that it also expects the Staff to turn square corners with those with whom it deals, including applicants for SRO licenses.

**DECISION**  
**(Granting Demand for Hearing)**

Before this Atomic Safety and Licensing Board is the timely December 5, 2012, demand of Charlissa C. Smith, filed pursuant to 10 C.F.R. § 2.103(b)(2), for a hearing on the November 15, 2012, denial of her application for a Senior Reactor Operator (SRO) license. The demand is opposed by the Nuclear Regulatory Commission (NRC) Staff. For the reasons stated in this decision, the hearing demand is granted.

## I. BACKGROUND

An SRO is “any individual licensed under [10 C.F.R. Part 55] to manipulate the controls of a facility and to direct the licensed activities of licensed operators.”<sup>1</sup> To obtain an SRO license, the applicant must pass both the written examination and the operating test and meet the other requirements specified in 10 C.F.R. Part 55.<sup>2</sup>

Should, however, an applicant pass only one of the two examinations, she will not receive a license. In that circumstance, the applicant may elect to retake the tests. In this scenario, the regulations governing the application process provide that “[a]n applicant who has passed either the written examination or operating test and failed the other may request in a new application on Form NRC-398 to be excused from reexamination on the portions of the examination or test which the applicant has passed.”<sup>3</sup> Effectively, the applicant is able to request a waiver of the portion of the examination that she passed. In making such a request, the applicant must mark the appropriate box on form NRC-398 and provide supporting comments.<sup>4</sup> Additionally, “[t]he facility licensee’s senior management representative on site must certify the final license application, thereby substantiating the basis for the applicant’s waiver request.”<sup>5</sup> Once the waiver request has been signed by both the applicant and the licensee and has been submitted, the NRC has the discretion to grant the request “if it determines that sufficient justification is presented.”<sup>6</sup>

In March 2011, Ms. Smith took the written examination and the operating test for an SRO license at her place of employment, the Vogtle Electric Generating Plant.<sup>7</sup> She failed the written examination and passed the operating test.<sup>8</sup> Because she did not pass both components, Ms. Smith was not eligible to receive an SRO license at that time.

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<sup>1</sup> 10 C.F.R. § 55.4.

<sup>2</sup> *Id.* § 55.33(a); *see* NUREG-1021, “Operator Licensing Examination Standards for Power Reactors,” at ES-101-1 (rev. 9 July 2004 & supp. 1 Oct. 2007) (ADAMS Accession Nos. ML042320438, ML072970315) [hereinafter NUREG-1021]. The provisions of 10 C.F.R. Part 55 govern applications for Reactor Operator and SRO licenses. 10 C.F.R. § 55.1.

<sup>3</sup> 10 C.F.R. § 55.35(b); *see* NUREG-1021, at ES-204-3.

<sup>4</sup> NUREG-1021, at ES-204-1.

<sup>5</sup> *Id.*

<sup>6</sup> 10 C.F.R. § 55.35(b); *see* NUREG-1021, at ES-204-3.

<sup>7</sup> Letter from Ho K. Nieh, Director, Division of Inspection and Regional Support, Office of Nuclear Reactor Regulation, NRC, to Charlissa C. Smith (Nov. 15, 2012), enclosure 2, at 1 (ADAMS Accession No. ML12307A152) [hereinafter Denial Letter].

<sup>8</sup> Demand for Hearing (Dec. 5, 2012) at 1; Denial Letter, enclosure 2, at 1-2; *see* NRC Staff’s Response to Ms. Charlissa C. Smith’s Request for Hearing on Denial of Application for [an SRO] License (Dec. 31, 2012) at 3 [hereinafter NRC Response].

After the March 2011 test results were received, the Chief Examiner and Examiner of Record determined that Ms. Smith was not a good candidate for a waiver of the operating test should she decide to retake the examination.<sup>9</sup> The assigned reason was that her performance on that test in 2011 was “marginal or borderline.”<sup>10</sup> In August 2011, Southern Nuclear Operating Co., Inc. (licensee), the owner of the Vogtle facility, e-mailed Michael Meeks, who was the Chief Examiner on the evaluation team for the 2012 examination, and inquired as to whether Region II would approve a waiver for Ms. Smith.<sup>11</sup> After talking with persons with knowledge of the 2011 examination, Mr. Meeks responded that, should a waiver request be submitted for Ms. Smith, the Region II office would likely deny it.<sup>12</sup> As to the other persons who also failed the written examination and passed the operating test, Mr. Meeks stated that they would likely receive “routine waivers approved by Region II.”<sup>13</sup> Ultimately, the final form NRC-398 submitted to the NRC jointly by Ms. Smith and the licensee did not request a waiver.<sup>14</sup>

In April 2012, Ms. Smith retook both the operating test and the written examination, this time failing the former and passing the latter.<sup>15</sup> This prompted her to request, on June 5, 2012, an informal administrative review of the denial of her SRO license application in accordance with NUREG-1021.<sup>16</sup> Ms. Smith’s assertions before the informal review panel, as characterized by the Staff, concerned “1) the manner in which [the] examiners conducting the 2012 examinations applied the guidelines of NUREG-1021 concerning operating test waivers and 2) examiner bias.”<sup>17</sup>

In response to Ms. Smith’s request, the Staff conducted an informal administrative review of her allegations.<sup>18</sup> In a November 15, 2012, letter, the Staff detailed its findings and ultimately upheld the NRC’s prior denial of Ms. Smith’s SRO

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<sup>9</sup> Denial Letter, enclosure 2, at 3.

<sup>10</sup> *Id.*

<sup>11</sup> Demand for Hearing at 12; *see* Denial Letter, enclosure 2, at 4; NRC Response at 3. Mr. Meeks was not involved with Ms. Smith’s 2011 examination. Demand for Hearing at 12.

<sup>12</sup> Demand for Hearing at 2, 13.

<sup>13</sup> *Id.* at 2.

<sup>14</sup> *Id.* at 3-4. Originally, Ms. Smith marked the appropriate box on form NRC-398 to request a waiver. *Id.* at 4. After the waiver request was received, the licensee received a phone call from the NRC asking if the waiver request was an error. *Id.* The licensee confirmed this and withdrew the waiver request. *Id.* Part of the alleged rationale for withdrawing the request was that a waiver could not be processed in time for the next examination. *Id.*

<sup>15</sup> Demand for Hearing at 6; Denial Letter, enclosure 2, at 1.

<sup>16</sup> *See* Denial Letter at 1; NUREG-1021, at ES-502-1 to -4.

<sup>17</sup> Denial Letter, enclosure 2, at 1.

<sup>18</sup> *See generally id.*

license application.<sup>19</sup> Specifically, the letter concluded that Ms. Smith “did not receive a waiver . . . because the facility licensee did not request a waiver on [her] behalf,” that her claim that the “examiners discouraged the facility licensee from requesting a waiver . . . is unsubstantiated,” and that her “contention of bias by examiners in administering or evaluating her operating test is unsubstantiated.”<sup>20</sup>

The denial letter stated that, if she did not “accept the proposed denial” Ms. Smith could, “within 20 days of the date of th[e] letter, request a hearing pursuant to 10 C.F.R. 2.103 (b)(2).”<sup>21</sup> The letter instructed that a hearing request must be submitted in writing to the NRC’s Office of the Secretary, with a copy to the Associate General Counsel for Hearings, Enforcement, and Administration at a specified address.<sup>22</sup> The letter further explained that, if Ms. Smith wished to submit her request “via private courier (e.g., FedEx, UPS),” she should use an alternative address.<sup>23</sup> Also, the letter stated that “[f]ailure on your part to request a hearing within 20 days constitutes a waiver of your right to demand a hearing.”<sup>24</sup> The letter made no mention of any other requirement that would affect Ms. Smith’s right to demand a hearing. On December 5, 2012, 20 days after the date of the denial letter, Ms. Smith’s demand for a hearing, sent via Federal Express, was received by the NRC.<sup>25</sup>

In her hearing demand, Ms. Smith makes a number of allegations concerning both the April 2012 test and the NRC’s informal administrative review.<sup>26</sup> As to the test, she first alleges that the NRC employed a nonstandard waiver denial procedure reflecting an overly subjective process.<sup>27</sup> She also claims that the examiners for her second operating test prejudged her qualifications based on their perception of her performance on the first operating test, and that under the NRC’s procedures this presented a conflict of interest that should have led to a different examination team for the second test.<sup>28</sup> She further alleges that, during the operating test, she received a higher level of scrutiny than other applicants.<sup>29</sup> And she states the examination requirements were changed from those provided in the preapproved test outline, making it more likely she would

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<sup>19</sup> *See generally id.*

<sup>20</sup> *Id.* enclosure 2, at 8.

<sup>21</sup> *Id.* at 1. The provisions of 10 C.F.R. § 2.103(b) are set forth *infra* Part II.

<sup>22</sup> *Id.*

<sup>23</sup> *Id.*

<sup>24</sup> *Id.* at 2.

<sup>25</sup> *See* Demand for Hearing.

<sup>26</sup> *Id.*

<sup>27</sup> *Id.* at 3-6.

<sup>28</sup> *Id.* at 5-6.

<sup>29</sup> *Id.* at 6.

fail.<sup>30</sup> Concerning the NRC's informal administrative review, Ms. Smith claims the reviewers were unresponsive to her claims, improperly altered the terms of a certain portion of the examination, and inappropriately provided new comments regarding her examination performance in addition to those originally recorded by the examiners.<sup>31</sup>

In its response, the Staff contends that Ms. Smith's hearing demand should be denied because its contents do not meet the contention admissibility standards set forth in 10 C.F.R. § 2.309(f)(1).<sup>32</sup> The Staff maintains that Ms. Smith's allegations are not supported by an adequate factual basis and that her waiver claim is "not material to the findings the NRC must make to support denial of an SRO license."<sup>33</sup>

On January 23, 2013, the Board held oral argument on the hearing demand and the opposition thereto. After setting forth its position that the contention admissibility criteria of 10 C.F.R. § 2.309(f)(1) apply to hearing demands related to the denial of SRO licenses, the Staff acknowledged that "[t]here is no single sentence" that directly states that Ms. Smith's filings had to meet the requirements of section 2.309.<sup>34</sup> When asked what result would come if section 2.309 were not to apply to Ms. Smith's hearing demand, the Staff responded that "[a]bsent the pleading requirements, Ms. Smith's pleading would be admitted."<sup>35</sup>

## II. RELEVANT REGULATORY PROVISIONS

Section 2.103(b) of 10 C.F.R., which authorizes Ms. Smith to demand a hearing on the denial of her SRO license, provides, in relevant part:

If the Director, Office of Nuclear Reactor Regulation, Director, Office of New Reactors, Director, Office of Federal and State Materials and Environmental Management Programs, or Director, Office of Nuclear Material Safety and Safeguards, as appropriate, finds that an application does not comply with the requirements of the Act and this chapter he may issue a notice of proposed denial or a notice of denial of the application and inform the applicant in writing of:

(1) The nature of any deficiencies or the reason for the proposed denial or the denial, and

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<sup>30</sup> *Id.* at 6-8.

<sup>31</sup> *Id.* at 9.

<sup>32</sup> The provisions of 10 C.F.R. § 2.309(f)(1) are set forth *infra* Part II.

<sup>33</sup> NRC Response at 8-14.

<sup>34</sup> Tr. at 27.

<sup>35</sup> *Id.* at 36.



(2) The right of the applicant to demand a hearing within twenty (20) days from the date of the notice or such longer period as may be specified in the notice.<sup>36</sup>

Section 2.309(f)(1) of 10 C.F.R., relied upon by the Staff to bar Ms. Smith's demand for a hearing, was added to the regulations in the 2004 revision of the NRC Rules of Practice.<sup>37</sup> It provides:

A request for hearing . . . must set forth with particularity the contentions sought to be raised. For each contention, the request or petition must:

- (i) Provide a specific statement of the issue of law or fact to be raised or controverted;
- (ii) Provide a brief explanation of the basis for the contention;
- (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;
- (iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;
- (v) Provide a concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position . . . ;
- (vi) . . . [P]rovide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact.<sup>38</sup>

### III. ANALYSIS

One key fact is undisputed. Ms. Smith did exactly what was required of her by the directions provided in the Staff's denial letter: she filed a timely demand for a hearing with the NRC pursuant to 10 C.F.R. § 2.103(b)(2) via Federal Express. In response, the Staff initially argued that her hearing demand should be denied because (1) she failed to file electronically through the agency's Electronic Information Exchange, as required by 10 C.F.R. § 2.302; and (2) her demand failed to satisfy the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1).<sup>39</sup> The Staff later abandoned its objection to the manner in which the hearing demand was filed.<sup>40</sup> The second argument, however, remains before the Board. We reject that argument for two reasons, each of which is sufficient to support our ruling. First, as explained in Section A, below, the contention admissibility requirements do not apply to hearing demands submitted under

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<sup>36</sup> 10 C.F.R. § 2.103(b).

<sup>37</sup> See 69 Fed. Reg. 2182.

<sup>38</sup> 10 C.F.R. § 2.309(f)(1).

<sup>39</sup> NRC Response at 1-2, 6-9.

<sup>40</sup> NRC Staff Reply to Ms. Charlissa Smith's Response to NRC Staff Request to Deny Hearing Request (Jan. 10, 2013) at 1-2. In any event, the Staff's objection was without merit.

section 2.103(b)(2). Second, as explained in Section B, Ms. Smith lacked actual and constructive notice of the contention admissibility requirements the Staff now asserts she was required to satisfy.

A. Section 2.103(b)(2) unequivocally grants Ms. Smith “[t]he right . . . to *demand* a hearing within twenty (20) days from the date of the [denial notice].”<sup>41</sup> By contrast, the requirement of section 2.309(f)(1) to file contentions, and thus the requirement to satisfy the contention admissibility requirements, applies only to “hearing requests” and “petitions to intervene.”<sup>42</sup> This case obviously does not involve a petition to intervene. Thus, for the Staff’s argument to apply, the Board would have to conclude that a hearing “demand” filed as of right under section 2.103(b)(2) is a “hearing request” under section 2.309(f)(1).

The Board declines to adopt such an interpretation because it would conflict with the ordinary meaning of the English language: manifestly, “demand” and “request” are not synonyms and therefore cannot be given, as the Staff would have it, the same meaning and effect. A person authorized to make a “demand” is generally understood to have the right to the matter that is the subject of the demand. Thus, 10 C.F.R. § 2.202(a)(3) and (c), which like section 2.103(b)(2) authorize a “demand” for a hearing, are understood to confer the right to a hearing.<sup>43</sup> One authorized to make a “request,” by contrast, is merely given permission to ask for something, not to demand it.<sup>44</sup> The usual rule of regulatory interpretation is that “different language is intended to mean different things,” and thus a demand for a hearing is not to be treated as a mere request for a hearing.<sup>45</sup>

Although the application of this precept may be suspended if the purpose or regulatory history behind the language shows that no difference was intended,<sup>46</sup> here the available evidence shows that the difference in wording was deliberate. When it was initially promulgated more than a half-century ago, section 2.103(b)(2) called for the filing of a hearing “request” within 30 days of receipt of the denial letter.<sup>47</sup> Less than 2 years thereafter, the provision was amended to substitute “demand” for “request” and to reduce the filing deadline to its present

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<sup>41</sup> 10 C.F.R. § 2.103(b)(2) (emphasis added).

<sup>42</sup> *Id.* § 2.309(f)(1).

<sup>43</sup> See Memorandum and Order (Response to Order), *James L. Shelton* (Order Prohibiting Involvement in NRC-Licensed Activities (Effective Immediately)), No. IA 95-055 EA 95-101 (Jan. 23, 1996).

<sup>44</sup> See *Webster’s Third New International Dictionary* 1929 (1976).

<sup>45</sup> *Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site Decontamination and Decommissioning Funding), LBP-94-5, 39 NRC 54, 72 (1994) (citing *United States v. Stauffer Chemical Co.*, 684 F.2d 1174, 1186 (6th Cir. 1982), *aff’d*, 464 U.S. 165 (1984)).

<sup>46</sup> *Id.* at 73 n.19.

<sup>47</sup> 27 Fed. Reg. 377, 378-79 (Jan. 8, 1962).

20 days.<sup>48</sup> It is extremely unlikely that the Commission would have changed “request” to “demand” if it thought the two words meant the same thing. The shortened filing deadline further confirms that the two words are not synonymous. The Commission evidently concluded that, because an applicant denied an operator’s license (or a byproduct, source, special materials, or facility license) would be entitled to demand a hearing under section 2.103(b)(2), rather than merely request a hearing, no more than 20 days would be required to prepare a document that would satisfy the conditions precedent to obtaining the hearing. Notably, that is also the period allotted for the filing of challenges to enforcement orders that impose some sanction (e.g., the imposition of a civil penalty) for some asserted violation of the Commission’s regulations.<sup>49</sup> As Staff counsel expressly conceded at oral argument, one demanding a hearing on a challenge to an enforcement order need not comply with the section 2.309(f)(1) requirements.<sup>50</sup>

The text of section 2.309(f)(1) provides still further reason for concluding that it has no applicability here. As noted above,<sup>51</sup> the section requires, *inter alia*, that the request for hearing “provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact.”<sup>52</sup> Someone such as Ms. Smith, who is herself the applicant for a license, could *never* meet this standard because it would require her to show a genuine dispute with her own application. The requirement to demonstrate a dispute with the application confirms that the standards in section 2.309(f)(1) are intended for those seeking to intervene in a licensing proceeding initiated by another, not for someone such as Ms. Smith who has herself applied for a license from the NRC.

The Board therefore concludes that a hearing “demand” under section 2.103(b)(2) is not a “hearing request” under section 2.309(f)(1). The Staff’s contrary position not only ignores the meaning of those terms, but would create a fundamental inconsistency in the regulations. A person subject to an enforcement order is entitled to “demand” a hearing under 10 C.F.R. § 2.202(a)(3) and (c), just as one denied an operator’s license is entitled to “demand” a hearing under section 2.103(b)(2). But, as noted, the Staff concedes that a demand for a hearing under section 2.202(a)(3) and (c) is *not* subject to section 2.309(f)(1) requirements. Thus, if we were to adopt the Staff’s interpretation, we would in effect be holding that the term “hearing request” in section 2.309(f)(1) is equivalent to a hearing “demand” under section 2.103(b)(2), but not to a hearing “demand” under section 2.202(a)(3) and (c). Such an inconsistent interpretation of the word “demand” would violate the rule of construction that “equivalent words have equivalent

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<sup>48</sup> 28 Fed. Reg. 10,151, 10,152 (Sept. 17, 1963).

<sup>49</sup> 10 C.F.R. § 2.202(a).

<sup>50</sup> Tr. at 25.

<sup>51</sup> See *supra* Part II.

<sup>52</sup> 10 C.F.R. § 2.309(f)(1)(vi).

meaning when repeated in the same statute.”<sup>53</sup> Moreover, the Staff has not pointed to a material difference for present purposes between, on the one hand, challenges to enforcement orders and, on the other, challenges to the denial of applications for reactor operator licenses. And there is none. In both instances, the Staff action is directed at one (or in the case of the enforcement order possibly more than one) individual or entity. And, although one is coercive and the other is not, they both adversely affect the recipient.

On the other hand, there is a marked distinction between section 2.103(b)(2) hearing demands (and section 2.202(c) enforcement order challenges as well) and the matters to which section 2.309(f)(1) indisputably does apply. When, for example, an application for a Part 52 combined license (COL) is filed with the Commission, the Staff publishes a notice of opportunity for hearing in the *Federal Register* that, as previously noted, directs prospective hearing requesters to the section 2.309(f)(1) requirements. In addition, the notice will provide a period of 60 days for the filing of a hearing request that meets those requirements — three times the period allotted to Ms. Smith under section 2.103(b)(2).

The reasons for imposing the section 2.309(f)(1) requirements in that setting have been explained by the Commission<sup>54</sup> and scarcely have application here. Unlike the denial of an SRO license application or an enforcement order, a COL application threatens no immediate physical or financial injury to any person or entity. If there is an injury, it will occur years later in the event the license is issued and the proposed facility is constructed and begins operation. And over the years in the Commission’s view there were too many instances of evidentiary hearings being held on safety or environmental contentions that turned out to be without any possible substance.<sup>55</sup> Thus, section 2.309 requires the petitioner to make a showing, in the manner prescribed therein, of potential harm from the proposed Staff action and to establish that the hearing request concerns issues worthy of further exploration. Here, however, the Staff action has already taken place, and it has an immediate adverse impact upon Ms. Smith’s advancement in her chosen profession. It is therefore not surprising that an applicant denied an SRO license has the right to demand a hearing, rather than being required to negotiate the contention admissibility requirements and a possible appeal in the event a hearing is granted<sup>56</sup> before she can obtain a hearing.

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<sup>53</sup> *Cohen v. de la Cruz*, 523 U.S. 213, 220 (1998) (citing *Ratzlaf v. United States*, 510 U.S. 135, 143 (1994)). Although here we are concerned with agency regulations, not a statute, the rules of interpretation applicable to statutes are equally germane in determining a regulation’s meaning. *Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Unit 1)*, LBP-95-17, 42 NRC 137, 143 (1995), *rev’d on other grounds*, CLI-96-13, 44 NRC 315 (1996).

<sup>54</sup> See 69 Fed. Reg. 2182.

<sup>55</sup> See, e.g., *id.* at 2182, 2188.

<sup>56</sup> See 10 C.F.R. § 2.311(d)(1).

During the January 23 oral argument, the Staff contended that 10 C.F.R. § 2.1200, which provides the scope of Subpart L, supports its claim that the contention admissibility standards of 10 C.F.R. § 2.309(f)(1) apply to hearing demands brought pursuant to 10 C.F.R. § 2.103(b)(2).<sup>57</sup> The Staff asserted that because Subpart L may be used in proceedings regarding operator licenses and because Subpart C, which includes the section 2.309(f)(1) contention admissibility standards, applies in Subpart L proceedings, section 2.309(f)(1) must apply to operator licensing cases.<sup>58</sup> This circuitous argument fails to aid the Staff's position. For it to do so, section 2.1200 would have to alter the text of section 2.309(f)(1) to make it apply to a "hearing demand" filed under section 2.103(b)(2). But nothing in section 2.1200 either instructs or permits us to rewrite the text of any regulation in Subpart C. Instead, it requires that we apply the Subpart C regulations according to their own terms. Thus, section 2.1200 merely leads us back to the question whether a hearing "demand" under section 2.103(b)(2) is a "hearing request" within the meaning of section 2.309(f)(1). For the reasons already explained, we conclude that it is not.

At oral argument, the Staff also cited several passages in the explanatory statement accompanying the 2004 revision of the Rules of Practice that allegedly indicated that section 2.309(f)(1) applies to section 2.103(b)(2) hearing demands.<sup>59</sup> We find nothing in those statements that supports the Staff's argument that one entitled to demand a hearing under section 2.103(b)(2) must provide contentions that meet the requirements of section 2.309(f)(1). That issue is simply not addressed in the statements cited by the Staff.<sup>60</sup> As the Staff eventually acknowledged, there is "no single sentence" in the *Federal Register* notice in question that provides explicit support for that proposition.<sup>61</sup>

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<sup>57</sup> Tr. at 22.

<sup>58</sup> *Id.* at 21-23.

<sup>59</sup> See Tr. at 10-11 (citing 69 Fed. Reg. at 2206, 2188); Tr. at 23 (citing 69 Fed. Reg. at 2221); Tr. at 26 (discussing 69 Fed. Reg. at 2201-02).

<sup>60</sup> For example, the Staff noted the Commission's intent to require "specific, adequately supported contentions in order to be admitted as a party . . . to informal proceedings under Subpart L." Tr. at 26 (discussing 69 Fed. Reg. at 2201-02). But, as we have explained, although section 2.309(f)(1) provides that persons who file a "request for hearing or petition for leave to intervene must set forth with particularity the contentions sought to be raised," it does not impose a comparable requirement upon those who file demands for hearing under either 10 C.F.R. § 2.202(a)(3) and (c) or section 2.103(b)(2). Nothing in the Commission's explanatory statement suggests otherwise. That the Commission was not addressing demands for a hearing is confirmed by the Commission's statement that it "continues to believe that a request for hearing/petition to intervene should include proposed contentions." 69 Fed. Reg. at 2202. Nowhere does the Commission state that a demand for a hearing under section 2.103(b)(2) should include proposed contentions, and the regulatory text makes clear that no such requirement exists.

<sup>61</sup> Tr. at 27.

It is therefore not surprising that, until this case, both before and after the arrival on the scene of section 2.309 as part of a substantial revision of the Commission's Rules of Practice in 2004, there appeared to be no question that a hearing demand under section 2.103(b)(2) had to do no more than meet the prescribed filing deadline and specify the reasons why the demander deemed the denial of the sought operator's license to have been unjustified.<sup>62</sup> So long as at least one of the assigned reasons was facially plausible, the matter proceeded to consideration on the merits. As recently as 2009, the Staff seemingly had a different view of the matter when it was confronted in the *Kuhl* proceeding with the only other challenge to the denial of an SRO license application that has been submitted following the enactment of section 2.309.<sup>63</sup> Without any reference to that section, the Staff informed the Board that it did not oppose the grant of the hearing request although it intended to file a motion to dismiss or for summary disposition at a later time.<sup>64</sup>

Neither in its written submission nor at oral argument did the Staff explain why we should not give effect to its apparent acknowledgment just 4 years ago in the *Kuhl* proceeding that section 2.309(f)(1) has no application to reactor operator licensee proceedings.<sup>65</sup> In that connection, the Staff further conceded at argument that, in common with enforcement proceedings, before 2004, SRO licensing proceedings were subject to *no* contention requirement.<sup>66</sup> Now, the Staff would have it, the Commission, without expressly so providing, has subjected

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<sup>62</sup> See, e.g., *David B. Kuhl, II* (Denial of Senior Reactor Operator License) LBP-09-14, 70 NRC 193 (2009); Memorandum and Order (Establishing Schedule for the Case), *Shaun P. O'Hern* (Denial of Reactor Operator's License), No. 55-32442-SP (Oct. 19, 1998); Memorandum and Order (Hearing File and Specification of Claims), *Randall L. Herring* (Operator License for Catawba Nuclear Station), No. 55-22234-SP (June 30, 1998); Memorandum and Order (Ruling on Request for Hearing, *Emerick S. McDaniel* (Denial of Application for Reactor Operator License), No. 55-21849-OT (June 25, 1996); cf. Order Granting Hearing and Federal Register Notice of Opportunity to Intervene, *Advanced Medical Systems, Inc.* (1020 London Road, Cleveland, OH), No. 30-16055-ML (Nov. 4, 1998).

<sup>63</sup> See *Kuhl*, LBP-09-14, 70 NRC 193.

<sup>64</sup> *Id.* at 195 ("The NRC Staff . . . did not oppose Mr. Kuhl's hearing request, but stated that the Staff intended to file a motion to dismiss or motion for summary disposition at a later time."); see NRC Staff Response to David B. Kuhl's Request for Hearing, *David B. Kuhl, II* (Denial of Senior Reactor Operator License), No. 55-62335-SP (June 22, 2009) at 2 ("An applicant for a senior reactor operator license who desires a hearing on a denial of a license application must file a request for hearing within twenty days of the date of the notice of the denial. 10 C.F.R. § 2.103(b)(2). Mr. Kuhl filed the instant hearing request within the appropriate time limit. Therefore, the NRC Staff does not object to the hearing request."). Ultimately, the Kuhl Board concluded that, because "[a]ny SRO license is 'limited to the facility for which it is issued'" and because Mr. Kuhl no longer worked for the facility for which he requested a license, it need not reach the merits of his case and dismissed the hearing request as moot. *Kuhl*, LBP-09-14, 70 NRC at 196.

<sup>65</sup> See *Kuhl*, LBP-09-14, 70 NRC at 195.

<sup>66</sup> Tr. at 50.

section 2.103(b) proceedings to stringent pleading requirements while leaving the analogous enforcement proceedings free of any such requirement.

For the reasons we have explained, the Board declines to adopt such an unreasonable construction of the regulations. Instead, we conclude that the contention admissibility standards of section 2.309(f)(1) do not apply to a hearing demand made under section 2.103(b)(2).

**B.** Had the Board agreed with the Staff's construction of the regulations, we would have had to address a second issue: the Staff's insistence that, despite the absence of any reference to section 2.309(f)(1) requirements in the Staff's denial letter, Ms. Smith had constructive knowledge of that section and its application to her case.<sup>67</sup> We disagree with the Staff on that issue as well.

To adopt the Staff's thesis that this *pro se* individual should have been aware of section 2.309(f)(1) and its application (according to the Staff) to her hearing demand, we must hold that, upon receiving the denial letter, Ms. Smith was required to take the following steps to ensure that her hearing demand would receive favorable treatment:

First, she had to consult section 2.103(b)(2) to determine whether there was anything therein regarding the required content of the challenge, characterized in that section as a "demand" rather than simply a "request" for a hearing.

Second, finding nothing in the section imposing any specific content requirements, Ms. Smith was then obliged to recognize the possibility that such requirements might nonetheless exist in some other Commission regulation, not referred to in either the denial letter or section 2.103(b)(2).

Third, following up on this possibility, it then became incumbent upon Ms. Smith to comb through the entire Part 2 of the Commission's regulations in search of provisions therein that conceivably might apply to the required content of her hearing demand even though not called to her attention in either the denial letter or the regulation cited therein.

Fourth, after such an exhaustive examination of Part 2 taking her ultimately to section 2.309(f)(1), it was then Ms. Smith's obligation to appreciate that, even though that section did not expressly bring her hearing demand within its reach, there might be some Commission pronouncement published in the *Federal Register* that might have that effect.

Fifth, it then became Ms. Smith's responsibility both to locate in the *Federal Register* the items upon which the Staff relies here and to construe them, as does the Staff, as subjecting the hearing demand to the section 2.309(f)(1) requirements.

Sixth, and lastly, within whatever time might be left of the 20-day filing period (there was no mention in the denial letter that an extension of that period might

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<sup>67</sup> Tr. at 12-13.

be sought, let alone that the Staff might consent to an extension), Ms. Smith had to prepare and to file a hearing demand that would satisfy in full measure each of the requirements imposed by section 2.309(f)(1).

It is beyond cavil that the imposition of such an impossible burden upon Ms. Smith would not be merely unjustified but patently unreasonable. There is simply no basis for a good-faith assertion that Ms. Smith was not entitled to take the denial letter at face value, i.e., to assume that her hearing demand need only set forth, as she has done, the reasons why she believed the denial of her SRO license application was unwarranted.<sup>68</sup> In the final analysis, the matter comes down to this: the Staff is endeavoring to saddle Ms. Smith with the consequences of its having improvidently furnished her a denial letter that, insofar as of present relevance, contained apparent boilerplate that was incomplete and perforce misleading. (We were told at oral argument that the letter had not been reviewed by the Office of the General Counsel before being sent to Ms. Smith.)<sup>69</sup> That simply does not accord with concepts of fundamental fairness and (although we need not reach the question here) might well counter hearing rights granted under section 189a of the Atomic Energy Act.<sup>70</sup>

The Board finds it instructive that, in notices published in the *Federal Register* providing the public with the opportunity to seek a hearing on, e.g., applications for licenses to build and to operate nuclear power facilities, the Staff routinely alerts the reader regarding the required content of a hearing request. Here we are not concerned with a member of the general public seeking the denial on asserted safety or environmental grounds of an application for a license or license amendment. In sharp contrast, the Board has before it a person protesting Staff action that not only is directed to her alone, but, in addition, has a potentially large impact on her professional career. Surely such a person is entitled to at least as much solicitude when it comes to the identification of the requirements she must satisfy to obtain a hearing.

In addition, section 2.103(b) requires the appropriate office director to “inform” the applicant of the right to demand a hearing. If the applicant indeed must comply with section 2.309(f)(1), but the office director failed to comply with his responsibility to “inform” the applicant of such a requirement, then surely

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<sup>68</sup> See *Heckler v. Community Health Services*, 467 U.S. 51, 61 n.13 (1984) (citing *Brandt v. Hickel*, 427 F.2d 53, 57 (9th Cir. 1970) (“To say to these appellants, ‘The joke is on you. You shouldn’t have trusted us,’ is hardly worthy of our great government.”); *Menges v. Dentler*, 33 Pa. 495, 500 (1859) (“Men naturally trust in their government, and ought to do so, and they ought not to suffer for it.”)).

<sup>69</sup> Tr. at 34.

<sup>70</sup> 42 U.S.C. § 2239(a)(1)(A).



the agency cannot take advantage of the applicant's ignorance of information the agency itself was obligated to provide.<sup>71</sup>

The Staff evidently disagrees. It argues that, because the 2004 rule changes were published in the *Federal Register*, Ms. Smith is charged under the Federal Register Act, 44 U.S.C. § 1507, with constructive knowledge that the contention admissibility requirements of section 2.309(f)(1) apply to her hearing demand, even though the Staff's denial letter referred only to section 2.103(b)(2).<sup>72</sup> It is true that section 1507 provides that publication of a regulation in the *Federal Register* constitutes notice to all persons residing in the United States.<sup>73</sup> Thus, even one lacking actual notice may be charged with constructive notice of regulations published in the *Federal Register*.<sup>74</sup> But, as we explained in section III.A, above, it is far from clear from the text of the 2004 regulations that the contention admissibility requirements of section 2.309(f)(1) apply to a "hearing demand" under section 2.103(b)(2). We may not rely on the *Federal Register* notice to put Ms. Smith on constructive notice of a requirement that the Board itself cannot discern in the regulations.<sup>75</sup>

We need add only that we appreciate that the Commission justifiably expects that all applicable provisions of the Rules of Practice will be observed in adjudicatory submissions. It is reasonable to assume, however, that it also expects the Staff to turn square corners with those with whom it deals, including applicants for SRO licenses.<sup>76</sup> As seen, the denial letter here fell far short of meeting that responsibility, and the Staff has assigned no good reason why Ms. Smith should nonetheless pay the price for the letter's patent deficiencies.

C. At oral argument, the Staff agreed that, should the Board conclude that section 2.309(f)(1) was inapplicable here, the hearing demand raised sufficient concrete issues relating to the denial of Ms. Smith's SRO license application to

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<sup>71</sup> See *Dr. James E. Bauer* (Order Prohibiting Involvement in NRC-Licensed Activities), LBP-95-7, 41 NRC 323, 328 (1995) (noting the NRC Staff's acknowledgment that the time for the applicant to request a hearing should be tolled until the section 2.103(b) notice was issued, where the Staff had failed to provide the required section 2.103(b) notice).

<sup>72</sup> See Tr. at 12-14.

<sup>73</sup> See *Consolidated Edison Co. of New York* (Indian Point, Unit 2), LBP-82-1, 15 NRC 37, 40 (1982).

<sup>74</sup> *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 565 & n.60 (2005).

<sup>75</sup> See *California v. Federal Energy Regulatory Commission*, 329 F.3d 700, 706-07 (9th Cir. 2003); *North Alabama Express, Inc. v. United States*, 585 F.2d 783, 786 (5th Cir. 1978).

<sup>76</sup> "It is no less good morals and good law that the Government should turn square corners in dealing with the people than that the people should turn square corners in dealing with their government." *St. Regis Paper Co. v. United States*, 368 U.S. 208, 229 (1961) (Black, J., dissenting).

warrant the demand being granted.<sup>77</sup> It is clear from the summary of the content of the demand set forth in Part I, *supra*, that such agreement was required. Among other issues that are worthy of further exploration is the credibility of the Staff's claim that Ms. Smith had marginally passed the operating portion of the SRO licensing examination taken in 2011.<sup>78</sup> As noted above, *supra* Part I, that claim was the asserted basis of the Staff's unwillingness to give Ms. Smith the waiver accorded to other similarly situated SRO license applicants.

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For the foregoing reasons, Ms. Smith's hearing demand must be, and hereby is, *granted*. In the interest of expediting the further proceedings in this matter, to be conducted under the provisions of Subpart L of the Commission's Rules of Practice,<sup>79</sup> the Board will hold a telephone conference with the parties at 10:00 a.m. (EST) on Tuesday, February 26, 2013.<sup>80</sup> Its purpose will be to refine the issues to be addressed at the hearing and to discuss any other matters bearing upon the hearing that might require consideration at this point.

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<sup>77</sup> Tr. at 35-36.

<sup>78</sup> NRC Response at 3-4. According to Ms. Smith, her score on the simulator portion of the operating test was 2.47 on a 3.0 scale, with the minimum passing score being 1.8. Hearing Demand at 2.

<sup>79</sup> See 10 C.F.R. § 2.310(a). The regulations provide that "proceedings for the grant, renewal, licensee-initiated amendment, or termination of licenses or permits subject to part[ ] . . . 55 . . . of this chapter may be conducted under the procedures of subpart L of this part." 10 C.F.R. § 2.310(a). Part 55 governs operators' licenses. See 10 C.F.R. §§ 55.1-55.2. Therefore, unless the parties request a hearing pursuant to Subpart N, see 10 C.F.R. § 2.310(h), the Board will hold a hearing pursuant to the procedures announced in Subpart L. Note that enforcement proceedings are distinct from those dealing with Part 55. See 10 C.F.R. §§ 2.200-2.206. Enforcement proceedings, unlike the proceeding here, are typically conducted pursuant to the procedures in Subpart G. 10 C.F.R. § 2.310(b); see also 10 C.F.R. § 2.700 (providing the scope of Subpart G).

<sup>80</sup> Instructions regarding access to the telephone conference will be provided to the parties at a later date.

It is so ORDERED.

THE ATOMIC SAFETY AND  
LICENSING BOARD

Alan S. Rosenthal, Chairman  
ADMINISTRATIVE JUDGE

Ronald M. Spritzer  
ADMINISTRATIVE JUDGE

Brian K. Hajek  
ADMINISTRATIVE JUDGE

Rockville, Maryland  
February 19, 2013



UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**COMMISSIONERS:**

**Allison M. Macfarlane**, Chairman  
**Kristine L. Svinicki**  
**George Apostolakis**  
**William D. Magwood, IV**  
**William C. Ostendorff**

**In the Matter of**

**Docket No. 52-016-COL**

**CALVERT CLIFFS 3 NUCLEAR  
PROJECT, LLC and UNISTAR  
NUCLEAR OPERATING  
SERVICES, LLC  
(Calvert Cliffs Nuclear Power  
Plant, Unit 3)**

**March 11, 2013**

Section 103d of the AEA prohibits the NRC from issuing a license for a production and utilization facility to “any corporation or other entity if the Commission knows or has reason to believe it is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government.” 42 U.S.C. § 2133(d). This statutory provision is implemented in a similarly worded regulation, 10 C.F.R. § 50.38. That section, in turn, applies to combined license applicants by virtue of 10 C.F.R. § 52.75(a), which provides that “[a]ny person except one excluded by § 50.38 . . . may file an application for a combined license for a nuclear power facility with the Director, Office of New Reactors, or Director, Office of Nuclear Reactor Regulation, as appropriate.”

Reconsideration of the agency’s guidance, as a general matter, should not be resolved in an application-specific proceeding. But with the passage of time since the agency first issued substantive guidance on the foreign ownership provision of AEA § 103d, a reassessment is appropriate. The Commission is therefore directing the Staff, outside the adjudicatory context, to review issues relating to foreign ownership and recommend whether the Commission should consider

modifications to agency guidance or practice. As part of that assessment, we are directing the Staff to consider stakeholder input. We have provided direction to the Staff in a similar fashion twice in recent years.

Given the current status of the application, a review of the Board's decision now essentially would constitute an advisory opinion, a practice the Commission disfavors. In view of the uncertainty surrounding the application at issue here, we are reluctant to engage in review now, where our opinion might constitute a mere academic exercise.

If and when Applicants file a revision of their application, the Staff should renote the application as to its ownership aspect. Any fresh intervention petitions then would be subject to our usual rules of practice, as described in the notice. As to new or amended contentions not related to the question of ownership that an interested person may wish to file during the pendency of the combined license application, our usual rules of practice will apply, including our rules governing reopening the record of a closed proceeding.

Issue-preclusion doctrines such as *res judicata* and collateral estoppel, if applicable, would preclude re-litigation of issues that already have been adjudicated in this contested proceeding.

## MEMORANDUM AND ORDER

UniStar Nuclear Operating Services, LLC, and Calvert Cliffs 3 Nuclear Project, LLC, (together, Applicants) challenge the Board's decision in LBP-12-19, where the Board found Applicants ineligible to obtain a combined license. As discussed herein, we deny the petition for review.

Applicants seek a combined license to construct and operate a third power reactor at the existing Calvert Cliffs site in Maryland. Nuclear Information and Resource Service, Beyond Nuclear, Public Citizen Energy Program, and Southern Maryland Citizens' Alliance for Renewable Energy Solutions (collectively, Intervenors) oppose the application. Intervenors argue in Contention 1 that Applicants are ineligible to obtain a combined license because both Applicants are 100% owned by a foreign corporation, in contravention of the Atomic Energy Act (AEA) and NRC regulations.<sup>1</sup>

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<sup>1</sup> See Petition to Intervene in Docket No. 52-016, Calvert Cliffs-3 Nuclear Power Plant Combined Construction and License Application (Nov. 19, 2008) at 5 (unnumbered). Section 103d of the AEA prohibits the NRC from issuing a license for a production and utilization facility to "any corporation or other entity if the Commission knows or has reason to believe it is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government." 42 U.S.C. § 2133(d). This statutory  
(Continued)

Applicants are domestic subsidiaries of UniStar Nuclear Energy, LLC (UniStar).<sup>2</sup> At the time the application was filed, UniStar was owned in near-equal shares, through intermediate parent companies, by Constellation Energy Group, Inc. (Constellation), an American corporation, and Électricité de France, S.A. (EDF), a French company.<sup>3</sup> In November 2010, Applicants informed the Board that EDF had acquired Constellation's 50% interest in UniStar.<sup>4</sup> Shortly thereafter, the Staff informed Applicants that it had completed its foreign ownership review, and determined that the combined license application did not satisfy the agency's foreign ownership requirements.<sup>5</sup> Following the Staff's determination, the Board directed the parties to show cause "why the Board should not grant summary disposition as to Contention 1, deny authorization to issue the license, and terminate [the] proceeding."<sup>6</sup> In LBP-12-19, the Board granted summary disposition of Contention 1 in Intervenor's favor.<sup>7</sup>

Applicants now request that we overturn LBP-12-19 and provide general guidance to the nuclear industry on the foreign ownership issue.<sup>8</sup> Both the Staff and Intervenor oppose the petition.<sup>9</sup> We deny the petition on two grounds.

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provision is implemented in a similarly worded regulation, 10 C.F.R. § 50.38. That section, in turn, applies to combined license applicants by virtue of 10 C.F.R. § 52.75(a), which provides that "[a]ny person except one excluded by § 50.38 . . . may file an application for a combined license for a nuclear power facility with the Director, Office of New Reactors or Director, Office of Nuclear Reactor Regulation, as appropriate."

<sup>2</sup>Repka, David A., Applicants' counsel, Letter to the Administrative Judges (Nov. 3, 2010), at 1 (Repka Letter).

<sup>3</sup>License Application, Calvert Cliffs Nuclear Power Plant, Unit 3 (July 13, 2007), § 1.4, at 1.0-16 to 1.0-17 (ADAMS Accession No. ML072000163).

<sup>4</sup>Repka Letter.

<sup>5</sup>See Matthews, David B., NRC, Letter to George Vanderheyden, UniStar (Apr. 6, 2011), at 1 (ADAMS Accession No. ML110760596). See Gibson, Greg, UniStar, Letter to NRC Document Control Desk (Jan. 31, 2011) (ADAMS Accession No. ML110380423) (transmitting response to request for additional information (RAI) 281, regarding foreign ownership).

<sup>6</sup>Order (To Show Cause Why the Board Should Not Grant Summary Disposition as to Contention 1, Deny Authorization to Issue the License, and Terminate This Proceeding) (Apr. 18, 2011) at 4 (unpublished).

<sup>7</sup>76 NRC 184 (2012). The Board provided Applicants an additional 60 days from issuance of its order to notify the Board of "any change in the ownership situation sufficient to establish their qualifications to apply for a license from the NRC." *Id.* at 203-04. Upon expiration of that 60-day period with no submission from Applicants, the Board terminated the contested adjudicatory proceeding. LBP-12-22, 76 NRC 443 (2012).

<sup>8</sup>Petition for Review of LBP-12-19 (Sept. 24, 2012) (Petition for Review) at 1-2, 3-4, 8, 10-12, 17, 20-22; UniStar Reply Brief Supporting Review of LBP-12-19 (Oct. 29, 2012) at 3-4. See generally Final Standard Review Plan on Foreign Ownership, Control, or Domination, 64 Fed. Reg. 52,355 (Sept. 28, 1999).

<sup>9</sup>Joint Intervenor's Response Brief to Applicants' Petition for Review of LBP-12-19 (Oct. 17, 2012) (Continued)

First, Applicants' fundamental objection is not to the Board's decision on its current application, but rather to this agency's policy regarding foreign ownership, which is based on longstanding language in the AEA.<sup>10</sup> When all the trappings are removed, the relief Applicants seek on appeal is for us to reconsider that policy. Applicants seek "policy direction on key issues arising under the agency's foreign ownership, control, or domination . . . requirements, including the issue of [Applicants'] indirect foreign ownership and the standard for acceptable . . . negation action plans."<sup>11</sup> Reconsideration of the agency's guidance, as a general matter, should not be resolved in an application-specific proceeding.<sup>12</sup> But we

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2012) (Intervenors Answer); NRC Staff's Answer to Applicants' Petition for Review of LBP-12-19 (Oct. 19, 2012) (Staff Answer). Seeking to participate as *amici curiae*, the Nuclear Energy Institute (NEI) and Nuclear Innovation North America LLC (NINA) support the petition. *See* NEI's Motion for Leave to File a Brief as Amicus Curiae in Support of UniStar's Petition for Review of LBP-12-19 (Oct. 19, 2012); Brief of Amicus Curiae Nuclear Energy Institute, Inc. in Support of UniStar's Petition for Review of LBP-12-19 (Oct. 19, 2012); NINA's Motion for Leave to File a Brief Amicus Curiae in Support of UniStar's Petition for Review of LBP-12-19 (Nov. 7, 2012); Brief of Amicus Curiae Nuclear Innovation North America in Support of UniStar's Petition for Review of LBP-12-19 (Nov. 7, 2012). Even though we deny Applicants' petition today, as a matter of discretion we have reviewed NEI's and NINA's filings.

Intervenors challenge NINA's brief and motion as untimely. *See* Joint Intervenors Reply to Motion by Nuclear Innovation North America for Leave to File an Amicus Brief on LBP-12-19 (Nov. 8, 2012) at 1-3 (unnumbered). Alternatively, Intervenors request that they be permitted to file a reply if we consider the NINA brief. *Id.* at 3-4 (unnumbered). For its part, the Staff argues that NINA's brief is, alternatively, premature or impermissibly late. NRC Staff's Reply in Opposition to NINA's Motion and Amicus Curiae Brief (Nov. 19, 2012). Because the policy issues raised in the briefs do not form the basis for today's decision to deny the Petition for Review, we need not reach the timeliness questions, or Intervenors' additional request. As discussed *infra*, the Staff will provide an opportunity for public comment in the course of its generic review of the foreign ownership question; at that time, Intervenors (and other public stakeholders) will be able to provide their input.

<sup>10</sup> Indeed, it does not appear that Applicants seek review of the Board's decision as it relates to the application currently before the agency. The Petition for Review focuses instead on review and remand *following* the issuance of revised guidance on foreign ownership. *See, e.g.*, Petition for Review at 20. Further, Applicants have stated their intent to seek a U.S. partner to hold part of EDF's ownership share, and then to revise the application to reflect new ownership. *See* Applicants' Response to Show Cause Order (May 9, 2011) at 8 ("UniStar plans to obtain a U.S. partner before a license is issued. Therefore foreign ownership will be less than 100 percent . . . ."); Gibson, Greg, UniStar, Letter to NRC Document Control Desk (Apr. 26, 2011), at 1 (ADAMS Accession No. ML11119A078) (Gibson Letter); Applicants' Reply to Responses to Show Cause Order (May 23, 2011) at 6 (referring to Applicants' "commitment to identify a U.S. partner and submit revised ownership information") (Show Cause Reply). *See also* Petition for Review at 7; Applicants' Response to Show Cause Order (May 9, 2011) at 13 (Show Cause Response); Transcript, Calvert Cliffs Nuclear Project, Oral Argument (July 7, 2011), at 233, 240 (Repka).

<sup>11</sup> Petition for Review at 1-2.

<sup>12</sup> *Cf. Long Island Lighting Co.* (Shoreham Nuclear Power Station), ALAB-99, 6 AEC 53, 55-56 (1973) (as a general rule, a generic issue should not be considered in an individual licensing proceeding, where the issues appropriately could be considered via rulemaking).



agree that, with the passage of time since the agency first issued substantive guidance on the foreign ownership provision of AEA § 103d, a reassessment is appropriate. We therefore are directing the Staff, outside the adjudicatory context, to review issues relating to foreign ownership and recommend whether the Commission should consider modifications to agency guidance or practice.<sup>13</sup> As part of that assessment, we are directing the Staff to consider stakeholder input.

Second, to the extent that Applicants seek review of the Board's decision, they fail to raise a substantial question on appeal. As indicated above, they have acknowledged that they no longer intend to proceed with the current application as it stands today, but will look instead for a U.S. partner to hold part of EDF's 100% ownership share. They also have stated their intention to submit a revised combined license application once they have located a new co-owner.<sup>14</sup> The record reflects that Applicants continue to look for a U.S. partner, and have not amended their application.<sup>15</sup> Given the current status of the application, a review of the Board's decision now essentially would constitute an advisory opinion, a practice we disfavor.<sup>16</sup> In view of the uncertainty surrounding the application at issue here, we are reluctant to engage in review now, where our opinion might constitute a "mere academic exercise."<sup>17</sup> For these reasons, we deny the Petition for Review.

Despite the termination of this contested proceeding, we have taken note that the Staff's review of the combined license application remains ongoing on matters other than foreign ownership.<sup>18</sup> Today's denial of Applicants' petition is

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<sup>13</sup> We have provided direction to the Staff in a similar fashion twice in recent years. See *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-12-13, 75 NRC 681, 687 n.32 (2012); *South Texas Project Nuclear Operating Co.* (South Texas Project, Units 3 and 4), CLI-10-24, 72 NRC 451, 468 n.99 (2010).

<sup>14</sup> See note 10, *supra*.

<sup>15</sup> Following the completion of briefing on this matter, UniStar provided to the Staff a target date of November 30, 2013, for submitting this information. See Finley, Mark T., UniStar, Letter to the NRC Document Control Desk (Jan. 30, 2013), at 1 & Enclosure, "Updated Calvert Cliffs Unit 3 RAI Response Schedule," at 2 (ADAMS Accession No. ML13036A355) (providing a response date for RAI 281).

<sup>16</sup> See, e.g., *Tennessee Valley Authority* (Hartsville Nuclear Plants, Units 1A, 2A, 1B, and 2B), ALAB-467, 7 NRC 459, 463 (1978); *Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-455, 7 NRC 41, 54 (1978). See also *U.S. Department of Energy* (High-Level Waste Repository), CLI-08-21, 68 NRC 351, 353 (2008); *U.S. Department of Energy* (High-Level Waste Repository), CLI-04-32, 60 NRC 469, 473 (2004).

<sup>17</sup> *U.S. Department of Energy*, CLI-04-32, 60 NRC at 473.

<sup>18</sup> Intervenor request that we dismiss the combined license application. Intervenor Answer at 13. We decline to do so today, in view of Applicants' oft-repeated commitment to find a U.S. partner and amend the application.

without prejudice to Applicants filing a revision to the “ownership” section of their application if and when they identify a U.S. partner.

For clarity, we provide here guidance on how any future adjudication on Applicants’ foreign ownership issue should be conducted.<sup>19</sup> Because Applicants have not identified any time frame for revision of the application, we, Intervenors, and the Staff have no sense of when the application (and this adjudication) might be revived as to this issue. We therefore agree with the Staff that, if and when Applicants file such a revision, the Staff should renotice the application as to its ownership aspect. Any fresh intervention petitions then would be subject to our usual rules of practice, as described in the notice.<sup>20</sup>

We recognize that other challenges to this application already have been resolved and that it would be a waste of the parties’ and the Board’s resources to require their relitigation in the event Applicants file a revised “ownership” section of their application. In that event, issue-preclusion doctrines such as *res judicata* and collateral estoppel, if applicable, would preclude relitigation of issues that already have been adjudicated in this contested proceeding.

For these reasons, we *deny* Applicants’ Petition for Review.

IT IS SO ORDERED.

For the Commission

ANDREW L. BATES  
Acting Secretary of the Commission

Dated at Rockville, Maryland,  
this 11th day of March 2013

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<sup>19</sup> See Petition for Review at 8; Staff Answer at 15-17.

<sup>20</sup> As to new or amended contentions not related to the question of ownership that an interested person may wish to file during the pendency of the combined license application, our usual rules of practice will apply, including our rules governing reopening the record of a closed proceeding. See *Virginia Electric and Power Co.* (North Anna Power Station, Unit 3), CLI-12-14, 75 NRC 692, 700-01 (2012).

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**ATOMIC SAFETY AND LICENSING BOARD**

**Before Administrative Judges:**

**Alex S. Karlin**, Chairman  
**Dr. Anthony J. Baratta**  
**Dr. Randall J. Charbeneau**

**In the Matter of**

**Docket Nos. 52-029-COL  
52-030-COL  
(ASLBP No. 09-879-04-COL-BD01)**

**PROGRESS ENERGY FLORIDA, INC.  
(Levy County Nuclear Power  
Plant, Units 1 and 2)**

**March 26, 2013**

In this Partial Initial Decision concerning an application submitted by Progress Energy Florida, Inc. (PEF) for combined licenses (COLs) to construct and operate two AP1000 nuclear reactors in Levy County, Florida, the Board concludes that the NRC's analysis, in its Final Environmental Impact Statement (FEIS), of issues relating to dewatering associated with construction and operation of the proposed plants was adequate and satisfied the National Environmental Policy Act (NEPA) and 10 C.F.R. Part 51.

**NEPA: REQUIREMENTS**

Section 102 of NEPA "directs that, to the fullest extent possible . . . all agencies of the Federal Government shall . . . include in every . . . major Federal action significantly affecting the quality of the human environment, a detailed statement by the responsible official on . . . (i) the environmental impact of the proposed action." The issuance of a COL is such a "major federal action."

**NEPA: REQUIREMENTS**

Before NRC decides whether to issue a license to construct and operate a nuclear power plant, NEPA requires that the agency develop and “carefully consider[] detailed information concerning significant environmental impacts of the proposed action.”

**NEPA: PURPOSE**

NEPA is intended to ensure that “important effects will not be overlooked or underestimated only to be discovered after resources have been committed or the die otherwise cast.”

**NEPA: REQUIREMENTS**

The FEIS must review and consider all significant environmental impacts, whether direct, indirect, cumulative, onsite, or offsite, that are a reasonably foreseeable consequence of the proposed action.

**NEPA: ENVIRONMENTAL IMPACT STATEMENT (RULE OF REASON)**

The legal adequacy of an FEIS is assessed under the “rule of reason.” The Commission has stated, “NEPA ‘should be construed in the light of reason if it is not to demand virtually infinite study and resources.’” The Commission added that an EIS is not “intended to be a research document” and does not require the NRC to use the absolutely “best scientific methodology” available. The Commission stated “while there ‘will always be more data that could be gathered [agencies] must have some discretion to draw the line and move forward with decisionmaking.’”

**NEPA: ENVIRONMENTAL IMPACT STATEMENT (RULE OF REASON)**

We acknowledge that NRC could have gathered additional data, and could have used different methodologies in conducting the FEIS. But the appropriate inquiry under NEPA is not whether there are alternative models that NRC could have used, or whether the analysis could have been refined, or improved by gathering additional data, but is whether the NRC’s chosen methodology is reasonable.

**NEPA: ENVIRONMENTAL IMPACT STATEMENT (DUTY TO EXERCISE INDEPENDENT JUDGMENT)**

NEPA requires that NRC exercise its independent judgment in identifying and assessing the significant and reasonably foreseeable impacts of a proposed licensing action. The duty to exercise independent judgment does not, however, mean that NRC must reinvent every wheel or duplicate professional environmental studies and data that have already been performed or gathered by competent state or local agencies.

**NEPA: ENVIRONMENTAL IMPACT STATEMENT (DUTY TO EXERCISE INDEPENDENT JUDGMENT)**

The FEIS shows that NRC gathered, assessed, and grappled with a very large amount of environmental information and that the agency satisfied its legal obligation under NEPA to exercise its independent judgment in the identification, assessment, and quantification of the reasonably foreseeable environmental impacts of the proposed LNP.

**NEPA: ENVIRONMENTAL IMPACT STATEMENT (MITIGATION)**

NEPA requires each EIS to include a detailed discussion of mitigation, i.e., measures that might mitigate the adverse environmental consequences of the proposed action.

**NEPA: ENVIRONMENTAL IMPACT STATEMENT (MITIGATION)**

NEPA does not require that “a complete mitigation plan be actually formulated and adopted” before the agency makes its decision. All that is required is that “mitigation be discussed in sufficient detail to ensure that environmental consequences have been fairly evaluated.”

**NEPA: ENVIRONMENTAL IMPACT STATEMENT (MITIGATION)**

As a general rule, NEPA does not mandate that the identified mitigation measures be implemented. This follows logically from the basic precept that NEPA does not mandate particular results.

**NEPA: ENVIRONMENTAL IMPACT STATEMENT  
(MITIGATION)**

The fact that, as a general rule, NEPA does not require the implementation of mitigation measures to avert adverse environmental impacts, does not mean that NEPA or NRC are neutral on the subject of environmental protection, or that NRC is powerless to act. NRC regulations, such as 10 C.F.R. § 50.36(b) and 10 C.F.R. § 51.107(a) (3), clearly authorize the agency to impose environmental conditions in a license to prevent or mitigate adverse environmental impacts that might otherwise be caused by the construction or operation of a nuclear power plant. Environmental protection is a central part of NRC's core mission and is in its mission statement.

**NEPA: ENVIRONMENTAL IMPACT STATEMENT (RELIANCE  
ON OUTSIDE DATA)**

NRC may rely on competent and professionally developed data and studies performed by the applicant or by appropriate federal, state, and local governmental entities, provided that NRC exercises its own independent judgment with regard to the ultimate conclusions about the environmental impacts of the project.

**NEPA: ENVIRONMENTAL IMPACT STATEMENT (RELIANCE  
ON OTHER GOVERNMENTAL ENTITIES)**

Absent information to the contrary, NRC may properly assume that an applicant or licensee will comply with concrete and enforceable conditions and requirements imposed by statutes, regulations, licenses, or permits issued by competent federal, state, or local governmental entities.

**NEPA: ENVIRONMENTAL IMPACT STATEMENT  
(MITIGATION)**

As a general rule, NEPA does not require that mitigation be implemented. But if, as here, an FEIS relies on monitoring and mitigation as a necessary basis for concluding that the environmental impacts of issuing a license will be SMALL, then the NRC must have reasonable assurance that the monitoring and mitigation will actually be implemented and successful.

**NEPA: ENVIRONMENTAL IMPACT STATEMENT  
(MITIGATION)**

Reasonable assurance that monitoring and mitigation measures will be suc-

cessful does not always require that these measures be incorporated as a condition in the NRC license. Here, given that legally binding monitoring and mitigation measures have been imposed via a thorough certificate of compliance issued by the appropriate state and local agencies, this Board has reasonable assurance that these measures will be implemented and that these agencies will actively monitor and enforce appropriate compliance with these environmental monitoring and mitigation measures.

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#### ABBREVIATIONS

APT	Aquifer Performance Testing
AWS	Alternative Water Source
BMP	Best Management Practices
BOR	Basis of Review
CEQ	U.S. Council on Environmental Quality
CFBC	Cross Florida Barge Canal
COC	Conditions of Certification
COL	Combined License
DEIS	Draft Environmental Impact Statement
DWRM2	District-Wide Regional Model 2
EMP	Environmental Monitoring Plan
ER	Environmental Report
ESRP	NUREG-1555, Standard Review Plans for Environmental Reviews for Nuclear Power Plants
FDEP	Florida Department of Environmental Protection
FEIS	Final Environmental Impact Statement
FEPPSA	Florida Electrical Power Plant Siting Act
FTMR	Focus Telescopic Mesh Refinement
gpd	gallons per day

ISOP	Initial Statement of Position
kg/ha/mo	kilogram(s) per hectare per month
LNP	Levy Nuclear Plant
MFL	Minimum Flow and Level
mgd	million gallons per day
NEPA	National Environmental Policy Act
NRC	U.S. Nuclear Regulatory Commission
OFW	Outstanding Florida Waters
PEF	Progress Energy Florida, Inc.
ppt	part(s) per thousand
RSOP	Rebuttal Statement of Position
SWFWMD	Southwest Florida Water Management District
UFA	Upper Floridan Aquifer
USACE	United States Army Corps of Engineers
USGS	United States Geological Survey
WAP	Wetland Assessment Procedure
WMP	Wetland Mitigation Plan
WUP	Water Use Permit

**PARTIAL INITIAL DECISION<sup>1</sup>**  
**(Ruling on Contention 4A)**

This adjudicatory proceeding arises from a 2008 application by Progress Energy Florida, Inc. (PEF) to the U.S. Nuclear Regulatory Commission (NRC) for the issuance of licenses to construct and operate two nuclear power reactors at a site in Levy County, Florida.<sup>2</sup> On February 6, 2009, the Nuclear Information and Resource Service and the Ecology Party of Florida (collectively, Intervenors) challenged the application.<sup>3</sup> On October 31, and November 1, 2012, this Board

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<sup>1</sup> This Initial Decision is “partial” because a proposed contention concerning the Waste Confidence Decision remains pending before the Board. *See* Intervenors’ Motion for Leave to File a New Contention Concerning Temporary Storage and Ultimate Disposal of Spent Reactor Fuel at Levy Nuclear Power Plant (July 9, 2012). Essentially identical contentions were filed in many other reactor licensing proceedings, and on August 7, 2012, the Commission ruled that these proposed contentions should be held in abeyance. *Calvert Cliffs 3 Nuclear Project, LLC* (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-12-16, 76 NRC 63, 68-69 (2012). As such, this proceeding remains open.

<sup>2</sup> Progress Energy Florida, Inc.; Application for the Levy County Nuclear Power Plant Units 1 and 2; Notice of Order, Hearing, and Opportunity to Petition for Leave to Intervene, 73 Fed. Reg. 74,532 (Dec. 8, 2008) [Notice].

<sup>3</sup> Petition to Intervene and Request for Hearing by the Green Party of Florida, the Ecology Party of  
*(Continued)*

held an evidentiary hearing on one of those challenges, Contention 4A. This contention alleges that NRC's final environmental impact statement (FEIS) for the proposed Levy Nuclear Plant (LNP) fails to comply with 10 C.F.R. Part 51 and the National Environmental Policy Act (NEPA). 42 U.S.C. §§ 4321-4347. The evidentiary hearing was held at the Levy County Courthouse in Bronson, Florida.

As set forth below, based on our review of the entire evidentiary record in this proceeding and our findings of fact and conclusions of law, the Board concludes that, with regard to the specific issues raised by Contention 4A, the NRC has carried its burden of demonstrating that its FEIS complies with NEPA and with 10 C.F.R. Part 51.

## I. GENERAL BACKGROUND

On July 28, 2008, PEF applied to the NRC for licenses to construct and operate two proposed nuclear power reactors referred to as Levy Nuclear Plant (LNP) Unit 1 and Unit 2. *See* 73 Fed. Reg. at 74,532. Such licenses are referred to as "combined licenses" (COL) because they authorize both construction and operation. On December 8, 2008, NRC published a "Notice of Hearing and Opportunity to Petition for Leave to Intervene" in the *Federal Register*. *Id.* On February 6, 2009, the Intervenors filed their Petition asserting eleven contentions, including Contention 4. Petition at 32-72. On July 8, 2009, the Board admitted three contentions for adjudication, including Contention 4.<sup>4</sup> LBP-09-10, 70 NRC at 106, 147.

Contention 4 evolved into the current Contention 4A as follows. As originally admitted, Contention 4 alleged that PEF's environmental report (ER) failed to comply with 10 C.F.R. Part 51, NRC's regulations implementing NEPA. Contention 4 alleged, *inter alia*, that the ER did not adequately address, and inappropriately characterized as small, the environmental impacts that "dewatering" associated with the proposed LNP facility would have on "wetlands, floodplains, special aquatic sites, and other waters." *Id.* PEF appealed our order admitting Contention 4, and the Commission affirmed our decision. CLI-10-2, 71 NRC 27, 48 (2010). Subsequently, NRC issued its draft environmental impact statement

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Florida and Nuclear Information and Resource Service (Feb. 6, 2009) [Petition]. The Green Party of Florida has withdrawn from this proceeding. Notice of Withdrawal [of the Green Party of Florida] (May 17, 2012).

<sup>4</sup>The other two admitted contentions dealt with low-level radioactive waste issues and were denominated Contention 7 and Contention 8. LBP-09-10, 70 NRC 51, 125, 147 (2009). These contentions have been disposed of and are no longer pending. *See* Order (Granting Motion for Summary Disposition of Contention 7 as Moot) (Sept. 8, 2010) (unpublished); LBP-11-31, 74 NRC 643 (2011) (granting motion for summary disposition of Contention 8A).

(DEIS) covering the proposed LNP.<sup>5</sup> At that point, Intervenors amended Contention 4 to challenge the DEIS on essentially the same grounds as their challenge to the ER (e.g., the environmental impacts of dewatering). The Board admitted this amended contention and dubbed it Contention 4A.<sup>6</sup> Later, when the NRC issued its FEIS,<sup>7</sup> the Board allowed Contention 4A to migrate to the FEIS.<sup>8</sup> Tr. at 856.

Contention 4A, as admitted and adjudicated, reads as follows:

The Final Environmental Impact Statement (FEIS) fails to comply with 10 C.F.R. Part 51 and the National Environmental Policy Act because it fails to specifically and adequately address, and inappropriately characterizes as SMALL, certain direct, indirect, and cumulative impacts, onsite and offsite, of constructing and operating the proposed LNP facility:

A. Impacts to wetlands, floodplains, special aquatic sites, and other waters, associated with dewatering, specifically:

1. Impacts resulting from active and passive dewatering;
2. Impacts resulting from the connection of the site to the underlying Floridan aquifer system;
3. Impacts on Outstanding Florida Waters such as the Withlacoochee and Waccasassa Rivers;
4. Impacts on water quality and the aquatic environment due to alterations and increases in nutrient concentrations caused by the removal of water; and
5. Impacts on water quality and the aquatic environment due to increased nutrients resulting from destructive wildfires resulting from dewatering.

B. Impacts to wetlands, floodplains, special aquatic sites, and other waters, associated with salt drift and salt deposition resulting from cooling towers (that

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<sup>5</sup> NUREG-1941, "Draft Environmental Impact Statement for Combined Licenses (COLs) for Levy Nuclear Plant Units 1 and 2, Draft Report for Comment," Vols. 1 and 2 (Aug. 2010).

<sup>6</sup> Memorandum and Order (Admitting Contention 4A) (Feb. 2, 2011) (unpublished) [C4A Order].

<sup>7</sup> NUREG-1941, "Environmental Impact Statement for Combined Licenses (COLs) for Levy Nuclear Plant, Units 1 and 2," Vols. 1, 2, and 3 (Apr. 2012) [FEIS]. The FEIS was submitted in three parts by the NRC Staff as Exhibits NRC001A, NRC001B, and NRC001C.

<sup>8</sup> This "migration" dispensed with the time-consuming and expensive litigation normally associated with the transition from DEIS to FEIS. The typical scenario involves (1) the applicant filing a motion for summary disposition of the DEIS contention (because the FEIS renders the DEIS moot), the parties briefing the issue, and the Board issuing a decision, and (2) the intervenor filing a motion to admit an identical new contention challenging the FEIS, the parties briefing the issue, and the Board issuing a decision. Unless the DEIS and FEIS are significantly different, these activities simply double the legal and judicial costs.

use salt water) being situated in an inland, freshwater wetland area of the LNP site.

C. As a result of the omissions and inadequacies described above, the Final Environmental Impact Statement also failed to adequately identify, and inappropriately characterizes as SMALL, the proposed project's zone of:

1. Environmental impacts;
2. Impact on Federally listed species;
3. Irreversible and irretrievable environmental impacts; and
4. Appropriate mitigation measures.

C4A Order, Att. A at 1.

Contention 4A consists of three main components. The first component (labeled by the Intervenor as Subpart A) deals with environmental impacts associated with "dewatering" (both "active" and "passive"). The second component (labeled by the Intervenor as Subpart B) deals with environmental impacts associated with "salt drift and salt deposition." The third component (labeled by the Intervenor as Subpart C) states that "[a]s a result of the omissions and inadequacies described above," the FEIS fails in several other respects. The deficiencies alleged in the third component are entirely dependent on the existence of the deficiencies alleged in the first and second components. For purposes of our analysis, we denominate the three components of Contention 4A as the Dewatering component, the Salt Drift/Deposition component, and the Consequential component.<sup>9</sup>

On January 11, 2012, the Board, accompanied by representatives of all parties, conducted a site visit. *See* Order (Scheduling Site Visit) (Dec. 7, 2011) (unpublished). At the Board's request, PEF provided the Board and the parties with three documents, consisting of maps and orientation materials, to assist in the site visit. On March 7, 2012, the Board admitted these three documents into the evidentiary record as Board Exhibits BRD001-BRD003.<sup>10</sup>

Meanwhile, although Contention 4A was originally admitted in 2009, the evidentiary hearing could not commence until after the NRC published the FEIS. 10 C.F.R. § 2.332(d). This occurred on April 27, 2012. *See* FEIS. Pursuant to our initial scheduling order (ISO), LBP-09-22, 70 NRC 640, 654 (2009), once the FEIS was issued, the parties were obligated to file their briefs, submit their prefiled written testimony, and offer their exhibits. Thus, on June 26, 2012, the parties

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<sup>9</sup> We used this terminology when we originally admitted Contention 4. *See* LBP-09-10, 70 NRC at 84-85.

<sup>10</sup> *See* Notice (Entering Site Visit Documents into the Evidentiary Record) (Mar. 7, 2012) (unpublished).

filed their initial statements of position (ISOPs),<sup>11</sup> initial written testimony of their witnesses, and initial exhibits.<sup>12</sup> *See* ISO, LBP-09-22, 70 NRC at 654-55; 10 C.F.R. § 2.1207(a)(1). On July 31, 2012, the parties filed their rebuttal statements of position (RSOPs),<sup>13</sup> rebuttal written testimony, and rebuttal exhibits. ISO, LBP-09-22, 70 NRC at 655; 10 C.F.R. § 2.1207(a)(2). Subsequently, the parties filed several procedural motions,<sup>14</sup> and the Board ruled on them.<sup>15</sup> In addition, on September 21, 2012, the Board instructed the parties to brief several legal issues pertaining to NEPA.<sup>16</sup> The parties filed their responses to these questions on October 5, 2012,<sup>17</sup> and October 12, 2012.<sup>18</sup>

It is relevant to note that, in parallel with this adjudicatory proceeding, once the application was docketed, the NRC Staff conducted its NEPA process wherein members of the public were afforded the opportunity to comment (1) on the

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<sup>11</sup> Intervenors' Initial Written Statement of Position Regarding Contention 4 (June 26, 2012) [Intervenors' ISOP]; Progress Energy Florida, Inc.'s Initial Statement of Position in the Contested Hearing for Contention 4A (June 26, 2012) [PEF ISOP]; NRC Staff Initial Statement of Position (June 26, 2012) [NRC ISOP].

<sup>12</sup> The Intervenors submitted revised versions of a number of their initial filings, including their ISOP and the testimony of all of their witnesses. *See* Memorandum and Order (Ruling and Instructions Regarding Evidentiary Filings) (July 18, 2012) (unpublished). These revised documents are denominated with an "R" in their exhibit number (e.g., Dr. Bacchus's Revised Testimony is Exhibit INT301R). All references to Intervenors' ISOP or witnesses' testimony in this Partial Initial Decision are references to these revised filings.

<sup>13</sup> *See* Intervenors' Response Statement of Position Regarding Contention 4 (July 31, 2012) [Intervenors' RSOP]; Progress Energy Florida, Inc.'s Rebuttal Statement of Position in the Contested Hearing for Contention 4A (July 31, 2012) [PEF RSOP]; NRC Staff Rebuttal Statement of Position (July 31, 2012) [NRC RSOP].

<sup>14</sup> Progress Energy Florida, Inc.'s Motion to Strike Intervenors' Arguments and Testimony That Are Outside the Scope of the Contested Hearing and That Raise a New, Untimely Contention (Aug. 10, 2012); NRC Staff Motion In Limine to Exclude Portions of the Parties' Testimony and Statements of Position (Aug. 10, 2012).

<sup>15</sup> Order (Granting in Part and Denying in Part Motion in Limine and Motion to Strike) (Sept. 6, 2012) (unpublished). We struck portions of Intervenors' ISOP and Dr. Bacchus's Testimony that raised new arguments concerning the alleged failure of the FEIS to adequately respond to Dr. Bacchus's comments on the DEIS. We held that such arguments were outside the scope of Contention 4A. *Id.* at 3.

<sup>16</sup> *See* Licensing Board Order (Regarding the Briefing of Certain Legal Issues) (Sept. 21, 2012) (unpublished).

<sup>17</sup> Intervenors' Brief in Response to ASLB Order of September 21, 2012 (Oct. 5, 2012); Progress Energy Florida, Inc.'s Initial Brief Regarding Legal Issues in the Contested Hearing for Contention 4A (Oct. 5, 2012); NRC Staff Answer to Order Regarding the Briefing of Certain Legal Issues (Oct. 5, 2012).

<sup>18</sup> Intervenors' Reply Brief in Response to ASLB Order of September 21, 2012 (Oct. 12, 2012); Progress Energy Florida, Inc.'s Rebuttal Brief Regarding Legal Issues in the Contested Hearing for Contention 4A (Oct. 12, 2012); [NRC Staff's] Rebuttal Legal Brief in Response to Intervenors' Brief of October 5, 2012 (Oct. 12, 2012).

appropriate scope of the environmental review for the proposed LNP,<sup>19</sup> and, later, (2) on the adequacy of the NRC's DEIS.<sup>20</sup> Individuals working with the Intervenor and PEF submitted comments at both stages and the FEIS includes NRC's responses to comments.<sup>21</sup> This is relevant because some of those comments parallel the concerns raised in Contention 4A, *see, e.g.*, FEIS at E-55 (commenting that EIS failed to take hard look at karst conduit system), and because NRC's discussion and responses to these comments are recited in the FEIS.

## II. LEGAL STANDARDS UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT

The question presented by Contention 4A is whether the FEIS complies with NEPA and NRC's regulations implementing NEPA, 10 C.F.R. Part 51. The contention alleges that the FEIS is deficient in a number of specific respects. We dispose of those matters later in this decision. But, it is useful at this point to review several key legal principles of NEPA.

Section 101 of NEPA declares a broad national commitment to protecting and promoting environmental quality. 42 U.S.C. § 4331. To ensure that this commitment is infused in the actions of the federal government, NEPA establishes certain "action forcing" procedures on each federal agency. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 348 (1989). Section 102 of NEPA "directs that, to the fullest extent possible . . . all agencies of the Federal Government shall . . . include in every . . . major Federal action significantly affecting the quality of the human environment, a detailed statement by the responsible official on . . . (i) the environmental impact of the proposed action." 42 U.S.C. § 4332(2)(C)(i). The issuance of a COL is such a "major federal action." *See* 10 C.F.R. § 51.75(c). The requirement to prepare an environmental impact statement (EIS) "places upon an agency the obligation to consider every significant aspect of the environmental impact of a proposed action."<sup>22</sup> It "ensures that the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts." *Robertson*, 490 U.S.

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<sup>19</sup> 73 Fed. Reg. 63,517 (Oct. 24, 2008) (NRC Notice of Intent to Prepare an Environmental Impact Statement and Conduct Scoping Process).

<sup>20</sup> 75 Fed. Reg. 49,539 (Aug. 13, 2010) (Notice of Availability of Draft Environmental Impact Statement for the Combined Licenses for Levy County Nuclear Plant Units 1 and 2).

<sup>21</sup> *See* FEIS Appendix D Scoping Comments and Responses at D-4 (Martha Barnwell, PEF commenter) and D-5 (Mary Olson, Intervenor commenter); FEIS Appendix E — DEIS Comments and Responses at E-3 (Sydney Bacchus, Intervenor commenter; John Elnitsky, PEF commenter).

<sup>22</sup> *Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc.*, 462 U.S. 87, 97 (1983) (quoting *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 553 (1978)).

at 349. NEPA is intended to ensure that such impacts “will not be overlooked or underestimated only to be discovered after resources have been committed or the die otherwise cast.” *Id.* In short, NEPA requires that the agency take a “hard look” at environmental consequences of each agency action.<sup>23</sup>

The duty to prepare an EIS and to identify and consider every significant environmental impact is, however, tempered by the “rule of reason.”<sup>24</sup> For example, NEPA only requires that the EIS address those environmental impacts that are “reasonably foreseeable.”<sup>25</sup> Within this rule of reason, however, the EIS must address both the direct and indirect effects or impacts<sup>26</sup> of the proposed action. *See* 10 C.F.R. § 51.14(b) (adopting 40 C.F.R. § 1508.8). “Direct effects . . . are caused by the action and occur at the same time and place.” 40 C.F.R. § 1508.8(a). “Indirect effects . . . are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.” 40 C.F.R. § 1508.8(b). The EIS must also address the “cumulative impact” of the proposed action, which is defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” 10 C.F.R. § 51.14(b) (adopting 40 C.F.R. § 1508.7). An EIS must cover all such environmental impacts even if they occur “offsite” (e.g., beyond the licensee’s property line). *See, e.g., Robertson*, 490 U.S. at 358.

Although NEPA mandates that an agency prepare an EIS and take a hard look at the environmental impacts of a proposed agency action, “NEPA itself does not mandate particular results, but simply prescribes the necessary process.”<sup>27</sup> “If the adverse environmental effects of the proposed action are adequately identified and evaluated, the agency is not constrained by NEPA from deciding that other values

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<sup>23</sup> *See Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 374 (1989); *NextEra Energy Seabrook, LLC* (Seabrook Station, Unit 1), CLI-12-5, 75 NRC 301, 342 (2012).

<sup>24</sup> *See Potomac Alliance v. NRC*, 682 F.2d 1030, 1035 (D.C. Cir. 1982); *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-22, 72 NRC 202, 208 (2010); *see also Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 551 (1978) (“To make an impact statement something more than an exercise in frivolous boilerplate the concept of alternatives must be bounded by some notion of feasibility.”).

<sup>25</sup> *See Potomac Alliance*, 682 F.2d at 1035; *Pa’ina Hawaii, LLC*, CLI-10-18, 72 NRC 56, 89 (2010); *see also Robertson*, 490 U.S. at 356, 359 (holding that a CEQ regulation requiring an EIS to consider “reasonably foreseeable impacts” rather than a “worst case analysis” is “entitled to substantial deference” and that NEPA does not require a “worst case analysis” in an EIS).

<sup>26</sup> The adopted regulation states, “Effects and impacts as used in these regulations are synonymous.” 40 C.F.R. § 1508.8(b).

<sup>27</sup> *Id.* at 350 (citing *Strycker’s Bay Neighborhood Council, Inc. v. Karlen*, 444 U.S. 223, 227-28 (1980) (per curiam); *Vermont Yankee*, 435 U.S. at 558).



outweigh the environmental costs.” *Id.* In short, although NEPA establishes a national policy in favor of protecting the human environment, NEPA does not *require* the agency to select the most environmentally benign alternative. “NEPA merely prohibits uninformed — rather than unwise — agency action.” *Id.* at 351.

### III. EVIDENTIARY RECORD

#### A. Identification of Witnesses

The parties proffered a total of twenty-four witnesses to provide fact and opinion testimony regarding Contention 4A. Written testimony was submitted for all of these witnesses. Fifteen of these witnesses also testified orally at the evidentiary hearing.<sup>28</sup>

##### 1. *Intervenors’ Witnesses*

The Intervenors presented four witnesses — Gareth J. Davies, Dr. Timothy J. Hazlett, David Still, and Dr. Sydney T. Bacchus. Intervenors submitted the prefiled initial testimony of these four witnesses on June 26, 2012. Intervenors then sought leave to file amended versions of this testimony on July 10, 2012,<sup>29</sup> which we granted.<sup>30</sup> Intervenors then submitted the prefiled rebuttal testimony of these four witnesses on July 31, 2012.

Mr. Davies is a registered professional geologist in Tennessee and Kentucky and holds a Bachelor of Science degree in Geology from Millsaps College and a Master of Science degree in Geology from the University of Southern Mississippi.<sup>31</sup> According to his curriculum vitae (CV), Mr. Davies has over 20 years of experience in hydrogeology and is currently employed as a consultant hydrogeologist for the Cambrian Ground Water Company and as a geologist for the Tennessee Department of Environment and Conservation’s Department of

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<sup>28</sup> After reading the prefiled written testimony, the Board concluded that it did not need to receive oral testimony from several of the witnesses. Accordingly, we instructed that these witnesses need not attend the evidentiary hearing. Tr. at 1052-53; Order (Administrative Instructions Regarding Evidentiary Hearing) (Oct. 23, 2012) at 2 (unpublished). In addition, a number of the witnesses who attended the hearing did not need to provide oral testimony.

<sup>29</sup> See Intervenors’ Unopposed Motion for Leave to File Corrected SOP and Exhibits (July 10, 2012); see also INT001R, INT101R, INT201R, INT301R.

<sup>30</sup> See Licensing Board Memorandum and Order (Ruling and Instructions Regarding Evidentiary Filings) (July 18, 2012) (unpublished).

<sup>31</sup> [Corrected] Initial Pre-Filed Testimony of Gareth J. Davies in Support of Contention C-4 Regarding Environmental Impacts of Levy Units 1 and 2 on Water Resources and Ecology (July 6, 2012) at 1 (INT001R) [Davies Testimony]; see also INT002 [Davies CV].

Energy Oversight Office. Davies CV. Mr. Davies provided testimony for the Intervenor regarding groundwater flow in and around the proposed LNP site.<sup>32</sup>

Dr. Hazlett holds a Bachelor of Science degree in Geology from Rensselaer Polytechnic Institute, a Master of Science degree in Geological Engineering from the University of Missouri, and a Master of Arts degree and a Ph.D. in Hydrogeology from Johns Hopkins University. INT102 (Hazlett CV). Dr. Hazlett's CV notes that he has over 10 years of experience in groundwater modeling and is currently employed as the President of DHI Water & Environment, Inc. *Id.* Dr. Hazlett provided testimony for the Intervenor regarding alleged flaws in the FEIS regarding groundwater modeling.<sup>33</sup>

Mr. Still is a registered professional engineer in Florida and holds a Bachelor of Agricultural and Biological Engineering degree and a Master of Engineering degree from the University of Florida. INT202 (Still CV). According to his CV, Mr. Still has over 20 years of experience working in water resource management, having recently retired as Executive Director of the Suwannee River Water Management District, and is currently the owner of a water resource consulting business. *Id.* Mr. Still provided testimony for the Intervenor regarding groundwater flow and management and alleged flaws in the Southwest Florida Water Management District's (SWFWMD) permitting processes.<sup>34</sup>

Dr. Bacchus holds a Bachelor of Science degree in Biology and Design and a Master of Science degree in Botany and Ecology from Florida State University, and a Ph.D. in Hydroecology from the University of Georgia. INT302 (Bacchus CV). Dr. Bacchus's CV specifies that she has over 30 years' experience in the fields of marine biology, ecology, and hydroecology. *Id.* at 2. Dr. Bacchus provided testimony for the Intervenor on the full range of issues covered by Contention 4A.<sup>35</sup>

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<sup>32</sup> See generally Davies Testimony; Pre-Filed Rebuttal Testimony of Gareth Davies in Support of Contention C-4 Regarding Environmental Impacts of Levy Units 1 and 2 on Water Resources and Ecology (July 31, 2012) (INT501) [Davies Rebuttal].

<sup>33</sup> See generally [Corrected] Initial Pre-Filed Testimony of Tim Hazlett in Support of Contention C-4 Regarding Environmental Impacts of Levy Units 1 and 2 on Water Resources and Ecology (June 26, 2012) (INT101R) [Hazlett Testimony]; Pre-Filed Rebuttal Testimony of Dr. Timothy Hazlett in Support of Contention C-4 Regarding Environmental Impacts of Levy Units 1 and 2 on Water Resources and Ecology (July 31, 2012) (INT601) [Hazlett Rebuttal].

<sup>34</sup> See generally [Corrected] Initial Pre-Filed Testimony of David Still in Support of Intervenor's Contention C4 Regarding Environmental Impacts of Levy Units 1 and 2 on Water Resources and Ecology (July 6, 2012) (INT201R) [Still Testimony]; Pre-Filed Rebuttal Testimony of David Still in Support of Contention C-4 Regarding Environmental Impacts of Levy Units 1 and 2 on Water Resources and Ecology (July 31, 2012) (INT701) [Still Rebuttal].

<sup>35</sup> See generally [Corrected] Initial Pre-Filed Testimony of Dr. Sydney Bacchus in Support of Contention C-4 Regarding Environmental Impacts of Levy Units 1 and 2 on Water Resources and Ecology (July 6, 2012) (INT301R) [Bacchus Testimony]; Rebuttal Testimony of Dr. Sydney Bacchus

(Continued)

## 2. PEF's Witnesses

PEF presented eight witnesses, with six providing initial and rebuttal testimony, and two providing only rebuttal testimony. Those providing both initial and rebuttal testimony were Dr. Mitchell L. Griffin, James O. Rumbaugh, Jeffrey D. Lehnen, Dr. William J. Dunn, Dr. Kevin M. Robertson, Dr. George C. Howroyd, and Dr. Eldon C. Blancher. Those providing only rebuttal testimony are Dr. Paul C. Rizzo and Peter G. Hubbell.

Dr. Griffin is a registered professional engineer and holds a Bachelor of Science degree in Civil Engineering and a Master of Science degree in Agricultural Engineering from the University of Kentucky along with a Ph.D. in Agricultural Engineering from Purdue University. PEF003 (Griffin CV). Dr. Griffin's CV notes that he has over 30 years of experience practicing engineering, with experience in groundwater modeling. *Id.* Dr. Griffin provided testimony for PEF regarding the environmental impacts of passive and active dewatering during construction of the proposed LNP.<sup>36</sup>

Mr. Rumbaugh is a registered professional geologist in Florida and Pennsylvania, and he holds a Bachelor of Science degree in Geology from Susquehanna University and a Master of Science degree in Geology from the Pennsylvania State University.<sup>37</sup> Mr. Rumbaugh has 25 years of experience in groundwater modeling, and is currently President of Environmental Simulations, Inc., a hydrogeological consulting firm providing groundwater modeling services. *Rumbaugh Testimony* at 1, 2. He provided testimony for PEF regarding the elements of Contention 4A that relate to groundwater modeling.<sup>38</sup>

Mr. Lehnen is a registered professional geologist in Florida and holds a Bachelor of Science degree in Geology from the University of Florida. PEF202 (Lehnen CV). According to his CV, he has over 30 years of experience in

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in Support of Contention C-4 Regarding Environmental Impacts of Levy Units 1 and 2 on Water Resources and Hydroecology (July 31, 2012) (INT801) [Bacchus Rebuttal].

<sup>36</sup> See generally Pre-Filed Direct Testimony of Mitchell L. Griffin, Ph.D. Regarding Passive Dewatering and Active Dewatering During Construction (June 26, 2012) (PEF001) [Griffin Testimony]; Pre-Filed Rebuttal Testimony of Mitchell L. Griffin, Ph.D. Addressing Intervenors' Direct Testimony Regarding Passive Dewatering, Active Dewatering During Construction, and Saltwater Intrusion (July 31, 2012) (PEF016) [Griffin Rebuttal].

<sup>37</sup> Pre-Filed Direct Testimony of James O. Rumbaugh, III, P.G. on the Design and Calibration of the Regional Computer Model Used in Predicting the Effects on Local and Regional Water Resources from Active Groundwater Withdrawals During Construction and Operating of the Levy Nuclear Plant, Units 1 & 2 (June 26, 2012) (PEF100) [Rumbaugh Testimony].

<sup>38</sup> See generally *id.*; Pre-Filed Rebuttal Testimony of James O. Rumbaugh, P.G. Addressing Intervenors' Initial Pre-Filed Testimony Regarding the Adequacy of the Regional Groundwater Model Used in Evaluating the Environmental Impacts from Active Groundwater Withdrawals During Construction and Operation of the Levy Nuclear Plant, Units 1 & 2 (July 31, 2012) (PEF104) [Rumbaugh Rebuttal].

water resource planning and design, and is currently employed as a Senior Hydrogeologist with CH2M Hill, Inc., an engineering consulting company.<sup>39</sup> Mr. Lehen provided testimony for PEF regarding computer modeling of the effects of active dewatering at the LNP site.<sup>40</sup>

Dr. Dunn holds a Bachelor of Science degree in Biology from Tufts University, a Master of Science degree in Botany from the University of Florida, and a Ph.D. in Systems Ecology from the University of Florida. PEF302 (Dunn CV). According to his CV, he has 35 years of experience in environmental and water resource management, and is currently employed as the Principal Scientist at Dunn, Salsano & Vergara Consulting, LLC.<sup>41</sup> Dr. Dunn provided testimony for PEF regarding Contention 4A, Part A, Sections 1 through 4, and Part C.<sup>42</sup>

Dr. Robertson holds a Bachelor of Science degree in Botany from Louisiana State University and a Master of Science degree and a Ph.D. in Plant Biology from the University of Illinois at Urbana-Champaign. PEF402 (Robertson CV). His CV provides that he has over 20 years of experience in the field of fire ecology, and is currently a Fire Ecology Research Scientist at Tall Timbers Research Station and Land Conservancy. *Id.* Dr. Robertson provided testimony for PEF regarding the impacts of dewatering at the LNP site on wildfires.<sup>43</sup>

Dr. Howroyd is a registered professional engineer in Georgia and Mississippi and holds a Bachelor of Science degree, a Master of Science degree, and a Ph.D.,

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<sup>39</sup> *See id.*; Pre-Filed Direct Testimony of Jeffrey D. Lehen, P.G. on Computer Modeling of the Effects on Local and Regional Water Resources from Active Groundwater Withdrawals During Construction and Operation of the Levy Nuclear Plant, Units 1 & 2 (June 26, 2012) at 1 (PEF200) [Lehen Testimony].

<sup>40</sup> *See generally* Lehen Testimony; Pre-Filed Rebuttal Testimony of Jeffrey D. Lehen, P.G. Addressing Intervenors' Initial Pre-Filed Testimony Regarding the Adequacy of the Final Environmental Impact Statement's Discussions of the Hydroecology of the LNP Site and Surrounding Area, Cumulative Impacts, Groundwater Modeling, Saltwater Intrusion, and Water Permitting Associated with Active Groundwater Withdrawals During Construction and Operation of the Levy Nuclear Plant, Units 1 & 2 (July 31, 2012) (PEF218) [Lehen Rebuttal].

<sup>41</sup> Pre-Filed Direct Testimony of William J. Dunn, Ph.D. Regarding Environmental Impacts from Active Dewatering During Construction and Operation of Levy Nuclear Plant, Units 1 & 2 (June 26, 2012) at 1 (PEF300) [Dunn Testimony].

<sup>42</sup> *See generally id.*; Pre-Filed Rebuttal Testimony of William J. Dunn, Ph.D. Addressing Intervenors' Direct Testimony Regarding Active Dewatering During Construction and Operation of Levy Nuclear Plant, Units 1 & 2 (July 31, 2012) (PEF315) [Dunn Rebuttal].

<sup>43</sup> *See generally* Pre-Filed Direct Testimony of Kevin M. Robertson, Ph.D. Regarding Impacts on Water Quality and the Aquatic Environment Due to Increased Nutrients Resulting from Destructive Wildfires Allegedly Caused by Dewatering (June 26, 2012) (PEF400) [Robertson Testimony]; Pre-Filed Rebuttal Testimony of Kevin M. Robertson, Ph.D. Regarding Impacts on Water Quality and the Aquatic Environment Due to Increased Nutrients Resulting from Destructive Wildfires Allegedly Caused by Dewatering (July 31, 2012) (PEF404) [Robertson Rebuttal].

all in Mechanical Engineering, from the University of Waterloo.<sup>44</sup> He testified that he has over 30 years of experience performing air quality and environmental evaluations and assessments. *Id.* Dr. Howroyd provided testimony for PEF regarding environmental impacts from salt drift and salt deposition.<sup>45</sup>

Dr. Blancher holds a Bachelor of Arts degree in Biology from the University of New Orleans, a Master of Science degree in Zoology and Physiology from Louisiana State University, and a Ph.D. in Environmental Engineering Sciences from the University of Florida. PEF602 (Blancher CV). He testified that he has over 30 years of experience in the assessment of impacts of discharges into wetland and aquatic systems.<sup>46</sup> Dr. Blancher provided testimony for PEF regarding environmental impacts of salt drift and salt deposition.<sup>47</sup>

Dr. Rizzo is a registered professional engineer in thirty-five States and Puerto Rico, and he holds a Bachelor of Science degree, a Master of Science degree, and a Ph.D., all in Civil Engineering, from Carnegie Mellon University. *See* PEF702 (Rizzo CV). Dr. Rizzo's CV specifies that he has over 40 years of experience in civil engineering within the nuclear industry, and is currently President and CEO of Paul C. Rizzo Associates, Inc., a civil engineering firm. *Id.* Dr. Rizzo provided testimony for PEF rebutting testimony from Intervenor's witnesses regarding the FEIS's alleged inadequacy in describing and considering karstic features in and around the LNP site.<sup>48</sup>

Mr. Hubbell holds a Bachelor of Science degree in Hydrology and Water Resource Management from the University of Maryland.<sup>49</sup> According to his CV, Mr. Hubbell has over 30 years of experience in water resource management, having served as the Executive Director of SWFWMD for 8 years, and is currently working as a Principal, Senior Hydrologist for Water Resource Associates, Inc. *See* PEF802 (Hubbell CV). Mr. Hubbell provided testimony for PEF rebutting the

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<sup>44</sup> Pre-Filed Direct Testimony of Dr. George C. Howroyd Regarding Salt Emissions and Salt Deposition from Cooling Towers (June 26, 2012) at 1 (PEF500) [Howroyd Testimony].

<sup>45</sup> *See generally id.*; Pre-Filed Rebuttal Testimony of Dr. George C. Howroyd Regarding Salt Emissions and Salt Deposition from Cooling Towers, and Climate Change (July 31, 2012) (PEF506) [Howroyd Rebuttal].

<sup>46</sup> Pre-Filed Direct Testimony of Eldon C. Blancher II, Ph.D. Regarding Impact of Cooling Tower Salt Emissions (June 26, 2012) at 1 (PEF600) [Blancher Testimony].

<sup>47</sup> *See generally id.*; Pre-Filed Rebuttal Testimony of Dr. Eldon C. Blancher II, Ph.D. Regarding Impact of Cooling Tower Salt Emissions (July 31, 2012) (PEF608) [Blancher Rebuttal].

<sup>48</sup> *See generally* Pre-Filed Rebuttal Testimony of Paul C. Rizzo, Ph.D. Addressing Intervenor's Testimony Asserting Inadequate Treatment of Karst Features by the NRC Staff in the Final Environmental Impact Statement for the Levy County Nuclear Plant, Units 1 and 2 (July 31, 2012) (PEF700) [Rizzo Rebuttal].

<sup>49</sup> Pre-Filed Rebuttal Testimony of Peter G. Hubbell Responding to Mr. Still's Criticisms of Florida Water Management Districts' Water Use Permitting and Processes for Protecting Water Resources in Florida (July 31, 2012) at 3 (PEF800) [Hubbell Rebuttal].

initial testimony presented by David Still for Intervenors. *See generally* Hubbell Rebuttal.

### 3. NRC Staff's Witnesses

The NRC Staff presented twelve witnesses, ten of whom provided both initial and rebuttal testimony.<sup>50</sup> Those providing both initial and rebuttal testimony concerning Contention 4A were Dr. Ann L. Miracle, Dr. Michael T. Masnik, J. Peyton Doub, Lara M. Aston, Dan O. Barnhurst, Lance W. Vail, Dr. Rajiv Prasad, Vince R. Vermeul, Kevin R. Quinlan, and Dr. Larry K. Berg. Mallecia A. Sutton served as the sponsor of the FEIS for the record,<sup>51</sup> and Dr. Gerry Stirewalt provided only rebuttal testimony.

Ms. Sutton holds a Bachelor of Science degree in Biology from Bowie State University. NRC002 (Sutton CV). Her CV provides that she currently serves as an environmental project manager in NRC's Office of New Reactors and is the environmental project manager for the LNP COL Application.<sup>52</sup> *Id.*

Dr. Miracle holds a Bachelor of Arts degree in Biology from the University of Virginia, a Master of Science degree in Molecular Genetics from the University of Florida, and a Ph.D. in Molecular Immunology from the University of South Florida. NRC003 (Miracle CV). According to her CV, she currently serves as a Scientist in the Environmental Assessment Group, Earth Systems Science Division, Energy and Environment Directorate at the Pacific Northwest National Laboratory. *Id.* Dr. Miracle provided testimony for the NRC Staff concerning aquatic ecology and the zones of environmental impacts, listed species, irreversible impacts, and mitigation, as well as nutrient concentrations and destructive wildfires.<sup>53</sup>

Dr. Masnik holds a Bachelor of Science degree in Conservation from Cornell University, and a Master of Science degree and a Ph.D. both in Zoology from Virginia Polytechnic Institute and State University. NRC004 (Masnik CV).

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<sup>50</sup> *See generally* NRC Staff Testimony of Mallecia A. Sutton, Ann L. Miracle, Michael T. Masnik, J. Peyton Doub, Lara M. Aston, Dan O. Barnhurst, Lance W. Vail, Rajiv Prasad, Vince R. Vermeul, Kevin R. Quinlan, Larry K. Berg Concerning Contention 4A (June 26, 2012) (NRC090) [NRC Testimony]; NRC Staff Pre-Filed Rebuttal Testimony of Ann L. Miracle, Michael T. Masnik, J. Peyton Doub, Lara M. Aston, Dan O. Barnhurst, Lance W. Vail, Rajiv Prasad, Vince R. Vermeul, Kevin R. Quinlan, Larry K. Berg, and Gerry L. Stirewalt Concerning Contention 4A (July 31, 2012) (NRC091) [NRC Rebuttal].

<sup>51</sup> Prefiled Direct Testimony of Mallecia A. Sutton Sponsoring the [FEIS] into Evidence (June 26, 2012) at 1-2.

<sup>52</sup> The FEIS, issued on April 27, 2012, listed Mr. Douglas Bruner as the NRC's Project Manager. FEIS App. A at A-1. The NRC Staff did not proffer Mr. Bruner as a witness.

<sup>53</sup> *See* NRC Testimony at 4, 73-80, 106-15, 117-22, 130-32, 137-42, 146-48, 150-51, 163-64, 172-76, 179-81, 187-94, 196-97, 199 (Miracle); NRC Rebuttal at 63-67 (Miracle).

According to his CV, he has over 35 years of experience assessing impacts of nuclear power on aquatic biota, *id.*, and he currently serves as the Water and Ecology Team Leader in the Division of Site Safety and Environmental Analysis in NRC's Office of New Reactors. NRC Testimony at 2 (Masnik). Dr. Masnik provided testimony for the NRC Staff concerning aquatic ecology and the zones of environmental impacts, listed species, irreversible impacts, and mitigation, as well as nutrient concentrations and destructive wildfires.<sup>54</sup>

Mr. Doub is a Certified Environmental Professional and a Professional Wetland Scientist and holds a Bachelor of Science degree in Plant Sciences from Cornell University and a Master of Science degree in Botany from the University of California at Davis. NRC005 (Doub CV). He has more than 25 years of professional experience in mapping, characterizing, and evaluating possible impacts to terrestrial habitats, NRC Testimony at 7 (Doub), and he currently serves as an Environmental Scientist/Terrestrial Ecologist with the Division of Site Safety and Environmental Analysis in NRC's Office of New Reactors. Doub CV. Mr. Doub provided testimony for the NRC Staff concerning terrestrial ecology and the zones of environmental impacts, listed species, irreversible impacts, and mitigation, as well as nutrient concentrations, destructive wildfires, active and passive dewatering, the Floridan Aquifer, and Outstanding Florida Waters.<sup>55</sup>

Ms. Aston holds a Bachelor of Science degree in Environmental Science from Western Washington University and a Master of Science degree in Environmental Science from the University of Washington. NRC006 (Aston CV). She has over 12 years of experience in ecological assessment, characterization, and restoration of terrestrial and wetland systems, NRC Testimony at 7-8 (Aston), and she currently serves as a research scientist/ecologist for the Coastal Ecosystem Research group at Mattell Marine Research Operations at the Pacific Northwest National Laboratory. Aston CV. Ms. Aston provided testimony for the NRC Staff concerning terrestrial ecology and the zones of environmental impacts, listed species, irreversible impacts, and mitigation, as well as nutrient concentrations and destructive wildfires, active and passive dewatering, the Floridan Aquifer, and Outstanding Florida Waters.<sup>56</sup>

Mr. Barnhurst is a licensed professional geologist and holds an Associate degree in Natural Sciences from Ricks College, and a Bachelor of Science degree in Environmental Geology and a Master of Science in Geology, both from Brigham Young University. NRC007 (Barnhurst CV). He has about 12 years

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<sup>54</sup> See NRC Testimony at 72-77, 79, 106-15, 117-22, 130-32, 137-42, 146-48, 150-51, 163-64, 172-76, 179-81, 187-94, 196-97, 199 (Masnik); NRC Rebuttal at 63-67 (Masnik).

<sup>55</sup> See NRC Testimony at 49-50, 59-69, 87-99, 105, 128-30, 135-37, 143-46, 149-50, 160-72, 177-79, 181-87, 194-96, 198-99 (Doub); NRC Rebuttal at 42-63, 71-77 (Doub).

<sup>56</sup> See NRC Testimony at 59-71, 90-99, 105-06, 128-30, 135-37, 143-46, 149-50, 160-72, 177-87, 194-99 (Aston); NRC Rebuttal at 42-63, 72-77 (Aston).

of experience in hydrogeology, and he currently works as a Hydrologist in the Division of Site Safety and Environmental Analysis in NRC's Office of New Reactors. NRC Testimony at 2, 8 (Barnhurst). Mr. Barnhurst provided testimony for the NRC Staff concerning active and passive dewatering, the Floridan Aquifer, and Outstanding Florida Waters.<sup>57</sup>

Mr. Vail holds a Bachelor of Science degree in Environmental Resources Engineering from Humboldt State University and a Master of Science degree in Civil Engineering from Montana State University. NRC008 (Vail CV). His CV notes that he currently serves as a Senior Research Engineer with the Hydrology Group, Environmental Technology Division at the Pacific Northwest National Laboratory. *Id.* Mr. Vail provided testimony for the NRC Staff concerning active and passive dewatering, the Floridan Aquifer, and Outstanding Florida Waters.<sup>58</sup>

Dr. Prasad holds a Bachelor of Engineering degree in Civil Engineering from Regional Engineering College, a Master of Technology degree in Civil Engineering from the Indian Institute of Technology, and a Ph.D. in Civil and Environmental Engineering from Utah State University. NRC009 (Prasad CV). According to his CV, he currently works as a Senior Research Scientist in the Surface Water Hydrology division of the Hydrology Group at the Pacific Northwest National Laboratory. *Id.* Dr. Prasad provided testimony for the NRC Staff concerning active and passive dewatering, the Floridan Aquifer, and Outstanding Florida Waters.<sup>59</sup>

Mr. Vermeul holds a Bachelor of Science degree in Agricultural Engineering and a Master of Science in Civil Engineering, both from Oregon State University. NRC010 (Vermeul CV). His CV indicates that he has 20 years of experience in hydrologic and geochemical characterization and that he currently works as a Senior Research Engineer with the Environmental Systems Group, Earth Systems Science Division, Energy and Environment Directorate at the Pacific Northwest National Laboratory. *Id.* Mr. Vermeul provided testimony for the NRC Staff concerning active and passive dewatering, the Floridan Aquifer, and Outstanding Florida Waters.<sup>60</sup>

Mr. Quinlan holds a Bachelor of Science degree in Meteorology from Millersville University and a Master of Science Degree in Atmospheric Science from the University of Alabama in Huntsville. NRC011 (Quinlan CV). According to

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<sup>57</sup> See NRC Testimony at 21-59, 86-87, 99-106, 115-17, 124-27, 131-35, 143, 145, 152, 157-60 (Barnhurst); NRC Rebuttal at 5-41, 71-72, 77-79 (Barnhurst).

<sup>58</sup> See NRC Testimony at 21-59, 86-87, 99-106, 115-17, 124-27, 131-35, 143, 145, 152, 157-60 (Vail); NRC Rebuttal at 5-41, 71-72, 77-79 (Vail).

<sup>59</sup> See NRC Testimony at 21-59, 86-87, 99-106, 115-17, 124-27, 131-35, 143, 145-46, 152, 158-60 (Prasad); NRC Rebuttal at 5-41, 71-72, 77-79 (Prasad).

<sup>60</sup> See NRC Testimony at 21-53, 86-87, 90, 99-106, 115-17, 124-28, 132-35, 152, 158-60 (Vermeul); NRC Rebuttal at 5-41, 71-72, 77-79 (Vermeul).



his CV, he currently works as a physical scientist (meteorologist) in the Division of Site and Environmental Analysis in NRC's Office of New Reactors. *Id.* Mr. Quinlan provided testimony for the NRC Staff concerning salt drift and deposition. *See* NRC Testimony at 80-83 (Quinlan); NRC Rebuttal at 68-69 (Quinlan).

Dr. Berg holds a Bachelor of Science degree in Meteorology from Pennsylvania State University, and a Master of Science and Ph.D. both in Atmospheric Sciences from the University of British Columbia. NRC012 (Berg CV). His CV indicates that he currently serves as a Research Scientist in the Atmospheric Chemistry and Meteorology Technical Group, Atmospheric Sciences and Global Change Division at the Pacific Northwest National Laboratory. *Id.* Dr. Berg provided testimony for the NRC Staff concerning salt drift and deposition. *See* NRC Testimony at 80-85, 153-57 (Berg); NRC Rebuttal at 69-71 (Berg).

Finally, Dr. Stirewalt is a Registered Professional Geologist and Certified Engineering Geologist and holds a Bachelor of Arts degree in Geology and Mathematics from Catawba College, and a Ph.D. in Structural Geology from the University of North Carolina at Chapel Hill. NRC Exh. 070 (Stirewalt CV). He has over 40 years of experience in surface and subsurface geological site characterizations, and he serves as a Senior Geologist in the Geosciences and Geotechnical Engineering Branch of the Division of Site Safety and Environmental Analysis in NRC's Office of New Reactors. *Id.*; NRC Rebuttal at 2 (Stirewalt). Dr. Stirewalt provided rebuttal testimony for the NRC Staff concerning karst features and preferential pathways. NRC Rebuttal at 19-26 (Stirewalt).

## **B. Key Exhibits**

Prior to the hearing, the Intervenors filed 174 initial exhibits and two rebuttal exhibits, in addition to the prefiled testimony of their witnesses.<sup>61</sup> PEF filed sixty-three initial exhibits and forty-one rebuttal exhibits,<sup>62</sup> and NRC Staff filed sixty-nine initial exhibits and twelve rebuttal exhibits.<sup>63</sup> Among these filings were the following key exhibits. NRC001A, NRC001B, and NRC001C are the three volumes of the NRC Staff's FEIS. PEF005A and PEF005B are the Conditions of Certification (COC) imposed on PEF by the Florida Department of Environmental Protection (FDEP) in granting the certification to construct the LNP and associated transmission lines. PEF004 is a Final Order Approving Certification issued by the Florida Siting Board on August 26, 2009, which includes, as "Exhibit A," the

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<sup>61</sup> Exhibits INT002 through INT009, INT102 through INT105, INT202 through INT218, INT302 through INT446, and INT802 through INT803.

<sup>62</sup> Exhibits PEF002 through PEF024, PEF101 through PEF105, PEF201 through PEF228, PEF301 through PEF316, PEF401 through PEF411, PEF501 through PEF508, PEF601 through PEF611, PEF701 through PEF705, and PEF801 through PEF804.

<sup>63</sup> Exhibits NRC001 through NRC081.

May 15, 2009, Recommended Order on Certification by [Florida] Administrative Law Judge J. Lawrence Johnston approving that certification. PEF210 and PEF212 are technical memoranda regarding the groundwater models used to predict environmental impacts at and around the LNP site. PEF304 is a proposed Aquifer Performance Testing (APT) Plan prepared for PEF by CH2M Hill. PEF305 is a proposed Environmental Monitoring Plan (EMP) prepared for PEF by CH2M Hill.

#### **IV. FINDINGS OF FACT**

Contention C4A, recited in full at page 116, above, consists of an introductory clause and three main components. The introductory clause reads as follows:

The Final Environmental Impact Statement (FEIS) fails to comply with 10 C.F.R. Part 51 and the National Environmental Policy Act because it fails to specifically and adequately address, and inappropriately characterizes as SMALL, certain direct, indirect, and cumulative impacts, onsite and offsite, of constructing and operating the proposed LNP facility.

C4A Order, Att. A at 1.

This introductory clause confirms that Contention 4A covers (1) direct impacts, indirect impacts, and cumulative impacts; (2) onsite and offsite impacts; and (3) impacts resulting both from the construction and the operation of the LNP. Contention 4A asserts that the FEIS inadequately addresses and inappropriately characterizes all such impacts as “SMALL.”

Contention 4A then gets down to specifics, identifying three main areas where the FEIS is allegedly deficient. The three components are: Dewatering, Salt Drift/Deposition, and Consequential Impacts. We will analyze each in turn.

##### **A. Dewatering Impacts: Findings of Fact**

The first component of Contention 4A — Dewatering Impacts — asserts that the FEIS inadequately addresses, and inappropriately characterizes as SMALL, the LNP’s “impacts to wetlands, floodplains, special aquatic sites, and other waters, associated with dewatering.” *Id.* This component of Contention 4A has *five subparts*:

- (1) Dewatering Impacts resulting from active and passive dewatering (Subpart 1 — Active/Passive Dewatering);
- (2) Dewatering Impacts resulting from the connection of the site to the underlying Floridan aquifer system (Subpart 2 — Floridan Aquifer System);

- (3) Dewatering Impacts to Outstanding Florida Waters (Subpart 3 — Outstanding Florida Waters);
- (4) Dewatering Impacts due to alterations and increases in nutrient concentrations (Subpart 4 — Nutrient Concentrations); and
- (5) Dewatering Impacts due to increased nutrients resulting from destructive wildfires (Subpart 5 — Destructive Wildfires).

The Board will address the five subparts of the Dewatering Impacts component of Contention 4A separately. But first we will define some of the relevant terms and will make findings on some of the basic facts concerning the FEIS and the LNP site and its environment.

### ***1. General Findings of Fact***

As a matter of introduction and orientation, the Board makes the following findings of fact concerning the location and basic characteristics of the proposed LNP, the relevant characteristics of the proposed nuclear reactors and associated facilities, and the investigation and other work that have been done by PEF in preparing the ER, and the NRC Staff in preparing the DEIS and FEIS. The Board finds:

#### ***a. Basic Features***

1.1 The site proposed for the LNP and its associated facilities is a rural and generally undeveloped parcel of land located in Levy County, Florida, approximately 7.9 miles east of the Gulf of Mexico. FEIS at 1-1, 2-1.

1.2 Each proposed nuclear reactor is to be situated on a land surface that is to be elevated above the existing land surface to meet reactor requirements and to support the associated structures and buildings (“nuclear islands”). Additional features include stormwater holding ponds, electrical transmission lines, cooling water pipelines, and a group of wells drilled into the aquifer to produce fresh water for use in the operation of the LNP. *Id.* at 2-8, 3-2, 3-7, 3-13, 3-16, 3-19, 4-4.

1.3 PEF plans to construct and operate the LNP’s two nuclear reactors on a 3105-acre parcel of land. PEF designated the 3105-acre parcel as the “LNP site” and the FEIS likewise defines this parcel as the “LNP site.” *Id.* at 2-5; *id.* Figs. 2-2 and 2-3. We will refer to it as the LNP Site.

1.4 Much of the LNP Site has been a pine tree plantation for many decades. Pine plantations encompass about 57% of the LNP Site, cypress swamp covers about 13%, and mixed wetland hardwoods about 10%. *Id.* at 2-5.

1.5 The LNP project includes a proposed corridor that would extend south

from the LNP Site to the Cross Florida Barge Canal (CFBC). *Id.* at 2-5 and *id.* Fig. 2-3. The corridor would include underground cooling water intake pipelines, a cooling water discharge pipeline, electrical transmission lines, and a heavy-haul road. *Id.* at 2-5, 3-7, 3-11, 3-13.

1.6 The CFBC is an incomplete cross-Florida waterway located approximately 2 miles south of the LNP Site and 4 miles south of the proposed location of the two nuclear reactors. *Id.* at 2-7. PEF proposes to construct a cooling water intake structure, a barge slip, and a barge unloading facility at the point where the corridor meets the CFBC. *Id.* at 2-5 and *id.* Fig. 2-3.

1.7 The LNP project includes the installation of five groundwater production wells. *See* PEF005A at 41; FEIS at 3-21 and Fig. 3-1. One of the wells is only to be used during the construction phase, and is intended to produce 90,000 gallons per day (gpd). PEF005A at 41.

1.8 The other four groundwater production wells are to be used during the operation phase of the LNP and are intended to produce a collective total of 1.58 million gallons per day (mgd) on an annual average basis. FEIS at 3-30. We will refer to these four wells as the “production wells.” The production wells will be constructed to a maximum depth of 500 ft. *Id.* at 3-21.

1.9 Cooling water for the LNP will *not* be drawn from the production wells. The production wells will instead be used to supply water for “general plant operations including makeup water for the service-water system, potable-water supply, raw water to the demineralizer, fire protection, and media filter backwash.” *Id.* at 3-30.

1.10 Cooling water for the LNP will be drawn from the CFBC. *Id.* at 2-7.

1.11 The proposed production wells will not be located on the LNP Site. Instead they are to be located on a 2114-acre parcel of land owned by PEF that is contiguous with, and immediately south of, the LNP Site. *Id.* at 3-21; BRD001 at 2; Griffin Testimony at 4. Thus, the production wells and wellfield are located off of the LNP Site.

1.12 Because a number of structures associated with the proposed LNP (e.g., the production wellfield, the corridor structures, the cooling water intake structure on the CFBC) will not be located on the LNP Site, it is reasonably foreseeable that the LNP will have offsite environmental impacts.

1.13 For purposes of clarity, the Board will refer to the 3105-acre parcel of land where the nuclear power reactors are proposed to be located as the “LNP Site” or the “North Property.” We will refer to PEF’s adjacent southern parcel (2114 acres) as the “South Property.” Unless otherwise specified, we will use the term “Proposed Site” to include both the North Property and South Property.

*b. Basic Geology*

1.14 The Proposed Site is located in a portion of west-central Florida where

groundwater generally occurs in a surficial aquifer composed of unconsolidated sediments (Surficial Aquifer) and an underlying carbonate rock aquifer known as the Floridan Aquifer system (Floridan Aquifer). FEIS at 2-22.

1.15 The Surficial Aquifer is composed primarily of sands, and provides substantial recharge to the Floridan Aquifer. *Id.* In the vicinity of the Proposed Site, the Surficial Aquifer is generally encountered at depths of less than 5 ft and has an average thickness of approximately 50 ft. *Id.* at 2-25.

1.16 The Floridan Aquifer consists of both an upper and lower Floridan aquifer. *Id.* at 2-22. The Upper Floridan Aquifer (UFA) is of primary relevance here.

1.17 The UFA is estimated to be 500 to 750 ft thick at the Proposed Site. *Id.* at 2-22 and 2-25. The UFA is the primary source of potable water in the area and, as such, is the part of the Floridan Aquifer that would most likely be impacted by the production wells. *Id.* at 2-25.

1.18 No confining layer exists between the Surficial Aquifer and the UFA in the area of the Proposed Site and thus the two aquifers are hydraulically connected. *Id.* at 2-22.

1.19 Limestone is a form of rock that consists of at least 50% calcite or aragonite ( $\text{CaCO}_3$  or calcium carbonate). *See* NRC077 at 3.

1.20 Dolomite or dolomitic limestone consists of calcium magnesium carbonate ( $\text{CaMg}(\text{CO}_3)_2$ ). Tr. at 1132 (Stirewalt), 1240 (Lehnen). Dolomite is formed by the substitution of magnesium for calcium in the carbonate mineral structure. NRC077 at 3. If more than 50% of the rock is composed of calcium magnesium carbonate, then it is considered dolomite rather than limestone. *See id.*

1.21 The percentage of calcium versus magnesium in the carbonate rock can vary considerably and may not be uniform. In general, the higher the percentage of pure limestone, the greater its proclivity to form karst.<sup>64</sup> Some evidence exists that it takes about 60% limestone to form karst and about 90% may be necessary to fully develop karst. *Id.* However, even pure limestone may not produce karst. Some karst features may also form on dolomite, but their permeability is typically lower than that of limestone. The occurrence of karst in dolomites is usually minor. *Id.* Dolomite is harder and less susceptible to dissolution than ordinary limestone. Lehnen Testimony at 8.

1.22 The UFA at the Proposed Site consists of the “Avon Park Formation.” FEIS at 2-22; Tr. at 1306 (Davies); Lehnen Testimony at 8. The Avon Park Formation consists of dolomitic limestone. Tr. at 1307 (Davies). The Avon Park Formation grades into harder dolomite at greater depths. Lehnen Testimony at 8.

1.23 Regional data from the United States Geological Survey (USGS) indi-

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<sup>64</sup>The term “karst” is defined below.

cates that another formation, known as the “Ocala Formation,” lies south of the Proposed Site. *See* PEF205; Tr. at 1230-31 (Rizzo).

1.24 The Ocala Formation is a rock formation that consists primarily of limestone. Tr. at 1240 (Lehnen). The limestone Ocala Formation has a greater proclivity to form karst. NRC077 at 3.

1.25 The South Property starts to transition from the harder (dolomitic) Avon Park Formation to the more karstic (limestone) Ocala Formation. Tr. at 1235-37 (Rizzo). The uppermost layer in the vicinity of the production wells on the South Property could include a 10-ft-thick lens of Ocala Formation. Tr. at 1230-31 (Rizzo).

1.26 The UFA in the vicinity of the Proposed Site likely contains some cavities, fractures, and solution channels allowing the flow of groundwater within the limestone and dolomite of the Avon Park Formation. Lehnen Testimony at 10.

1.27 The term “karst” refers to “a terrain in which near-surface carbonate rocks have been partially dissolved by rainwater and groundwater, producing large solution openings that can readily transmit groundwater and where sinkholes can provide easy connections between the surface and groundwater.” FEIS at 2-25. Karst is a terrain in which the topography is chiefly formed by the dissolution of soluble rock (particularly limestone). Karstic terrain is highly permeable as a result of the network of interconnected fissures, fractures, and conduits. These features facilitate groundwater flow and transport, resulting in highly permeable aquifers. Lehnen Testimony at 8-9.

1.28 The nature and extent of the karstic terrain at the Proposed Site and its vicinity, and the degree to which it is “developed” into significant conduits or preferential pathways is in dispute in this case.

1.29 “Permeability” is a measure of a geologic formation’s ability to transmit water through an aquifer. *Id.* at 9.

1.30 High permeability results in high transmissivity and in aquifers where larger quantities of water can be extracted with less drawdown of the level of the groundwater. *Id.*

*c. Basic Regulatory Status*

1.31 In addition to the NRC, the proposed LNP is regulated by several governmental entities.

1.32 The LNP will impact at least 668 acres of wetlands and therefore its construction and operation will require a permit from U.S. Army Corps of

Engineers (USACE) under section 404 of the Federal Water Pollution Control Act.<sup>65</sup>

1.33 With regard to state governmental agencies, on August 26, 2009, the Florida Department of Environmental Protection (FDEP) issued a water use permit (WUP) to PEF for the construction and operation of LNP Units 1 and 2, other associated facilities (such as the production wells), and the transmission lines and corridor. FEIS at 1-1. The WUP for the LNP is referred to as the “Conditions of Certification” (COC). The COC was most recently modified on January 25, 2011, and may be found in Exhibits PEF005A and PEF005B herein. FDEP issued the COC to PEF pursuant to the Florida Electrical Power Plant Siting Act (FEPPSA), Fla. Stat. §§ 403.501-518. *See* PEF005A at 1.

1.34 With regard to local governmental agencies, the SWFWMD also regulates PEF and the proposed LNP. SWFWMD evaluates applications for WUPs within its jurisdiction and was involved in the issuance of the COC to PEF. *See* PEF ISOP at 22; Fla. Stat. § 403.507(2)(a)(2).

*d. Basic Groundwater Modeling*

1.35 DWRM2: The SWFWMD uses a regional groundwater flow model known as the District-Wide Regulation Model, Version 2 (DWRM2). FEIS at 2-25. DWRM2 encompasses the entire area of the SWFWMD, plus a 10-mile buffer around the periphery, a total area of approximately 10,000 square miles.<sup>66</sup>

1.36 Model 1: As part of its application to FDEP for the COC, PEF constructed a submodel of the DWRM2 encompassing a smaller area — an area of 20 miles by 20 miles. FEIS at 2-25; Tr. at 1383 (Vermeul). We refer to this submodel of DWRM2 as Model 1.

1.37 Model 2: As part of its application to the NRC for the COL, NRC required PEF to revise and recalibrate the local scale Model 1. FEIS at 2-26. We refer to this recalibrated local scale model as Model 2. Model 2 encompasses the same area as Model 1. Tr. at 1387 (Vermeul).

*e. Relevant NRC Guidance*

1.38 The NRC Staff has a guidance document that concerns its environmental review process for nuclear power plants. This guidance is known as “NUREG-

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<sup>65</sup> FEIS at 1-1. The NRC is the lead federal agency in the development of the FEIS, and the USACE is a cooperating agency on the FEIS. *Id.* at 1-4.

<sup>66</sup> *See* Rumbaugh Testimony at 11-12 (Regional Model “consists of 59,840 cells arranged in five layers . . . each grid cell . . . measures 5000 ft on each side”) ((1/5th of 59,840) × (5000′ × 5000′) = approximately 10,000 square miles); *see also* Who We Are & What We Do, Southwest Florida Water Management District, <http://www.swfwmd.state.fl.us/about/mission> (last visited Jan. 28, 2013).

1555, Standard Review Plans for Environmental Reviews for Nuclear Power Plants” (2000) (“ESRP”) and it is Exhibit NRC013 herein. *See* FEIS at 1-2.

1.39 The NRC Staff relied on the ESRP in drafting the FEIS. *See id.*; NRC Testimony at 13 (Testimony of “All” NRC Staff witnesses).

## **2. Dewatering Impacts: Basic Terminology and Definitions**

The Dewatering component of Contention 4A starts with an allegation that the FEIS has not adequately discussed impacts to “wetlands, floodplains, special aquatic sites, and other waters.” C4A Order, Att. A at 1.

2.1 Wetlands: For purposes of this decision, we define the term “wetlands” as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.” *See* 33 C.F.R. § 328.3(b). Wetlands generally include swamps, marshes, bogs, and similar areas. *Id.*

2.2 Floodplain: For purposes of this decision, we define “floodplain” as an area of normally dry or semi-dry land providing temporary natural storage areas for floodwater. FEIS at 4-63.

2.3 Special aquatic sites: For purposes of this decision, we define the term “special aquatic sites” in accordance with guidelines issued by the United States Environmental Protection Agency. *See* 45 Fed. Reg. 85,336, 85,344 (Dec. 24, 1980); Griffin Testimony at 6. The EPA guidelines identify six categories of special aquatic sites: (1) sanctuaries and refuges; (2) wetlands; (3) mudflats; (4) vegetated shallows; (5) coral reefs; and (6) riffles and pool complexes. *Id.* Of these six categories, the only “special aquatic sites” shown to be present on the Proposed Site are wetlands. Griffin Testimony at 6.

2.4 Hydroperiod: For purposes of this decision, we accept the Intervenor’s definition of the term “hydroperiod” as the “natural fluctuations of the water table — the surficial aquifer.” Bacchus Testimony at 12-13. The “three important aspects of a wetland hydroperiod are (1) the depth or stage of fluctuating ground and surface water; (2) the duration of the water level at a given depth or stage; and (3) the periodicity or seasonality of the water level fluctuations.” *Id.* at 13.

2.5 Active Dewatering: Although Contention 4A uses the term “active dewatering,” the Intervenor’s do not define it, nor is it a term used in the FEIS. *See* NRC Testimony at 37 (Prasad, Barnhurst, Vail, Vermeul). For purposes of this decision, the term “active dewatering” will refer to the mechanical pumping of water from an aquifer. *See* Bacchus Testimony at 14. Active dewatering includes pumping from the four production wells during the operation of the LNP. It also includes pumping from the 90,000-gpd well during construction and pumping to dewater excavations associated with constructing the nuclear islands and the pipeline corridor ditch.



2.6 **Passive Dewatering:** Although Contention 4A uses the term “passive dewatering” the Intervenor do not define it, nor is the term used in the FEIS. *See* NRC Testimony at 37 (Prasad, Barnhurst, Vail, Vermeul). For purposes of this decision, the term “passive dewatering” will refer to evaporative losses of surface or groundwater resulting from alterations in land cover, site drainage design, and changes to subsurface flow properties. *Id.* at 38; Bacchus Testimony at 30. This includes evaporative dewatering from stormwater ponds, Bacchus Testimony at 30, and seepage from excavations. NRC Testimony at 38 (Prasad, Barnhurst, Vail, Vermeul).

*a. Additional Terms*

2.7 **SMALL/MODERATE/LARGE:** For purposes of this decision, we will use the definitions of SMALL, MODERATE, and LARGE environmental impacts the NRC Staff employed in the FEIS. *See* FEIS at 1-3 to 1-4; NRC ISOP at 18; Bacchus Testimony at 8. These terms are defined as follows:

2.7.1 The term “SMALL” means “environmental effects are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource.” FEIS at 1-3.

2.7.2 The term “MODERATE” means “environmental effects are sufficient to alter noticeably, but not destabilize, important attributes of the resource.” *Id.*

2.7.3 The term “LARGE” means “environmental effects are clearly noticeable and are sufficient to destabilize important attributes of the resource. *Id.* at 1-4.

**3. Dewatering Impacts: Subpart 1 — Active/Passive Dewatering**

The first component of Contention 4A alleges that the FEIS fails to adequately address the environmental impacts “associated with dewatering” and, as discussed above, contains five specific subparts.

The first subpart of the first component concerns “impacts resulting from passive and active dewatering” and is central to the Intervenor’s entire challenge.<sup>67</sup> In support of this subpart, Intervenor asserts that the FEIS fails to “adequately assess the potential ecological and other environmental impacts that would result from dewatering caused by construction and operation” of the proposed LNP.

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<sup>67</sup> In a sense, this first subpart (active/passive) of the first component (dewatering) encompasses the entirety of the first component. According to the Intervenor, there are two types of dewatering — active and passive. Therefore, active and passive dewatering cover the entire universe of dewatering impacts. The other four subparts (e.g., impacts to the Floridan Aquifer, impacts to OFWs) are specific examples of the dewatering problem. Thus, our analysis of this first subpart will also support our analysis of the other four subparts.

Bacchus Testimony at 9. The Intervenor state that dewatering will have “potentially catastrophic environmental impacts . . . on the extremely fragile aquatic and terrestrial ecosystem” of the Proposed Site and that “water withdrawals . . . threaten to severely and irreversibly harm the ecosystem.” Intervenor’s ISOP at 1. The Intervenor assert that “most” of these adverse impacts “will occur because PEF proposes removing significant amounts of water from the ecosystem already stressed by alterations in the natural hydroperiods.” Bacchus Testimony at 10. Dr. Bacchus adds:

This removal will take place in many different ways, including: mechanical dewatering from pumping from the proposed LNP supply wells, and dewatering for excavations of the nuclear islands; passive dewatering from capture and impoundment of water in the stormwater ponds; evaporative loss from the stormwater ponds, ditches, swales and other features to reroute water; alterations of historic sheet-flow via “stormwater management”; disruption in the existing preferential flow pathways caused by the huge nuclear islands; and withdrawing freshwater from the Withlacoochee Canal (erroneously referred to in the FEIS as the [CFBC]) via the Cooling Water Intake System.

*Id.*

We note that the issue is not whether the dewatering associated with the proposed LNP will have adverse environmental impacts. The FEIS plainly acknowledges that adverse impacts will occur. *See, e.g.*, FEIS at 4-25; 4-27; 4-70 to 4-72; 5-26 to 5-30; 5-46 to 5-47. The issue is whether the FEIS identification, discussion, and characterization of these impacts are adequate and satisfy the requirements of NEPA and 10 C.F.R. Part 51.

We now turn to the first subpart of the first component of Contention 4A: the adequacy of the FEIS with regard to dewatering impacts resulting from active and passive dewatering.

*a. Dewatering: Site Characterization: Adequacy of FEIS Regarding Site Geology and Hydrology*

(i) EVIDENCE REGARDING SITE CHARACTERIZATION<sup>68</sup>

One of the Intervenor’s “overarching themes” is that the “FEIS grossly oversimplifies the hydroecological conditions of the LPN [sic] site” and “grossly

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<sup>68</sup>The “evidence” subsections, such as this one, focus primarily on evidence offered by the Intervenor in support of their assertion that the FEIS is deficient and inadequate. Our findings of fact, as recited in the next subsection, however, are based on our assessment of the entire evidentiary record presented by all of the parties.

oversimplifies the geology and hydrology of the region.” Bacchus Testimony at 5. The Intervenor contend that the FEIS is inadequate because it is “based on the gross oversimplification of existing environmental conditions, including the complex karstic geology of the site which connects the groundwater and surface water on the LNP site to a huge region.” Intervenor’s ISOP at 2.

Mr. Gareth Davies, a consultant hydrogeologist testifying for the Intervenor, stated that “the FEIS does not adequately recognize that most of the [groundwater] flow in this area goes through preferential pathways, not through a porous medium” and that “[b]ecause these flow paths are currently unknown . . . it is [not] possible to rely upon the predictions in the FEIS.” Davies Testimony at 2. Mr. Davies explained that “carbonate rocks underlie the LNP site,” *id.*, and that “[c]arbonate rocks are particularly prone to chemical weathering (dissolution).” *Id.* at 3. He described the “positive feedback loop” whereby such dissolution is initiated at fractures near the land surface, causing enlargement of the fracture, more water dissolution, more enlargement, and the formation of preferential pathways for groundwater flow. *Id.* During the hearing, Mr. Davies stated that *all* carbonate rocks have conduits and therefore he assumes that such conduits exist under the Proposed Site. Tr. at 1308 (Davies). In his written testimony, Mr. Davies stated that the LNP Site is located in a region of karstic geomorphology susceptible to such preferential pathways. Davies Testimony at 4. He added: “To predict the impacts more reliably I recommend mapping of some of the major preferential flow paths and use of a model that is more physically realistic.” *Id.* at 2.

Mr. Davies acknowledged that the FEIS discusses and recognizes that the terrain in the area is karst, but stated that the FEIS “does not emphasize enough the karst landscape/aquifer at the LNP, nor does it mention the possible problems of assuming the incorrect model.” *Id.* at 9. He criticized the FEIS statements that the karst at the LNP site is not “well-developed” stating that the distinction between well-developed karst and non-well-developed karst is not clear and is “entirely subjective, especially because conduits — a key feature of karst development — may be relatively small but will still have a large impact on groundwater movement.” *Id.* at 10. Mr. Davies added that there is a 1995 “Standard Guide published by the American Standards for Testing and Materials [ASTM]” that describes how karst aquifers can be properly investigated and asserts that the FEIS did not follow the ASTM guide. *Id.* at 13.

Mr. Davies noted that the FEIS references an investigation of the LNP Site that included “118 geotechnical borings to characterize subsurface conditions at the proposed LNP Units 1 and 2,” *id.* at 14 (citing FEIS at 2-25), and stated that this number of borings provides “very little knowledge about how much groundwater is really flowing.” *Id.* Mr. Davies cited, with approval, a study that calculates that

“it would take 1,000 3-cm drill holes per acre (404 per hectare)<sup>69</sup> to have a 90% probability of intersecting a 1-meter solid elliptical object in the subsurface.” *Id.* He then stated, “Obviously, 118 borings on a 3,105 acre site (FEIS p. 2-41) is less than the optimum number needed for an accurate analysis of conduits, even if they are large.” *Id.* at 15. Mr. Davies stated, “it is clear that only if empirical tests and minimal assumptions about aquifer characteristics are used, can any predictions approaching reliability be made. As yet at the LNP none of this has been done.” *Id.* at 15.

When asked “what should have been done to investigate this aquifer if you are assuming that it is karst?” Tr. at 1316 (J. Charbeneau), Mr. Davies acknowledged that drilling more boreholes might not be productive, *id.* (Davies) (“The probability of intersecting conduits with randomly drilled wells is fairly low.”) and stated that “investigating karst requires a different method.” *Id.* He proposed the use of “tracer testing,” as follows: Mr. Davies stated that the existence of conduits “can be implied by the existence of springs and sinking streams.” *Id.* at 1317. He testified that the existence of such springs on the Proposed Site is shown by the “springs that Dr. Bacchus found on the north side of the Barge Canal.” *Id.* at 1321. Mr. Davies stated that “injected tracing experiments” would be the appropriate method for identifying and understanding the conduit components in the area. *Id.* at 1317. He acknowledged, however, that there were difficulties with tracer tests: “it is actually quite difficult to — if you inject tracers into conduits it’s actually quite difficult to recover those in wells even if the wells are apparently quite close to conduits.” *Id.* at 1318. And, as Judge Charbeneau pointed out, you still “need to find the conduits first.” *Id.* (J. Charbeneau). Upon questioning, Mr. Davies stated that he was unaware of any site within the Avon Park Formation that has had tracer tests performed. *Id.* at 1319.

Dr. Tim Hazlett, testifying for the Intervenors primarily on groundwater modeling issues (discussed *infra* Section IV.A.3.b), also asserted that the site characterization data are not sufficient. Hazlett Testimony at 4. He testified that “there is . . . no dispute among the experts that significantly more site characterization would be needed to enable the creation of a more realistic and reliable model [including] more boreholes . . . flow tracing and mapping of the existing wetlands and karst features.” Hazlett Rebuttal at 2. The modeling, he said, “is fundamentally inadequate” and the “primary reason for this inadequacy is that the model fails to take into account that the aquifers are karstic and therefore not uniform.” *Id.* at 3. Dr. Hazlett testified that “improved understanding of the behavior of the simulated system would come from additional data streams such as: more wells, at varying depths, being monitored and tested over a longer period

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<sup>69</sup> Something seems amiss with Mr. Davies’ calculation. A hectare consists of 2.471 acres; 1000 holes per acre equates to 2471 holes per hectare (not 404). See Tr. at 1446.

of time, monitoring of water levels in wetlands over at least one year (ideally longer), and measurement of streamflows and spring discharges during both wet and dry season conditions.” Hazlett Testimony at 4. He added that the “use of dye tracers to determine the locations of major preferential flow pathways would greatly assist to understand how pumping will affect the local groundwater.” *Id.*

During his oral testimony, Dr. Hazlett dismissed the significance of PEF’s grout injection testing that failed to identify the existence of any conduits. He stated that “you could have very small spaces that are parallel to the bedding that could easily be clogged with grout injection, yet could be conduits for vast quantities of water to move on to the site.” Tr. at 1327-28 (Hazlett). “From a probabilistic point of view . . . it’s not easy finding the smoking gun.” *Id.* at 1328. He concluded that “just because you don’t see it doesn’t mean it is not there.” *Id.* at 1329.

Dr. Sydney Bacchus, testifying for the Intervenors as a hydroecologist, strongly supported the proposition that the FEIS has failed to adequately characterize the Proposed Site. Bacchus Testimony at 5. She stated that she has visited and studied the vicinity of the Proposed Site numerous times and has visited the Proposed Site itself. *Id.* at 6. Dr. Bacchus referred to an illustrated cross-section of the Floridan Aquifer System (Exhibit INT351) from an atlas that, she said, “shows how interconnected karst features such as sinkholes and other cavities serve as relatively large underground pathways for preferential flow of water.” *Id.* at 10.

Dr. Bacchus then discussed “photolinears” or “lineaments,” which she indicated are “linear trends identified on aerial photographs that may represent zones of increased fracture density [or] fracture traces.” *Id.* at 11. Dr. Bacchus then presented Exhibits INT335 through INT343 that she stated “show similar fractures in close proximity to the proposed supply wells on the proposed LNP site and extending throughout the surrounding vicinity.” *Id.* at 12. She testified that these exhibits are aerial photos of the Proposed Site region that were taken in approximately 2004, Tr. at 1293. These photos have blue lines drawn on them, Tr. at 1294, and, according to Dr. Bacchus, the blue lines represent lineaments or fracture traces. Bacchus Testimony at 11. Dr. Bacchus testified that the blue lines on these exhibits are not based on her professional review or assessment of the 2004 aerial photos, Tr. at 1297-1301, but instead are based on information she obtained from a 1951 map that was “reverified” in a 1973 publication. Tr. at 1300 and 1280. Based on the 1951 map, Dr. Bacchus had these blue lines placed onto Exhibits INT335 through INT343. *Id.* at 1294-96. She testified that the lineaments in question, while discernable in 1951, are difficult to see now. Tr. at 1280.

At the Board’s request, the Intervenors produced copies of INT335 through

INT343 *without* the added lines.<sup>70</sup> These were admitted as Intervenor Exhibits INT335X through INT343X. The Board reviewed INT335X through INT343X and we were unable to discern the lineaments depicted by the lines.

Finally, the Intervenor focus on (but do not define) a geologic feature known as “sinkholes.” *See* INT357 (Brook/Allison article on subsidence sinkholes in Dougherty County, Georgia). NRC Exhibit NRC076, which is the Final Safety Analysis Report (FSAR) that PEF submitted as part of its application, describes one type of sinkhole, a “solution sinkhole” as follows:

Solution sinkholes occur in areas where limestone is exposed at the land surface or is mantled by only a thin layer of cover (Figure 2.5.1-240). Solution is most active at the limestone surface and along joints or fractures or other openings in the rock that permit water to move easily into the subsurface. Large voids commonly do not form because subsidence of the soil layer occurs as the surface of the limestone dissolves, resulting in a gradual downward movement of the land surface and in development of a depression that collects increasing amounts of surface runoff as its perimeter expands. This type of sinkhole generally develops as a bowl-shaped depression with the slope of its sides determined by the rate of subsidence relative to the rate of erosion of the walls of the depression from surface runoff. Surface runoff may carry sand and clay particles into the depression, resulting in an impermeable seal in the bottom of the sinkhole. Due to these impermeable seals, marshes and lakes form covering these sinkholes. This process produces an undulating topography characterized by shallow depressions and is common over large parts of Florida. The LNP Site lies completely within the area dominated by solution sinkholes (Figure 2.5.1-237). (Reference 2.5.1-317). This type of sinkhole is recognized and is likely to develop on the LNP Site over a long timeframe as slow dissolution of the carbonate (dolostone) surface occurs.

NRC076 at 2.5-73.

Figure 2.5.1-237 of the FSAR displays a USGS map of Florida showing that the Levy Site is located in an area where “Sinkholes are few, generally shallow and broad, and develop gradually.” *Id.* Figure 2.5.1-244 of the FSAR is a map prepared by PEF that displays certain geological features within a 5-mile radius of the PEF Site, including two fractures (based on the same 1951 map used by Dr. Bacchus and discussed above, *see* testimony of Dr. Stirewalt at Tr. at 1149) and ten sinkholes. *Id.* In the FEIS, NRC acknowledges that “karst is a terrain . . . where sinkholes can provide easy connections between the surface and groundwater.” FEIS at 2-25.

The Intervenor focus on sinkholes because, as Dr. Bacchus testified, they are examples of preferential flow paths for the movement of groundwa-

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<sup>70</sup> *See* Order (Administrative Instructions Regarding Evidentiary Hearing) at 3 (Oct. 23, 2012) (unpublished); *see also* Exhibits INT335X through INT343X.

ter. Bacchus Testimony at 10 (“[S]inkholes and other cavities serve as relatively large underground pathways for preferential flow of water.”). She stated that “underlying karst features such as relict sinkholes, fractures, faults, swallets and other karst conduits that can serve as preferential flow paths connecting wetlands in the vicinity of LNP, have not been considered and accurately identified.” Bacchus Testimony at 24. She testified that she “observed . . . the depressional pond-cypress wetlands indicative of relict sinkholes on the proposed site during the site inspection on January 11, 2012” and that she has observed and inspected similar features in the immediate vicinity of the Proposed Site. *Id.* at 26. According to Dr. Bacchus, a “relict sinkhole” is a sinkhole that has been “infilled” and “plugged” and that is “indicated by a depressional wetland that Pond Cypress occupy [and is] aligned along fractures.” Tr. at 1285-86 (Bacchus). Groundwater pumping, such as that contemplated by the LNP project, can, she said, unplug these relict sinkholes and start moving the water through these preferential flow paths. *Id.* at 1286. Dr. Bacchus stated:

The FEIS does not address the potential that future groundwater withdrawals at LNP will increase the likelihood of sinkholes. This is a significant omission. Relict or historic sinkholes occur throughout the vicinity of the proposed LNP. When new sinkholes open up, they expose the underlying water to evaporation and contamination. Induced sinkholes can affect the quality of human drinking water in local wells, and also the quality of drinking water for wildlife. The FEIS does not address these effects. It is my professional opinion that similar subsidence/collapse events and subsequent “passive dewatering” of the aquifer system and re-opening of relict sinkholes will occur if the stormwater ponds for the proposed LNP are constructed and collect water.

Bacchus Testimony at 32-33.

(ii) FINDINGS OF FACT REGARDING SITE CHARACTERIZATION

With regard to Intervenor’s allegations that the FEIS “oversimplifies the geology and hydrology of the region” of the Proposed Site, Bacchus Testimony at 5, and therefore that the FEIS is inadequate, Intervenor’s ISOP at 2, the Board makes the following findings of fact:

3.1 An adequate assessment and understanding of the geologic and hydrologic characteristics of the Proposed Site and its vicinity is needed in order for the NRC to take a hard look at the environmental impacts associated with dewatering, whether active or passive, that are reasonably foreseeable for the construction and operation phases of the proposed LNP.

3.2 FEIS Discussion of Geology and Hydrology: The FEIS discusses and analyzes, in several places, characteristics of the geology and hydrology of the Proposed Site and its vicinity, including but not limited to:

a. The land use in the affected environment, including the LNP Site, the vicinity around the LNP Site, the transmission line corridors to and from the LNP Site and the 50-mile region surrounding the LNP Site. *See* FEIS at 2-5 to 2-13.

b. The water and “hydrologic processes and waterbodies in and around the LNP Site, the existing water use, and the quality of water in the environment of the proposed LNP Units 1 and 2,” *id.* at 2-13, including the “site-specific and regional hydrological features that could be affected,” *id.* at 2-16, and both surface water hydrology, *id.* at 2-16 to 2-22, and groundwater hydrology. *Id.* at 2-22 to 2-30.

c. Groundwater use, quality, and monitoring within the vicinity of the Proposed Site. *Id.* at 2-31, 2-38, 2-41.

d. The “terrestrial and wetland ecology” of the LNP Site, its corridors, and proposed offsite facilities, including the proposed wellfield. *Id.* at 2-41 to 2-91.

e. The “aquatic ecology” of the environment and biota in the vicinity of the LNP Site, and in the corridors and proposed offsite facilities, including the production wellfield. *Id.* at 2-91 to 2-125.

f. Water-related impacts associated with construction of the LNP, including hydrological alterations, water use impacts, ground and surface water-quality impacts, terrestrial and wetlands impacts, and aquatic impacts. *Id.* at 4-17 to 4-80.

g. Water-related impacts associated with operation of the LNP, including hydrological alterations, water use impacts, ground and surface water-quality impacts, water monitoring, terrestrial and wetlands impacts, and aquatic impacts. *Id.* at 5-3 to 5-47.

3.3 NRC’s analysis and understanding of the geologic and hydrologic characteristics of the Proposed Site, reflected in the FEIS, as it pertains to the potential impacts of active and passive dewatering, are based on numerous sources, both site-specific data and information and regional and historic information. NRC Testimony at 29-30 (Prasad, Barnhurst, Vail, Vermeul).

3.4 Site-Specific Data and Information: The site-specific information that NRC used to support the FEIS analysis and understanding of the geologic and hydrologic characteristics of the Proposed Site and its vicinity includes the following:

a. One hundred and eighteen (118) geotechnical borings to characterize subsurface conditions within a 0.6-mile radius of the proposed locations of the nuclear islands, i.e., the North Property. FEIS at 2-25.



- b. Slug tests and site pumping tests performed on 23 wells drilled in both the North and South Property. *See id.* at 2-26.
- c. Three constant-rate groundwater pumping tests conducted at the North Property, one within the Surficial Aquifer and two within the UFA. *Id.* at 2-26.
- d. Quarterly monitoring during 2007 of water levels and quality derived from four wells (two in the Surficial Aquifer and two in the UFA) located on the LNP Site. *Id.* at 2-28 and 2-38.
- e. Two continuous water-level monitoring stations installed in the Surficial Aquifer, one within the footprint of each of the proposed nuclear islands. *Id.* at 2-28.
- f. Water-level data from other USGS wells within the 20- × 20-mile domain surrounding the Proposed Site and used in Model 1 and Model 2. *Id.* at 2-29.
- g. FDEP data on surface water use in the vicinity of the Proposed Site. *Id.* at 2-30.
- h. SWFWMD and FDEP well permits and other data regarding groundwater use in the vicinity of the Proposed Site. *Id.* at 2-31.
- i. Five visits to the LNP Site and its vicinity by NRC, or NRC contractor personnel. NRC Testimony at 23 (Prasad, Barnhurst, Vermeul, Vail).
- j. Review of PEF's Environmental Report and PEF's responses to twenty-six hydrology-related requests for additional information by NRC. *Id.* at 24 (Prasad, Barnhurst, Vermeul, Vail).

3.5 Regional Information: The regional and general information that supports the FEIS analysis and understanding of the geologic and hydrologic characteristics of the Proposed Site includes the following:

- a. Geohydrologic regional descriptions of the vicinity of the Proposed Site provided in the USGS Ground Water Atlas of the United States (2000) for the Floridan Aquifer system. FEIS at 2-22.
- b. Regional information on water quality monitoring from the Florida Geologic Survey. *Id.* at 2-177, 2-204.
- c. Information on droughts, surface water quality standards, public water systems, impaired waters, the COC, and Electric Power Plant Certification Staff Analysis Report from the FDEP. *Id.* at 2-199 to 2-201.
- d. District water management plans, water use, minimum flows and levels as well as the DWRM2. *Id.* at 2-216, 5-149.

3.6 The FEIS recognizes and discusses that the geology and hydrology at the Proposed Site and its general vicinity are complex. *Id.* at 2-29. It acknowledges that there is no confining unit between the Surficial Aquifer and the UFA and that they are hydraulically connected. *Id.* at 2-22.

3.7 The FEIS recognizes and discusses that there is karst terrain and there are some sinkholes in the vicinity of the Proposed Site. *See id.* at 2-25, 2-180, 5-26, 5-124. For example, the FEIS acknowledges “the LNP Site is in a region where the limestone is bare or thinly covered, and sinkholes are few, generally shallow, broad, and develop gradually. This interpretation is also consistent with the USGS Groundwater Atlas, which shows transmissivity values in the vicinity of the LNP site that are below the threshold that would be indicative of well-developed karst systems.” *Id.* at 2-179 to 2-180.

3.8 The FEIS also discusses karst and sinkholes as follows:

Although karst terrain (i.e., areas where underlying carbonate rock near the surface has been subjected to dissolution by downward infiltrating rainfall) is a problem in many areas of Florida, conditions near the LNP site (e.g., regional transmissivity values; few sinkholes) do not suggest well-developed karst (see Section 2.3.1.2 of the EIS). Nevertheless, the cypress dome wetlands on site may represent karst development and likely provide for preferential recharge between the surface and groundwater [citation omitted]. [The PEF ER] estimates that general facility uses would require normal daily withdrawal of about 1.58 Mgd of freshwater from the underlying Floridan aquifer. Because the surficial aquifer that supports local wetlands is hydrologically connected to the Floridan aquifer system in this area, groundwater withdrawal from the Floridan aquifer system could affect wetlands on and around the LNP site.

*Id.* at 5-26.

3.9 Other than the several cypress dome wetlands that the FEIS acknowledges might represent some limited karst development and preferential recharge, there is no support for the Intervenors’ assertions that there are other sinkholes or significant preferential pathways for groundwater on or under the Proposed Site. The absence of such features is supported by the testimony of NRC witnesses familiar with the Proposed Site. *See* Tr. at 1153 (Vermeul — no features consistent with sinkholes suitable for a tracer test); NRC Testimony at 9, 11 (Barnhurst — no onsite sinkholes or large-scale preferential flow features); Tr. at 1158-59 (Barnhurst); Tr. at 1193 (Barnhurst); Tr. at 1193-94 (Vermeul); Tr. at 1194 (Stirewalt).

3.10 The absence of sinkholes or other significant preferential pathways for groundwater on or under the Proposed Site is also supported by the testimony of PEF witnesses familiar with the Proposed Site. This includes the testimony of Dr. Rizzo that the geologic formation under the North Property is characterized by the absence of dissolution activity and preferential flow within interconnected

fractures or conduits, as well as by a high degree of dolomitization that would inhibit dissolution activity that might create new preferential pathways. Rizzo Testimony at 7. Dr. Rizzo's testimony is convincing because it is based on (a) a geotechnical engineering investigation of the North Property that included a review of sinkhole databases maintained by the State of Florida and private entities, Tr. at 1210-11, 1215 (Rizzo); (b) literature reviews of previous studies inquiring into the presence of faults, fractures, and lineaments within the North Property and the area surrounding it, Tr. at 1217 (Rizzo); (c) field reconnaissance in a 5-mile radius from the LNP reactor islands (encompassing the entire North Property and part of the South Property) that was conducted to locate, map, and characterize fracture patterns that pose a risk of dissolution activity that could lead to sinkholes, Tr. at 1208-10 (Rizzo); (d) the grout take test program discussed below, Tr. at 1210 (Rizzo); and (e) surface reconnaissance conducted to locate sinkholes and lineaments. Tr. at 1211 (Rizzo).

3.11 Transmissivity values in the range of 250,000 to 1,000,000 feet-squared per day<sup>71</sup> generally represent limestone formations where well-developed karst and significant preferential pathways are likely to exist. NRC Rebuttal at 24, Tr. at 1155 (Barnhurst), NRC018 at 14.

3.12 Transmissivity values estimated from aquifer pumping tests in the vicinity of proposed LNP Units 1 and 2 range from 62,000 to 69,000 feet-squared per day. FEIS at 2-26. Transmissivity values within the Proposed Site portion of Levy County range from 50,000 to 100,000 feet-squared per day. NRC Rebuttal at 24. Calibrated transmissivity values from Model 2, which extends well beyond the Proposed Site (NRC Rebuttal at 16), have values in the range of 7900 to 250,000 feet-squared per day. FEIS at 2-26. These are all barely at or below the range at which well-developed karst and significant preferential pathways are likely to exist. *See* Tr. at 1154-55 (Barnhurst).

3.13 At the Proposed Site, the Surficial Aquifer lies directly over the Floridan Aquifer of the Avon Park Formation. FEIS at 2-22. The Avon Park Formation is a dolomitic limestone. Tr. at 1227 (Rizzo), 1240 (Lehnen). Transmissivity values of the Avon Park Formation range from 50,000 to 100,000 feet-squared per day. Tr. at 1176 (Vermeul).

3.14 Except for a thin (10-ft) lens that may begin on the southern part of the South Property, Ocala Formation limestones are not present at the LNP facility and vicinity. FEIS at 2-22.

3.15 The transmissivity values of the Proposed Site and its vicinity are not consistent with, and do not support, the Intervenor's assertion that the Proposed Site is underlain with significant preferential pathways for the groundwater. FEIS

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<sup>71</sup> The term "feet-squared per day" is a unit of transmissivity. Transmissivity refers to the ability of groundwater to flow through a particular type of rock formation. The higher the transmissivity, the easier it is for water to move through that formation.

at 2-25, 2-180, 5-26. Instead, the transmissivity values are more consistent with the dolomitic Avon Park Formation.

3.16 There is more site-specific data supporting NRC's characterization of the geology and hydrology of the North Property than there is for the South Property, which is where the production wellfield would be located. The 118 geotechnical borings are all located within 0.6-mile radius of the two nuclear islands on the North Property. FEIS at 2-25. *See* Rizzo Rebuttal at 10-12, Tr. at 1132-34 (Stirewalt), 1209 (Rizzo), 1264 (Lehnen).

3.17 Even though there has been less extensive characterization of the South Property, the PEF and Staff witnesses persuasively maintained that it is reasonable to extrapolate to the South Property the general site characterization conclusions concerning the North Property. This is because (a) the South Property is immediately adjacent to the North Property and (b) the regional geologic and hydrologic characterizations were validated in the investigation of the North Property and this regional information indicates that both properties are underlain by the same hydrogeological formation with similar properties. The Intervenor provided no evidence specific to the Proposed Site to contradict this testimony. Further, Dr. Rizzo testified that PEF inspected the CFBC and quarries in the area to map possible lineaments or other features back to the Proposed Site, but there was nothing to show that these features would exist on the South Property near the production wellfield. Tr. at 1219 (Rizzo). Additionally, Dr. Griffin testified that, while doing wetlands delineations, PEF personnel spent considerable time on both the North and South Properties but detected no visible features such as sinkholes or swallets that are indicative of well-developed karst. Tr. at 1341 (Griffin). Similarly, Dr. Stirewalt, Mr. Vermeul, and Mr. Barnhurst, testifying for the NRC Staff, stated that they have not seen any indication of well-developed karst at the South Property during any of their site visits or in looking at the regional information. Tr. at 1193-95 (Stirewalt, Vermeul, Barnhurst).

3.18 "Grout take tests" are tests where fluid (grout) is injected into a borehole and then the size and length of cavities or underground pathways in contact with the borehole are estimated by measuring the direction, distance, and quantity of grout that is capable of being pumped into the borehole. Tr. at 1250 (Rizzo), 1348-49 (Rizzo).

3.19 Grout take tests conducted by PEF as a part of the 118 geotechnical borings indicate that significant preferential pathways for the groundwater are not present in the vicinity of the tests. Tr. at 1250 (Rizzo). While these borings, and thus these grout take tests, were centered on the North Property, they provide some support for the proposition that such significant preferential pathways do not exist on the Proposed Site.

3.20 The existence of water seepage on the north bank of the CFBC, *see*

Bacchus Testimony at 21,<sup>72</sup> Tr. at 1321 (Davies), which is immediately south of the South Property, FEIS at 2-3, Fig. 2-2, does not indicate the existence of significant preferential pathways on the South Property. Dr. Rizzo's testimony convincingly explained that there are no large flows from the wall of the CFBC, that these constitute seeps (not springs) resulting from the CFBC cut below the water table, and that these seeps do not indicate significant preferential flow pathways from the South Property. Tr. at 1351 (Rizzo).

3.21 We reject the Intervenor's suggestion that thousands of additional borings need to be drilled in order to adequately characterize the potential preferential pathways and conduits at the Proposed Site (Davies Testimony at 14-15). Predicting where conduits occur in the subsurface requires substantial empirical data on such things as hydraulic head variation and groundwater velocity. *Id.* at 16. But the probability of detecting preferential pathways and conduits via such a program of additional drill holes at the Proposed Site and its vicinity is low, and is not reasonably likely to produce contrary data. *See* Tr. at 1316 (Davies).

3.22 It is undoubtedly correct that "improved understanding of the behavior of the simulated system would come from additional data streams." Hazlett Testimony at 4. While such additional data and additional study might promote an improved understanding of the geologic and hydrologic characteristics of the Proposed Site, this does not mean that additional data and study are required in this instance to make the FEIS adequate or reasonable.

3.23 We also reject the Intervenor's claim that injected tracer testing is required to characterize the geology and hydrology of the Proposed Site. Tracer testing will not measure groundwater drawdown. Tr. at 1319 (Davies). Even as to preferential pathways, tracer testing can be quite difficult to perform. Tr. 1317-19 (Davies). The Intervenor could cite no case or site within the Avon Park formation where tracer tests have been conducted. *See* Tr. at 1319 (Davies).

3.24 We further reject the proposition, advocated by the Intervenor (Tr. at 1317 (Davies); Hazlett Testimony at 3) that an adequate and reasonable FEIS requires that NRC or PEF conduct tracer testing at the Proposed Site and its vicinity.

3.25 ASTM: We reject the Intervenor's assertion that the FEIS is deficient because it failed to follow guidance issued by the American Society for Testing and Materials (ASTM). Davies Testimony at 13. No such guidance document currently exists on the ASTM webpage and the evidence shows that ASTM withdrew the guidance cited by Mr. Davies. Lehnen Rebuttal at 7.

3.26 Photolinerals: We reject the Intervenor's assertion that evidence of pho-

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<sup>72</sup>Dr. Bacchus referred to the Cross Florida Barge Canal throughout her testimony as the Withlacoochee Canal. Bacchus Testimony at 5.

tolinears or lineaments shows the existence of conduits or preferential pathways for groundwater flow in and around the Proposed Site. We have examined Exhibits INT335X to INT343X and, as Dr. Bacchus acknowledged, no lineaments can currently be discerned on them. Tr. at 1280, 1297-1301 (Bacchus). Further, when we compare the scale (1 inch = 4 kilometers) of INT335-INT343 to the scale (1 inch = 34 miles) of the 1951 map, INT369, and compare the large number of lines depicted by Dr. Bacchus on INT335-INT343 to the relatively few lines drawn by Dr. Vernon on the 1951 map, INT335 does not appear to be a fair and accurate transposition of Dr. Vernon's 1951 lines to the 2004 photos of the Proposed Site and its vicinity. *See* Tr. at 1304-05 (Bacchus).

3.27 We reject the Intervenor's assertions that the existence of the Big King and Little King springs is evidence of conduit flow within the "catchment area" of the Proposed Site. Tr. at 1287-88 (Davies). Mr. Lehnen testified convincingly that the small amount of flow from these two springs (5 mgd) and the potentiometric head in that part of the UFA combine to indicate that these two springs simply are not extensively connected to a large conduit system. Tr. at 1269-70 (Lehnen) ("If you had a large conduit system that was well inter-connected feeding those springs and you had a head of 10 ft on the Floridan Aquifer and a large conduit, you would be discharging much larger quantities of water than 5 million gallons per day.").

3.28 Significant active/modern sinkholes: All parties agree that the UFA at the Proposed Site consists primarily of the Avon Park Formation, a dolomitic limestone with smaller dissolution potential. Solution sinkholes develop over a long time frame in this type of limestone due to slow dissolution. NRC076 at 2.5-73. Accordingly, we reject the Intervenor's assertion that groundwater withdrawals at LNP will cause new sinkholes to "open up" and expose underlying water to evaporation and contamination.

3.29 Unplugging of Relict Sinkholes: We reject the Intervenor's assertion that groundwater pumping will dislodge plugs of relic sinkholes within the vicinity of the Proposed Site. Tr. at 1352 (Bacchus). The impermeable seals (plugs) resulting from depression infilling with sand and clay of solution sinkholes allows the formation of marshes (wetlands). NRC076 at 2.5-76. During testimony, Intervenor did not persuasively account for how these seals could be dislodged by groundwater pumping. Tr. at 1352-56 (Davies, Hazlett). The only testimony provided concerned how pressurizing a conduit could dislodge a plug in the opposite direction to what might be caused by groundwater pumping. Tr. at 1353 (Davies).

b. *Dewatering: Groundwater Modeling and Modeling Assumptions*

(i) EVIDENCE REGARDING GROUNDWATER MODELING AND MODELING ASSUMPTIONS

Groundwater modeling was part of the FEIS analysis of the foreseeable environmental impacts that might result from the active dewatering activities associated with the operation of the LNP project.<sup>73</sup> The FEIS discusses this groundwater modeling, its evolution, use, and limitations, at some length. *See, e.g.*, FEIS at 2-25 to 2-32; 5-5 to 5-9; 5-14 to 5-27; 5-45 to 5-47. The Intervenor’s challenge to the adequacy of the groundwater modeling echoes many of their complaints (discussed above) concerning the adequacy of the characterization of the Proposed Site and its environs. In both cases, they assert that the FEIS analysis was grossly oversimplified and thus inaccurate and unreliable.

With regard to modeling, Mr. Davies, testifying for the Intervenor, objected to the assumption, inherent in Model 1 and Model 2,<sup>74</sup> that “most of the water flow is through a homogeneous porous medium” stating that this assumption is “invalid in karstic areas.” Davies Testimony at 11-12. He asserted that the “homogeneous porous medium” assumption causes the groundwater models to generate “an underestimate of groundwater flow velocity compared to the actual situation.” *Id.* at 15-16. Further, he testified that the 20- × 20-mile regime covered by Model 1 and Model 2 is insufficient because groundwater velocity and transport are “orders of magnitude higher in conduits than in an assumed porous medium” and that “[v]elocities of hundreds of meters or kilometers per day are normal in conduits,” *id.* at 17-18, and therefore the dewatering impacts could stretch beyond the 20- × 20-mile area. *Id.*

The Intervenor’s primary witness with regard to groundwater modeling, Dr. Hazlett, agreed that Model 1 and Model 2 are unrealistic and cannot be relied upon because “significantly more site characterization would be needed.” Hazlett Rebuttal at 2. These models, he said, are “fundamentally inadequate to predict groundwater behavior” because they “fail[] to take into account that the aquifers are karstic and therefore not uniform.” *Id.* at 3. In short, he contended that the models are too simplified to generate reliable predictions. Dr. Hazlett testified that

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<sup>73</sup> The groundwater modeling discussed in the FEIS consists of the DWRM2, Model 1, and Model 2. *See* Findings of Fact 1.42 to 1.44, *supra*. All three of these models focused on the impacts of the four groundwater production wells (*active* dewatering) that would be used during the *operation* of the LNP. These models did not focus on the impacts of dewatering during *construction*. (Note, however, that PEF employed “hydrologic and hydraulic modeling using the EPA Storm Water Management Model,” FEIS at 4-20, as part of its analysis of the loss of floodplain storage that might result from the construction of the LNP.) Nor did DWRM2, Model 1, or Model 2 attempt to model the impacts of *passive* dewatering during operation.

<sup>74</sup> Model 1 and Model 2 are defined in Findings 1.36 and 1.37, above.

a more complex “integrated surface water and groundwater model . . . is necessary here to simulate the impacts on wetlands from the groundwater withdrawals and other changes” caused by the proposed LNP. *Id.* at 6. He added that such an integrated model

should also include preferential flow paths, such as fracture traces, bedding plane parallel fracture or dissolution features, or other karst conduits. The end result . . . would be a simulated cone of depression that would generally not appear radial in map view, but rather would extend outward in a ‘star’ pattern, seeking water both horizontally and vertically along the paths of least resistance.

*Id.* at 7.

Dr. Hazlett then identified four “serious shortcomings” in Model 2, as follows:

[1] it cannot predict how changes will occur over time, [2] it omitted salinity interactions with the nearby barge canal from the model, [3] it is not well-suited to predict how pumping of the [Floridan Aquifer System] will affect levels or salinity in the [Surficial Aquifer], and [4] it assumes that the aquifers themselves are uniform, which they are not.

Hazlett Testimony at 2. As a result of these shortcomings, Model 2 is “not a suitable tool to predict how the local wetlands . . . will be affected by the proposed pumping at LNP.” *Id.* He noted that the FEIS reflects that there are “large” ranges in the field measured aquifer parameters that “do not match well with the values used in [Model 2]” and that these differences are a “strong indication that the model is unable to simulate actual field conditions.” *Id.* at 3. He acknowledged that a “model is only an approximation of reality,” but added:

[T]he more that model parameter calibration values (i.e., hydraulic conductivities) differ from measured (field) values, the less reliable predictions derived from the model become. In this case, the divergence between the calibration and the measured parameters shows that the model cannot be relied upon to predict the effects of the proposed groundwater extraction to a reasonable degree of scientific certainty.

*Id.*

As discussed in the prior section, Dr. Hazlett asserted that there was insufficient data about the Proposed Site to allow Model 2 to be accurately calibrated. *Id.* at 4. Even though Model 2 is itself a recalibrated version of Model 1, “this recalibration is insufficient for an accurate modeling of the area because it does not address the seasonal or long term temporal variability in the natural system.” *Id.* at 6. Dr. Hazlett stated that the FEIS modeling approach cannot “quantitatively assess impacts to wetland hydroperiods due to groundwater pumping” because “the model does not have the capacity to address various interactions with



surface water (i.e., wetlands).” *Id.* at 7. He noted that the FEIS uses an average precipitation value of 53 inches per year at the Proposed Site whereas a “time-varying (transient) model would allow sensitivity to variation in precipitation to be investigated.” *Id.* at 8. In addition, he stated that the “effects of climate change as discussed in the FEIS on page 2-181 should have been included in the model.” *Id.* at 9. He concluded that the FEIS should have used a transient model rather than a steady-state model. *Id.* at 10 (“[A] transient model could, in part, allow the FSEIS to predict the change in hydroperiod that could occur, particularly during periods of drought. This is essential here for the impact on wetlands to be accurately determined.”).

(ii) FINDINGS OF FACT REGARDING GROUNDWATER MODELING AND MODELING ASSUMPTIONS

With regard to Intervenor’s position that the FEIS fails to adequately assess the environmental impacts of dewatering because it relies on defective groundwater modeling and inappropriate modeling assumptions, we find as follows:

3.30 The ESRP, NRC013, provides guidance to the NRC Staff regarding the use of groundwater modeling in the NEPA process. Although the ESRP is mere guidance that is not binding on this Board, it is somewhat instructive. It states:

a. “A detailed and thorough description of the hydrologic environment is essential for the evaluation of potential impacts to the environment that may result from plant construction or operation.” NRC013 at 2.3.1-6.

b. The ESRP directs the Staff to ensure that “data are sufficient to provide quantitative information on the hydrological resources potentially affecting or affected by plant construction and operation.” *Id.* at 2.3.1-7.

c. The ESRP instructs that the FEIS should include “a summary of present and known future groundwater withdrawals on the site and for distances great enough to cover potentially affected groundwater aquifers.” *Id.* at 2.3.2-7.

d. The ESRP instructs that the NRC Staff should obtain information for “identification and location of groundwater . . . users and areas that could be affected by project related hydrologic alterations.” *Id.* at 4.2.1-3.

e. The ESRP instructs that the FEIS should “[e]nsure that the water users and water-use areas potentially impacted by alterations in water quantity and availability as a result of plant operation have been identified and that any impacts of reduced water quantity and availability have been identified and assessed.” *Id.* at 5.2.2-7.

3.31 In preparing the FEIS, the NRC Staff used groundwater modeling of the LNP’s State-authorized active groundwater withdrawals as a tool for evaluating

the reasonably foreseeable environmental impacts of LNP operation. FEIS at 2-29, NRC Testimony at 44-45 (Vermeul, Barnhurst, Vail, Prasad). The NRC Staff reviewed both the groundwater modeling performed by PEF's consultant, CH2M Hill, in support of PEF's application for the COC from the FDEP, i.e., Model 1, as well as the recalibrated version of Model 1 required by the NRC Staff that incorporated additional site-specific data, i.e., Model 2. *Id.*

3.32 Both Model 1 and Model 2 derive from the DWRM2 which is used by the SWFWMD to evaluate the potential impacts of groundwater withdrawals within the SWFWMD's jurisdiction. FEIS at 2-29.

3.33 Mr. Rumbaugh, one of PEF's witnesses, designed and calibrated DWRM2 for the SWFWMD. Rumbaugh Testimony at 3, 11. DWRM2 is a numerical, regional groundwater model adapted from a USGS groundwater model code known as MODFLOW-2000. *Id.* at 11.

3.34 DWRM2 covers the entire SWFWMD and is designed to predict both incremental and cumulative impacts arising from new or existing water use permits. *Id.* at 11, 16. DWRM2 covers approximately 10,000 square miles. *See id.* at 11-12; Finding of Fact 1.39, *supra*.

3.35 A peer review of DWRM2 conducted in 2008-09 concluded that it was "well suited to evaluate ground-water withdrawal impacts to the UFA." INT105 at 7.

3.36 The MODFLOW-2000 code is widely used by hydrogeologists and water permitting authorities to simulate existing groundwater occurrence and flow, as well as to predict the effects of groundwater withdrawal on local and regional groundwater resources. Rumbaugh Testimony at 10-11.

3.37 Because DWRM2 and its individual cells (5000 ft × 5000 ft) are too large for the SWFWMD's evaluation of individual WUP applications, the SWFWMD commissioned Mr. Rumbaugh to develop software for extracting subregional models from DWRM2. *Id.* at 14. This software code, known as Focus Telescopic Mesh Refinement (FTMR) software, refines the grid in the vicinity of the wells proposed in a WUP application by making those cells closest to the proposed wellfield smaller than those on the periphery of the subregional model domain. The surficial boundary conditions (e.g., wetlands and rivers) from DWRM2 are then revised using a geographic information system so that they are more accurate at the subregional model domain level. *Id.* An FTMR subregional model domain is usually 20 miles × 20 miles (400 square miles). Tr. at 1404 (Rumbaugh).

3.38 As part of PEF's application to the FDEP and SWFWMD for approval to operate the four proposed groundwater extraction wells at the Proposed Site, CH2M Hill, developed Model 1, a subregional groundwater model based on DWRM2. *See* PEF212 at 2 (CH2M Hill Revised Conceptual Wellfield Layout and Evaluation of Simulated Drawdown Impacts, Levy Nuclear Plant, October 27, 2008) (Technical Memo 74). Model 1 was created using the FTMR process, *id.*,

and it covers a domain of 20 miles × 20 miles. Lehnen Testimony at 16. *See* FEIS at 2-29.

3.39 In creating Model 1 from DWRM2, CH2M Hill hydrogeologists and groundwater modelers, supervised by Jeffrey Lehnen of CH2M Hill, validated DWRM2 by calibrating it against literature related to the hydrogeological characteristics of the area, as well as the results of the LNP Site characterization activity. Lehnen Testimony at 4-6. CH2M Hill personnel verified that UFA water levels within Model 1 were consistent with UFA water levels observed during LNP Site characterization activity when normal fluctuations in water levels were taken into account, and were consistent with regional descriptions of water-level elevation provided by the USGS. Tr. at 1425-26 (Lehnen); FEIS at 2-27.

3.40 In creating Model 1, CH2M Hill personnel also verified DWRM2's assumption of increasing transmissivity as one moves south from the North Property across the CFBC. This verification involved both aquifer performance data (including transmissivity) from the North Property taken during LNP Site characterization activities, Tr. at 1419-20 (Lehnen), and the SWFWMD's understanding of transmissivity trends in the area. Tr. at 1465 (Lehnen).

3.41 DWRM2's assumptions regarding the increasing transmissivity as one moves South from the North Property to the South Property and across the CFBC are consistent with the transmissivity trends shown in USGS publications, *see* NRC018 at 14 (Fig. 56); NRC020 at B77 (Fig. 27), as well as in other regional studies. *See, e.g.*, NRC019 at 86 (Fig. 6.35).

3.42 In creating Model 1, CH2M Hill modified DWRM2 to better reflect the aquifer response to groundwater withdrawals. First, CH2M Hill deactivated model layers for those hydrostratigraphical layers that the 118 core borings indicated were not present at the LNP Site. PEF210 at 3. Second, CH2M Hill drew on wetlands delineation from the LNP Site characterization activity when it assigned boundary conditions for Model 1, converting cells representing wetlands from their default assignment as river cells to variable head cells. PEF212 at 3, Tr. at 1417 (Lehnen). Third, CH2M Hill added Big King and Little King Springs, which are located approximately 2 miles northwest of the LNP Site, *see* FEIS at 2-32 (Fig. 2-12) and approximately 6 miles from the nearest groundwater production well. *See* Tr. at 1146 (Vermeul). Discharges from these springs were calibrated to data compiled by the Florida Geological Survey, *see* PEF209, and spring drain elevations were obtained from topographical studies. Tr. at 1415-16 (Lehnen). Fourth, Model 1 extended the length of the groundwater simulation to 60 years to conform better to the expected operating life of the LNP. PEF212 at 4.

3.43 Model 1's simulation of incremental environmental impacts at withdrawal rates for an annual average pumping day of 1.58 mgd yielded no more than a 0.5 ft drawdown (relative to 2001 water levels) in the Surficial Aquifer and the UFA over both the 1-year and 60-year modeled pumping periods over substantially all of the wellfield. PEF212 at 7, 16-17. At most, the cumulative

drawdown in the immediate vicinity of one of the production wells registered a 0.6 drawdown in the UFA after 60 years. *Id.* at 18-19.

3.44 No wetlands within Model 1's 400-square-mile model domain exhibited a cumulative or incremental impact from the LNP production wells of greater than 0.5-ft drawdown within both the 1-year and 60-year modeled pumping periods. *Id.* at 7, 22-23.

3.45 Model 1 predicted that groundwater withdrawals at 1.58 mgd annual average pumping rates resulted in reductions of modeled flow into Lake Rousseau and the Lower Withlacoochee River of 0.9% and reductions in the discharges from Big King and Little King Springs of approximately 0.01 mgd or 0.3% of their total simulated flux. PEF212 at 5, 20.

3.46 Based on assumed groundwater withdrawals of 5.8 mgd during a maximum 1-week period (the maximum allowed under the COC), Model 1 predicted approximately 0.7- to 0.8-ft drawdown in the immediate vicinity of each production well, with the magnitude of the drawdown diminishing rapidly with distance from each well. *Id.* at 6-7, 21. Under this scenario, areas greater than 1 mile from the center of the wellfield would not be expected to experience more than a 0.1-ft drawdown. *Id.*

3.47 CH2M Hill did not use Model 1 to perform modeling of the impacts to springs (e.g., Big King and Little King Springs) and surface waters during the 5.8-mgd postulated maximum pumping week. Lehnen Testimony at 24.

3.48 The SWFWMD provided technical guidance and peer review to PEF and CH2M Hill in the development of Model 1 from DWRM2. FEIS at 5-7. The SWFWMD used Model 1 as a basis for the issuance of the COC and issued a "completeness determination" recommending that FDEP approve the LNP's proposed groundwater withdrawals. *Id.*

3.49 The Florida Siting Board's Final Order approving the COC for the LNP project adopted the reviewing administrative law judge's finding that the modeling results "demonstrate that the proposed groundwater withdrawals associated with the LNP operation will comply with the SWFWMD water use criteria . . . [and] would not lower surficial aquifer levels to the point of causing unacceptable adverse impacts to wetlands and other surface waters." PEF004 at 18, Exhibit A at 35. The administrative law judge added:

Groundwater pumping for the LNP is not expected to adversely impact Lake Rousseau, the Withlacoochee River, or other streams or springs in the Project area. Groundwater withdrawals for the LNP are likewise not expected to induce saline water intrusion, cause the spread of pollutants in the aquifer, adversely impact any offsite land uses, cause adverse impacts to wetland systems, or adversely impact any other nearby uses of the water system.

PEF004, Exhibit A at 35-36.

3.50 After reviewing PEF's Environmental Report, including Model 1 as derived from DWRM2, the NRC Staff concluded that the PEF and CH2M Hill "general modeling approach and model development [is] technically sound." NRC Testimony at 36 (Vermeul, Barnhurst, Vail, Prasad). The NRC Staff did not rerun Model 1. *Id.*

3.51 After reviewing Model 1 the NRC Staff requested that PEF and CH2M Hill recalibrate it, stating as follows:

[Model 1] was a submodel of the SWFWMD's DWRM2 regional groundwater flow model. Because this DWRM2 was calibrated to the USGS regional interpretation of the Upper Floridan aquifer potentiometric surface, which incorporated only limited information in the vicinity of the LNP site, a poor fit between simulated and observed heads in the vicinity of the LNP site was obtained. . . . To improve the goodness of fit over this portion of the model domain, which encompasses the proposed LNP wellfield and thus is important to groundwater-use impacts, the model was recalibrated by PEF using both site-specific and regional head data. . . . Calibration targets included in the recalibration process included (1) site water-level data, (2) water-level data from other USGS monitored wells within the model domain, and (3) additional measurement locations synthesized from the USGS potentiometric surface where no well coverage was available.

FEIS at 2-29.

3.52 PEF210, which includes the "CH2M Hill Revised Conceptual Wellfield Layout and Evaluation of Simulated Drawdown Impacts, Levy Nuclear Plant" (Nov. 24, 2009) (Technical Memo 123), describes and documents the recalibration of Model 1 and the development of Model 2. PEF210 at 2. Model recalibration was performed under steady-state conditions directly in Model 1, rather than in a new subregional model extracted from the Regional Model. Lehnen Testimony at 24-25, Rumbaugh Testimony at 17.

3.53 CH2M Hill's recalibration incorporated additional site water level data and water level data from USGS-monitored wells within the model domain, including a USGS-measured UFA water level extracted from the 2007 USGS potentiometric surface based on a well known as the T&J Ranch Well located approximately 4 miles to the northeast of the outer boundary of the LNP production wellfield. PEF216; BRD003.

3.54 The USGS data indicated that the water level measured in the UFA at the T&J Ranch Well was 69 ft, nearly 20 ft higher than the next highest observed UFA water level in the vicinity. Tr. at 1370 (Vermeul).

3.55 The T&J Ranch Well measurement of 69 ft in the UFA was intentionally excluded from Model 1 by CH2M Hill because it considered that data point anomalous and not representative of the regional UFA system. Rumbaugh Testimony at 18, Tr. at 1408-11 (Rumbaugh).

3.56 The inclusion of the T&J Ranch Well 69-ft data point as a recalibration

target created a steep groundwater gradient, i.e., a change in the direction and quantity of groundwater flow, along the eastern boundary of Model 2. Lehen Testimony at 25, PEF210 at 27. To accommodate this steep groundwater gradient, CH2M Hill made a number of adjustments within Model 2. CH2M Hill assigned high constant head boundary conditions to cells near the high point of the groundwater gradient and set local water levels just below the surface to maximize the amount of water introduced in the area by recharge. Lehen Testimony at 25. CH2M Hill viewed this additional recharge to be unsupported by actual surface features. Tr. at 1423 (Lehen).

3.57 In order to accommodate the T&J Ranch Well data point, CH2M Hill also reduced the values of a series of parameters throughout Model 2, including UFA transmissivity, surficial aquifer hydraulic conductivity, and leakance (the ability of water to move vertically from one aquifer to another) between the Surficial Aquifer and the UFA, in order to hold water at the high points of the groundwater gradient (created by the inclusion of the T&J Ranch Well) by inhibiting movement of water to lower points in the model of the system. Lehen Testimony at 25.

3.58 The recalibration of Model 1 to incorporate the additional site water level data and USGS data, including the T&J Ranch Well 69-ft data point, caused Model 2 to predict that the operation of the production wellfield during the operation of the LNP would result in larger drawdowns than were predicted by Model 1. This prediction resulted from incorporating the T&J Ranch Well data point into Model 2, which forced the model to assume that the UFA had a lower transmissivity and a lower groundwater flow rate. This, in turn, caused the model to predict a larger drawdown in response to any groundwater withdrawals. Lehen Testimony at 11, PEF210 at 7.

3.59 Model 2 predicted an incremental 0.5-ft drawdown (relative to 2001 water levels) in the Surficial Aquifer and UFA of a roughly 1-mile radius from the center of the production wellfield during the 1-year pumping period. PEF210 at 8, 37-38, 46. The 0.5-ft drawdown radius increased to roughly 3 miles after the 60-year modeled pumping period. *Id.* at 9, 42-43, 47. With respect to cumulative impacts, Model 2 yielded a 0.5-ft drawdown in the Surficial Aquifer and the UFA over roughly 1.5 miles around each of the four production wells during the 1-year pumping period, *id.* at 38-39, and roughly 5.5 miles during the 60-year modeled pumping period. *Id.* at 44-45.

3.60 Model 2 predicted an incremental 2.0-ft drawdown (relative to 2001 water levels) in the Surficial Aquifer and UFA of a roughly 0.5-mile radius from the two wells in the center of the production wellfield during the 1-year pumping period. PEF210 at 8, 37-38, 46. It predicted a drawdown exceeding 2.5 ft in a very much smaller area in the immediate vicinity of each of the four production wells. *Id.* These radii were the same, or smaller, after the 60-year modeled pumping period. *Id.* at 9, 42-43, 47. With respect to cumulative impacts, Model 2 predicted

2.0 ft and greater than 2.5-ft drawdowns in the Surficial Aquifer, and the UFA of very similar size and dimension as the incremental drawdowns. *Id.* at 38-39, 44-45.

3.61 The FEIS discusses DWRM2, Model 1, and Model 2 in several places. *See* FEIS at 2-29 to 2-31, 5-7 to 5-8, 5-16, 5-26 to 5-30.

3.62 The NRC Staff did not choose between Model 1 and the more conservative Model 2 in assessing the foreseeable environmental impacts of the proposed LNP. *See* NRC Testimony at 45 (Vermeul, Barnhurst, Vail, Prasad). Instead, the NRC Staff used both. *Id.*

3.63 The NRC Staff stated that it used Model 2 as follows:

The NRC staff used results from [Model 2] in its assessment of groundwater-use impacts at the LNP site. . . . The staff did use results from [Model 2] to 1) assess whether the applicant's proposed groundwater usage was plausible given the current understanding of site geohydrologic conditions and 2) evaluate the magnitude of the proposed groundwater usage in relation to the local-scale hydrologic water balance. The staff also performed simplified calculations based on surface recharge estimates extracted from the DWRM2 model to compare the proposed usage with local-area recharge.

FEIS at 2-29.

3.64 The NRC acknowledged that the groundwater model predictions were subject to uncertainty and were not the sole basis of Staff's assessment of the environmental impact of the proposed groundwater pumping:

The model results were not the sole basis of the staff's assessment. Given the complex site hydrologic conditions, including natural annual variability in groundwater level, model parameter uncertainties, and the relatively small water-level changes that have been shown in the literature to result in wetlands impacts, the staff determined that the groundwater model alone was not sufficient for supporting a definitive assessment of the impacts on wetlands. This determination is consistent with the State of Florida's groundwater-use permitting process that uses the model as a scoping-level assessment tool but relies on a State-mandated environmental monitoring program and mitigation plan to ensure no adverse impacts on wetlands.

*Id.*

3.65 The FEIS concludes that the operation of the LNP, including the production wellfield, would have SMALL environmental impacts on groundwater quality, as follows:

Groundwater withdrawals from the Upper Floridan Aquifer have the potential to lower potentiometric surfaces and induce saltwater intrusion. However, due to the relatively small amount of groundwater usage for proposed LNP operations

compared to the overall groundwater system water balance, and the relatively small drawdowns (less than 2.5 ft) at the wells and progressively less farther away from the wells, predicted for the LNP wellfield [citation to PEF210], lateral saltwater intrusion from the CFBC is unlikely. Simulation results indicate that groundwater will continue to discharge to the CFBC (although at a somewhat reduced rate) rather than the canal acting as a recharge boundary for the groundwater system. The potential for vertical migration of saline waters from deeper Floridan aquifer intervals also exists at the site, although a low-permeability carbonate rock sequence (middle confining unit) that separates the Upper and Lower Floridan aquifers should act to limit vertical migration. A wellfield water-quality monitoring program would be instituted to detect any detrimental impacts, and wellfield operations would be managed to mitigate any significant decreases in water quality. Under these geohydrologic and operational conditions, the staff concludes that operational groundwater-quality impacts would be SMALL, and mitigation beyond the FDEP Conditions of Certification would not be warranted.

*Id.* at 5-16.

3.66 The FEIS concludes that operation of the LNP, including the production wellfield, would have SMALL to MODERATE environmental impacts on terrestrial ecological resources, including wetlands and species listed as endangered or threatened, as follows:

Based on the review team's independent evaluation of the LNP project, including the ER, the Site Certification Application, PEF's responses to the review team's RAIs, interactions with State and Federal agencies, the public scoping process, and the identified mitigation measures and BMPs, the review team concludes that operational impacts on terrestrial ecological resources (including wetlands and listed species) would be SMALL to MODERATE. A range is provided to account for the uncertainty that exists regarding the potential effects of groundwater withdrawal on wetlands and associated biota. The review team believes that any possible effects of groundwater withdrawals on wetlands would be temporary and localized as long as the FDEP and USACE conditions are met. Additional mitigation beyond that proposed by PEF is not warranted; however, as stated in the State of Florida Conditions of Certification (FDEP 2011a), PEF must monitor groundwater and, if adverse operational hydrological effects on wetlands are discovered, PEF must either mitigate the effects or use an alternative water source.

*Id.* at 5-47.

3.67 We reject the Intervenor's assertions that the groundwater models used by the NRC Staff in the FEIS are unsound because they assume that the groundwater flow is through a "homogeneous porous medium" which, they say, is an assumption that is "invalid in karstic areas," Davies Testimony at 11-12. Our rejection is based on the following grounds and findings:

- a. Karstic terrains tend to be highly permeable with a relatively high



transmissivity. Well-developed karstic terrains likely to contain the significant preferential pathways and conduits alleged by the Intervenors would be characterized by transmissivities of at least 250,000 to 1,000,000 feet-squared per day. This is supported by USGS publications, Tr. at 1154-55 (Barnhurst) (citing NRC020), as well as the testimony of the NRC Staff, Tr. 1154-55 (Barnhurst), the PEF witnesses, Tr. at 1418-19 (Lehnen); Tr. at 1402 (Rumbaugh), and the Intervenors' witness. Tr. at 1439-40 (Hazlett).

b. The transmissivities at the Proposed Site and its vicinity are not consistent with a highly developed karstic terrain or with significant preferential pathways or conduits for groundwater flow.

c. Authoritative regional geologic interpretations, as well as interpretations of the LNP Site characterization work, indicate that the vicinity of the Proposed Site is particularly resistant to the sort of dissolution activities that would give rise to the preferential conduits hypothesized by the Intervenors. USGS regional transmissivity projections for the area indicate that the UFA in the area transitions from the highly dolomitized Avon Park Formation to the more pure limestone Ocala Formation as one moves South from the North Property through the wellfield and across the CFBC. *See* PEF205, Tr. at 1226-31 (Rizzo), NRC018 at 14, NRC019 at 86. USGS regional interpretations project transmissivities of only 50,000 to 100,000 feet-squared per day for the LNP Site and the immediately surrounding area, Tr. at 1169-70 (Vermeul) (discussing NRC018 at 14). This is well below the transmissivity threshold for well-developed karst formations like the Ocala Formation. *See* Tr. at 1154-55 (Barnhurst).

d. The Intervenors have offered no persuasive evidence supporting their claims that the Proposed Site has a prevalence of dissolution activity or significant preferential pathways or conduits. Mr. Davies's testimony consisted of the application of generalizations based on his and others' research in other areas of Florida, *see, e.g.*, Davies Testimony at 8-10, 17, or other parts of the United States, *id.* at 10-11, that are characterized by much greater karst development and dissolution activity than has been shown to prevail at the Proposed Site. Mr. Davies did not claim to have reviewed site-specific data for the Proposed Site or to have personally worked in the area of the Proposed Site. *See* Davies Rebuttal at 7.

e. Porous Medium Assumption: The groundwater models that are part of the FEIS analysis, including DWRM2, Model 1, and Model 2, use simplifying assumptions and do not attempt to identify or model all joints, fractures, or conduits that might be encountered within their respective model domains (e.g., 20 × 20 miles for Model 1 and Model 2). This is normal and appropriate. As even the Intervenors acknowledge, porous media models are used for

making water resource decisions even at locations that exhibit well-developed karst formations, and indeed Mr. Davies testified that the porous medium assumption (like that used for the FEIS) has been used in all of the teams with which he has been associated. Tr. at 1428-29.

3.68 Groundwater models in general assume that fractures, solution channels, and similar features can be represented as porous media at the scale of the model grid cell. Rumbaugh Rebuttal at 11.

3.69 The use of a uniformly porous medium assumption like the one used in DWRM2, Model 1, and Model 2 is common and appropriate in environments like the Proposed Site. NRC Rebuttal at 7 (Vermeul, Vail, Prasad, Barnhurst). The SWFWMD uses this approach and it is standard industry practice as described in the published literature. *Id.* (citing NRC071 and NRC072).

3.70 Attempts to model discrete fractures, conduits, or dissolution features over an area as large as the domain of Model 1 and Model 2 would be technically difficult, and even if successful, such a modeled result would still be subject to significant uncertainty. *Id.* at 7-8; *see also* Tr. at 1317-19 (Davies).

3.71 The FEIS acknowledges groundwater model predictions are subject to uncertainty and these models may not be used as the sole basis of the Staff's assessment of the reasonably foreseeable impacts of the LNP. *See* FEIS at 2-29, 5-16, 5-47.

3.72 The use of the uniformly porous medium assumption in these models is reasonable and does not bar their use by the NRC Staff to estimate the behavior of the groundwater and surface water as it will be affected by the active dewatering resulting from the operation of the LNP.

3.73 We reject the Intervenor's assertion that the FEIS is inadequate because it relies on local groundwater models that considered only a 20- × 20-square-mile geographic area of interest, whereas, according to Mr. Davies, "velocities of hundreds of meters or kilometers per day are normal in conduits." Davies Testimony at 17-18. The Intervenor offered no evidence that any such conduits exist or are even likely to exist in or around the Proposed Site, much less that the groundwater is moving at the velocities hypothesized by Mr. Davies. The 20- × 20-square-mile domain used in the two local-scale models, Model 1 and Model 2, are reasonable and appropriate for the purposes of the FEIS for the proposed LNP.

3.74 Integrated Model: We reject the proposition, advocated by the Intervenor, Hazlett Rebuttal at 6, that an integrated surface and groundwater model is necessary for the FEIS to assess the dewatering impacts on the wetlands caused by the groundwater withdrawals and other changes caused by the LNP. Dewatering impacts were evaluated based on the magnitude of the estimated drawdown predicted by Model 2. FEIS at 5-8. There is no conjunctive use of surface water and groundwater, and attempted use of an integrated model would not only be

more difficult and more data intensive, but would have little or no likelihood of significantly changing the drawdown predictions.

3.75 Transient Model: We reject Intervenor’s argument that the FEIS is inadequate because it did not use a transient groundwater model. *See* Hazlett Testimony at 8-10. We find that the DWRM2, on which Model 1 and Model 2 are based, is the product of transient calibration, *see* Lehnen Rebuttal at 9, and as such the FEIS’s reliance on those models was reasonable.

*c. Dewatering: Seasonal Fluctuations and Hydroperiods*

(i) EVIDENCE REGARDING SEASONAL FLUCTUATIONS AND HYDROPERIODS

The “hydroperiods” issue is part of the Intervenor’s “overarching theme” that the “FEIS grossly oversimplifies the hydroecological conditions” in the vicinity of the Proposed Site. Bacchus Testimony at 5. The thrust of this argument is that the FEIS relies on the simplistic “average” values for various parameters such as rainfall and groundwater levels, whereas it should recognize that there are “natural fluctuations of the water table” and that the environmental impacts of dewatering will be different depending on the particular stage of the water table. *Id.* at 12-13.

As stated at Finding 2.4 above, Dr. Bacchus defined the term “hydroperiod” as the “natural fluctuations of the water table — the surficial aquifer.” Bacchus Testimony at 12. According to her, the “three important aspects of a wetland hydroperiod are (1) the depth or stage of fluctuating ground and surface water; (2) the duration of the water level at a given depth or stage; and (3) the periodicity or seasonality of the water level fluctuations.” *Id.* Dr. Bacchus testified that although perturbations in the level of the water table may have little impact on wetland vegetation during its normal dormant period (winter), those same perturbations can result in irreversible adverse impacts to wetlands if they occur during the active growing season for the vegetation. *Id.* at 12-13. The same holds true for life cycle of frogs and other amphibians. *Id.* at 16. She further testified that frogs require “surface water of specific depth, during a specific time of year, for a specific duration, to allow eggs to hatch” and asserted that the “the authors [of the FEIS] fail to explain or perhaps even comprehend, that if any of the hydroperiod components (duration, extent, timing) is altered, those fluctuations can be fatal.” *Id.*

Dr. Bacchus stated that the FEIS’s failure to address seasonal fluctuations and hydroperiods may be its “most serious failing.” *Id.* at 9.

The fact that the FEIS does not even discuss that irreversible adverse impacts to the natural hydroperiods on the proposed LNP site and surrounding vicinity would occur from dewatering and other alterations that would be caused by construction

and operation of the proposed LNP may be its most serious failing. Irreversible adverse impacts to the natural hydroperiods will result in adverse impacts to both plants and animals in wetland, upland, aquatic and coastal habitats on the proposed LNP site and surrounding vicinity.

*Id.*

Dr. Bacchus testified that the Proposed Site ecosystem is “already stressed from alterations in natural hydroperiods.” *Id.* at 10. She stated that the “area of the proposed LNP and surrounding vicinity is a highly complex and sensitive ecological area where plants and animals . . . depend upon natural seasonal fluctuations and periods of drought” and that these animals and plants are “not adapted to the results of man-induced alterations of the natural hydroperiod.” *Id.* at 14. She asserted that the FEIS focuses on “long term averages” when discussing water availability and that “hydroperiods, and their importance, are nowhere meaningfully discussed in the FEIS.” *Id.* at 15. She stated that it is “ironic that . . . the PEF Wetland Mitigation Plan [INT364]” is the only place where the hydroperiods issue is “clearly spelled out.” *Id.* at 17. Focusing on the risk that dewatering will cause salinization, Dr. Bacchus stated that “impacts to the natural hydroperiods cannot be quantified accurately” if more data is not collected and that the FEIS analysis “should have been more finely tuned.” *Id.* at 20. Dr. Bacchus reiterated that “underlying karst features . . . and other karst conduits . . . have not been considered and accurately identified” and, as a result the “FEIS does not properly address passive and active dewatering and aquifer flow issues that affect natural hydroperiods.” *Id.* at 24. “This is a critical failing because without accurately assessing the changes to natural hydroperiods, there is no way for affected agencies, such as the [USFWS] and [EPA], in evaluating the impacts of the proposed LNP to know that the plants and animals at Levy will be affected.” *Id.*

Turning to cumulative environmental impacts, Dr. Bacchus stated that the FEIS is subject to a “fatal flaw” because it fails to consider the cumulative impacts to natural hydroperiods combined with the impacts of climate change. *Id.* at 63. The FEIS is objectionable because it assumes “average precipitation, weather conditions and water withdrawals” and it presumes that the 8-foot variability in groundwater levels observed on the Proposed Site are the “normal seasonal variability”. *Id.* at 62-63. She suggested that the FEIS should use a normal seasonal variability based on “conditions that preceded hydroperiod alterations in the LNP vicinity from existing” activities in the vicinity such as mines, excavations, groundwater extractions, surface water impoundments, and the “original ground elevation.” *Id.* at 63-64. She stated that “the ‘8 foot fluctuations’ reported in the FEIS (p 5-5) support my conclusion that LARGE hydroperiod alterations have already occurred at the proposed LNP site and surrounding vicinity.” *Id.* at 64-65. She concluded that “[e]ven if the seasonal variability under baseline conditions

was 8 ft, an additional 0.5 ft alteration of that seasonal variability could prove fatal to the ecosystems and associated organisms in the 3-mile drawdown predicted in the vicinity of the proposed LNP during the normal dry season and during periods of drought.” *Id.* at 65.

Dr. Hazlett, testifying for the Intervenors with regard to the inadequacies of the groundwater modeling, agreed with the proposition that the FEIS needs more precision with regard to seasonal fluctuations. He asserted that the recalibration that was used to develop Model 2 is “insufficient for an accurate modeling of the area because it does not address the seasonal or long term temporal variability in the natural system. At a minimum, a transient calibration with time-varying rainfall should have been performed.” Hazlett Testimony at 6.

(ii) FINDINGS OF FACT REGARDING SEASONAL FLUCTUATIONS AND HYDROPERIODS

With regard to Intervenors’ allegations that the FEIS relies on the simple “average” values for various parameters such as rainfall and groundwater levels, and does not adequately consider seasonal fluctuations and hydroperiods, the Board makes the following finding of fact:

3.76 The FEIS discusses the environmental impacts of the proposed LNP on wetlands during the period of construction, FEIS at 4-31 to 4-35, during the period of operations, *id.* at 5-26 to 5-31, and for cumulative impacts, *id.* at 7-20 to 7-29.

3.77 Much of the site, especially the planned reactor location, has been in intensive forest plantation for over a century. The natural vegetation and configuration of the land surface have been significantly altered by these operations. FEIS at 2-5. Reference to “natural” hydroperiods thus is largely inapplicable.

3.78 Hydroperiod issues are addressed in the COC (PEF005A at 25, 31, 79-81), the Basis of Review (BOR) (PEF006, Chapter 3, at 4), the EMP (PEF305 at 11, 16, 23, 51, 55), and SWFWMD’s *Literature Review on the Effects of Groundwater Drawdowns on Isolated Wetlands* (NRC041), all of which are used in the FEIS to assess wetland impacts.

3.79 Baseline environmental monitoring data, including wetland hydroperiods and stage duration curves, are used to establish minimum flows and levels (MFL) requirements to characterize the potential for a proposed groundwater drawdown to cause unacceptable harm to wetlands. PEF305 at 16. The approach for estimating this MFL threshold uses hydrologic statistics of the water-level records combined with measures of ecological health. Dunn Rebuttal at 3-4. Because the MFL is based on baseline monitoring data and records of water levels and ecological health over a period of time, it inherently includes seasonal effects. PEF305 at 17-18.

3.80 The threshold MFL used by SWFWMD is a drawdown of 0.5 ft. Dunn

Testimony at 16. SWFWMD has previously used a “de facto standard” of 1-ft drawdown for 1 month under conditions of 90 days without recharge. NRC041 at 30. The SWFWMD literature review specified that adverse wetland impacts could be identified with drawdown ranging from 0.6 to 1 ft. *Id.*

3.81 The SWFWMD review standards for water-use permitting include limits on wet season water levels, wetland hydroperiod deviations, and wetland habitat function, which assure that groundwater withdrawals cannot cause unacceptable adverse impacts on wetlands. FEIS at 5-30. This is discussed in Section IV.A.3.g, below.

3.82 Due to complex site hydrologic conditions, the NRC Staff determined that the groundwater modeling alone is not sufficient for supporting a definitive assessment of the impacts on wetlands. FEIS at 2-29. Model 2 was used to assess, based on current understanding of site geohydrologic conditions, whether proposed groundwater use was plausible and to evaluate the magnitude of the proposed groundwater use on the local-scale hydrologic balance. *Id.* The FEIS acknowledges that “operational impacts from groundwater withdrawal to wetlands on and around the LNP site could affect the hydrological and hence ecological properties of wetlands within a localized area.” *Id.* at 5-30. However, if adverse environmental impacts on wetlands are predicted or detected, PEF would be required either to mitigate the adverse impacts or implement an approved alternative water supply project. *Id.*

3.83 Model 1 predicts a drawdown of 0.4 to 0.5 ft near the LNP production wellfield. FEIS at 5-27. Thus, Model 1 predicts no wetlands will be impacted.

3.84 Model 2 predicts a drawdown exceeding 0.5 ft extending 3 miles from the LNP production wellfield. *Id.* Thus, Model 2 predicts wetland impacts would exceed the SWFWMD threshold. FEIS Table 5-2 presents a breakdown of wetlands in locations with drawdown exceeding 0.5 ft.

3.85 The DWRM2, which is the basis for Model 1 and Model 2, is the product of a transient calibration based on over 1,000 measuring points over an 8-year time period. Lehen Rebuttal at 9.

3.86 Groundwater modeling simulations using DWRM2, Model 1, or Model 2, will give the same drawdown predictions whether the user assumes a transient time-varying rainfall or assumes a steady-state long-term average rainfall. Rumbaugh Rebuttal at 8. Because of “super position,” the drawdown (difference in predicted water levels caused by the LNP production wellfield) does not depend on whether a steady-state or transient model is used. Tr. at 1411-12.

3.87 Intervenors offer no explanation to support their assertions that ecosystems in the vicinity of the Proposed Site are already hydrologically stressed due to decreasing water levels. Long-term groundwater monitoring records from the USGS Goethe Road well (PEF220), located 1 mile from the site, do not show any trend in groundwater levels. Lehen Rebuttal at 4-5.

3.88 Long-term drought impacts are addressed in the FEIS given that

SWFWMD developed its wetland drawdown protection criteria based on ecosystem studies with 6 to more than 30 years of hydrology data. Dunn Rebuttal at 9-10; PEF305 at 17.

3.89 We reject the Intervenor's assertion that possible impacts on hydroperiods due to the presence of conduits and preferential flow paths have not been addressed within the FEIS, because Intervenor has not provided persuasive evidence demonstrating existence of such pathways in the vicinity of the Proposed Site.

3.90 Reductions in flow to the Withlacoochee River and Lake Rousseau are small compared to long-term average. FEIS at 5-8. No evidence is provided by Intervenor on how such reductions in flow would impact hydroperiods. Dunn Rebuttal at 9.

3.91 SWFWMD's review criteria for evaluating potential impacts include "[w]etland hydroperiods shall not deviate from their normal range and duration to the extent that wetland plant species composition and community zonation are adversely affected." FEIS at 5-30. If adverse environmental impacts on wetlands are predicted or detected, then mitigation measures are required. *Id.*; see Section IV.A.3.g.

3.92 The COC requires two testing and monitoring plans: Aquifer Performance Testing (APT) (see PEF005A at 45) and an Environmental Monitoring Plan (EMP) (see PEF005A at 42). If adverse impacts are detected through the APT Plan or the EMP, then either mitigation measures are implemented or PEF must identify an alternative water supply (AWS). PEF005A at 43. These monitoring and mitigation plans are discussed more fully below in Section IV.A.3.g.

*d. Dewatering: Passive Dewatering Impact Analysis*

(i) EVIDENCE REGARDING PASSIVE DEWATERING IMPACT ANALYSIS

A principal concern expressed by the Intervenor is the impact of water withdrawal from the Levy site by active and passive dewatering during construction and operation of the proposed LNP. Dr. Bacchus stated that the withdrawal would have a more substantial and irreversible adverse effect on wetlands, wildlife habitat, the aquatic environment, and endangered and threatened species than the FEIS presents. Bacchus Testimony at 4. She asserted that passive dewatering will occur "from capture and impoundment of water in the stormwater ponds; evaporative loss from the stormwater ponds, ditches, swales and other features to reroute water; alteration of historic sheet-flow via 'stormwater management'; disruption in the existing preferential flow pathways caused by the huge nuclear islands." *Id.* at 10.

Dr. Bacchus asserted that the FEIS fails to address the impact of excavating the nuclear islands and then filling them with concrete. *Id.* at 28. She noted

that these islands extend down approximately 100 ft below ground level, and argued that excavating to a depth of 100 ft for construction of these islands would have a LARGE adverse effect on groundwater flow with respect to altered hydroperiods and environmental impacts. *Id.* Dr. Bacchus argued that the excavation itself would result in adverse impacts to hundreds of acres of wetlands directly, indirectly, and cumulatively by altering the natural flow of surficial and Upper Floridan Aquifers, which will affect the hydroperiods of the surrounding vicinity. *Id.* at 28-29. She contended that the nuclear islands themselves would each be composed of impermeable concrete approximately an acre in area and 100 ft in depth and would significantly and permanently alter the natural flow of groundwater through the proposed LNP site, and thus the natural hydroperiods. *Id.* at 29. In his testimony, Mr. Still also stated that he is concerned that construction of the nuclear islands and pumping of groundwater could disturb existing flow paths, and cause passive dewatering. Still Testimony at 3.

Dr. Bacchus also expressed her opinion that the FEIS fails to account for evaporative dewatering from stormwater ponds. She stated that numerically, evaporative loss is estimated at 46 to 50 inches per year compared to the average rainfall of 53 inches per year, which is only slightly more than the rate of evaporation. In her opinion, the recharge from rainfall is inadequate during periods of drought or during the dry season to compensate for evaporation from the stormwater management ponds. Bacchus Testimony at 29-30. Dr. Bacchus took issue with the FEIS statement that loss associated with evaporation from these ponds would be smaller than a natural system such as an equivalent-sized saturated wetland due to the additional loss due to transpiration in the wetland. She maintained that this FEIS statement confuses the effects of transpiration with evaporation, and hence underestimates the effect of evaporation during dry periods. *Id.* at 30.

(ii) FINDINGS OF FACT REGARDING PASSIVE DEWATERING IMPACT ANALYSIS

With regard to Intervenors' allegations that the FEIS fails to adequately assess the impact of passive dewatering, and therefore that the FEIS is inadequate, the Board makes the following findings of fact:

3.93 The landscape and stormwater drainage systems are described in section 3.2.2.1 of the FEIS. Passive dewatering impacts associated with site drainage design are discussed in section 5.3.1 of the FEIS. Stormwater runoff from the facilities will be collected in three stormwater-retention ponds or roadway swales for treatment. These unlined retention/detention facilities would allow for aquifer recharge of stormwater by way of infiltration. FEIS at 5-26.

3.94 There are no landscape profile modifications associated with the LNP that could lead to passive dewatering. Griffin Testimony at 11-12.

3.95 The LNP must meet the requirements of SWFWMD's Basis of Review



(BOR) plan (PEF006). Meeting these requirements will ensure that the stormwater system at the LNP will not result in large environmental impacts. *Id.* at 15-16.

3.96 The requirements of the SWFWMD BOR result in runoff flow rates at the LNP Site and South Property boundary that will not exceed existing runoff rates. *Id.* at 16-17.

3.97 Intervenors' assertion that rainfall in dry months never exceeds evaporation lacks merit. Griffin Rebuttal at 4; NRC Rebuttal at 39 (Prasad, Barnhurst, Vail, Vermeul).

3.98 Precipitation on the LNP stormwater ponds will offset evaporation for the majority of the year on average, and runoff from the LNP's raised power block will provide additional stormwater volume for percolation into the aquifer. Griffin Rebuttal at 5.

3.99 The effect of the LNP foundation on groundwater flow is small, and groundwater elevations are not affected. Griffin Testimony at 28-29.

3.100 Because the FEIS specifically discusses impacts on passive dewatering due to changes in land cover, site drainage design, and subsurface flow near the LNP excavation, we find the FEIS discussion of these impacts to be adequate.

*e. Dewatering: Climate Change and Saltwater Intrusion*

(i) EVIDENCE REGARDING CLIMATE CHANGE AND SALTWATER INTRUSION

The Intervenors allege the NRC lacks the most basic information about the direct environmental impacts of water withdrawals for construction and operation of the LNP reactors and has no basis for making an adequate evaluation of indirect and cumulative impacts, including but not limited to the impacts of climate change and salt intrusion. Bacchus Testimony at 58.

In his testimony on behalf of the Intervenors, Mr. Davies stated that the FEIS acknowledges sea level rise might already be contributing to wetland losses (FEIS at 7-22) without analyzing or predicting how future sea level rise will impact the Floridan Aquifer. Davies Testimony at 21. He testified that the interaction of saline and fresh water means that sea level fluctuation should also be considered when evaluating the impacts of dewatering in a karst environment, because in conduits, removal of fresh water will mean more saline water entering. *Id.* He added that the withdrawal of groundwater for consumption upgradient of any coastal area can encourage saline intrusion inland. *Id.* He asserted that, given the currently stressed nature of the aquifer, all significant current and proposed groundwater extractions should be included in the modeling of the regional groundwater resources. *Id.* at 20-21. Dr. Hazlett testified that "[i]f sea level rises, as a climate change scenario might consider, the immediate effects are that saltwater pushes inland, both above and below ground, and the groundwater gradient would flatten." Hazlett Testimony at 9.

Similarly, Mr. Still testified for the Intervenors that he is concerned that this amount of water extraction by the LNP combined with other proposed projects could deplete the Floridan Aquifer, leading to existing wells drying up or becoming saline and that the FEIS has not accounted for all new proposed groundwater extraction in the cumulative impact analysis. Still Testimony at 3. He also noted that the FEIS used historical rainfall averages, but there are indications that drought conditions are becoming more common. *Id.* He expressed concern that the permitting agency and the NRC Staff have relied upon long-term rainfall records and are not looking at current conditions. *Id.* Mr. Still noted that page 2-21 of the FEIS indicates a reliance on approximately 53 inches of rainfall that needs to be reexamined in relation to existing conditions, not old records. *Id.* at 4. He stated that this statistic is no longer valid when the trend is toward less rainfall and higher temperatures, possibly due to climate change (FEIS at 2-181). *Id.* He stated that a better indication would be a statistic that reflects the latest climate trends, i.e., a 5-, 10-, 15-year moving average to compensate for the changes. *Id.*

Mr. Griffin testified that he considers attempting to quantify climate change impacts on rainfall as too speculative to be included in the analysis in the FEIS because there is inadequate agreement to support any one hypothesis. Griffin Testimony at 25. He noted that researchers tend to opine that the long-term average precipitation would continue to change only slightly in Florida with climate change; perhaps a slightly lower average annual rainfall will result from higher temperatures, but precipitation could become more variable with an increase in storm intensity. *Id.*

(ii) FINDINGS OF FACT REGARDING CLIMATE CHANGE AND SALTWATER INTRUSION

3.101 The FEIS notes that global climate change may induce drier springs and wetter falls. FEIS at 2-181, 5-22 to 5-24.

3.102 The FEIS also notes that changes in climate during the life of the LNP could result in either an increase or decrease in the amount of runoff and that the divergence in model projections for the southeastern United States precludes a definitive estimate. *Id.* at 2-181.

3.103 The FEIS does discuss the impact of global climate change on seasonal precipitation and temperature. *See* FEIS at 7-12, 7-22, 7-23. Consistent with Mr. Griffin's testimony, the FEIS notes, "[g]lobal climate change could result in changes in seasonal precipitation and increased temperatures. These forecasted changes have the potential to reduce surface runoff and increase evapotranspiration. Changes in climate during the life of proposed Units 1 and 2, described above, could result in either an increase or decrease in the amount of runoff; however, the divergence in model projections for the southeastern United States precludes a definitive estimate." *Id.* at 7-12.

3.104 The FEIS does discuss the possibility that global climate change can result in a rise in sea level that may induce saltwater intrusion in the surficial and Floridan Aquifers, *id.* at 7-20. The FEIS acknowledges that sea level rise may exceed 3 ft by the end of the century due to global climate change. *Id.* at 7-18. The FEIS also acknowledges that the increase in sea level could result in the saltwater front moving farther inland in the CFBC. *Id.*

3.105 When looking at long-term cumulative effects it is customary to look at average conditions given the high amount of variability in environmental inputs. Griffin Testimony at 22.

3.106 As previously noted, the karst environment in the vicinity of a LNP property consists of relic sinkholes and is not likely to have large interconnected conduits needed for intrusion of seawater as discussed by Mr. Davies.

3.107 Because the FEIS specifically discusses impacts of climate change and saltwater intrusion in the area impacted by the LNP in a manner that is consistent with the level of uncertainty associated with climate change predictions, we find that the FEIS's discussion of these impacts to be adequate.

*f. Dewatering: Cumulative Impacts Analysis*

(i) EVIDENCE REGARDING CUMULATIVE IMPACTS ANALYSIS

The Intervenor's allege the FEIS ignores or downplays cumulative impacts that, together with the impacts of construction and operation of LNP, significantly threaten the health of the local environment. These cumulative impacts include mining or quarrying (including mining to be conducted for the purpose of building LNP), increased conditions of drought in the area, and water consumption by other users. Intervenor's ISOP at 2. The cumulative impacts analysis "looks at the possibility that . . . impacts may combine in such a fashion that will enhance the significance of their individual effects." *Id.* at 5 (citing *Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 57-58 (2001)).

Mr. Davies stated that quarrying in the vicinity of the LNP may have significant effects on the flow system in the area. Davies Testimony at 20. He asserted that quarrying operations often involve reducing the water level in the excavation, as is proposed at the LNP which can affect the flow in the area around the LNP. *Id.*

Dr. Bacchus stated that the FEIS ignores or downplays significant contributors to the cumulative impacts of the LNP, such as the effect of water withdrawals from the CFBC (which Dr. Bacchus refers to as the Withlacoochee Canal), on salinity levels in Withlacoochee Bay. Bacchus Testimony at 5. She stated that the FEIS also fails to analyze the cumulative effects of the proposed Tarmac mine, Knight Sand mine, and Adena Ranch on the environmental impacts of the proposed LNP. *Id.* at 33. In addition, she asserted that the FEIS fails to examine the cumulative effects of dewatering and other hydroperiod alterations

when combined with deposition and drift of salt from the LNP cooling towers and wildfires that, while essential in maintaining important ecosystems in the vicinity of the proposed LNP, will become more destructive because of the dewatering and other hydroperiod alterations associated with the proposed LNP. *Id.* at 5.

(ii) FINDINGS OF FACT REGARDING CUMULATIVE IMPACTS ANALYSIS

3.108 Cumulative effects with incremental impacts from LNP dewatering and salt drift/deposition are described in section 7.3 of the FEIS. FEIS at 7-20.

3.109 For the cumulative impacts analysis, the geographic area of interest for terrestrial ecology encompasses the 20-mile radius around the LNP site, plus the certified corridors for the proposed transmission lines and other offsite linear features.<sup>75</sup> *Id.* at 7-21.

3.110 The NRC Staff used a 20-mile radius because it includes water users and watersheds (such as the lower watersheds of the Withlacoochee and Waccasassa River basins) that would be expected to be affected by building and operating the LNP in this region of the Florida Gulf Coast. *Id.* at 7-10. As a result, the cumulative impacts analysis includes those surface waters and past, present, and reasonably foreseeable future actions/projects that contribute to cumulative impacts on the surface water resources affected by LNP building and operations. NRC Testimony at 31-32 (Prasad, Barnhurst, Vail, Vermeul).

3.111 The geographical region considered by the FEIS for the aquatic ecology review for direct, indirect, and cumulative impacts included onsite permanent and seasonal shallow ponds and offsite waterbodies that would or could be affected by offsite facilities. FEIS at 2-91. Offsite waterbodies include, but are not limited to, the CFBC, Lake Rousseau, the Inglis lock and bypass channel, the Old Withlacoochee River (OWR), the lower Withlacoochee River (LWR), the Crystal River Energy Complex (CREC) intake and discharge areas, Crystal Bay and the Gulf of Mexico offshore of Levy and Citrus Counties (*id.* at 2-91), and streams and other waterbodies in or contiguous to the transmission corridors. *Id.* at 2-106. The NRC Staff also considered named and unnamed freshwater springs that reasonably could be potentially affected by the building and operation of LNP. NRC Testimony at 75-76 (Miracle, Masnik).

3.112 The NRC Staff evaluated the direct, indirect, and cumulative impacts of the construction activities that would be authorized with the issuance of a COL. *Id.* The environmental effects of preconstruction activities (e.g., clearing and grading, excavation, and erection of support buildings) are generally included as part of this FEIS in the evaluation of cumulative impacts. NRC Testimony at 18 (All).

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<sup>75</sup> For the land use impact, the FEIS uses a radius of 15 miles. FEIS at 7-7.

3.113 Contrary to the assertion in Contention 4A that the Staff characterized these terrestrial impacts as SMALL, the Staff concluded that such impacts would be MODERATE for all building activities, SMALL for NRC-authorized construction, SMALL to MODERATE for operations, and MODERATE for cumulative impacts. FEIS at 4-71 to 4-72, 5-47, 7-29.

3.114 The assessment of cumulative impacts to terrestrial ecological resources, including wetlands, is presented in section 7.3 of the FEIS. The assessment considers possible effects from the LNP project combined with other past, present, or reasonably foreseeable future impacts from the other activities listed in Table 7-1 of the FEIS at 7-3. NRC Testimony at 98 (Doub, Aston).

3.115 Based on this analysis, the NRC review team concluded that cumulative impacts from construction, preconstruction, and operations of the proposed LNP units and from other past, present, and reasonably foreseeable future actions on wildlife, important species, and their habitats would noticeably alter, but not likely destabilize, terrestrial ecological resources in the surrounding landscape. FEIS at 7-28 to 7-29.

3.116 Dewatering impacts on wetlands are also considered in the evaluation of cumulative impacts on terrestrial ecological resources in section 7.3.1 of the FEIS at 7-20 to 7-29. NRC Testimony at 87 (Doub).

3.117 FEIS § 7.3.1 describes the cumulative impacts to terrestrial resources resulting from activities associated with the proposed LNP project in combination with other past, present, and reasonably foreseeable future activities within the geographic area of interest for these resources. FEIS at 7-21.

3.118 Additionally, in its cumulative impacts review, the NRC Staff considers impacts of offsite mines to involve passive dewatering because the mines could induce seepage of surrounding groundwater into open pits and its subsequent evaporation. FEIS at 7-4, Table 7-1, 7-20; NRC Testimony at 38 (Prasad, Barnhurst, Vail, Vermeul).

3.119 The cumulative impacts review included consideration of the proposed Tarmac King Road Mine. FEIS at 7-4, Table 7-1.

3.120 The assessment of the impacts of construction activities, as that phrase is defined in 10 C.F.R. § 50.10(a)(1), and the assessment of the combined impacts of construction and preconstruction are used in the description and assessment of cumulative impacts in Chapter 7 of the FEIS. FEIS at 7-1; NRC Testimony at 18-19 (All).

3.121 Because the FEIS specifically discusses cumulative impacts to the area surrounding the proposed LNP that is likely to be impacted by preconstruction, construction, and operation of the facility, we find that the FEIS's discussion of cumulative impacts is adequate.

*g. Dewatering: Reliance on COC and State Regulatory Processes*

The central thrust of this element of Contention 4A is the allegation that the NRC Staff has “sidestepped [its] obligation to fairly and accurately determine the direct, indirect and cumulative effects of the LNP project” because the FEIS “invokes the [COC] conditions as substantiation that environmental harm will not occur or proof that impacts will be SMALL.”<sup>76</sup> This argument is not a separate section of Contention 4A but instead underlies its other parts. *See* Memorandum and Order (Admitting Contention 4A) at 18-19 (Feb. 2, 2011) (unpublished).

The Intervenor’s assertion that the FEIS reflects an “unlawful reliance on the State Regulatory Process,” Intervenor’s ISOP at 13, seems to have two prongs. First, the Intervenor asserts that, when it evaluated the characteristics of the Proposed Site and attempted to model and assess the drawdown and other impacts that the LNP would cause, the NRC unlawfully relied on information and work done by the State of Florida and SWFWMD and failed to independently assess those impacts. Intervenor’s ISOP at 13 (“NRC may not assign to a state agency its own independent responsibility under NEPA for evaluating environmental impacts”). Our findings as to the adequacy of the FEIS site characterization, Section IV.A.3.a, above, and the FEIS groundwater modeling and modeling assumptions, Section IV.A.3.b, above, address the issues raised in this prong.

The second prong of the Intervenor’s “unlawful reliance” argument challenges NRC’s use of COC monitoring and mitigation measures to conclude that the environmental impacts of the proposed LNP will be SMALL. The Intervenor asserts:

The NRC attempts to compensate for the FEIS’ inadequate analysis of water use impacts by making a determination that the impacts will be mitigated by a groundwater monitoring plan and “dewatering” plan to be reviewed by the State of Florida and approved in “Conditions of Certification” after the COL is issued.

Intervenor’s ISOP at 13.

In this second prong, the Intervenor asserts that, by relying on monitoring and mitigation plans that have not yet been drafted or finalized by PEF and not yet modified, finalized, and approved by the State, the true content and efficacy of the plans is currently unknown and thus NRC is “punting environmental issues into the future without addressing them in the FEIS.” *Id.* This, they say “violates NEPA’s cardinal principle that environmental impacts of agency action must be considered *before* the action is taken, not afterwards.” *Id.* (emphasis in original)

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<sup>76</sup>Ecology Party of Florida, Green Party of Florida, Nuclear Information and Resource Service Motion for Leave to Amend Contention 4 (Nov. 15, 2010); An Amended Contention 4 (Nov. 15, 2010) at 3 (Motion Addendum).

(citation omitted). The Intervenor asserts that it is “not appropriate that Staff rely on another agency’s hypothetical plans” because “[o]ne cannot take a ‘hard look’ at something that does not exist!” Motion Addendum at 6.

This section of the decision focuses on this second prong of the unlawful reliance argument.

Before proceeding, it is worth noting that, when we admitted the unlawful reliance issue as part of Contention 4A, we characterized it as a matter of degree:

[I]t is clear that, in the [FEIS], the NRC is entitled to refer to “data analyses, or reports prepared by . . . competent and responsible state authorities” so long as the NRC Staff conducts an independent evaluation and takes responsibility for that information before relying on it in an EIS. Neither NEPA nor Part 51 require the NRC Staff to duplicate a current and sound environmental analysis issued by an authorized governmental agency. Nevertheless, the NRC is required to make its own independent assessment of the environmental impacts of a proposed project. The issue, which appears to be fairly raised in C-4A is whether the NRC Staff *relied too heavily* on the COC (and the associated, yet to be developed, Environmental Monitoring Program) and/or failed to independently assess the environmental impacts of the LNP in its DEIS.<sup>77</sup>

*Id.* at 18-19 (emphasis in original) (citations omitted).

Thus, the issue to be decided here is not whether the FEIS relied on the COC mitigative measures to conclude that the environmental impacts of the LNP will be SMALL or SMALL to MODERATE, but whether the FEIS relied too heavily or inappropriately on the COC.

(i) EVIDENCE REGARDING RELIANCE ON COC AND STATE REGULATORY PROCESSES

Intervenor’s “unlawful reliance” argument relies substantially on the testimony of Dr. Bacchus. Bacchus Testimony at 69-73; Bacchus Rebuttal at 2-9. She focused on NRC’s reliance on “mitigative measures” and disagrees with the proposition that that COC-imposed measures are sufficient to ensure that the environmental impacts of the proposed LNP will be SMALL. Bacchus Testimony at 68-69. Dr. Bacchus emphasized that the FEIS characterization of the impacts as “SMALL” depends on a number of “future” mitigation or monitoring measures “none of which has been developed or approved.” *Id.* at 68. As examples, Dr. Bacchus cited to numerous COC-required plans, including a dewatering plan,

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<sup>77</sup>When Contention 4A was originally admitted, it challenged the adequacy of the DEIS. *See* Memorandum and Order (Admitting Contention 4A) at 18-19 (Feb. 2, 2011) (unpublished). When NRC published the FEIS, the contention automatically migrated and became an identical challenge to the FEIS. *See* Tr. at 856.

an erosion, sedimentation and control plan, a stormwater pollution prevention plan, an environmental monitoring plan, a wetland mitigation plan, and an avian protection plan, which, she asserted, do not exist yet and/or are yet to be approved by the State of Florida. *Id.* at 69-70. She stated that “the potential environmental impacts of dewatering . . . salt drift and deposition, and erosion are significant” and that the “measures relied on to mitigate those impacts are important.” *Id.* at 69. In light of this, she asserted that “the mere promise of future mitigation measures without any demonstration of what those measures will be or analysis of their effectiveness, does not support any conclusion that the environmental impacts will be SMALL.” *Id.* As a specific example, she challenged the FEIS’s confidence that groundwater monitoring required by the COC “will allow a response capable of averting adverse impacts on wetlands,” FEIS at 9-250, because, she stated, at the moment, there is no approved groundwater monitoring plan and thus the effectiveness of the nonexistent plan is “dubious.” Bacchus Testimony at 70.

Dr. Bacchus’s rebuttal testimony focused almost entirely on PEF’s proposed monitoring and mitigation plans. She reiterated that the FEIS indicated that “PEF would be required to establish an Aquifer Performance Testing Plan (‘APT Plan’); an Environmental Monitoring Plan (‘EMP’), and if necessary, an Alternative Water Supply Plan (‘AWS Plan’), but none of those plans was included in the FEIS” when it was issued on April 27, 2012. Bacchus Rebuttal at 2. She noted that “after the FEIS was released, PEF produced an APT Plan and an EMP” as attachments to the initial testimony of Dr. William F. Dunn, a witness for PEF.<sup>78</sup> *Id.* Dr. Bacchus also notes that Dr. Dunn’s testimony discusses (but did not submit) the AWS Plan. *Id.*

Dr. Bacchus testified that PEF’s proposed May 29, 2012 EMP has “significant inadequacies.” *Id.* As “only a few examples,” she stated:

Specifically, the EMP fails to provide the precise locations that would be monitored; implies that monitoring would be confined to the proposed LNP site, excluding the surrounding vicinity; excludes monitoring of groundwater discharges and water quality from nearby springs and throughout the Gulf Hammock, such as the springs discharging along the Withlacoochee canal and King Springs; includes only on-site wetlands habitats; fails to acknowledge the existence of supply well #5 in the LNP north parcel near the adjacent red-cockaded woodpecker nesting trees; and relies on assumptions and presumptions that have no scientific basis.

*Id.* at 2-3.

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<sup>78</sup> The EMP is contained in a CH2M Hill “Tech Memo Approval Form” dated May 29, 2012, entitled “Levy Nuclear Plant Well Field Environmental Monitoring Plan” and is PEF Exhibit PEF305. The APT Plan is contained in a CH2M Hill “Tech Memo Approval Form” dated May 29, 2012, entitled “Levy Nuclear Plant Well Field Aquifer Performance Testing Plan,” and is PEF Exhibit PEF304.



Dr. Bacchus asserted “first” that the proposed “EMP failed to consider adequately the influence of preferential flow paths” and instead is based on the premise the groundwater wells will produce an “essentially symmetrical radial drawdown.” *Id.* at 3.

Second, Dr. Bacchus stated that the EMP presumes that potential adverse impacts to wetlands are likely to be detected first within the near vicinity of the production wells and therefore proposes to locate the monitoring points near to the production wells. *Id.* at 4. This presumption is invalid, she said, because of the conduits that (she posits) exist in the vicinity of the Proposed Site. *Id.*

Dr. Bacchus testified that, as a result of the foregoing “flawed assumptions,” the EMP would “fail to detect the LARGE adverse impacts on natural hydroperiods in the area” and would “fail to detect the LARGE adverse environmental impacts, including degraded water quality, on Big and Little King Springs, and the numerous small springs discharging groundwater to the Withlacoochee canal.” *Id.* at 4-5. She added that the “EMP is extremely significant” to the FEIS because “PEF and the NRC propose to rely so heavily on it” in concluding that the impacts would not be LARGE “because [NRC assumes] those impacts would be detected and cured before those impacts could result in irreversible harm to the environment.” *Id.* at 5.

Dr. Bacchus stated that there are other flaws in the proposed EMP that will render it incapable of adequately evaluating environmental impacts of the proposed LNP. She asserted that “neither the models, nor the EMP and other newly submitted plans consider . . . surfacewater alterations from construction and operation.” *Id.* at 6. Also, she said that the EMP fails to mention any “monitoring to assess the impacts from salt drift and deposition on the vegetation and water on the proposed LNP and surrounding vicinity” and that this is a “grave omission.” *Id.* Next, she objected to the fact that the EMP specifies that “CH2M Hill will establish ‘management thresholds’ for mitigation measures” stating that “it is inappropriate for this critical environmental determination to be made (a) in the future, (b) without any input from regulators or the public, and (c) by a private entity.” *Id.* at 6-7. Dr. Bacchus objected to the timing of the proposed initiation of the environmental monitoring in the EMP, stating that starting the monitoring “a minimum of 2 years before operational production wells are installed” will not establish a “scientifically valid ‘baseline’” because it “would not take into account alterations of the natural hydroperiods that have occurred already or would occur during construction.” *Id.* at 7. As to the duration of the EMP, Dr. Bacchus objected to the EMP provision authorizing PEF “to request a release from the requirements of the EMP after five years of monitoring” stating that the adverse impacts to the pond cypress wetlands may not be detected until well after 5 years. *Id.*

Turning from monitoring to mitigation, Dr. Bacchus firmly rejected the proposition that adverse environmental impacts (even if detected) can be reversed or mitigated. “By the time the effects of hydroperiod alterations from water

withdrawals and other proposed LNP actions are visible, the damage to wetlands, other wildlife habitat and water quality is irreversible.” *Id.* at 8. She stated that irreversible adverse impacts are “virtually certain to occur before adverse impacts are detected” and that “there is no evidence that adverse impacts [in this environment] can be reversed.” *Id.*

Mr. Still, testifying for the Intervenors, raised many of the same concerns and inadequacies about the proposed EMP. He added that the “most critical failing” of the EMP is that PEF can request that it be terminated after 5 years. Still Rebuttal at 7. He stated that “in today’s difficult economic times” even a well-intentioned FDEP “will be hard-pressed to require continuation” of the EMP. *Id.* He stated that “unacceptable changes . . . typically take five to ten years to manifest” and that the 5-year release is a “fatal loophole in the COC.” *Id.* at 7-8. Mr. Still agreed with Dr. Bacchus that the EMP is based on an inappropriate baseline because the “baseline will be determined after the [90,000-gpd] construction well has been operating.” *Id.* at 8. Like Dr. Bacchus, Mr. Still asserted that the EMP will not be able to detect “far field adverse impacts” because it is based on the faulty premise that impacts are most likely to occur in the near vicinity of the production wells. *Id.* at 9. This premise is invalid, he said, “[b]ecause of conduits, fractures and other preferential pathways.” *Id.*

Mr. Still asserted that the proposed EMP is inadequate because it is “only concerned with detecting groundwater-pumping effects [from the four production wells] and not effects from other dewatering caused by construction and operation of the EMP.” *Id.* He noted that Contention 4A is concerned with cumulative impacts and does not focus solely on dewatering caused by groundwater pumping. *Id.* at 10. Mr. Still stated that “it is possible that the EMP will miss impacts that occur along the lines of conduits.” *Id.* Next, he noted that USACE is also reviewing the proposed LNP and that the NRC should have required the input of the USACE before issuing the FEIS. *Id.* at 11. Finally, he stated that he has seen “many examples of failed mitigation,” especially with attempted wetland creation. *Id.* at 11.

Turning to the APT Plan, Mr. Still testified that “[b]ecause tracer tests are not proposed for the APT, it will not reliably find karst conduits” and thus it is not “accurate.” *Id.* at 12. He asserted that it is necessary that NRC review the APT Plan before relying on it. *Id.* Mr. Still added that it is not reasonable for PEF or the NRC to rely on the “adaptive management strategy.” *Id.* at 12-13.

(ii) FINDINGS OF FACT REGARDING RELIANCE ON COC AND STATE REGULATORY PROCESSES

Our findings of fact regarding NRC’s reliance on the monitoring and mitigation measures specified in the COC cover three main topics. First, we make findings regarding the monitoring and mitigation measures that are mandated in the COC.

Second, we make findings on the nature and extent to which the FEIS relies on the conditions in the COC. Third, we make findings regarding the strength and reliability of the COC monitoring and mitigation requirements.

*Findings Regarding COC Monitoring and Mitigation Measures*

3.122 The COC is a large document that PEF submitted in two pieces, PEF005A and PEF005B. The full title of the COC is “State of Florida Department of Environmental Protection Conditions of Certification, Progress Energy Florida Levy Nuclear Power Plant, PA08-51C, Modified January 25, 2011.” PEF005A cover page. FDEP issued the COC to PEF pursuant to section 403.501 to -.518 of the Florida Electrical Power Plant Siting Act. PEF005A at 1.

3.123 The COC constitutes the FDEP approval, subject to the specified conditions, of the construction and operation of the LNP. The COC states:

PEF shall be responsible for the compliance with the conditions herein. Under the control of these Conditions of Certification PEF may construct, operate, and maintain two 1,150 MW (nominal) Westinghouse AP1000 nuclear reactors, makeup and blowdown pipelines and intake structures, a heavy haul road, two mechanical draft cooling towers, four 4,000 kilowatt (kW) emergency standby generators, four 35 kW ancillary emergency generators and two fire pumps, and other miscellaneous ancillary equipment.

*Id.* The COC also authorizes PEF to construct, operate, and maintain numerous transmission lines as a part of the LNP. *Id.* at 1-2.

3.124 The COC includes 97 pages of text, covering (A) “General Conditions” (including Construction Practices, Procedures for Post-Certification Submittals, Coastal Zone Consistency, Water Quality Certification, Water Discharges, Solid and Hazardous Waste, and Storage Tank Systems) (PEF005A at 1-30); (B) “Common Conditions” (including a Wetlands Mitigation Plan and certain transportation related requirements) (PEF005A at 31-33); (C) “Plant Specific Conditions” (Including Radiological Conditions, Flood Control, SWFWMD Special Conditions, Florida Fish and Wildlife Conservation Commission requirements, Levy County Requirements, and Withlacoochee Regional Planning Council requirements) (PEF005A at 34-75); and (D) Transmission Line Requirements (paralleling the conditions imposed under (C)) (PEF005A at 76-95).

3.125 In addition to its text, the COC incorporates four appendices that are permits that impose additional conditions and requirements on PEF and the LNP. The four appendices are a Prevention of Significant Deterioration Air Construction Permit (approximately 50 pages), a Florida Environmental Resources Permit (approximately 50 pages), a “Board of Trustees of the Internal Improvement Trust Fund of the State of Florida Easement No 31959 (approximately 15 pages), and a Levy County Special Exception SE 2-08 (4 pages). The COC also calls for the

incorporation of an additional air quality permit and a water quality permit (Title V Air Operation Permit and National Pollutant Discharge Elimination System Water Permit, respectively) when they are issued by the relevant agencies.

3.126 The COC was issued as part of a process in the State of Florida under which the State certified the LNP site and authorized the LNP's proposed use of groundwater pursuant to the Florida Electrical Power Plant Siting Act (FEPPSA), Title XXIX, Chapter 403, Florida Statutes §§ 403.501-403.539 (PEF303). Pursuant to the FEPPSA, applicants seeking to construct large electrical power plants in Florida are required to submit a Site Certification Application. Florida Statutes § 403.5064.

3.127 PEF submitted a Site Certification Application for the LNP on June 2, 2008. *See* PEF004, Exh. A at 3. On August 12, 2008, the Florida Public Service Commission issued a determination of need for the LNP. *Id.* The FDEP reviewed the Site Certification Application and on September 26, 2008, and January 12, 2009, it issued its Staff Analysis Reports proposing a compiled set of conditions of certification for the LNP. *Id.* at 4.

3.128 In February and March 2009, Florida Administrative Law Judge J. Lawrence Johnston held 8 days of certification hearings on PEF's Site Certification Application. *Id.*, Exh. A at 1. Twenty-two entities filed notices of intent to be parties to the certification hearing. *Id.* at 4-5. Fifteen additional entities petitioned to intervene. *Id.* at 5. The adjudication included lawyers from PEF, FDEP, Levy County, the City of Tampa, and the Southern Alliance for Clean Energy. *Id.* at 1-2. SACE recommended that the LNP not be certified. PEF004 at 10.

3.129 On May 15, 2009, Judge Johnston issued a 113-page "Recommended Order" recommending that PEF's Site Certification Application for the LNP be granted and approved, subject to certain conditions of certification specified by the FDEP.<sup>79</sup> The Recommended Order is Exhibit A to PEF004. A review of the Recommended Order reveals that the State of Florida conducted an exhaustive and diligent review of the potential environmental impacts of the proposed LNP and associated facilities and transmission line corridors. The Recommended Order reflects that the FDEP review was professional and multidisciplinary, that the FDEP process allowed for substantial public participation, and that it was coordinated with relevant federal, state, and local governmental entities (including the SWFWMD). The Recommended Order included findings of fact on issues such as the environmental impacts of water use, *id.* at 23; the cooling water intake structure, *id.* at 28; groundwater withdrawals, *id.* at 35-38; salt drift and deposition, *id.* at 39; stormwater management, *id.* at 43; and wetlands and terrestrial impacts. *Id.* at 49.

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<sup>79</sup> Recommended Order on Certification, State of Florida, Division of Administrative Hearings, In Re: Progress Energy Florida, Levy Nuclear Project Units 1 and 2, Case No. 08-2727EPP.

3.130 On August 26, 2009, the Governor of Florida, the Honorable Charlie Crist, and his Cabinet, sitting as the State of Florida Siting Board, issued a Final Order Approving Certification (Siting Board Order) which adopted Judge Johnston's Recommended Order in its entirety and approved the issuance of the certification.<sup>80</sup> The Siting Board Order is PEF Exhibit PEF004 herein.

3.131 Pursuant to the Siting Board Order, FDEP issued the COC.

3.132 As part of the FEPPSA process, the SWFWMD recommended approval of the LNP's proposed groundwater withdrawal. *See* PEF ISOP at 6; PEF005A at 41-55. Under Florida law, in order to obtain an authorization to consume water, an applicant must meet a three-part test, establishing that the proposed use of water: (1) is reasonable and beneficial; (2) is consistent with the public interest; and (3) will not interfere with existing legal users. Florida Statute Title XXVIII, § 373.223 (*see* PEF311). To implement the state statute, the SWFWMD has adopted administrative rules from Florida Administrative Code Chapter 40D-2, "Consumptive Use of Water," which set out a series of requirements applicable to the issuance of Water Use Permits (WUP) or, in the case of the LNP, the COC (which serves as a WUP). F.A.C. Chapter 40D-2. One of these requirements is that the proposed water use "will comply with the provisions of 4.2 of the WUP Basis of Review [BOR] incorporated by reference in Rule 40D-2.091, F.A.C., regarding adverse impacts to wetlands, lakes, streams, estuaries, fish and wildlife of other natural resources." F.A.C. § 40D-2.301(1)(c). Section 4.2 of the "SWFWMD Water Use Permit Information Manual, Part B, Basis of Review" (PEF313) specifies that "[t]he withdrawal of water must not cause unacceptable adverse impacts to environmental features" and identifies as relevant environmental features "surface water bodies such as lakes, ponds, impoundments, sinks, springs, streams, canals, estuaries, or other watercourses" and "wetland habitats." PEF313 at B4-1.

3.133 The COC specifies that the groundwater withdrawals from the four production wells proposed to be used during operation of the LNP will be 1,580,000 gpd. *See* PEF305A at 41, 44. It also reflects that PEF will use a temporary well during the construction phase of the LNP that might draw up to 90,000 gpd. *Id.* These limits are calculated on an annual average basis. *See id.* at 55.

3.134 Turning to the monitoring and mitigation conditions contained in the COC, it includes numerous such requirements, including fourteen pages of conditions imposed by the SWFWMD. PEF005A at 41-55. These "SWFWMD Special Conditions" cover such topics as Environmental Impact Monitoring and Mitigation, Alternative Water Supply Implementation, Aquifer Testing and Groundwater

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<sup>80</sup> Final Order Approving Certification, State of Florida Siting Board, Recommended Order on Certification, State of Florida, Division of Administrative Hearings, In Re: Progress Energy Florida, Levy Nuclear Project Units 1 and 2, OGC Case No. 08-1621; DOAH Case No. 08-2727EPP.

Impact Analysis, Water Quality Sampling, and Reporting requirements. *Id.* In listing each of these SWFWMD conditions, the COC cites the relevant portion of the Florida Statutes, Florida Rules, Florida Code, and the SWFWMD Basis of Review.

3.135 For example, COC condition C, Subpart II.A.9.g reads as follows:

Wetlands and other surface waters may not be adversely impacted as a result of the water use authorized by these conditions of certification. If unacceptable adverse impacts occur, the [SWFWMD] will request that [FDEP] modify the conditions of certification to curtail or abate the unacceptable adverse impacts, unless the impacts can be mitigated by Licensee. (Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 40D-2.381(1), F.A.C.; BOR 2.8, 4.2, 4.13, 6.2).

PEF005A at 53.

3.136 EMP Required: COC condition C.II.A.2.a.i requires PEF to develop and submit an EMP no less than 3 years prior to the use of any production well use in excess of 100,000 gpd. PEF005A at 42. The EMP must be approved by the SWFWMD. The COC specifies the timing as to when the EMP must be submitted and when it must be implemented. *Id.* The EMP must be based on the SWFWMD Wetlands Assessment Procedure. As part of the EMP, COC condition C.II.A.2.v requires PEF to submit to the SWFWMD and the FDEP a comprehensive annual environmental data summary by January 1 of each year for the preceding water year (October 1-September 30). PEF005A at 41-43. The annual monitoring report “shall assess relationships between water level fluctuations, well pumpage, atmospheric conditions, and drainage factors related to the environmental condition of the wetlands and surface waters” in the vicinity of the Proposed Site and must include statistical trend analysis of the data. *Id.* at 43. The annual reports are available for public inspection online through the SWFWMD’s webpage. Tr. at 1524-25 (Hubbell). After five years of monitoring (following groundwater use rising to more than 1.25 mgd annual average), PEF may request to be released from such monitoring, however monitoring will not cease unless and until the SWFWMD approves this request and takes action to have the FDEP modify the COC to terminate the monitoring requirement. PEF005A at 42. In the absence of such a request, and approval, monitoring and reporting under the EMP will continue indefinitely for the life of the LNP. Tr. at 1504 (Griffin).

3.137 AWS Plan Required: COC condition C.II.A.3. requires PEF to “investigate the development of one or more alternative water supply projects to supply the water supply demands to offset all or a portion” of the 1.58 mgd allocated by the COC. PEF005A at 43. If “adverse impacts are detected or predicted” by the EMP, then PEF must either mitigate those impacts or implement

an AWS project. *Id.* at 43-44. In the meantime, PEF is obligated to develop an AWS Plan and submit it to the SWFWMD for approval. *Id.* at 44.

3.138 APT Plan Required: COC condition C.II.A.4 requires PEF to develop and submit an APT Plan “for the purpose of confirming Upper Floridan transmissivity and leakance values used in Licensee’s groundwater flow model [Model 1].” *Id.* at 45. The COC specifies the timing as to when the APT Plan must be submitted and when it must commence. *Id.* The APT Plan must be approved by the SWFWMD. *Id.* If the APT program reveals transmissivity or leakance values that are 20% higher or lower than the values predicted by Model 1, then PEF must revise Model 1 to account for this discrepancy. *Id.* The COC prescribes in some detail, the appropriate modeling parameters and reporting obligations. *Id.*

3.139 Compliance Reports Required: COC condition C.II.A.5 requires PEF to submit compliance reports. PEF005A at 46. The reports “must contain sufficient information to demonstrate reasonable assurance that the withdrawals and use of water authorized by these conditions of certification continue to meet the substantive requirements set forth in Chapter 40D-2, F.A.C., and the [SWFWMD’s] Water Use Permit Information Manual Part B, Basis of Review.” *Id.*

3.140 WMP Required: COC condition B.I.A requires PEF to develop and submit a wetlands mitigation plan (WMP) “that fully offset[s] the functional loss, as required by 62-345, F.A.C., all impacts to jurisdictional wetlands remaining after minimization and avoidance to those jurisdictional wetlands has been demonstrated.” *Id.* at 31. The COC specifies the timing as to when the WMP must be submitted. *Id.* PEF has submitted the WMP dated April 23, 2010. *See Bacchus Testimony* at 71.

3.141 Proposed APT Plan: Pursuant to COC condition C.II.A.4, PEF and its contractor, CH2M Hill prepared a proposed APT Plan. *Dunn Testimony* at 27. On April 5, 2012, PEF submitted a draft version of the proposed APT Plan to NRC, USACE, and the SWFWMD. *Id.* PEF revised the plan in response to comments from USACE. *Id.* On June 4, 2012, PEF submitted a revised version of the proposed APT Plan (dated May 29, 2012) to NRC, USACE, and the SWFWMD. *Id.* PEF submitted the May 29, 2012 APT Plan as Exhibit PEF304 herein. PEF’s proposed APT Plan must be approved by the SWFWMD and the USACE before it can be finalized and implemented. *See PEF304* at 10.

3.142 Proposed APT Plan: The purpose of the APT Plan is to improve the uncertainty of Model 1’s representation of the groundwater flow system by confirming the transmissivity and leakance of the UFA. *Dunn Testimony* at 27. The APT Plan specifies the types of tests (e.g., step-drawdown tests and 72-hour multiwell constant rate tests), PEF304 at 5, and the proposed locations of the monitoring wells and other monitoring spots. *See id.* at 7, Fig. 2. It includes three background monitoring wells proposed to be located off of the Proposed Site. *See id.* at 14, Fig. 3.

3.143 Proposed EMP: Pursuant to COC condition C.II.A.2.a, PEF and its contractor, CH2M Hill, prepared a proposed Environmental Monitoring Plan (EMP). Dunn Testimony at 30. On April 5, 2012, PEF submitted a draft version of the EMP to NRC, USACE, and the SWFWMD. *Id.* PEF revised the plan in response to comments from USACE. *Id.* On June 4, 2012, PEF submitted a revised version of the proposed EMP (dated May 29, 2012) to NRC, USACE, and the SWFWMD. *Id.* PEF submitted the May 29, 2012 proposed EMP as Exhibit PEF305 herein.<sup>81</sup> PEF's proposed EMP must be approved by the SWFWMD and the USACE before it can be finalized and implemented. *See* PEF304 at 10.

3.144 Proposed EMP: The purpose of the proposed EMP is "to provide a framework for monitoring the hydrology and ecology in the vicinity of the LNP site that could potentially be affected by the operation of the LNP well field." PEF305 at 6. The proposed EMP will monitor the following parameters: "water levels within the Surficial Aquifer System (SAS), wetland hydrology, wetland vegetative community composition and condition, soil profile, and regional climatic conditions." *Id.* at 11. The proposed EMP states:

Monitoring data collected will be used to answer the following questions:

- What are the baseline ranges of wetland hydroperiods for the systems potentially affected by well field pumpage?
- Are wetland water levels and hydroperiods changing relative to baseline, and if so, are these changes the result of regional factors (such as precipitation patterns, cumulative groundwater pumping in the area, or disruption in surface water hydrology), or PEF well field pumping?
- Is well field pumping affecting wetland water levels or hydroperiods?
- Are shifts in vegetation type occurring and are these changes due to observed decreases in hydroperiod stage and duration?
- Has there been any evidence of subsidence in wetlands attributable to groundwater pumping?
- Is well field pumpage adversely affecting wetlands?

*Id.*

3.145 Proposed EMP Monitoring Locations: The proposed EMP states that "[m]onitoring locations (assessment areas) will focus on wetlands within the near vicinity of the production wells where potential drawdown impacts, if any, are likely to be detected first." *Id.* It provides that a minimum of twelve monitoring

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<sup>81</sup>The formal title of the May 29, 2012 EMP is "Levy Nuclear Plant Well Field Environmental Monitoring Plan." PEF305 at 2.



transects will be established, seven near-field (within 2000 ft of the production wells), two far-field (between 2000 and 5000 ft of the production wells), and a minimum of three background (beyond 5000 ft). *Id.* at 12. All monitoring transects will be established within the LNP property boundary except for the background transects. *Id.* The proposed EMP specifies the proposed locations of these twelve transects. PEF305 at 13-14, Figs. 2 and 3. The final locations of the transects are subject to USACE and SWFWMD approval. *Id.* at 19. A “transect” is a “monitoring line” that is established and surveyed at a particular location, such as a wetland, and that typically runs from the deep area in the wetland to an upland edge of the wetland. *Tr.* at 1470-71 (Dunn). Sampling points, whether photographic documentation, soil sampling, vegetation monitoring, or hydrologic well monitoring, are established along the transect or line. *Id.* at 1470 (Dunn). Thus, each of the twelve transects proposed in the EMP will entail multiple monitoring points. The proposed monitoring parameters and frequency, for each transect, are specified in the EMP. PEF305 at 24, Table 1.

3.146 EMP Protocol: The proposed EMP specifies that monitoring of the wetlands will be conducted “using the SWFWMD and Tampa Bay Water (TBW) Wetland Assessment Procedure (WAP) (2005).” *Id.* at 11. That WAP is a 33-page attachment to the proposed EMP and is titled “Wetland Assessment Procedure (WAP) Instruction Manual for Isolated Wetlands, March 2005, Prepared by: SWFWMD and Tampa Bay Water, a Regional Water Supply Authority.” *Id.* at 32-65.

3.147 Proposed EMP — Hydrologic Monitoring: The EMP proposes two major types of monitoring — Hydrologic and Ecological. EMP § 3.3 deals with “Hydrologic Monitoring.” *Id.* at 15-18. This section specifies that one Surficial Aquifer System monitoring well, one wetland piezometer, and one staff gauge will be installed at each of the twelve monitoring transects. *Id.* at 15. EMP § 3.3 specifies that hydrologic data will be collected during the preconstruction (baseline) period and that this baseline data will be “used to establish management threshold values, which are linked to a sequence of intervention measures designed to prevent adverse effects on wetlands.” *Id.* at 16-17. The EMP states that “three management thresholds [water levels] will be developed for each monitored wetland,” proposes how the “management threshold values” will be established, and states that “these management thresholds are levels at which there is *concern* for the wetland hydrology, *but before harm* is expected to occur.” *Id.* at 17 (emphasis added).

3.148 Pursuant to the EMP, it is PEF’s plan that if the initial management threshold is reached, then a management strategy is triggered. *Id.* at 25; Dunn Testimony at 33. If that does not work, and the secondary management threshold is reached, then a more aggressive management strategy is triggered. PEF305 at 25; Dunn Testimony at 33. If the tertiary management threshold is reached “then groundwater pumping in the vicinity of the affected piezometer(s) will be

suspended and the transition to an alternative water source will begin.” PEF305 at 26. The EMP lists the “general sequence of water level management strategies” that will be followed and implemented. *Id.* The SWFWMD must approve the EMP and its hydrologic monitoring program. Likewise, the SWFWMD and USACE will be notified within 7 days if any of the management threshold values are reached or exceeded and will monitor the implementation of the management strategies. *Id.* at 29.

3.149 Proposed EMP — Ecological Monitoring: In addition to Hydrologic Monitoring, section 3.4 of the proposed EMP requires PEF to conduct “Ecological Monitoring . . . designed to identify and evaluate the ecological condition of the wetlands that might be affected by the construction and operation of the LNP well field.” *Id.* at 18. The wetland ecological monitoring will be based on the WAP, i.e., Appendix A to the EMP. The EMP states that, “in addition to the WAP methodology for vegetative monitoring, quantitative elements will be conducted as part of this EMP. Modifications to the WAP method include increased frequency of vegetative monitoring (semiannual), higher resolution in the collection of cover range values for vegetation strata (nearest 10% or better) and calculation of a Wetland Affinity Index (WAI) to estimate shifts in wetland vegetation zonation.” *Id.* at 18. Section 3.4 of the EMP goes into considerable detail specifying the Ecological Monitoring program. *Id.* at 18-23.

3.150 Mitigation Required: COC Condition C.II.A.3 specifies, “If adverse impacts are detected or predicted through the [EMP] or through aquifer performance testing or groundwater modeling” then PEF “shall either mitigate such adverse impacts in accordance with a plan submitted by the Licensee and approved by the [SWFWMD] or by selecting and implementing an Alternate Water Supply [AWS] project.” PEF005A at 44. In short, if adverse impacts are detected or predicted, then PEF must mitigate those impacts, by either (1) submitting and implementing a mitigation plan approved by the SWFWMD, or (2) implementing an AWS project.

3.151 Other Monitoring and Mitigation Required: In addition to the foregoing conditions, the COC establishes and mandates numerous other monitoring and mitigation conditions for the protection of the environment, including but not limited to an Avian Protection Plan, *id.* at 58, Manatee monitoring requirements, *id.*, a Cross Florida Barge Canal and Withlacoochee River Survey and Monitoring program, *id.* at 60, and a Levy Nuclear and Crystal River Energy Complex Combined Discharge Survey and Monitoring program. *Id.* at 63.

*Findings Regarding Nature and Extent of FEIS Reliance on COC Monitoring and Mitigation Measures*

3.152 The FEIS relies on various conditions and requirements specified in the COC.

3.153 The FEIS is based upon, and relies upon, the COC provisions limiting

the amount of groundwater that the LNP operational production wells may withdraw to 1.58 million gpd. *See* FEIS at 2-55, 3-30, 3-39, 4-22 to 4-24, 5-7 to 5-8, 5-19, 5-26, 5-28 to 5-29.

3.154 With regard to monitoring and mitigation measures, the FEIS relies on the COC requirements in several places. *See id.* at 2-29, 4-24, 4-71, 5-5, 5-16, 5-30, 5-44 to 5-47, and 9-250.

3.155 Section 2 of the FEIS identifies and discusses the proposed LNP's "Affected Environment." *Id.* at 2-1. In this section, the FEIS reviews the development of Model 1 and Model 2 which helped the Staff assess the reasonably foreseeable impact of the LNP on wetlands. *Id.* at 2-29. In this discussion, the FEIS frankly acknowledges that the groundwater models alone are "not sufficient for supporting a definitive assessment of the impacts on wetlands" and notes that the groundwater modeling is simply a "scoping level assessment tool" and that the FDEP and NRC also "relies on a State-mandated environmental monitoring program and mitigation plan to ensure no adverse impact on wetlands." *Id.* The FEIS states:

The NRC staff used results from the recalibrated groundwater model in its assessment of groundwater-use impacts at the LNP site. *The model results were not the sole basis of the staff's assessment.* Given the complex site hydrologic conditions, including natural annual variability in groundwater level, model parameter uncertainties, and the relatively small water-level changes that have been shown in the literature to result in wetlands impacts, the staff determined that *the groundwater model alone was not sufficient for supporting a definitive assessment of the impacts on wetlands.* This determination is consistent with the State of Florida's groundwater-use permitting process that uses the model as a scoping-level assessment tool but *relies on a State-mandated environmental monitoring program and mitigation plan to ensure no adverse impacts on wetlands.*

*Id.* at 2-29. (emphasis added).

3.156 Section 4 of the FEIS addresses "Construction Impacts at the Proposed Site." *Id.* at 4-1. In discussing the potential hydrological alterations that might result from the construction of the LNP, the FEIS notes that the COC "require[s] PEF to develop an environmental monitoring plan, which includes a hydraulic testing program during drilling and installation of the proposed water-supply wells" and notes that the COC "require[s] that operational impacts of the LNP wellfield limit drawdowns in the surficial aquifer to levels that ensure no adverse impacts on wetlands." *Id.* at 4-24.

3.157 In summarizing the environmental impacts that the construction of the proposed LNP would have on terrestrial resources (which include wetlands) the NRC Staff relies, in part, on the COC imposed mitigation measures, but nevertheless concludes that even with these mitigation measures, the construction

impacts would be MODERATE, at least in the short term. *Id.* at 4-71. The FEIS states:

Based on the review team's independent evaluation of the LNP project, including the ER, the SCA, *FDEP Conditions of Certification*, PEF's responses to NRC's and USACE's Requests for Additional Information, *the identified mitigation measures and BMPs*, and consultation with other Federal and State regulatory agencies, the review team concludes that the impacts of construction and preconstruction activities to terrestrial ecological resources (including wetlands and threatened and endangered species) would be MODERATE. This moderate conclusion reflects the impacts on wetlands, wildlife, and Federally and State-listed species at the LNP site and the associated offsite facilities. *Even with implementation of BMPs, the proposed wetland mitigation plan, and other mitigation outlined in the FDEP Conditions of Certification, the review team believes that the impacts to wetland and upland terrestrial habitats and their associated wildlife would still be noticeable in the surrounding landscape, especially in the short term.* However, the review team also believes that the proposed mitigation measures, especially those in the wetland mitigation plan, would substantially offset the adverse losses to upland as well as wetland habitats in the *long term*. The review team therefore concludes that the terrestrial impacts resulting from the Levy project would not destabilize the continued existence of any wetland or upland habitats and associated wildlife in the surrounding landscape.

*Id.* (emphasis added).

3.158 Section 5 of the FEIS addresses "Operational Impacts at the Proposed Site." *Id.* at 5-1. NRC's discussion and assessment of the environmental impacts of the operation of the LNP is replete with references to, and reliance upon, the monitoring and mitigation measures imposed by the COC.

3.159 Focusing on hydrological alterations that might be induced by the operation of the LNP, the FEIS recounts certain key provisions of the COC:

The State of Florida's Conditions of Certification require PEF to develop an environmental monitoring plan, which includes a hydraulic testing program during drilling and installation of the proposed water-supply wells to obtain site-specific hydraulic property estimates and determine whether the wellfield can meet groundwater-usage requirements without significantly affecting water levels in the surficial aquifer (FDEP 2011a). The Conditions of Certification require that during operation of the LNP wellfield, PEF must limit drawdowns in the surficial aquifer to levels that ensure no adverse impacts on wetlands. Section 5.3.1.4 describes in further detail the wetlands monitoring plan. PEF is required by the Conditions of Certification to prepare an alternative water-supply plan. This plan identifies other potential sources of freshwater that could be used to meet LNP requirements.

*Id.* at 5-5.

3.160 Focusing on groundwater impacts that might be induced by the operation of the LNP, particularly saltwater intrusion, the FEIS relies on the COC mitigation and monitoring requirements in concluding that such impacts would be SMALL:

Groundwater withdrawals from the Upper Floridan aquifer have the potential to lower potentiometric surfaces and induce saltwater intrusion. However, due to the relatively small amount of groundwater usage for proposed LNP operations compared to the overall groundwater system water balance, and the relatively small drawdowns (less than 2.5 ft at the wells and progressively less farther away from the wells) predicted for the LNP wellfield (PEF 2009e), lateral saltwater intrusion from the CFBC is unlikely. . . . A wellfield water-quality monitoring program would be instituted to detect any detrimental impacts, and wellfield operations would be managed to mitigate any significant decreases in water quality. Under these geohydrologic and operational conditions, the staff concludes that operational groundwater-quality impacts would be SMALL, and mitigation beyond the FDEP Conditions of Certification would not be warranted.

*Id.* at 5-16.

3.161 Turning to impacts on wetlands that might be induced by the operation of the LNP, the FEIS relies heavily upon the COC monitoring and mitigation measures. The FEIS states that the groundwater models developed to predict such impacts are valuable, but openly acknowledges that “groundwater models are subject to many limitations and their results should be viewed with a degree of uncertainty.” *Id.* at 5-27. In light of this uncertainty, the FEIS relies upon the COC as follows:

Because of the inherent uncertainty that exists with groundwater models, and to ensure that the proposed use of groundwater for the LNP project does not cause adverse impacts on wetlands and surface waters, the State of Florida imposed the following conditions in the final site certification issued under the [FEPPSA] (FDEP 2011a), to which PEF has committed:

- Aquifer Performance Testing (APT) Plan that includes hydraulic testing during drilling and construction of the proposed water-supply wells to obtain site-specific hydraulic property estimates and determine whether the wellfield can meet groundwater-usage impacts without significantly affecting water levels in the surficial aquifer.
- Alternative Water Supply Plan to investigate the feasibility of developing alternative water supply projects to offset groundwater use.
- Environmental Monitoring Plan (based on the SWFWMD Wetland Assessment Procedure) to assess the relative biological and physical condition of surface waters and wetlands in areas potentially affected by groundwater withdrawals.

In accordance with SWFWMD's review criteria, groundwater withdrawal cannot cause unacceptable adverse impacts on wetlands or other surface waters. The SWFWMD performance review standards applicable to the Environmental Monitoring Plan, upon which potential impacts on wetlands would be judged, include the following (as summarized from PEF 2009g):

- Wet season water levels shall not deviate from their normal range.
- Wetland hydroperiods shall not deviate from their normal range and duration to the extent that wetlands plant species composition and community zonation are adversely affected.
- Wetland habitat functions, such as providing cover, breeding, and feeding areas for obligate and facultative wetland animals, shall be temporally and spatially maintained and not adversely affected as a result of withdrawals.
- Habitat for threatened or endangered species shall not be altered to the extent that use by those species is impaired.

Considering the uncertainty associated with existing groundwater modeling for the LNP site, operational impacts from groundwater withdrawal to wetlands on and around the LNP site could affect the hydrological and hence ecological properties of wetlands within a localized area (see Table 5-2 and Figure 5-5). However, if adverse environmental impacts on wetlands and surface waters are predicted or detected through wellfield APT, revised groundwater modeling, or environmental monitoring of wetlands, PEF would be required either to mitigate the adverse impacts or implement an approved alternative water-supply project (FDEP 2011a). PEF has performed an analysis of alternative sources of water that demonstrates that alternative sources of water are technically feasible if it is necessary to rely on those alternatives because monitoring reveals significant drawdown impacts on wetlands caused by groundwater withdrawal. Alternative sources could include contributions from seawater desalination by reverse osmosis, stormwater, reclaimed municipal wastewater, municipal water supply, recycling of process water, and brackish water from deep underground wells (PEF 2011a).

If PEF addresses any wetland impacts from groundwater withdrawal by mitigation rather than implementing an alternative water-supply project, it is unlikely that these hydrological alterations would contribute to an increased risk of wildfire in the LNP vicinity. Groundwater drawdown exceeding 0.5 ft that could adversely affect wetlands would be localized, and limited to a total area (upland as well as wetland) of about 7300 ac based upon the recalibrated groundwater model (Figure 5-5). Furthermore, the fire risk in parts of the surrounding area would be reduced through the restoration of a more natural fire regime, as proposed under the applicant's wetland mitigation plan for the LNP project (Entrix 2010). These controlled burns would act to reduce fuel loads in upland and wetland areas on and around the LNP site. If wildfires unexpectedly occur around the LNP project, rapid fire response

would be expected, drawing from both onsite (LNP) and offsite fire-protection resources.

*Id.* at 5-30 to 5-31.

3.162 Turning to the potential impacts on terrestrial resources that may result from the operation of the LNP, the NRC places substantial reliance on the COC monitoring and mitigation measures. The FEIS devotes a subsection to terrestrial monitoring, FEIS § 5.3.1.4, “Terrestrial Monitoring,” at 5-44 to 5-45, relying entirely on the monitoring imposed by the FDEP COC, and the USACE. It states, in pertinent part:

A State Condition of Certification by FDEP (2011a) would require PEF to develop and implement an environmental monitoring plan to evaluate the relative condition of surface waters and wetlands in areas potentially affected by operational groundwater withdrawals. Monitoring would be required for a minimum of 5 years following groundwater use rising to more than 1.25 Mgd. Monitoring results are to be submitted annually to the SWFWMD for compliance review.

If ongoing environmental monitoring, APT, or groundwater modeling predict or detect adverse environmental impacts, PEF would be required to either mitigate the adverse impacts on wetlands or implement an approved alternative water-supply project (FDEP 2011a).

The USACE is continuing its evaluation of groundwater withdrawal for service water for plant operations. If PEF can demonstrate to the USACE that operational groundwater withdrawals at the LNP site would not result in greater adverse impacts on wetlands in comparison to practicable alternative sites or to practicable alternatives to groundwater withdrawal for operational water supplies at the LNP site (such as desalination), then the LNP site with groundwater withdrawals could be acceptable as the Least Environmentally Damaging Practicable Alternative (LEDPA). At this time, PEF is developing a groundwater testing and monitoring plan in order to demonstrate to the USACE that the LNP site with groundwater withdrawal for service water for plant operations would be the LEDPA. The groundwater testing and monitoring plan must be submitted by PEF to the USACE for USACE’s review and approval before a Department of the Army (DA) permit could be issued. If PEF’s groundwater testing and monitoring plan receives USACE approval, implementation of the plan would be required by special conditions of a DA permit, if issued. The USACE’s final evaluation of the proposed project and final decision whether to issue a USACE permit will be documented in a separate USACE ROD after issuance of this EIS. USACE’s ROD will reference information in this EIS and present any additional information required by the USACE to support its permit decision.

A Condition of Certification by the FDEP (2011a) would also require PEF to prepare an Avian Protection Plan in coordination with the FFWCC and other potentially interested agencies. The plan must detail a program to reduce the operational risk

to birds posed by the LNP project, with the goal of reducing avian mortality. An important part of this plan would include a monitoring system to document bird mortalities along transmission lines. This information would be used to identify avian problem areas and potential or known high risks.

Monitoring for Federally and State-listed species may be required to meet conditions stipulated by the FWS and the FFWCC, either associated with the Endangered Species Act of 1973, as amended (ESA), or for State permits to take or relocate State-listed species.

*Id.* at 5-44 to 5-45.

3.163 In its summary of the operational impacts of the LNP on terrestrial resources, the NRC relies on these monitoring and mitigation measures to conclude that the impacts would be SMALL to MODERATE:

Based on the review team's independent evaluation of the LNP project, including the ER, the Site Certification Application, PEF's responses to the review team's RAIs, interactions with State and Federal agencies, the public scoping process, and the identified mitigation measures and BMPs, the review team concludes that operational impacts on terrestrial ecological resources (including wetlands and listed species) would be SMALL to MODERATE. A range is provided to account for the uncertainty that exists regarding the potential effects of groundwater withdrawal on wetlands and associated biota. The review team believes that any possible *effects of groundwater withdrawals on wetlands would be temporary and localized as long as the FDEP and USACE conditions are met*. Additional mitigation beyond that proposed by PEF is not warranted; however, as stated in the State of Florida Conditions of Certification (FDEP 2011a), PEF must monitor groundwater and, if adverse operational hydrological effects on wetlands are discovered, PEF must either mitigate the effects or use an alternative water source.

*Id.* at 5-47 (emphasis added).

*Findings Concerning Strength and Reliability of COC Monitoring and Mitigation Measures*

3.164 As set forth above, the COC was issued by the FDEP as part of a comprehensive, multidisciplinary, and multiagency environmental review process that is well established and that included the participation of numerous members of the public. The COC is authorized and undergirded by a complex of detailed state statutes, regulations, procedures, and compliance guidelines. Major governmental entities, with substantial expertise in environmental matters, such as the FDEP and SWFWMD, took a large role in the development of the conditions of the COC and these same agencies can reasonably be expected to play a continuing and active role in assuring that PEF implements and complies with the COC requirements.



3.165 The COC mandate that PEF be limited to 1.58 million gpd annual average total pumpage on the four proposed LNP groundwater production wells is a firm and enforceable legal requirement imposed by the FDEP and SWFWMD and it was reasonable for the FEIS to base its analysis upon that limitation.

3.166 The COC mandates that PEF develop and implement multiple environmental monitoring programs during the construction and operation of the LNP constitute firm and enforceable legal requirements imposed by the FDEP and SWFWMD.

3.167 The COC mandates that PEF design and develop an EMP. The COC specifies many of the requirements for the required EMP and mandates that PEF follow various state regulations, manuals, and procedures in developing the EMP. The PEF proposed EMP will be reviewed by FDEP, SWFWMD, and USACE and must be approved by them before it is implemented.

3.168 Although the COC identifies a substantial number of criteria that the EMP must satisfy, a final and approved EMP does not yet exist. PEF has developed a proposed EMP dated May 29, 2012, that has been sent to the FDEP, USACE, and SWFWMD. *See* PEF305. The proposed EMP specifies, in substantial detail, the environmental monitoring program that PEF believes meets the requirements of the COC. For example, the EMP proposes the number and location of various monitoring wells and transects, the frequency of the monitoring activities, the reporting regime and the management threshold values that would be used to assess whether and when mitigation actions must be taken. The May 29, 2012 proposed EMP has not been approved by the SWFWMD, FDEP, or USACE at this time. It is reasonable to expect that the proposed EMP will be modified and adjusted before it becomes final and is approved.

3.169 The NRC did not review the May 29, 2012 proposed EMP before it issued the FEIS on April 27, 2012. *Tr.* at 1528-29 (Doub, Prasad). The NRC Staff stated that it did not need to review the final and approved EMP for purposes of the FEIS because the COC provisions concerning the EMP and the state and local legal, regulatory, and procedural requirements that underlie it, are highly prescriptive. *See Tr.* at 1532-33 (Doub).

3.170 Intervenors' assertion that the FEIS is inadequate because "the EMP fails to provide the precise locations that would be monitored," Bacchus Rebuttal at 2, is rejected. First, the proposed EMP does indeed provide specific proposed locations that would be monitored (e.g., the locations of the twelve transects). *See* PEF305 at 13-14, Figs. 2 and 3. Second, although the monitoring locations specified in PEF's proposed EMP might very well change or be modified before the EMP is duly approved by the SWFWMD and USACE, there is a reasonable degree of confidence that these regulatory agencies will assure that the ultimate monitoring locations are appropriate.

3.171 Intervenors' assertion that the FEIS is inadequate because under the EMP "monitoring would be confined to the proposed LNP site," Bacchus Rebuttal

at 2, is rejected. First, the proposed EMP proposes that several of the monitoring locations be located off of the LNP Site and off of the Proposed Site. *See* PEF305 at 13-14, Figs. 2 and 3. Second, because although the offsite monitoring locations specified in PEF's proposed EMP may very well change or be modified before the EMP is duly approved by the SWFWMD and USACE, there is a reasonable degree of confidence that these regulatory agencies will assure that the ultimate EMP includes an appropriate number of offsite monitoring locations.

3.172 Intervenor's assertion that the FEIS is inadequate because the EMP "excludes monitoring of groundwater discharges and water quality from nearby springs . . . such as the springs discharging along the Withlacoochee canal and King Spring," Bacchus Rebuttal at 3, is rejected. First, the evidence reflects that there are no springs on the Proposed Site. *See* Findings of Fact 3.9, 3.10; *see also* FEIS at 2-32, Fig. 2-12. Second, the evidence indicates that the water seeping from the north bank of the deep cut represented by the CFBC or, as Intervenor would have it, the "Withlacoochee canal," are merely small seeps and do not represent conduits or preferential pathways. *See* Finding of Fact 3.20. Third, the Big King and Little King Springs are located approximately 6 miles from the proposed wellfield, Tr. at 1146 (Vermeul), and the evidence does not support the conclusion that they will be affected by the LNP.<sup>82</sup>

3.173 Intervenor's assertion that the FEIS is inadequate because the EMP "fails to acknowledge the existence of supply well #5," Bacchus Rebuttal at 3, is rejected. Supply well number 5 is a small well that will only operate during the construction phase of the LNP, is limited to 90,000 gpd, and is not likely to cause environmental impacts.

3.174 Intervenor's assertion that the FEIS is inadequate because the EMP "failed to consider adequately the influence of preferential flow paths," Bacchus Rebuttal at 3, is rejected because, as set forth in section IV.A.3.a, above, the Intervenor has not shown that any significant preferential flow paths exist in the vicinity of the Proposed Site and the reasonable weight of the evidence suggests that they do not. Further, if such preferential flow paths exist, the monitoring imposed by the COC (the EMP in combination with the APT Plan) is likely to identify them.

3.175 Intervenor's assertion that the FEIS is inadequate because the EMP assumes that potential adverse impacts to wetlands are likely to be detected first within the near vicinity of the production wells and therefore proposes to locate the monitoring points near the production wells, *id.* at 4, is rejected for the same reasons specified in the preceding paragraph.

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<sup>82</sup> While we do not find that the FEIS is inadequate for its reliance on the EMP, which does not currently propose to monitor the Big and Little King Springs, we recommend that PEF place one of the three "background" monitoring wells provided for by the EMP in the vicinity of those Springs.

3.176 Intervenor’s assertions that the FEIS is inadequate because the EMP has “flawed assumptions” that would cause it to fail to detect LARGE adverse impacts to natural hydroperiods, *id.*, or because it fails to consider surface water alterations, have been addressed *supra* and are rejected. *Id.* at 6. Likewise, Intervenor’s assertion that failure of the EMP to address the impacts of salt drift and deposition is a grave omission, *id.*, is rejected because, as is discussed in Section IV.B, below, we find that the impacts of salt drift and deposition will be minimal and were adequately discussed in the FEIS.

3.177 Intervenor’s assertion that the FEIS is inadequate because the EMP allows a “private entity” (i.e., PEF) (1) to set the management thresholds that will be used to evaluate whether mitigation measures should be implemented and (2) to determine whether those management thresholds have actually been met so as to trigger the mitigation measures, *id.* at 6-7, is rejected. The proposed EMP is, in all respects, subject to the review, modification, and approval of the SWFWMD and USACE. These expert governmental agencies will evaluate and determine what “management thresholds” should be in the EMP and will be involved in the assessment as to whether those thresholds are reached or exceeded.

3.178 The Intervenor’s assertion that the FEIS is inadequate because the EMP authorizes PEF to request the discontinuation of the EMP after 5 years of monitoring, *id.* at 7, Still Rebuttal at 7, is rejected. First, if the environmental impacts of the LNP project are as dire as the Intervenor suggest, then it seems that they would begin to manifest themselves within 5 years and that the EMP and other monitoring mandated by the COC will detect them. Second, even if PEF requests the termination of the EMP at the 5-year point, no such termination will occur unless and until the SWFWMD approves it. Third, we have reasonable confidence that the SWFWMD will diligently review any such request to terminate the EMP and will decline to do so if there is any inkling that the monitoring will detect or predict future adverse environmental impacts. Fourth and finally, given the fact that the public, including the Intervenor, can monitor and comment on any request to terminate the EMP, we have additional assurance no such termination will be made without due and proper consideration.

3.179 The Intervenor’s assertion that the FEIS is inadequate because even if the EMP detects adverse environmental impacts, they will be irreversible and mitigation will be ineffective, Bacchus Rebuttal at 8, is rejected. First, the management thresholds, as contained in the proposed EMP, are set at water levels (not adverse impact levels) and these are water “levels at which there is concern for wetland hydrology, but before harm is expected to occur.” PEF305 at 17. Second, the FEIS reliance on monitoring and, if necessary, mitigation, is reasonably well founded, and we are not convinced, as Intervenor suggest, that these measures will be ineffective.

3.180 Turning to another monitoring provision, the COC mandates that PEF design and develop an Aquifer Performance Testing (APT) Plan. The COC

specifies many of the requirements for the required APT Plan and mandates that PEF follow various state regulations, manuals, and procedures in developing the EMP. The PEF proposed APT Plan will be reviewed by FDEP, SWFWMD, and USACE and must be approved by them before it is implemented.

3.181 Although the COC identifies a substantial number of criteria that the APT Plan must satisfy, the APT Plan does not yet exist. PEF has developed a proposed APT Plan dated May 29, 2012, that has been sent to the FDEP, USACE, and SWFWMD. *See* PEF304. The proposed APT Plan specifies, in substantial detail, the aquifer performance testing program that PEF believes meets the requirements of the COC. The May 29, 2012 proposed APT Plan has not been approved by the SWFWMD, FDEP, or USACE at this time. It is reasonable to expect that the May 29, 2012 proposed APT Plan will be modified and adjusted during the approval process before it is final and approved.

3.182 The NRC did not review the May 29, 2012 proposed APT Plan before it issued the FEIS on April 27, 2012.

3.183 The COC mandates that PEF design and develop an Alternate Water Supply (AWS) Plan. The COC specifies many of the requirements for the required AWS Plan and mandates that PEF follow various state regulations, manuals, and procedures in developing the AWS Plan. PEF's proposed EMP will be reviewed by SWFWMD and must be approved by it before the AWS Plan is implemented.

3.184 Although the COC identifies a substantial number of criteria that the AWS Plan must satisfy, neither the AWS Plan nor a proposed AWS plan yet exists.

3.185 Although the final and approved versions of the EMP, APT Plan, and other mandated monitoring plans, did not exist as of the date the FEIS was issued, and thus were not evaluated in the FEIS, the COC provisions imposing these monitoring plans, together with the State and local statutory, regulatory, and procedural requirements that underlie these requirements, establish a highly prescriptive regime.

3.186 Given that (1) the need for mitigation is contingent and only mandated if monitoring unexpectedly "detects or predicts" that adverse environmental impacts are occurring or may occur, (2) the COC does not assume that adverse environmental impacts will occur, and (3) the design of any specific mitigation plan necessarily depends on the specific adverse impacts in question, it is reasonable that the COC does not prescribe specific mitigation measures.

3.187 Based on the thoroughness and professionalism of the process used by the State of Florida in developing and issuing the COC, involving such entities as the FDEP, SWFWMD, USACE, Administrative Law Judge Johnson, and the Governor and Cabinet of the State of Florida sitting as the Siting Board that authorized the issuance of the COC, it is realistic and reasonable to expect that the state and local agencies will make sure that these monitoring and mitigation measures will be adequately implemented and enforced in a timely fashion.

3.188 The NRC Staff testimony, the fact that the NRC required PEF to recalibrate the groundwater model, and the numerous references to and discussion of the COC and its monitoring and mitigation requirements that are in the FEIS demonstrate that, in assessing the environmental impacts of the LNP, the NRC Staff independently and critically assessed the work of the FDEP, SWFWMD, and other agencies.

3.189 Although the NRC Staff relies on the monitoring and mitigation measures imposed in the FDEP COC, the COC and its various conditions imposing monitoring and mitigation are not enforceable by NRC. Nor does the NRC propose to incorporate or impose any of the COC's monitoring or mitigation requirements into the COL so as to make them enforceable by the NRC.

3.190 Based on the foregoing Findings of Fact, the Board concludes that the NRC does not need to incorporate these monitoring and mitigation measures into the COL.

#### ***4. Dewatering Impacts: Subpart 2 — Connection to Floridan Aquifer System***

Contention 4A asserts that the FEIS inadequately addresses “[i]mpacts to wetlands, floodplains, special aquatic sites, and other waters, associated with dewatering . . . resulting from the connection of the site to the underlying Floridan Aquifer system.” C4A Order, Att. A at 1.

##### *a. Evidence Regarding Connection to Floridan Aquifer System*

Dr. Bacchus stated that “active and passive dewatering during construction and operation of the proposed LNP would have a more substantial and irreversible adverse effect on wetlands, wildlife habitat, the aquatic environment and endangered and threatened species than the FEIS presents, including on the underlying Floridan aquifer system.” Bacchus Testimony at 4. Dr. Bacchus provided extensive testimony regarding the interconnected nature of the surficial aquifer and the Floridan Aquifer.<sup>83</sup> *See id.* at 10-12. In her discussion of hydroperiod alterations, she noted that “the surficial aquifer that maintains wetland soils and rootzones is hydrologically connected to the Floridan aquifer system.” *Id.* at 17.

Dr. Bacchus conceded that the FEIS discusses the connection between the surficial aquifer and the Floridan Aquifer. *Id.* at 18. Further, she conceded that the FEIS notes that this connectivity implies that groundwater withdrawals

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<sup>83</sup> Because we have discussed at length Intervenors' allegations regarding the karstic nature of the ground underlying the LNP site in the section on Site Characterization, we need not rehash those allegations at length here.

from the Floridan Aquifer could cause adverse impacts to the surficial aquifer and therefore to the wetlands on and around the LNP site. *Id.* She maintained, however, that even though the FEIS acknowledges the connection between the two aquifers, “the FEIS should have realized that surface water and groundwater withdrawals proposed for the LNP would affect wetlands on and around the LNP site by changing natural hydroperiods.” *Id.* at 19.

Dr. Bacchus also noted that the FEIS states, “Building-related groundwater withdrawals from the Upper Floridan aquifer have the potential to decrease water levels at the site and induce lateral saltwater intrusion from the CFBC and vertical migration of saline waters from deeper Floridan aquifer intervals.” *Id.* at 58 (quoting FEIS at 4-27). She insisted, however, that “[t]here was no attempt to define the parameters where the impacts of saltwater intrusion would be significant enough to warrant a more thorough analysis.” *Id.* at 58.

Dr. Bacchus also took issue with a Tech Memo prepared by CH2M Hill for PEF (INT104). *See* Bacchus Rebuttal at 3-4. Specifically, she contended that the Tech Memo incorrectly illustrates the long-term drawdown impacts to the surficial aquifer and the Floridan Aquifer. *See id.* at 3. The illustrations within the Tech Memo seem to demonstrate that the cumulative drawdown of the Floridan Aquifer would be slightly larger than the cumulative drawdown to the surficial aquifer over the life of the proposed LNP. *See* INT104 at 44-45, Figs. 28 and 29. Dr. Bacchus asserted:

[T]he magnitude and extent of the drawdowns in the surficial aquifer will mimic those in the upper Floridan aquifer. That is because the fractures and associated relict sinkholes extending throughout the proposed LNP site and surrounding vicinity will result in vertical and lateral induced recharge or “capture” of water from the surficial aquifer by the UFA where the proposed groundwater wells will be withdrawing water.

Bacchus Rebuttal at 3-4. Dr. Bacchus argued, “The FEIS provided no scientific support to conclude that these ‘modeled’ drawdowns would not result in LARGE adverse impacts to wetlands.” Bacchus Testimony at 66.

*b. Findings of Fact Regarding Connection to Floridan Aquifer System*

After reviewing the evidence and the testimony submitted, the Board finds as follows:

4.1 The Upper Floridan Aquifer (UFA) is connected to the surficial aquifer in the area on and around the LNP site. FEIS at 2-22, 5-19.

4.2 The FEIS discusses this connection in multiple locations. For example, the FEIS states that the UFA discharges to the surficial aquifer. *Id.* at 2-27. The surficial aquifer’s potentiometric surface is reasonably expected to mimic that of

the UFA. *Id.* Vertical hydraulic gradients between the surficial aquifer and the UFA are discussed. *Id.* at 2-27 to 2-28. Water quality characteristics are similar between the surficial aquifer and the UFA. *Id.* at 2-38.

4.3 The FEIS states that “groundwater usage from the Upper Floridan aquifer will, after 60 years of operation, result in surficial aquifer drawdowns of as much as 2 ft in areas where wetlands are present.” *Id.* at 5-5.

4.4 The FEIS states, “[b]ecause the surficial aquifer that supports local wetlands is hydrologically connected to the Floridan aquifer system, groundwater withdrawal from the Floridan aquifer system could affect wetlands on and around the LNP site.” *Id.* at 5-19.

4.5 The FEIS states, “[b]uilding-related groundwater withdrawals from the Upper Floridan aquifer have the potential to decrease water levels at the site and induce lateral saltwater intrusion from the CFBC and vertical migration of saline waters from deeper Floridan aquifer intervals.” *Id.* at 4-27.

4.6 We have already found that the FEIS’s discussion of groundwater modeling is adequate. *See supra* Section IV.A.3.b. Thus, to the extent Intervenor present concerns related to groundwater modeling or the impacts that will occur as a result of modeled drawdowns, *see, e.g.*, Bacchus Testimony at 65, such arguments fail.

4.7 We have already found that the FEIS’s discussion of site characterization is adequate. *See supra* Section IV.A.3.a. Thus, to the extent Intervenor again raise challenges regarding site characterization, such arguments fail.

4.8 We have already found that the FEIS’s discussion of hydroperiod alterations is adequate. *See supra* Section IV.A.3.c. Thus, to the extent that Intervenor raise arguments regarding hydroperiod alterations, *see, e.g.*, Bacchus Testimony at 19, such arguments fail.

4.9 Because these other portions of the contention have been resolved, we are left with the core of this portion of the contention, which alleges that the FEIS does not adequately describe the connection between the surficial and the Floridan aquifers and does not adequately describe the adverse impacts resulting from that connection.

4.10 We find that the FEIS adequately describes the connection between the surficial and Floridan aquifers. *See FEIS* at 2-22.

4.11 We find that the FEIS adequately describes the potential adverse impacts arising from the connection between the surficial and Floridan aquifers. *See id.* at 4-27, 5-5, 5-19.

**5. Dewatering Impacts: Subpart 3 — Impacts to Outstanding Florida Waters**

*a. Evidence Regarding Impacts to Outstanding Florida Waters*

The Intervenors argued that the FEIS does not adequately consider the impacts of construction and operation of the LNP on Outstanding Florida Waters (OFWs). See Bacchus Testimony at 4, 33-36, 46-47, 66-67. This argument appears to be closely linked to other portions of Contention 4A, as Intervenors asserted that the FEIS has not adequately analyzed the cumulative impacts of the LNP and other groundwater withdrawals on OFWs, *id.* at 33-34, 66, or the impacts of salt drift and deposition on OFWs. *Id.* at 34-35, 46. Cumulative impacts are discussed *supra* Section IV.A.3.f, and salt drift and deposition are discussed *infra* Section IV.B.

In particular, Intervenors claim that “water quantity and hydroperiod impacts from the proposed LNP alone and cumulatively with the hydroperiod impacts from the proposed Tarmac limestone mine, the proposed Knight sand mine and the proposed Adena Ranch . . . will be significant on Outstanding Florida Waters such as the Withlacoochee and Waccasassa Rivers.” Bacchus Testimony at 33. In addition, Intervenors argue, “[t]he FEIS also fails to provide an accurate evaluation of the cumulative water quality impacts that will ensue in the coastal estuary system, including Withlacoochee Bay and Withlacoochee and Waccasassa Rivers, due to the LNP’s proposed withdrawals of substantial freshwater and groundwater currently flowing into [them].” *Id.* at 34.

Intervenors also contend that “the FEIS fails to provide any scientifically valid analysis of the impacts of increased salinities in Outstanding Florida Waters from decreased water quantity and the addition of salt to surface and ground water via salt drift and aerial deposition from the proposed LNP.” *Id.* at 34-35. Intervenors state that the discussion of salt deposition in the FEIS:

is misleading because it discusses increases in salt concentrations based on average precipitation, ignoring significantly greater salt concentrations that will result during the dry season and periods of drought, and immediately following the dry season and droughts when the first rain events flush the concentrated salt deposited via salt drift into surrounding Outstanding Florida Waters and other surface waters and the aquifer.

*Id.* at 35.

*b. Findings of Fact Regarding Impacts to Outstanding Florida Waters*

After reviewing the evidence and the testimony submitted, the Board finds as follows:



5.1 “The State of Florida designates waters in the national parks, preserves, memorials, wildlife refuges, wilderness areas, State Park System and Wilderness Areas, national forests, seashores, monuments, and marine sanctuaries, scenic rivers, and other waters within areas specified by State laws as OFWs.” FEIS at 2-19 to 2-21.

5.2 OFWs in the general vicinity of the Proposed Site are depicted on Board Exhibit BRD002 and include the Withlacoochee River, the Wacasassa Bay State Preserve, and the Goethe State Forest, among others. *See* BRD002; Griffin Testimony at 7-8.

5.3 Surface water runoff from the Proposed Site flows into the Spring Run Creek subbasin, directly into the Gulf of Mexico, or into the Withlacoochee River subbasin. *See* BRD002; FEIS at 2-18, Fig. 2-8; Griffin Testimony at 8.

5.4 The Wacasassa River lies to the north of the Spring Run Creek subbasin. Griffin Testimony at 8. Therefore, runoff from the Proposed Site will not enter the Wacasassa River. *Id.*

5.5 The Goethe State Forest lies to the north and east of the LNP Site. *Id.* Because surface water does not flow to the east from the Proposed Site, the Goethe State Forest would not be affected either. *Id.*

5.6 Therefore, the only relevant OFW in the vicinity of the LNP site is the lower Withlacoochee River. *Id.*

5.7 The FEIS recognizes that “[p]rimary discharge areas for the surficial aquifer are the Withlacoochee River and CFBC to the south and southwest of the site and the saltwater marshes that discharge to the Gulf of Mexico to the west of the site.” FEIS at 2-27.

5.8 The FEIS states, “The review team determined that the operations of LNP Units 1 and 2 would not alter the surface-water hydrology of the Withlacoochee River.” *Id.* at 5-4.

5.9 The FEIS states:

Results from the predictive simulations (PEF 2010a) indicate that annual average LNP groundwater usage from the Upper Floridan aquifer is minor relative to the overall model water balance (Figure 5-2). As indicated, average LNP operational usage (1.58 Mgd) represents only a small percentage (0.8 percent) of the total water flux (208 Mgd) through the model domain (Figure 2-12). At this withdrawal rate, the LNP wellfield is predicted to decrease the surficial and Upper Floridan aquifer discharge to surface-water bodies within the model domain by approximately 0.4 Mgd, or about 2 percent of the total simulated groundwater discharge to rivers and lakes. These simulated impacts on Lake Rousseau and the lower Withlacoochee River, which is designated as an Outstanding Florida Water, are minor relative to the 37-year recorded average daily discharge of 687 Mgd through the bypass channel to the lower Withlacoochee River.

*Id.* at 5-8.

5.10 The FEIS states, “[T]he review team determined the impact of operating LNP Units 1 and 2 on surface-water quality of the CFBC, OWR, lower Withlacoochee River, and other nearby streams would be SMALL and mitigation beyond the FDEP Conditions of Certification would not be warranted.” *Id.* at 5-16.

5.11 The FEIS states:

Based [on] groundwater modeling, there may be a reduction of 0.4 Mgd of the groundwater discharge to the Lower Withlacoochee River and Lake Rousseau as a result of service-water pumping from groundwater wells for proposed LNP Units 1 and 2. As discussed in Section 5.2.2.2, the reduction is expected to have minimal impact on the estimated total groundwater discharge of 687 Mgd to the Lower Withlacoochee River/Lake Rousseau watersheds and thus would have minimal impact on the ecology of these waterbodies.

*Id.* at 5-58.

5.12 The FEIS states, “[d]eposition of salt decreases rapidly with increasing distance from cooling towers, and is therefore not expected to detectably affect the closest freshwater bodies, which are approximately 3 mi[les] to the south (Lake Rousseau and the Lower Withlacoochee River) from the LNP site.” *Id.* at 5-55.

5.13 In a Chapter entitled “Cumulative Impacts,” the FEIS states, “[t]he increase in sea level relative to the CFBC and the Withlacoochee River, potentially coupled with reduced streamflow (also due to global climate change), could result in the saltwater front in the CFBC and the Withlacoochee River moving upstream.” *Id.* at 7-12 to 7-13.

5.14 As discussed *supra*, the FEIS discusses cumulative impacts related to water use and quality at pages 7-10 through 7-20.

5.15 We have already stated that the FEIS’s discussion of cumulative impacts is adequate. *See supra* Section IV.A.3.f.

5.16 As discussed *infra*, the FEIS discusses impacts related to salt drift and deposition at pages 5-19 through 5-25 and pages 5-85 through 5-86.

5.17 We hold below that the FEIS’s discussion of salt drift and deposition is adequate. *See infra* Section IV.B.

5.18 Because these two topics are so closely related to the instant portion of the contention, and because the FEIS specifically discusses impacts to the Withlacoochee River (the only OFW that is likely to be impacted by the LNP), we find that the FEIS’s discussion of impacts to OFWs is adequate.

## **6. Dewatering Impacts: Subpart 4 — Nutrient Concentration Impacts**

### *a. Evidence Regarding Nutrient Concentration Impacts*

Dr. Bacchus testified that “harmful increases in nutrient levels, known as eutrophication, will result from the LNP’s withdrawal . . . of water . . . because the proposed LNP withdrawals will concentrate the existing nutrient pollution in the remaining, flow-depleted waters.” Bacchus Testimony at 37. She provided the following USGS definition of eutrophication: “A process where water bodies receive excess nutrients that stimulate excessive plant growth.” *Id.* (citing <http://toxics.usgs.gov/definitions>). She also provided the following definition from the EPA: “A reduction in the amount of oxygen dissolved in water. The symptoms of eutrophication include blooms of algae (both toxic and non-toxic), declines in the health of fish and shellfish, loss of seagrass beds and coral reefs, and ecological changes in food webs.” *Id.* (citing <http://www.epa.gov/acidrain/glossary.html>).

Dr. Bacchus argued that “the FEIS does not appear to include even a single reference to eutrophication as one of the LARGE adverse impacts of construction and operation of the proposed LNP, although these impacts clearly meet the definition of LARGE: ‘Environmental effects are clearly noticeable and are sufficient to destabilize important attributes of the resource.’” *Id.* She opined that construction and operation of the LNP “would result in LARGE adverse impacts to water quality and increase the harm from existing concentrations of nutrients in the water by decreasing the volume of water available to dilute nutrient contaminants in the surface waters in the vicinity of the proposed LNP.” *Id.* at 38.

### *b. Findings of Fact Regarding Nutrient Concentration Impacts*

After reviewing the evidence and the testimony submitted, the Board finds as follows:

6.1 The FEIS does not directly address the issue of potential increases in nutrient concentration or eutrophication as a result of dewatering associated with construction and/or operation of the proposed LNP.

6.2 The FEIS does, however, state:

Nutrients introduced to groundwater from natural or man-made events such as fires may affect nutrient loading in surface waters. Nutrients would be discharged to groundwater through infiltration of surface waters located as stormwater-detention ponds on the LNP site and are not expected to affect offsite waterbodies such as the Withlacoochee River or Lake Rousseau.

FEIS at 7-33.

6.3 Increases in nutrient concentrations can lead to excessive growth of algae, which can cause harm to other aquatic wildlife. *See* Bacchus Testimony at 37.

6.4 Intervenors have presented no evidence, other than Dr. Bacchus's opinion evidence, that construction and operation of the LNP will lead to harmful increases in nutrient concentrations.

6.5 One of the functions of wetlands is to trap nutrients. NRC Testimony at 145 (Doub, Aston).

6.6 We have already found that the FEIS's conclusion that impacts to wetlands will be SMALL to MODERATE was reasonable.

6.7 Because wetlands trap nutrients, it reasonably follows from the general conclusion that wetlands are not likely to be adversely impacted that their ability to trap nutrients will also not likely be adversely impacted. *See id.* at 143-44 (Doub, Aston).

6.8 Therefore, we find that the FEIS's failure to directly address the issue of increased nutrient concentrations resulting from construction and/or operation of the proposed LNP was reasonable.

## **7. *Dewatering: Subpart 5 — Destructive Wildfires***

### ***a. Evidence Regarding Destructive Wildfires***

Dr. Bacchus testified that construction of the LNP would increase the frequency of destructive wildfires in and around the LNP site. Bacchus Testimony at 38. She stated, "In my professional opinion . . . long-lasting smoldering fires only occur in areas where the natural hydroperiod has been altered by excavations, groundwater pumping, or a combination of those actions, not in areas solely with a build up of leaf litter." *Id.* She testified that "[b]ecause of changes in soil moisture and related conditions due to the hydroperiod alterations, soil moisture is depleted so the trees are not properly hydrated and the fires kill them. In other words, when natural hydroperiods are altered, fires that would have been beneficial — and even essential — become lethal." *Id.* at 39. She also stated that PEF's Wetland Mitigation Plan is flawed in its reliance on controlled burns and rapid fire response. *Id.* at 40. She contended that the use of controlled or prescribed burns has failed to establish "restoration of a more natural fire regime" in areas throughout Florida that have experienced hydroperiod alteration. *Id.* In addition, she testified that "rapid fire response" cannot be relied on because "there is no evidence to support a conclusion that the fires could be contained or controlled." *Id.*

*b. Findings of Fact Regarding Destructive Wildfires*

After reviewing the evidence and testimony submitted, the Board finds as follows:

7.1 The FEIS discusses the potential for adverse impacts resulting from wildfires at pages 5-31 and 7-33.

7.2 The FEIS states, “[i]f PEF addresses any wetland impacts from groundwater withdrawal by mitigation rather than implementing an alternative water-supply project, it is unlikely that these hydrological alterations would contribute to an increased risk of wildfire in the LNP vicinity.” FEIS at 5-31.

7.3 The FEIS reaches this conclusion because “[g]roundwater drawdown exceeding 0.5 ft that could adversely affect wetlands would be localized” and because “the fire risk in parts of the surrounding area would be reduced through the restoration of a more natural fire regime.” *Id.*

7.4 The FEIS also states that “appropriate stewardship of the site by the applicant is expected to significantly reduce the potential for uncontrolled fires involving onsite vegetation,” *id.* at 7-33, and that should a wildfire break out on or around the LNP site, “rapid fire response would be expected.” *Id.* at 5-31.

7.5 Wildfires are initially caused by ignition sources such as “lightning strikes, and other anthropogenic sources like automobile exhaust systems, campfires, cigarettes, etc.” Robertson Testimony at 5.

7.6 No persuasive evidence has been presented to demonstrate that construction and operation of the LNP would increase the amount of ignition sources on or around the LNP site.

7.7 The severity of wildfires is dependent on such factors as weather conditions, topography, fuel characteristics, barriers to fire spread, and fire suppression. *Id.*

7.8 No evidence has been presented to demonstrate that construction and operation of the LNP would alter weather conditions, topography, or barriers to fire spread in such a way that wildfires would spread more easily on or around the LNP site.

7.9 The presence of the LNP on the site would actually *increase* the fire suppression capabilities at the site, as the LNP would provide additional fire response capabilities to those already in existence. *See* FEIS at 5-31.

7.10 The prescribed burns that will be conducted at the LNP site will serve to reduce fuel load, in turn reducing the severity of subsequent wildfires. Robertson Testimony at 12.

7.11 This type of prescribed burning “allows wildfires to be rapidly contained before spreading over large areas and minimizes fire severity.” Robertson Rebuttal at 3.

7.12 Although construction and operation of the LNP will likely have no impact on the amount of wildfire ignitions, it will likely *reduce* the severity of

any wildfires that do occur through faster and more substantial fire response capabilities and the restoration of a more natural fire regime through prescribed burns. Robertson Testimony at 12.

7.13 “[L]ong-lasting wildfires are primarily associated with droughts and are not limited to areas with man-made dewatering.” Robertson Rebuttal at 2.

7.14 Therefore, we find that the FEIS’s conclusion that increased risk of wildfire at and around the LNP site is “unlikely” was reasonable.

## **B. Salt Drift and Salt Deposition**

### ***1. Evidence Regarding Salt Drift and Salt Deposition***

Dr. Bacchus testified that the FEIS’s analysis of salt drift was flawed in many ways. First, she stated that “the salt drift and deposition model . . . uses wind directions from Tampa that do not correlate closely enough with the data from the LNP site.” Bacchus Testimony at 41. She claimed that using LNP site data rather than data from Tampa would demonstrate that “significant amounts of salt drift would be deposited to the southwest” of the cooling towers. *Id.* Because the supply wells, which would cause active dewatering, will be located to the south of the cooling towers, she claimed that “the LARGE adverse impacts from the induced recharge that would result from the proposed LNP supply wells also would result in cumulative adverse impacts from this salt deposition pattern.” *Id.* at 42.

Dr. Bacchus testified further that the salt drift model does not account for “excavations into the water table” such as mines in the area that directly expose areas of the aquifer. *Id.* She contended that those areas would “suffer contamination directly from aerial deposition of salt particles” and that the model used in the FEIS therefore “inaccurately portrays salt deposition rates and locations and underestimates the ensuing effects.” *Id.*

In addition, Dr. Bacchus stated that the FEIS did not quantify salt drift using comparable existing cooling towers and did not consider the cumulative impacts of salt drift from the cooling towers with naturally occurring airborne salt from the Gulf of Mexico coast. *Id.* at 43.

Dr. Bacchus also testified that the FEIS’s reliance on corn as an “indicator species” was inadequate because “there is no corn in the vicinity” of LNP and “there is no scientific documentation supporting the presumption that corn is as sensitive as the native species in the area” of the LNP. *Id.* at 44. She also argued that the FEIS’s reliance on salt drift monitoring from the nearby Crystal River Energy Complex (CREC) was flawed because “the cooling towers were not all in operation, . . . and the monitoring sites were moved periodically.” *Id.* In addition, she testified that salt drift monitoring from CREC was flawed in that deposition collectors were placed in forested areas where the tree canopy may

have intercepted some of the deposition. *Id.* at 45. Finally, she argued that the FEIS cannot rely on data from CREC because CREC is located on the Gulf of Mexico coast, while the LNP is located inland, where vegetation has not adapted salt resistance like coastal vegetation. *See id.* at 45-47.

## **2. Findings of Fact Regarding Salt Drift and Salt Deposition**

After reviewing the testimony and evidence submitted, the Board finds as follows:

8.1 The FEIS discusses environmental impacts from salt drift and deposition in Section 5.3.1.1, “Terrestrial Resources — Site and Vicinity,” and Section 5.7.2, “Cooling-System Impacts.” *See* FEIS at 5-19 to 5-26, 5-85 to 5-86.

8.2 The FEIS notes that, through the use of mechanical draft cooling towers, “[a] small percentage of the water in the [circulating water system] would unavoidably be released into the atmosphere as fine droplets (i.e., cooling-tower drift) containing elevated levels of [total dissolved solids] that can be deposited on nearby vegetation.” *Id.* at 5-20.

8.3 The FEIS states that “[t]he maximum predicted onsite deposition during normal plant operation is predicted to be 10.75 kg/ha/mo [kilograms per hectare per month] of total solids, as determined from the 2004 meteorological data year” and “[t]he maximum predicted offsite deposition rate would be approximately 6.8 kg/ha/mo of total solids at the property boundary west of the cooling towers, as determined from the 2002 meteorological data year.” *Id.*

8.4 The FEIS notes that NRC guidance provides that visible leaf damage is possible when deposition rates exceed 10 kg/ha/mo. *Id.* at 5-21. As such, the FEIS states that “some vegetation on the LNP site could suffer leaf damage from salt drift in some years,” but that offsite vegetation would not suffer any damage. *Id.*

8.5 The FEIS also states that damage to vegetation resulting from soil salinization is unlikely because “sufficient rainfall would be received to leach salts from the predominantly sandy soil profile,” noting that “[i]n humid environments such as Levy County, [salt deposition effects on soils] were found to be transitory to undetectable.” *Id.* at 5-22. It concludes that “the impact on vegetation from salt drift is expected to be minor, infrequent, and limited to the LNP site.” *Id.*

8.6 The FEIS also discusses the potential for salt drift and deposition to impact surface waters. It concludes that, although “[a] potential exists for cooling-tower drift to increase the salinity of surface water in wetlands on the LNP site[,] . . . [c]onsidering the very low additional contribution to surface-water salinity from cooling-tower drift and the low likelihood for substantial concentration of salts in surface waters, cooling-tower drift is not expected to impair freshwater ecosystems on the LNP site.” *Id.* at 5-24.

8.7 The FEIS concludes that “[i]ncidents of salt toxicity in animals that reside around the LNP site would be highly unlikely.” *Id.* at 5-25.

8.8 Operation of the mechanical draft cooling towers at the LNP will result in the deposition of salt via “salt drift” in the general vicinity of the LNP site, both onsite and offsite. *See id.* at 5-20.

8.9 Salt drift modeling “was performed using an EPA dispersion model” known as “the American Meteorological Society/Environmental Protection Agency Regulatory Model (‘AERMOD’).” Howroyd Testimony at 6.

8.10 Salt deposition can cause visible damage to vegetation at concentrations exceeding approximately 10 kg/ha/mo. FEIS at 5-21.

8.11 Concentration of salt deposition onsite is not expected to exceed 10.75 kg/ha/mo. *Id.* at 5-20; Howroyd Testimony at 11-12.

8.12 Concentration of salt deposition offsite is not expected to exceed 6.8 kg/ha/mo. FEIS at 5-20; Howroyd Testimony at 10.

8.13 These rates of deposition are based on a worst-case scenario, and actual deposition rates are likely to be lower. Howroyd Testimony at 10-12.

8.14 Therefore, visible damage might occur to vegetation onsite, but is not expected to occur to vegetation offsite.

8.15 Freshwater plants might experience damage at salinity levels exceeding 1 part per thousand (ppt). Blancher Testimony at 7.

8.16 The maximum salt concentration on the ground and in the waters on and around the LNP site resulting from LNP-associated salt drift and deposition is not expected to exceed 0.03 ppt. *Id.*

8.17 Therefore, operation of the LNP cooling towers is not expected to cause measurable damage to surrounding freshwater plants.

8.18 Salt toxicity in animals resulting from salt drift has not been observed at any nuclear plant site. FEIS at 5-25.

8.19 Salt deposition at the LNP site is not expected to cause measurable harm to animals on or around the site. *Id.*

8.20 PEF has relied on weather data from Gainesville, Florida, not from Tampa, Florida, as intervenors contend. *See* Howroyd Testimony at 8, PEF505 at 2.

8.21 The FEIS’s failure to base its salt deposition calculations on data from cooling towers similar to those proposed for the LNP was reasonable, as the calculations were performed using the LNP’s design specifications. Howroyd Rebuttal at 6.

8.22 The LNP site is approximately 15 kilometers from the Gulf of Mexico. *Id.* Therefore, the FEIS was reasonable to assume that the cumulative effects of airborne salt from the cooling tower operation, in combination with salt spray from the Gulf would be negligible. *Id.*

8.23 The results of the CREC salt drift study are reliable. *Id.* at 7. That study found no appreciable damage to vegetation resulting from cooling tower



operation. *Id.* Moreover, the FEIS does not appear to rely “heavily” on the study, as Intervenors contend. *See* Bacchus Testimony at 44. Rather, the FEIS appears to use the results of the study as *additional* support to supplement the results of the salt-drift modeling that was performed. *See, e.g.*, FEIS at 5-23.

8.24 Corn is used as an indicator species because “its response to stressors is typical for broad-leaved plants, especially those not adapted to certain stressors such as salt.” Blancher Rebuttal at 3. However, the FEIS uses five other indicator species as well, which are soybeans, cotton, dogwood, white ash, and Canadian hemlock. FEIS at 5-21.

8.25 Areas of the aquifer that are directly exposed are not likely to suffer adverse consequences, as rainfall will dilute the salt deposits to such an extent that they will not impact the aquifer. Blancher Rebuttal at 1-2.

8.26 Therefore, we find that the FEIS has adequately and reasonably discussed the issues of salt drift and salt deposition.

### C. Consequential Allegations

This portion of Contention 4A reads as follows:

*As a result of the omissions and inadequacies described above, the Draft Environmental Impact Statement also failed to adequately identify, and inappropriately characterizes as SMALL, the proposed project’s zone of:*

1. Environmental impacts;
2. Impact on Federally listed species;
3. Irreversible and irretrievable environmental impacts; and
4. Appropriate mitigation measures.

C4A Order, Att. A at 1 (emphasis added).

By its very nature, this portion of Contention 4A only arises “as a result” of the other “omissions and inadequacies” alleged in the earlier parts of the contention. *See* LBP-09-10, 70 NRC at 85, 105, 106. This portion of the contention is “entirely dependent on the existence of the deficiencies alleged in the first and/or second parts” of the contention. *See supra* Section I. Here, we have already rejected the first and second parts of Contention 4A; i.e., we have rejected the proposition that there are “omissions and inadequacies” with respect to the FEIS discussion and analysis of (1) dewatering and (2) salt drift/deposition. Because there are no such omissions and inadequacies, there can be no “consequence” of such omissions and inadequacies. Thus, the “consequential” portion of Contention 4A is rejected.

## V. CONCLUSIONS OF LAW

As set forth in Section II, before NRC decides whether to issue a license

to construct and operate a nuclear power plant, NEPA requires that the agency develop and “carefully consider, detailed information concerning significant environmental impacts of the proposed action.” *Robertson*, 490 U.S. at 349. NEPA is intended to ensure that “important effects will not be overlooked or underestimated only to be discovered after resources have been committed or the die otherwise cast.” *Id.* The FEIS must review and consider all significant environmental impacts, whether direct, indirect, cumulative, onsite, or offsite, that are a reasonably foreseeable consequence of the proposed action. *Id.* at 356, 359.

Based on our review of the entire record in this proceeding and our findings of fact set forth above, the Board concludes, as a matter of law, that NRC has met these standards with regard to the contested issues raised in Contention 4A. More specifically, as set forth below, we conclude that (A) the FEIS is an adequate and fair analysis of the potential environmental impacts of the proposed LNP that meets the NEPA rule of reason, (B) the NRC exercised independent judgment with regard to its identification and assessment of the potential environmental impacts of the proposed LNP, and (C) the FEIS reliance on the various monitoring and mitigation measures mandated by the FDEP COC was reasonable and did not violate NEPA.

#### **A. FEIS Is an Adequate and Fair Analysis**

The legal adequacy of an FEIS is assessed under the “rule of reason.”<sup>84</sup> This principle is of key importance here, because one of the Intervenor’s “overarching themes” is that the FEIS is “grossly oversimplified” and that a substantial amount of additional site investigation and groundwater modeling must be done before NEPA can be satisfied. *See, e.g.*, Bacchus Testimony at 5. As described in detail in Section IV, the Intervenor’s assert that much more study must be done. According to the Intervenor’s, more wells must be drilled to investigate the geology and hydrology of the Proposed Site; hypothesized preferential pathways and conduits must be identified and tracked; tracer studies should be done; an integrated surface water and groundwater model is needed; the geographic area of the groundwater models used by NRC should be expanded; the baselines used in the FEIS require more data; the FEIS should consider more data, over a longer term, regarding seasonal fluctuations and hydroperiods; etc.

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<sup>84</sup> *See, e.g.*, *Potomac Alliance v. NRC*, 682 F.2d 1030, 1035 (D.C. Cir. 1982); *Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station)*, CLI-10-22, 72 NRC 202, 208 (2010); *see also Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 551 (1978) (“To make an impact statement something more than an exercise in frivolous boilerplate the concept of alternatives must be bounded by some notion of feasibility.”).

The NEPA “rule of reason” is the criterion used to assess whether such additional study and data are legally required. In discussing the rule of reason, the Commission has stated:

It is well established that NEPA requires only a discussion of “reasonably foreseeable” impacts. Grappling with this concept, various courts have described it as a “rule of reason” or “rule of reasonableness,” which excludes “remote and speculative” impacts or “worst-case” scenarios. Courts have excluded impacts with either a low probability of occurrence, or where the link between the agency action and the claimed impact is too attenuated to find the proposed federal action to be the “proximate cause” of that impact. NEPA does not call for “examination of every conceivable aspect of federally licensed projects.”

*Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340, 348 (2002) (citations omitted).

More recently, the Commission has stated “NEPA ‘should be construed in the light of reason if it is not to demand virtually infinite study and resources.’”<sup>85</sup> The Commission added that an EIS is not “intended to be a research document”<sup>86</sup> and does not require the NRC to use the absolutely “best scientific methodology” available.<sup>87</sup> The Commission stated “while there ‘will always be more data that could be gathered [agencies] must have some discretion to draw the line and move forward with decisionmaking.’”<sup>88</sup> The Commission concludes that “NEPA allows agencies to select their own methodology as long as that methodology is reasonable.”<sup>89</sup>

As the Second Circuit has stated: “[A]n EIS is required to furnish only such information as appears reasonably necessary under the circumstances for evaluation of the project, rather than to be so all-encompassing in scope that the task of preparing it would become either fruitless or well nigh impossible.” *Natural Resources Defense Council, Inc. v. Callaway*, 524 F.2d 79, 88 (2d Cir. 1975).

After considering the entire record in this proceeding, the Board concludes that, with respect to the issues raised in Contention 4A, the NRC Staff conducted a thorough and reasonable investigation to identify all of the significant and reasonably foreseeable environmental impacts of the proposed LNP and that this

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<sup>85</sup> *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 315 (2010) (quoting *Natural Resources Defense Council, Inc. v. Hodel*, 865 F.2d 288, 294 (D.C. Cir. 1988)).

<sup>86</sup> *Id.* (citing *Town of Winthrop v. Federal Aviation Administration*, 535 F.3d 1, 11-13 (1st Cir. 2008)).

<sup>87</sup> *Id.* (citing *Hells Canyon Alliance v. U.S. Forest Service*, 227 F.3d 1170, 1185 (9th Cir. 2000)).

<sup>88</sup> *Id.* (citing *Town of Winthrop v. FAA*, 535 F.3d at 11).

<sup>89</sup> *Id.* (citing *Town of Winthrop v. FAA*, 535 F.3d at 11).

FEIS complied with the NEPA rule of reason. The NRC gathered and evaluated a very substantial amount of regional and site-specific information concerning the Proposed Site and its vicinity. The FEIS is based on substantial geotechnical and hydrologic data regarding the Proposed Site, which was backstopped by a large amount of consistent regional information. The groundwater modeling, including the Regional Model, Model 1, and Model 2, was well done and professional.

We reject the Intervenor's claim that the FEIS is grossly oversimplified and that it must be expanded and amplified in numerous ways. The FEIS is not "intended to be a research document," nor does it need to be. The Intervenor hypothesizes the existence of groundwater conduits and preferential pathways under the Proposed Site and, from there, asserts that a great deal of additional site-specific data must be collected. But we find no persuasive evidence that significant conduits or preferential pathways exist under the Proposed Site, or in its vicinity. Nor does the evidence support the proposition that NEPA requires thousands of boreholes to be drilled on the site, or that tracer studies must be performed, or that an integrated surface and groundwater model is needed. It is always possible to ask for more data and more study, but the rule of reason allows the NRC to draw a reasonable line as to how much study is enough to satisfy NEPA. We think that the FEIS draws the line at a fair and reasonable point. Likewise, the FEIS makes a reasonable effort to identify and discuss the annual, seasonal, and longer term hydrologic fluctuations that occur at the Proposed Site and recognizes that the impacts of the LNP may vary with regard to these hydroperiods. NEPA does not require that the FEIS be a Ph.D. dissertation on these topics.<sup>90</sup>

We acknowledge that NRC could have gathered additional data, and could have used different methodologies in conducting the FEIS. But the appropriate inquiry under NEPA is not whether there are alternative models that NRC could have used, or whether the analysis could have been refined, or improved by gathering additional data, but is whether the NRC's chosen methodology is reasonable. *Pilgrim*, CLI-10-11, 71 NRC at 315-16. We conclude that it is.

As described in the findings of fact set forth above, the FEIS is a substantial, professional, and reasonable effort to identify and assess all significant and reasonably foreseeable environmental impacts. The FEIS uses methodologies that are reasonable, that conform to the methodologies used by the relevant and expert federal, state, and local agencies (e.g., USACE, FDEP, SWFWMD), and that are consistent with accepted industry standards and practices. Accordingly, as a matter of law, we conclude that the additional studies and data collection efforts sought by the Intervenor are not required under NEPA.

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<sup>90</sup> See *Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), LBP-09-7, 69 NRC 613, 648-50, 662, 671-74, 681-82 (2009).

## B. NRC Exercised Independent Judgment

NEPA requires that NRC exercise its independent judgment in identifying and assessing the significant and reasonably foreseeable impacts of a proposed licensing action. For example, the NRC is required to independently assess the validity of the information that the applicant submits in its environmental report. *See* 10 C.F.R. § 51.41 (“The Commission will independently evaluate and be responsible for the reliability of any information which it uses in fulfilling its duties under NEPA.”). More generally, the regulations state that the “NRC staff will independently evaluate and be responsible for the reliability of all information used in the [DEIS].” 10 C.F.R. § 51.70(b).

The duty to exercise independent judgment does not, however, mean that NRC must reinvent every wheel or duplicate competent and professional environmental data and studies that have already been done on a proposed site.<sup>91</sup> For example, the Appeal Board has stated, in discussing whether the NRC Staff may rely on an environmental analysis done by another federal agency:

This is not to say that the NRC must perform a wholly independent analysis from scratch. As the Licensing Board correctly observed, the staff may rely on the scientific data and inferences drawn by the DRBC [Delaware River Basin Commission]. On the other hand, the Commission need not slavishly defer to either the DRBC’s findings or its conclusions about water quality. The critical factor is that the staff (and the NRC) exercise independent judgment with regard to its ultimate conclusions about the environmental impacts of the project.

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<sup>91</sup> *See State of North Carolina v. Federal Aviation Administration*, 957 F.2d 1125, 1129-30 (4th Cir. 1994) (NEPA “precludes an agency from avoiding the Act’s requirements by simply relying on another agency’s conclusions about a federal action’s impact on the environment.”); *Calvert Cliffs’ Coordinating Committee v. AEC*, 449 F.2d 1109, 1123 (D.C. Cir. 1971) (holding that the AEC may not abdicate its duty under NEPA to consider environmental impacts to other agencies, even if those agencies have special expertise relating to environmental impacts); *Philadelphia Electric Co. (Limerick Generating Station, Units 1 and 2)*, ALAB-785, 20 NRC 848, 868 (1984) (The NRC need not “perform a wholly independent analysis from scratch. As the Licensing Board correctly observed, the staff *may* rely on the scientific data and inferences drawn by the DRBC. . . . The critical factor is that the staff (and the NRC) exercise independent judgment with regard to its ultimate conclusions about the environmental impacts of the project.”); *Philadelphia Electric Co. (Limerick Generating Station, Units 1 and 2)*, ALAB-262, 1 NRC 163, 193 (1975) (“In analyzing the predictions of water availability in the TAMS report, the staff consulted with the DRBC and the Corps of Engineers to determine whether data from either of those agencies could be obtained to prepare a new water availability prediction. From the information supplied by those agencies, the staff determined that the data used in the TAMS report were the best available, and that, given the validity of the TAMS data and the built-in conservatism in the TAMS calculations, a completely new computation was unnecessary. . . . In these circumstances, the staff was entirely justified in choosing to review the TAMS report rather than to prepare a *de novo* computation.”).

*Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-785, 20 NRC 848, 868 n.65 (1984).

In another case, the Appeal Board held that, where the Licensing Board “independently analyzed the data in the record and made its own [need-for-power] projection based thereon,”<sup>92</sup> the NRC did not abdicate its NEPA responsibilities by placing “heavy reliance upon the judgment of local regulatory bodies [e.g., the North Carolina Utilities Commission] which are charged with the duty of insuring that the utilities within their jurisdiction fulfill the legal obligation to meet customer demands.” *Id.* at 241.

Based on our review of the FEIS and of the entire record of this proceeding, we conclude, consistent with our findings of fact enumerated above, that the NRC Staff exercised independent judgment with regard to its ultimate conclusions about the environmental impacts of the proposed LNP. Although the NRC did not mandate that PEF drill additional boreholes on the Proposed Site, and did not attempt to run the groundwater models itself, NRC challenged the groundwater modeling approach (Model 1) used by PEF and by the SWFWMD and NRC required that it be recalibrated and rerun (Model 2). The FEIS reflects that NRC, working with the USACE and other agencies, based its FEIS analysis on more than just the ER and the COC. NRC took a hard look at the data and information, and plainly acknowledged that the information, and the predictions generated by the SWFWMD and PEF groundwater models, were subject to uncertainty. The NRC Staff did not “slavishly defer” either to PEF, the SWFWMD, the FDEP or to the judgment of any other agency or entity. The FEIS shows that NRC gathered, assessed, and grappled with a very large amount of environmental information and that the agency satisfied its legal obligation under NEPA to exercise its independent judgment in the identification, assessment, and quantification of the reasonably foreseeable environmental impacts of the proposed LNP.

### **C. FEIS Reliance on the Monitoring and Mitigation Requirements in the COC Was Reasonable**

Intervenors assert that the FEIS characterization of the environmental impacts of the proposed LNP as “SMALL” or “SMALL to MODERATE” is inadequate because it relies too heavily on monitoring and mitigation measures imposed, but not yet fully developed or finalized, by the Conditions of Certification issued by the Florida Department of Environmental Protection. This is one of the Intervenors’ central arguments and it underpins many aspects of Contention 4A.

Our findings of fact confirm several aspects of the Intervenors’ position. First,

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<sup>92</sup> *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant, Units 1,2, 3, and 4), ALAB-490, 8 NRC 234, 236 (1978).

the FEIS quantification of the environmental impacts of the LNP clearly relies on the monitoring and mitigation measures prescribed in the COC. For example, the FEIS concludes that the LNP construction impacts on terrestrial ecological resources including wetlands will be MODERATE, “[e]ven with implementation of BMPs [Best Management Practices], the proposed wetland mitigation plan, and other mitigation outlined in the FDEP Conditions of Certification.” FEIS at 4-71; Finding of Fact 3.157. Similarly, with regard to saltwater intrusion impacts that might be caused by the operation of the LNP, the FEIS states that, under the COC, “[a] wellfield water quality monitoring program would be instituted to detect any detrimental impacts, and wellfield operations would be managed to mitigate any significant decreases in water quality” and that “[u]nder these geohydrologic and operational conditions, the staff concludes that the operational groundwater-quality impacts would be SMALL.” FEIS at 5-16; Finding of Fact 3.160. Likewise, with regard to the operational impacts of the LNP, the FEIS states that “based on the review team’s independent evaluation of the LNP project, including . . . the identified [COC] mitigation measures and BMPs, the review team concludes that operational impacts on terrestrial ecological resources (including wetlands and listed species) would be SMALL to MODERATE[;] . . . any possible effects of groundwater withdrawals on wetlands would be temporary and localized as long as the FDEP and USACE conditions are met.” FEIS at 5-47; Finding of Fact 3.163.

Next, our findings of fact confirm that most of the monitoring and mitigation measures prescribed by the COC have not been established or finalized yet. The COC requires PEF to develop an EMP, an APT Plan, and an AWS Plan (and numerous other monitoring and mitigation measures). *See* Findings of Fact 3.134, 3.136-138. But none of these plans currently exists. *See* Findings of Fact 3.168, 3.181, 3.184. Likewise, the COC mandates that “if adverse impacts are detected or predicted through the EMP or through aquifer performance testing or groundwater modeling” then PEF shall mitigate such adverse impacts either via an AWS project or by other mitigation measures. Finding of Fact 3.150. Again, these mitigation programs and plans do not currently exist. Finding of Fact 3.185.

Third, our findings of fact confirm that NRC is relying on monitoring and mitigation measures that NRC does not intend to incorporate into the NRC license, i.e., the COL. Finding of Fact 3.189.

Based upon the foregoing facts, the Intervenor asserts that, by relying on state-imposed monitoring and mitigation plans that have not yet been issued or finalized, the NRC is “punting environmental issues into the future without addressing them in the FEIS.” Intervenor’s ISOP at 2-3, 13. This, they say, “violates NEPA’s cardinal principle that environmental impacts of agency action must be considered *before* the action is taken, not afterward.” *Id.* (emphasis in original).

Based on our review of the entire record in this proceeding and our findings of

fact set forth above, the Board concludes, as a matter of law, that the FEIS reliance on the various monitoring and mitigation measures mandated by the FDEP COC, even though they have not yet been developed and finalized, was reasonable and did not violate NEPA. Our legal analysis on this issue is set forth below.

We have already discussed some of the basic NEPA principles above. These include (a) the FEIS must be adequate and (b) it must be completed before the agency makes its decision and grants (or denies) the license. The Intervenor's "unlawful reliance" argument requires us to review several additional legal points.

The first principle is that NEPA requires each EIS to include a detailed discussion of mitigation, i.e., measures that might mitigate the adverse environmental consequences of the proposed action. *Robertson*, 490 U.S. at 351. As the Supreme Court has stated: "The requirement that an EIS contain a detailed discussion of possible mitigation measures flows both from the language of the Act and, more expressly, from CEQ's [the Council on Environmental Quality's] implementing regulations." *Id.* The discussion of mitigation measures is an "important" part of an agency's "hard look" at the environmental consequences of proposed federal action." *Id.* at 352.<sup>93</sup>

The second NEPA principle of importance to this analysis is that NEPA does not require that "a complete mitigation plan be actually formulated and adopted" before the agency makes its decision. *Id.* at 352. All that is required is that "mitigation be discussed in sufficient detail to ensure that environmental consequences have been fairly evaluated." *Id.* The Court has stated that "it would be inconsistent with NEPA's reliance on procedural mechanisms — as opposed to substantive, result-based standards — to demand the presence [in an EIS] of a fully developed plan that will mitigate environmental harm before an agency can act." *Id.* at 353.

The third NEPA principle relevant here is that, as a *general* rule, NEPA does not mandate that the identified mitigation measures be implemented. *Id.* at 353 ("We thus conclude that the Court of Appeals erred first in assuming that NEPA requires that action be taken to mitigate the adverse effects of major federal actions.") (internal quotation marks omitted). This follows logically from the basic precept that NEPA does not mandate particular results, i.e., so long as the "adverse effects of the proposed action are adequately identified and evaluated, the agency is not constrained by NEPA from deciding that other values outweigh the environmental costs." *Id.* at 350 (citing *Strycker's Bay Neighborhood Council, Inc. v. Karlen*, 444 U.S. 223, 227-28 (1980) (per curiam); *Vermont Yankee*, 435 U.S. at 558).

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<sup>93</sup>The Supreme Court cites with approval the numerous CEQ regulations that require an agency to discuss possible mitigation measures, e.g., 40 C.F.R. §§ 1508.25(b), 1502.14(f), 1502.16(h), and 1508.20 (the definition of "mitigation"). *Robertson*, 490 U.S. at 352.



Fourth, the fact that, as a *general* rule, NEPA does not require the implementation of mitigation measures to avert adverse environmental impacts, does not mean that NEPA or NRC are neutral on the subject of environmental protection, or that NRC is powerless to act. To the contrary, NEPA pronounces our “national environmental policy” as follows: “it is the continuing policy of the Federal Government . . . to use all practicable means and measures . . . to create and maintain conditions under which man and nature can exist in productive harmony.” 42 U.S.C. § 4331(a). Likewise, the Atomic Energy Act prohibits NRC from issuing a license to a nuclear power reactor if it would be “inimical . . . to the health or safety of the public.” 42 U.S.C. § 2133(d). NRC regulations clearly authorize the agency to require licensees to protect the environment and to prevent them from causing adverse environmental impacts. (“[E]ach combined license under part 52 of this chapter may include conditions to protect the environment during construction” [and] “during operation.” 10 C.F.R. § 50.36b(a) and (b)). The NRC’s NEPA regulations underscore this point, specifying that in every COL proceeding, the presiding officer *must* “determine . . . whether the combined license should be issued, *denied*, or *appropriately conditioned to protect environmental values*.” 10 C.F.R. § 51.107(a)(3) (emphasis added). Environmental protection is part of NRC’s core mission statement. (“The NRC licenses and regulates the Nation’s civilian use of radioactive materials to protect public health and safety, promote the common defense and security, and protect the environment.” NRC Mission Statement, <http://www.nrc.gov/about-nrc.html>.) NRC can and does impose environmental conditions when it issues COLs. The question is whether the AEA, NEPA, and 10 C.F.R. § 50.36 and 51.107 *require* NRC to impose such conditions *here*.

The fifth legal principle relevant here is that, as noted above, NEPA does not require NRC to generate every environmental data point, study, and assessment from scratch. NRC may rely on competent and professionally developed data and studies performed by the applicant or by appropriate federal, state, and local governmental entities, provided that NRC exercises its own independent judgment with regard to the ultimate conclusions about the environmental impacts of the project.<sup>94</sup>

Finally, we note that, absent information to the contrary, NRC may properly assume that an applicant or licensee will comply with concrete and enforceable conditions and requirements imposed by statutes, regulations, licenses, or permits

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<sup>94</sup> We note that the NRC is not simply relying on a claim that the FDEP is “on duty.” The United States Court of Appeals for the District of Columbia Circuit rejected an NRC argument that leaks from spent fuel pools “will not occur because the NRC is ‘on duty.’” *New York v. NRC*, 681 F.3d 471, 481 (D.C. Cir. 2012). Here, the NRC relies on more than a claim that FDEP is “on duty.” That is, it relies on a number of well-developed and detailed plans and regulatory processes.

issued by competent federal, state, or local governmental entities.<sup>95</sup> Thus, if a federal or state environmental agency issues a permit to the operator of a nuclear power plant that imposes numerical limits on the amount of pollution that the plant may emit, then the NRC's FEIS may reasonably assume that the company's emissions will comply with those numerical limits.<sup>96</sup>

Applying the foregoing NEPA legal principles to the facts of this case, we note that the monitoring and mitigation measures discussed in the instant FEIS are the crucial justification for the FEIS conclusions that the environmental impacts of the proposed LNP will be SMALL or SMALL to MODERATE. This is not a situation where the NRC concludes that the environmental impacts will be LARGE, and then discusses some mitigation measures that are optional possibilities. Instead, the NRC has concluded that the impacts will be SMALL in *specific reliance on the implementation and efficacy of certain prescribed mitigation measures*. In this situation, the mitigation measures are not merely optional. *But for* the monitoring and mitigation measures specified in the COC, the NRC would not have reasonable assurance that the environmental impacts would be SMALL or SMALL to MODERATE, and the FEIS conclusions to that effect would be unwarranted. *But for* the monitoring and mitigation measures, the FEIS's conclusion that the impact will be SMALL would lack sufficient support.

On this basis, we conclude, as a matter of law, that if, as here, an FEIS relies on monitoring and mitigation as a necessary basis for concluding that the environmental impacts of issuing a license will be SMALL, then the NRC must have reasonable assurance that the monitoring and mitigation will actually be implemented and successful. In such a circumstance, the monitoring and mitigation measures are not merely options that can be ignored or discarded at will.

Next, we turn to the issue as to whether NRC must incorporate the COC monitoring and mitigation measures into the COL in order to have reasonable assurance that they will actually be implemented and successful.

We hold that reasonable assurance does not always require incorporation into the COL. This Board has examined the COC and the statutory and regulatory system that generated the COC and that will enforce its provisions. The monitoring and mitigation conditions specified in the COC are concrete, mandatory, and specific. This Board has reasonable assurance that the relevant expert state and

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<sup>95</sup> See, e.g., *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-03-2, 57 NRC 19, 29 (2003) (“[W]e assume that our licensees will comply with this agency’s safety regulations.”); *U.S. Department of Energy* (High-Level Waste Repository), LBP-09-6, 69 NRC 367, 466 (2009) (“[T]he NRC generally presumes that licensees will comply with its regulations.”).

<sup>96</sup> See, e.g., 10 C.F.R. § 51.71(d) n.3 (“Compliance with the environmental quality standards and requirements of the Federal Water Pollution Control Act (imposed by EPA or designated permitted states) is not a substitute . . . for NRC to weigh all environmental impacts of the proposed action.”).

local agencies, e.g., the FDEP and SWFWMD, will actively monitor and police compliance with these COC monitoring and mitigation measures. Likewise, we conclude, as a matter of law, that there is reasonable assurance that PEF will comply with the monitoring and mitigation measures mandated by the COC.

Now we turn to the issue as to whether it is unlawful for the FEIS to rely on monitoring and mitigation plans (e.g., the EMP, APT Plan, AWS Plan) that do not yet exist.

We hold that the concrete and highly prescriptive provisions of the state COC, mandating the development and finalization of the EMP, APT Plan, AWS Plan, and other monitoring and mitigation measures, combined with the active oversight and policing of the state and local environmental agencies (e.g., the FDEP and SWFWMD) provide the NRC with reasonable assurance that sound monitoring and mitigation measures will actually be implemented and will be successful.<sup>97</sup> This case is analogous to the facts in *Robertson*, where the EIS issued by the United States Forest Service relied on mitigation measures that were yet to be developed. *Robertson*, 490 U.S. at 347. (“[T]he EIS made it clear that commercial development in the Methow Valley will result in violations of state air-quality standards unless effective mitigation measures are put in place by the local governments and private developer.”) The Court held that NEPA does not require that a “complete mitigation plan be actually formulated and adopted” before the federal agency can issue an EIS and render its decision. *Id.* at 371.

In this case, the off-site effects on air quality and on the mule deer herd cannot be mitigated unless nonfederal governmental agencies take appropriate actions. Since it is those state and local governmental bodies that have jurisdiction over the area in which the adverse effects need to be addressed and since they have the authority to mitigate them, it would be incongruous to conclude that the Forest Service has no power to act until the local agencies have reached a final conclusion on what mitigation measures they consider necessary.

*Id.* at 371-72.

On this basis, we conclude that it was reasonable for NRC to rely on the monitoring and mitigation measures mandated by the COC, even though the specific measures are yet to be developed and finalized, and to rely on the FDEP and SWFWMD to assure that such measures will actually be implemented and successful. In the circumstances presented here, as in *Robertson*, NEPA does not

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<sup>97</sup>The Council on Environmental Quality (CEQ) has recently issued guidance on the appropriate use of mitigation and monitoring under NEPA. See CEQ “Final Guidance for Federal Departments and Agencies on Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact,” 76 Fed. Reg. 3843 (Jan 21, 2011). The guidance “ensures that the public and decisionmakers are fully informed of any promised mitigation and an agency’s clear commitment to perform or ensure the performance of that mitigation.” *Id.* at 3844.

require that all of these measures be fully developed and finalized before the NRC can act.<sup>98</sup>

## VI. CONCLUSION AND ORDER

Based on our review of the entire evidentiary record in this proceeding and our findings of fact and conclusions of law set forth above, the Board concludes that, with regard to the specific issues raised by Contention 4A, the NRC has carried its burden of demonstrating that its Final Environmental Impact Statement complies with the National Environmental Policy Act and with 10 C.F.R. Part 51.<sup>99</sup> Contention 4A is resolved in favor of the NRC.<sup>100</sup>

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<sup>98</sup> The facts and posture of this case is substantially different from the situation posed in *Detroit Edison Co.* (Fermi Nuclear Power Plant, Unit 3), LBP12-23, 76 NRC 445 (2012). Like this case, in *Fermi* the intervenors challenged the adequacy of the DEIS characterization that the environmental impacts of the proposed COL on the eastern fox snake would be SMALL because the DEIS relied on a certain mitigation measure, i.e., an Eastern Fox Snake Conservation Plan developed by the applicant. *Id.* at 461. The applicant moved for summary disposition, asserting that its Conservation Plan established that there could be no genuine dispute that the mitigation would be implemented and successful. *Id.* The *Fermi* Board denied the motion on the ground that the Conservation Plan was not sufficient to resolve all disputed questions of material fact. *Id.* at 465. The *Fermi* Board noted that there were material factual questions as to whether the state agency would require implementation of the Conservation Plan. *Id.* at 466. The Board noted that the record failed to show that the Conservation Plan was “imposed by statute or regulation” or has been so integrated into the applicant’s proposal to build a new nuclear power reactor that it is impossible to define the proposal without the mitigation. *Id.* at 468. The *Fermi* Board noted that the DEIS indicated that the state would “probably” impose the Conservation Plan and it would probably work. *Id.* Thus, the *Fermi* decision is distinct from this case in two major respects. First, here, the state has already issued the COC mandating that the EMP, APT Plan, AWS Plan, etc will be developed and finalized in accordance with a strict and thorough array of state statutory and regulatory requirements. Second, the denial of a motion for summary disposition, on the ground that there are material facts that are still in dispute, is entirely different from this case, where we have conducted a 2-day evidentiary hearing addressing the reliability of the COC-mandated monitoring and mitigation measures. The monitoring and mitigation measures imposed by the COC are not mere hypothetical or voluntary commitments that may never materialize. They are concrete and reliable actions that NRC can have reasonable assurance will be implemented.

<sup>99</sup> This proceeding has concerned a contested aspect of the PEF license application, i.e., Contention 4A. Given that PEF’s application involves construction of a new nuclear power plant, section 189a of the Atomic Energy Act also requires that the NRC conduct a hearing on the uncontested environmental and safety aspects of the proposed Levy Nuclear Plant. 42 U.S.C. § 2239(a)(1)(A). *See* 10 C.F.R. § 51.107(a)(1)-(4). The NRC Commissioners plan to conduct that “mandatory” hearing at a later date.

<sup>100</sup> Pursuant to 10 C.F.R. § 2.1207(a)(3)(iii), the Board, by separate order, is providing to the Commission’s Secretary, a copy of all questions submitted by the parties prior to and during the course of the evidentiary hearing.

This Partial Initial Decision<sup>101</sup> shall constitute the partial final decision of the Commission unless, within twenty-five (25) days of its service, a petition for review is filed in accordance with 10 C.F.R. §§ 2.1212 and 2.341(b).<sup>102</sup> Filing of a petition for review is mandatory for a party to exhaust its administrative remedies before seeking judicial review. 10 C.F.R. § 2.341(b)(1).

It is so ORDERED.

THE ATOMIC SAFETY AND  
LICENSING BOARD

Alex S. Karlin, Chairman  
ADMINISTRATIVE JUDGE

Dr. Anthony J. Baratta  
ADMINISTRATIVE JUDGE

Dr. Randall J. Charbeneau  
ADMINISTRATIVE JUDGE

Rockville, Maryland  
March 26, 2013

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<sup>101</sup> This initial decision is partial because on July 9, 2012, the Intervenors filed a motion to admit a new contention based on the decision in *New York v. NRC*, 681 F.3d 471 (D.C. Cir. 2012), invalidating certain portions of the NRC's Waste Confidence Rule. On August 7, 2012, the Commission ordered that this proposed new contention be held in abeyance. *Calvert Cliffs 3 Nuclear Project, LLC* (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-12-16, 76 NRC 63, 68-69 (2012). This contested adjudicatory proceeding will remain pending until the proposed waste confidence rule contention is resolved.

<sup>102</sup> The time to file a petition for review under 10 C.F.R. § 2.341(b) was recently extended from fifteen (15) days to twenty-five (25) days. Final Rule: "Amendments to Adjudicatory Process Rules and Related Requirements," 77 Fed. Reg. 46,561, 46,596 (Aug. 3, 2012).



UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**COMMISSIONERS:**

**Allison M. Macfarlane**, Chairman  
**Kristine L. Svinicki**  
**George Apostolakis**  
**William D. Magwood, IV**  
**William C. Ostendorff**

**In the Matter of**

**NRC Investigation  
Case No. 2-2013-001**

**THE SHAW GROUP INC.**

**April 2, 2013**

The Commission denies a motion filed by the Shaw Group Inc. pursuant to 10 C.F.R. § 2.702(f) to quash a subpoena duces tecum issued by the NRC Office of Investigations.

**SUBPOENAS**

Subpoenas issued by the NRC Office of Investigations are enforceable if the inquiry is within the scope of the agency's authority, the subpoena is neither too broad nor too indefinite, and the compelled information is relevant to the NRC's investigation.

**SUBPOENAS**

The recipient of a subpoena issued by the NRC's Office of Investigations may move to quash the subpoena pursuant to 10 C.F.R. § 2.702(f).

**ATOMIC ENERGY ACT**

The Atomic Energy Act of 1954, as amended, provides the NRC authority to conduct any investigations it deems necessary and proper to the administration

or enforcement of its authority, which includes any regulations or orders issued pursuant to the AEA. 42 U.S.C. § 2201(c).

### **SUBPOENAS**

NRC subpoenas have previously been quashed or limited where the subpoena was not closely drawn, or the NRC did not consider alternative means for obtaining the requested information “to avoid unnecessary infringement of [First Amendment] associational rights.” *United States v. Garde*, 673 F. Supp. 604, 607 (D.D.C. 1987). *See also In re Richard E. Dow*, CLI-91-9, 33 NRC 473, 479 (1991). A less burdensome alternative need not be considered if the recipient of the subpoena challenges neither the relevance of the requested information, the agency’s need for the information, nor the specificity of the subpoena, and there is no claim of infringement of a legally protectable interest.

### **SUBPOENAS**

A subpoena recipient’s concerns about the NRC’s administration of FOIA cannot overcome the agency’s duty to investigate alleged violations and its statutory obligation to protect the public health and safety. 42 U.S.C. § 2201(c).

### **FREEDOM OF INFORMATION ACT**

The NRC protects allegation and investigation information from release consistent with FOIA. These requirements and exemptions reflect a balancing of public disclosure with confidentiality that Congress struck when enacting FOIA. *John Doe Agency v. John Doe Corp.*, 493 U.S. 146, 152 (1989). This balancing does not, however, affect the NRC’s authority to obtain the requested information.

### **EMPLOYEE CONCERNS PROGRAMS**

The NRC recognizes the importance of confidentiality for an effective employee concerns program. However, under certain circumstances, a licensee or vendor might be required to disclose confidential ECP information (including the identity of a concerned individual) at the behest of a government agency (including the NRC), or in response to a subpoena.



## **MEMORANDUM AND ORDER**

### **I. INTRODUCTION**

This matter is before us on a motion to quash a subpoena issued by the NRC Office of Investigations (OI). The Shaw Group Inc. (Shaw) asks us to quash the subpoena based upon its concerns regarding possible future public disclosure of the compelled records in response to a Freedom of Information Act (FOIA) request. As discussed below, we decline to quash the subpoena. The inquiry is within the scope of the agency's authority, the subpoena is neither too broad nor too indefinite, and the compelled information is relevant to the NRC's investigation. Moreover, production of the records does not unduly interfere with Shaw's employee concerns program or safety-conscious work environment, and the alternative that Shaw proposes is not an adequate substitute for the production of the documents compelled by the subpoena.

### **II. BACKGROUND**

Shaw Modular Solutions (SMS), a fabrication and assembly facility in Lake Charles, Louisiana, is currently fabricating and assembling structural modules for four nuclear facilities currently under construction — Vogtle Electric Generating Plant, Units 3 and 4, and Virgil C. Summer Nuclear Station, Units 2 and 3. SMS is a division of Shaw, of Baton Rouge, Louisiana. The NRC is investigating alleged violations of NRC quality assurance requirements, including falsification of records, at SMS.

As part of that investigation, the NRC Staff sent Shaw a Request for Information related to these allegations.<sup>1</sup> Shaw's response indicated that it had conducted an internal investigation of the allegations under the auspices of its Employee

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<sup>1</sup>James, Lois M., NRC, Letter to Joseph L. Ernst, Shaw Modular Solutions, Re: Request for Information with Regard to an Allegation Relating to Shaw Modular Solutions (July 6, 2012) (nonpublic).

Concerns Program (ECP)<sup>2</sup> and had taken corrective action.<sup>3</sup> Shaw's response, however, did not contain the ECP investigation file. Thereafter, the NRC Staff issued a second Request for Information asking that Shaw provide a copy of the complete ECP investigation report, including the names of the individuals with knowledge of violations.<sup>4</sup> Shaw provided the names of the individuals, but did not produce the ECP investigation file, citing confidentiality concerns that could arise if the material were subject to public release in response to a FOIA request.<sup>5</sup> OI then served a subpoena on Shaw, compelling production of the internal investigation file.<sup>6</sup> Shaw sought, and received, an extension of time of 1 week to file a motion to quash the subpoena to allow time to "continue discussions concerning resolution of the conflict."<sup>7</sup>

Shaw has now moved to quash the subpoena pursuant to 10 C.F.R. § 2.702(f).<sup>8</sup> Shaw argues that production of the investigation file would compromise its ECP by potentially subjecting the information contained in the file to public disclosure

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<sup>2</sup>One of the underlying principles of a robust nuclear safety culture is an environment where personnel feel free and are free to raise safety concerns without fear of retaliation, often referred to as a "safety-conscious work environment." See Final Safety Culture Policy Statement, 76 Fed. Reg. 34,773, 34,777 (June 14, 2011); Freedom of Employees in the Nuclear Industry to Raise Safety Concerns Without Fear of Retaliation; Policy Statement, 61 Fed. Reg. 24,336 (May 14, 1996). NRC guidance for maintaining a safety-conscious work environment suggests a number of practices for problem identification and resolution that contribute to a safety-conscious work environment. See generally Regulatory Issue Summary 2005-18, "Guidance for Establishing and Maintaining a Safety Conscious Work Environment" (Aug. 25, 2005) (ADAMS Accession No. ML052220239). For organizations large enough to support such a process, the NRC suggests maintaining an alternative process for employees who prefer not to report safety concerns to line management or through the corrective action program. *Id.*, Att. 1, at 9. These are generally referred to as Employee Concerns Programs or "ECPs."

<sup>3</sup>Ernst, Joseph L., Shaw Modular Solutions, Letter to Lois M. James, NRC, Re: Request for Information with Regard to an Allegation Related to Shaw Solutions, Allegation NRO 2012-A-0006 (Aug. 7, 2012) (nonpublic).

<sup>4</sup>James, Lois M., NRC, Letter to Joseph L. Ernst, Shaw Modular Solutions, Re: Request for Information with Regard to an Allegation Relating to Shaw Modular Solutions (Oct. 17, 2012) (nonpublic).

<sup>5</sup>Ernst, Joseph L., Shaw Modular Solutions, Letter to Lois M. James, NRC, Re: Request for Information, Allegation NRO 2012-A-0006 (Nov. 7, 2012) (nonpublic). As an alternative, Shaw offered to make the ECP investigation report and exhibits available to NRC for its review at a Shaw facility. *Id.* at 2.

<sup>6</sup>Subpoena duces tecum in the Matter of the U.S. Nuclear Regulatory Commission Office of Investigations Case No. 2-2013-001, issued to the Shaw Group Inc. (Nov. 15, 2012) (nonpublic).

<sup>7</sup>Motion for Extension of Time (ADAMS Accession No. ML12334A306) (Nov. 28, 2012); Order of the Secretary (Granting Motion for Extension of Time to Respond to Subpoena) (ADAMS Accession No. ML12339A037) (Dec. 3, 2012).

<sup>8</sup>Motion to Quash Subpoena Duces Tecum (ADAMS Accession No. ML12355A504) (Dec. 4, 2012) (Motion).

as an official agency record under FOIA.<sup>9</sup> In lieu of complying with the subpoena, Shaw renews an earlier offer to “make the ECP Report, exhibits, and related records available to NRC Staff and OI at a date and location convenient to them, and to make such documents available for subsequent review if needed.”<sup>10</sup> For the reasons that follow, we deny the motion to quash.

### III. ANALYSIS

Section 161c of the Atomic Energy Act of 1954, as amended (AEA), provides the NRC authority to conduct any investigations it deems necessary and proper to the administration or enforcement of its authority, which includes any regulations or orders issued pursuant to the AEA.<sup>11</sup> In carrying out this authority, the NRC is authorized to issue any necessary subpoenas.<sup>12</sup> As a general matter, an administrative subpoena duces tecum is judicially enforceable where: (1) the inquiry is within the authority of the agency; (2) the demand for production is neither too indefinite nor unreasonably broad nor burdensome; and (3) the information sought is reasonably relevant to the authorized inquiry.<sup>13</sup> NRC subpoenas have previously been quashed or limited where the subpoena was not closely drawn, or the NRC did not consider alternative means for obtaining the requested information “to avoid unnecessary infringement of [First Amendment] associational rights.”<sup>14</sup> But, “under the appropriate circumstances . . . [the] First Amendment rights would give way to the compelling government interest in nuclear safety.”<sup>15</sup>

In this instance, we find no legal basis to quash the subpoena. Shaw contests neither the NRC’s authority to issue the subpoena, nor the relevance of the requested information to the investigation. Shaw also does not contend that the request is too indefinite or unreasonably broad or burdensome. Indeed, Shaw

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<sup>9</sup> *Id.* at 6.

<sup>10</sup> *Id.* at 8.

<sup>11</sup> 42 U.S.C. § 2201(c). *See also In re Richard E. Dow*, CLI-91-9, 33 NRC 473, 478 (1991).

<sup>12</sup> 42 U.S.C. § 2201(c). *See also United States v. Comley*, 890 F.2d 539, 542 (1st Cir. 1989) (“Congress has vested the NRC with the authority to issue subpoenas in conjunction with investigations that the NRC deems necessary to protect public health or to minimize danger to life or property in matters involving nuclear materials.”).

<sup>13</sup> *See, e.g., United States v. Oncology Services Corp.*, 60 F.3d 1015, 1020 (3d Cir. 1995) (citing *United States v. Morton Salt Co.*, 338 U.S. 632, 652 (1950)); *United States v. Westinghouse Electric Corp.*, 788 F.2d 164, 166 (3d Cir. 1986).

<sup>14</sup> *United States v. Garde*, 673 F. Supp. 604, 607 (D.D.C. 1987). *See also Dow*, CLI-91-9, 33 NRC at 479.

<sup>15</sup> *Garde*, 673 F. Supp. at 606. *See also Dow*, CLI-91-9, 33 NRC at 479. In at least one instance, an NRC subpoena was upheld notwithstanding assertion of First Amendment freedom of association rights, where the subpoena was narrowly tailored to documents supporting specific allegations. *Comley*, 890 F.2d at 545.

acknowledges the NRC's need for the information.<sup>16</sup> Further, Shaw does not claim that the subpoena violates First Amendment rights or assert that any other legally protectable interest (including the right to be free from an unduly burdensome subpoena) has been infringed. The absence of even an allegation to this effect obviates the need to evaluate the agency's need for the information at issue or the existence of a less restrictive alternative for obtaining it.<sup>17</sup>

Instead, Shaw asks that we quash the subpoena of this single ECP investigation file based on its concern that the file, once in the NRC's hands, might be subject to a future FOIA request and then be released publicly in response to that request.<sup>18</sup> Shaw argues that such disclosure would undermine its ECP and damage the safety conscious work environment at the SMS facility.<sup>19</sup> Shaw asserts that it "cannot risk a determination that an ECP Report, or any portion thereof, will be released to the public."<sup>20</sup> For the reasons explained below, we decline to quash the subpoena on this basis.

We agree with Shaw that confidentiality is a cornerstone of an ECP, and that stakeholder confidence is essential for an effective program. However, Shaw's concerns about the NRC's administration of FOIA cannot overcome the agency's duty to investigate alleged violations<sup>21</sup> and its statutory obligation to protect the public health and safety.<sup>22</sup> FOIA requires all agencies to, among other things, make available certain records to members of the public upon specific request for those records except to the extent that the records (or portions of them) are exempt from public disclosure by one of the nine enumerated exemptions or are excluded from disclosure.<sup>23</sup> NRC regulations encompass the FOIA exemptions as well as instructions for outside entities who might submit nonpublic information to the NRC.<sup>24</sup> The NRC protects allegation and investigation information from release consistent with FOIA.<sup>25</sup> These requirements and exemptions reflect a

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<sup>16</sup> Motion at 4.

<sup>17</sup> *See Comley*, 890 F.2d at 544-45.

<sup>18</sup> Motion at 4.

<sup>19</sup> *Id.*

<sup>20</sup> *Id.* at 7.

<sup>21</sup> 42 U.S.C. § 2201(c).

<sup>22</sup> 42 U.S.C. § 2232(a).

<sup>23</sup> 5 U.S.C. § 552.

<sup>24</sup> 10 C.F.R. § 2.390.

<sup>25</sup> If a FOIA request for this material were received, we expect that the agency would consider whether Exemption 7 would prevent public disclosure of such information. *See* 5 U.S.C. § 552. *See generally* U.S. Nuclear Regulatory Commission Management Directive 3.1, Freedom of Information Act (DT-11-07) (June 6, 2011) (ADAMS Accession No. ML110050002), which outlines special procedures for processing allegations records, as well as investigatory information to be withheld under Exemption 7. Shaw may provide the NRC with two copies of the ECP investigation file — the first redacted, and the

(Continued)

balancing of public disclosure with confidentiality that Congress struck when enacting FOIA.<sup>26</sup> This balancing does not, however, affect the NRC's authority to obtain the requested information.

The cases that Shaw cites to support its arguments do not persuade us otherwise. Shaw cites to a FOIA case in which the NRC reconsidered an initial decision to disclose ECP records (with names and identifying information of alleged redacted).<sup>27</sup> Shaw claims that this case is evidence of a real risk of public disclosure of its ECP investigation file. But, as Shaw acknowledges, ultimately no ECP investigative records were publicly released in response to the FOIA request.<sup>28</sup>

Shaw also argues that the Atomic Safety and Licensing Appeal Board's decision in *South Texas Project* supports the proposition that "ECP confidentiality is of paramount importance," such that Shaw is compelled to withhold ECP information from the NRC.<sup>29</sup> In that case, the intervenors sought disclosure of the names of power plant employees who provided the NRC with information during the course of its investigation.<sup>30</sup> The Appeal Board held that it would be inappropriate to identify informants to the intervenors, even with a protective order in place. The Appeal Board relied on the Supreme Court holding that recognized the government's privilege:

to withhold from disclosure the identity of persons who furnish information of violations of law to officers charged with enforcement of the law. The purpose of the privilege is the furtherance and protection of the public interest in effective law enforcement. The privilege recognizes the obligation of citizens to communicate their knowledge of the commission of crimes to law-enforcement officials and, by preserving their anonymity, encourages them to perform that obligation.<sup>31</sup>

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second bracketed to indicate the information that Shaw believes should be withheld if it were ever the subject of a FOIA request. 10 C.F.R. § 2.390(b). Guidance used within the nuclear industry also recommends a similar approach. See Nuclear Energy Institute, "Nuclear Power Plant Personnel — Employee Concerns Programs — Process Tools in a Safety Conscious Work Environment," NEI-97-05, Rev. 2, at F-4 (available at [http://www.nei.org/filefolder/NEI\\_97-05\\_-\\_Nuclear\\_Power\\_Plant\\_Personnel-Employee\\_Concerns\\_Program\\_-\\_Process\\_Tools\\_In\\_A\\_Safety\\_Conscious\\_Work\\_Environment\\_Rev\\_2.pdf](http://www.nei.org/filefolder/NEI_97-05_-_Nuclear_Power_Plant_Personnel-Employee_Concerns_Program_-_Process_Tools_In_A_Safety_Conscious_Work_Environment_Rev_2.pdf)). We have no reason to assume that the NRC will fail to abide by applicable law, or fail to consider Shaw's proposed redactions, when responding to a FOIA request for the information at issue.

<sup>26</sup> *John Doe Agency v. John Doe Corp.*, 493 U.S. 146, 152 (1989).

<sup>27</sup> Motion at 7-8 (citing FOIA/PA Case No. 2009-0017A (nonpublic)).

<sup>28</sup> *Id.* at 8.

<sup>29</sup> *Id.* at 5-6 (citing *Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), ALAB-639, 13 NRC 469 (1981), *reconsideration denied*, CLI-81-28, 14 NRC 933 (1981)).

<sup>30</sup> *South Texas Project*, ALAB-639, 13 NRC at 477.

<sup>31</sup> *Id.* at 473 (citing *Roviaro v. United States*, 353 U.S. 53, 59 (1957)).

Shaw also cites to a case management order issued by the Pre-Application Presiding Officer Board in the *Yucca Mountain* proceeding for the same proposition.<sup>32</sup>

We agree with Shaw that care should be taken not to disclose unredacted ECP reports and alleged identities. However, the cited *South Texas Project* and *Yucca Mountain* decisions do not support withholding information from the NRC in the first instance. Moreover, the informant's privilege recognized in *South Texas Project* — which addressed information already in the hands of the NRC — makes no mention of the privilege being available to any entity outside the government. The mere fact that the government may have the right to withhold the names of its confidential informants for law enforcement purposes does not mean, as Shaw suggests, that a subpoena recipient has an absolute right to withhold this information from an agency conducting an investigation that is within the scope of its authority. Further, even if Shaw had shown the infringement of a legally protectable interest and it were therefore appropriate to consider the possible impact of enforcing the subpoena upon Shaw's safety-conscious work environment, we do not agree that enforcement would unduly burden Shaw's program or that the alternative Shaw presents is an acceptable solution.

In lieu of producing the ECP investigatory file, Shaw proposes to allow the NRC Staff to review the file at Shaw's site or at another location convenient to the NRC.<sup>33</sup> Shaw relies on *Garde* to assert that the NRC must accept this proposal as an alternative means of obtaining the information sought.<sup>34</sup> But *Garde* does not support this proposition. Rather, *Garde* requires an agency to use alternative means for obtaining information "to avoid unnecessary infringement of [First Amendment] associational rights."<sup>35</sup> Shaw does not claim that First Amendment rights or any other protectable interests are implicated here, nor do we find any such infringement. Further, we find unpersuasive Shaw's comparison between investigations and inspections to establish that, as a matter of policy, its proposed accommodation should be accepted here. While inspections may identify potential wrongdoing, investigations differ from inspections in that they are directed at gathering facts and evidence pertinent to an allegation of wrongdoing. Facts and evidence collected by OI must be authenticated and their validity tested in an

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<sup>32</sup> See U.S. Department of Energy (High Level Waste Repository Pre-Application Matters), Revised Second Case Management Order (Pre-License Application Phase Document Discovery and Dispute Resolution), at 17-20 (July 6, 2007) (unpublished) (ADAMS Accession No. ML071900146). There, the Board instructed that NRC and Department of Energy ECP records, which would otherwise have been subject to disclosure, not be placed on the Licensing Support Network and thus not be made public. Parties could request redacted copies of ECP documents, upon stating their need for the information. Access would only be granted after the party signed a nondisclosure agreement.

<sup>33</sup> Motion at 8.

<sup>34</sup> *Id.* at 9 (citing *Garde*, 673 F. Supp. at 607).

<sup>35</sup> *Garde*, 673 F. Supp. at 607. See also *Dow*, CLI-91-9, 33 NRC at 479.

unbiased and independent manner. Taking possession of and evaluating evidence and subsequently including it as exhibits to the investigation report ensures that it can be reviewed by OI throughout the duration of the investigation and by other law enforcement organizations with an interest in the investigation. The NRC is concerned with collecting and preserving evidence of wrongdoing in such a way that it is admissible in any subsequent legal proceeding.<sup>36</sup> Shaw's offer to allow OI to review the ECP investigation file would not serve as an adequate substitute for the underlying document.<sup>37</sup>

Again, we recognize the importance of confidentiality for an effective employee concerns program. Our decision today is not intended to undermine the importance of confidentiality. Under certain circumstances, however — like those presented here — a licensee or vendor might be required to disclose confidential ECP information (including the identity of a concerned individual) at the behest of a government agency (including the NRC), or in response to a subpoena.<sup>38</sup> Such disclosures are limited by the NRC's request, and, unless they are the subject of a FOIA request and do not fall within an exemption or an exception, are not and will not become public. We therefore do not expect such document requests to unduly burden, or otherwise create a chilling effect on, a facility's effort to promote a safety-conscious work environment.

In short, requiring the NRC Staff to consent to Shaw's proposal could hinder significantly the agency's ability to conduct this and future investigations. We decline to find that the confidentiality of ECP documents and associated concerns about NRC's administration of FOIA overcome the NRC's obligation under the

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<sup>36</sup> In accordance with the Memorandum of Understanding between the NRC and the Department of Justice, the NRC is required to refer all cases in which it substantiates willful wrongdoing for possible criminal prosecution. Memorandum of Understanding Between the Nuclear Regulatory Commission and the Department of Justice, 53 Fed. Reg. 50,317 (Dec. 14, 1988). For this reason, OI seeks to collect and maintain evidence in a manner consistent with the "best evidence rule," which provides that an original or duplicate writing, recording, or photograph is required in order to prove its content unless an evidentiary rule or federal statute provides otherwise. *See* Fed. R. Evid. 1002-1003. *See also Gordon v. United States*, 344 U.S. 414, 420-21 (1953) ("The elementary wisdom of the best evidence rule rests on the fact that the document is a more reliable, complete and accurate source of information as to its contents and meaning than anyone's description . . .").

<sup>37</sup> We note that Shaw does not explicitly offer to allow OI to take notes, only to review. Motion at 8. Allowing OI to review, but not take notes is incompatible with OI's obligation, as discussed above, to validate facts and marshal and preserve evidence for use in subsequent legal proceedings. Further, if the investigator were allowed to prepare notes or other documents reflecting the substance of the reviewed subpoenaed file, such documents could also be the subject of a request under FOIA. Therefore, it is not apparent how Shaw's proposed approach would mitigate or resolve its concerns about adverse impacts on its employee concerns program or its goal of fostering a safety-conscious work environment.

<sup>38</sup> Moreover, guidance used by the nuclear industry acknowledges such potential disclosures. *See* NEI-97-05, at C-7, C-23, E-2, F-2.

AEA to conduct investigations to ensure nuclear safety, or justify quashing an otherwise legally valid subpoena.

#### **IV. CONCLUSION**

For the foregoing reasons, we *deny* Shaw's motion to quash. The subpoena remains in force with a new return date of April 9, 2013.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK  
Secretary of the Commission

Dated at Rockville, Maryland,  
this 2nd day of April 2013.



UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**ATOMIC SAFETY AND LICENSING BOARD**

**Before Administrative Judges:**

**Ronald M. Spritzer**, Chairman  
**William J. Froehlich**  
**Brian K. Hajek**

**In the Matter of**

**Docket No. 55-23694-SP**  
**(ASLBP No. 13-925-01-SP-BD01)**

**CHARLISSA C. SMITH**  
**(Denial of Senior Reactor**  
**Operator License)**

**April 24, 2013**

An applicant for a Senior Reactor Operator (SRO) license filed a demand for hearing pursuant to 10 C.F.R. § 2.103(b)(2) after she was denied a license. The Board granted the applicant's demand for hearing. LBP-13-3, 77 NRC 82 (2013). Subsequently, the applicant moved to compel the NRC Staff to produce documents that had been withheld under a claim of deliberative process privilege. The Board granted the motion to compel.

**PRIVILEGES: DELIBERATIVE PROCESS**

NRC regulations mandate that, in a Subpart L proceeding, the Staff disclose or provide documents that support the Staff's review of the application or proposed action, together with "[a] list of all otherwise-discoverable documents for which a claim of protected or privileged status is being made." 10 C.F.R. § 2.336(b)(3), (5). Among the categories of privileged documents, and the one at issue here, are "[i]nteragency or intra-agency memorandums or letters which would not be available by law to a party other than an agency in litigation with the Commission." 10 C.F.R. § 2.390(a)(5). This is similar to Exemption 5 under the Freedom of

Information Act (FOIA). The Board may therefore employ case law interpreting FOIA Exemption 5 when determining whether the deliberative process privilege applies in this NRC proceeding.

**PRIVILEGES: DELIBERATIVE PROCESS**

Under FOIA, an agency may avoid disclosing documents only if it proves that the documents fall within one of the nine exemptions. Otherwise, the documents are presumed to be available for public inspection. FOIA's purpose is to encourage disclosure, and, to that end, its exemptions are to be interpreted narrowly. The government has the burden of proving that a requested document falls within one of FOIA's exemptions.

**PRIVILEGES: DELIBERATIVE PROCESS**

The FOIA exemption for inter- or intra-agency materials incorporates the deliberative process privilege, which protects documents that are prepared to assist an agency, board, or official to arrive at a decision.

**PRIVILEGES: DELIBERATIVE PROCESS**

To qualify for the deliberative process privilege, "a document must be both (1) 'predecisional' or 'antecedent to the adoption of agency policy' and (2) 'deliberative,' meaning 'it must actually be related to the process by which policies are formulated.'" *National Wildlife Federation v. U.S. Forest Service*, 861 F.2d 1114, 1117 (9th Cir. 1988) (quoting *Jordan v. U.S. Department of Justice*, 591 F.2d 753, 774 (D.C. Cir. 1978) (en banc)).

**PRIVILEGES: DELIBERATIVE PROCESS**

The privilege must be asserted by an individual who holds a sufficiently senior position such that he or she has control over the requested information and possesses a balanced perspective that enables him or her to discern the nature of the material at issue.

**PRIVILEGES: DELIBERATIVE PROCESS**

The party invoking the deliberative process privilege bears the burden of explaining with particularity how and why disclosure of the documents' substance would harm an identified deliberative function.

**PRIVILEGES: DELIBERATIVE PROCESS**

“[C]onclusory assertions of privilege will not suffice to carry the Government’s burden of proof in defending FOIA cases.” *Coastal States Gas Corp. v. U.S. Department of Energy*, 617 F.2d 854, 861 (D.C. Cir. 1980). Thus, “vague, general and conclusory statements — all purporting to apply to many documents but not connected to any particular document — fail to meet the requirement that defendant supply the court with precise and certain reasons for maintaining the confidentiality of the requested documents.” *Pacific Gas and Electric Co. v. United States*, 70 Fed. Cl. 128, 140 (2006) (quoting *Walsky Construction Co. v. United States*, 20 Cl. Ct. 317, 320 (1990) (internal quotation marks omitted)).

**PRIVILEGES: DELIBERATIVE PROCESS**

An agency waives the deliberative process privilege for a document when it discloses the same document or one containing equivalent text.

**PRIVILEGES: DELIBERATIVE PROCESS**

Privilege logs that contain only cursory statements are inadequate to permit a court to decide whether the privilege was properly claimed.

**PRIVILEGES: DELIBERATIVE PROCESS**

A claim of deliberative process privilege, even when properly established, is not absolute. Thus, “[s]trong competing interests must be weighed against the government’s interest in nondisclosure. Foremost is the interest of the litigants, and ultimately of society, in accurate judicial fact finding.” *In re Franklin National Bank Securities Litigation*, 478 F. Supp. 577, 582 (E.D.N.Y. 1979).

**PRIVILEGES: DELIBERATIVE PROCESS**

The factors the Board should consider in balancing the need for disclosure against the agency’s interest in confidentiality include: (i) the relevance of the evidence sought to be protected; (ii) the availability of other evidence; (iii) the seriousness of the litigation and the issues involved; (iv) the role of the government in the litigation; and (v) the possibility of future timidity by government employees who will be forced to recognize that their secrets are violable.

## **MEMORANDUM AND ORDER** **(Granting Motion to Compel Disclosure)**

### **I. INTRODUCTION**

Before this Atomic Safety and Licensing Board is a March 28, 2013, motion to compel filed by Charlissa C. Smith.<sup>1</sup> Ms. Smith seeks disclosure of eight withheld documents listed in the Nuclear Regulatory Commission (NRC) Staff Privilege Log submitted on March 21, 2013.<sup>2</sup> The NRC Staff filed an answer opposing Ms. Smith's motion to compel, alleging that seven of the documents requested are protected by the deliberative process privilege.<sup>3</sup> The Staff withdrew its privilege claim with regard to document number ML13071A228, acknowledging that it does not represent opinions, recommendations, or advice pertaining to the development of some final agency decision; rather, "it is a statement of fact unrelated to on-going decision-making."<sup>4</sup>

### **II. BACKGROUND**

On November 15, 2012, Charlissa C. Smith filed a demand for a hearing pursuant to 10 C.F.R. § 2.103(b)(1), challenging the denial of her application for a Senior Reactor Operator (SRO) license. The Board granted her demand for a hearing on February 19, 2013.<sup>5</sup>

If an SRO applicant passes both a written examination and operating test and meets the other requirements specified in 10 C.F.R. Part 55, he or she will be eligible to receive an SRO license.<sup>6</sup> In March 2011, Ms. Smith took the written

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<sup>1</sup> Request Motion to Compel Disclosure of Items on Attachment 2: Privilege Log Submitted on March 21, 2013 (Mar. 28, 2013) [hereinafter Motion to Compel]. The document is dated March 28, 2013, but was filed on March 29, 2013.

<sup>2</sup> Letter from David Cylkowski, Counsel for the NRC Staff, to Ronald M. Spritzer, William J. Froehlich, Brian K. Hajek, Atomic Safety and Licensing Board Members, Attachment 2 (Mar. 21, 2013) (Charlissa Smith SRO License Denial Hearing File and Mandatory Disclosures Privilege Log — Initial Disclosures) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13080A505) [hereinafter Privilege Log]. The documents at issue have the following ADAMS Accession Numbers: ML13071A261, ML13071A228, ML13070A067, ML13070A050, ML13070A070, ML13071A226, ML13070A072, and ML13070A074. Privilege Log.

<sup>3</sup> NRC Staff Answer Opposing Ms. Smith's Motion to Compel Discovery of Documents Protected by the Deliberative Process Privilege (Apr. 8, 2013) at 1 [hereinafter NRC Staff Answer].

<sup>4</sup> *Id.* at 8; *see id.* Attachment (Declaration of Ho Nieh) [hereinafter Nieh Declaration].

<sup>5</sup> *See Charlissa C. Smith* (Denial of Senior Reactor Operating License), LBP-13-3, 77 NRC 82 (2013).

<sup>6</sup> *See* 10 C.F.R. §§ 55.31, 55.43, 55.45.

examination and the operating test for an SRO license at her place of employment, the Vogtle Electric Generating Plant.<sup>7</sup> She failed the written examination and passed the operating test.<sup>8</sup> Because she did not pass both components, Ms. Smith was not eligible to receive an SRO license at that time. In April 2012, Ms. Smith retook both the operating test and the written examination, this time failing the former and passing the latter.<sup>9</sup> On June 5, 2012, she requested an administrative review of the denial of her SRO license application in accordance with NUREG-1021, “Operator Licensing Examination Standards for Power Reactors.”<sup>10</sup> In response to Ms. Smith’s request, the Staff conducted an administrative review of her allegations.<sup>11</sup> In a November 15, 2012, letter, the Staff detailed its findings and ultimately upheld the denial of Ms. Smith’s SRO license application.<sup>12</sup>

The seven documents that are the subject of Ms. Smith’s Motion to Compel pertain to the Staff’s administrative review. In its Privilege Log, the Staff claimed that four documents — ML13071A261, ML13071A228, ML13070A067, and ML13070A050 — qualify for the deliberative process privilege because they are “[e]mails with discussion of draft informal review.”<sup>13</sup> As noted above, the Staff has withdrawn its privilege claim concerning ML13071A228. According to the Staff, the other three e-mails “contain the input of various individual Staff members related to the then-ongoing composition of the NRC Staff ‘Informal Review Results’ document,” which memorialized the review of Ms. Smith’s 2012 operating test failure.<sup>14</sup>

The Staff also asserts that the four other documents in dispute — ML13070-A070, ML13071A226, ML13070A072, and ML13070A074 — are protected by the deliberative process privilege because they are drafts of the Staff’s Informal Review Results document.<sup>15</sup> The Staff states these documents are revisions 1 through 4 of the NRC Staff’s Informal Review Results document.<sup>16</sup>

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<sup>7</sup> LBP-13-3, 77 NRC at 85.

<sup>8</sup> *Id.*

<sup>9</sup> *Id.* at 86.

<sup>10</sup> *Id.*; see Operator Licensing Examination Standards for Power Reactors, NUREG-1021, at ES-502-1 to -5 (rev. 9 July 2004 & supp. 1 Oct. 2007) (ADAMS Accession Nos. ML042320438, ML072970315).

<sup>11</sup> LBP-13-3, 77 NRC at 86.

<sup>12</sup> *Id.* at 86-87.

<sup>13</sup> Privilege Log.

<sup>14</sup> NRC Staff Answer at 2.

<sup>15</sup> Privilege Log.

<sup>16</sup> A redacted version of this document, revision 5, is available as part of the Staff’s hearing file. See Informal Review Results — CharliSSa C. Smith Senior Reactor Operator Applicant, Vogtle Electric Generating Plant (Rev. 5, Redacted) (undated) (ADAMS Accession No. ML13079A367) (unsigned);

(Continued)

### III. DELIBERATIVE PROCESS PRIVILEGE

NRC regulations mandate that, in a Subpart L proceeding such as this, the Staff disclose or provide documents that support the Staff's review of the application or proposed action, together with "[a] list of all otherwise-discoverable documents for which a claim of protected or privileged status is being made."<sup>17</sup> Among the categories of privileged documents, and the one at issue here, are "[i]nteragency or intra-agency memorandums or letters which would not be available by law to a party other than an agency in litigation with the Commission."<sup>18</sup> This is similar to Exemption 5 under the Freedom of Information Act (FOIA).<sup>19</sup> The Board may therefore employ case law interpreting FOIA Exemption 5 when determining whether the deliberative process privilege applies in this NRC proceeding.<sup>20</sup>

In general, FOIA mandates that agencies make available for public inspection a broad range of information, including the agency's organization, general methodology, rules of procedure, substantive rules, final opinions, and statements of policy and interpretation that have been adopted by the agency.<sup>21</sup> FOIA, however, specifically exempts nine categories of documents.<sup>22</sup> An agency may avoid disclosing documents only if it proves that the documents fall within one of the nine exemptions.<sup>23</sup> Otherwise, the documents are presumed to be available for public inspection.<sup>24</sup> FOIA's purpose is to encourage disclosure, and, to that end, its exemptions are to be interpreted narrowly.<sup>25</sup> The government has the burden of proving that a requested document falls within one of FOIA's exemptions.<sup>26</sup>

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Informal Review Results — Charliisa C. Smith Senior Reactor Operator Applicant, Vogtle Electric Generating Plant (Rev. 5, Redacted) (Oct. 25, 2012) (ADAMS Accession No. ML13079A399) (signed).

<sup>17</sup> 10 C.F.R. § 2.336(b)(3), (5).

<sup>18</sup> 10 C.F.R. § 2.390(a)(5); see *Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-94-5, 39 NRC 190, 197 (1994); *David Geisen*, LBP-06-25, 64 NRC 367, 380 (2006) (Ruling on Motion to Compel Production).

<sup>19</sup> *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-773, 19 NRC 1333, 1341 n.30 (1984); *accord AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-08-23, 68 NRC 461, 484 n.103 (2008); *Vogtle*, CLI-94-5, 39 NRC at 197; *Geisen*, LBP-06-25, 64 NRC at 380.

<sup>20</sup> See *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), LBP-82-82, 16 NRC 1144, 1163-64 (1982).

<sup>21</sup> 5 U.S.C. § 552(a).

<sup>22</sup> *Id.* § 552(b).

<sup>23</sup> *Id.*

<sup>24</sup> *Id.* § 552(c).

<sup>25</sup> *U.S. Department of Justice v. Julian*, 486 U.S. 1, 8 (1988); *U.S. Department of the Air Force v. Rose*, 425 U.S. 352, 360-61 (1976).

<sup>26</sup> 5 U.S.C. § 552(a)(3); see *U.S. Department of Justice v. Tax Analysts*, 492 U.S. 136, 142 n.3 (1989).

The FOIA exemption for inter- or intra-agency materials incorporates the deliberative process privilege, which protects documents that are prepared to assist an agency, board, or official to arrive at a decision.<sup>27</sup> The privilege serves three purposes: (1) to “protect[] creative debate and candid consideration of alternatives within an agency,” thus improving policy decisions; (2) to guard against public confusion that could result from the release of policy-oriented discussions that occur prior to policy being made; and (3) to “protect[] the integrity of the decision-making process.”<sup>28</sup>

To qualify for the deliberative process privilege, “a document must be both (1) ‘predecisional’ or ‘antecedent to the adoption of agency policy’ and (2) ‘deliberative,’ meaning ‘it must actually be related to the process by which policies are formulated.’”<sup>29</sup> In applying this privilege, “courts have allowed the government to withhold memoranda containing advice, opinions, recommendations and subjective analysis.”<sup>30</sup> They have held that documents “must be generated as part of a definable decision-making process that results in a final agency decision” and “must reflect the flow of opinions, recommendations, or advice between policymakers in formulating some type of definitive and conclusive ruling.”<sup>31</sup> Factual material that does not reveal the deliberative process is not protected by this privilege, unless it is “inextricably intertwined” with the deliberative portions of the document or it could reveal the deliberative process being protected if it were disclosed.<sup>32</sup> Pursuant to this standard, the deliberative process privilege has “been extended to draft documents, proposals, suggestions, instructions to work deletions and alterations into drafts, instructions to conduct an investigation,

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<sup>27</sup> See *Renegotiation Board v. Grumman Aircraft Engineering Corp.*, 421 U.S. 168, 183 (1975); *Dow, Lohnes & Albertson v. Presidential Commission on Broadcasting to Cuba*, 624 F. Supp. 572, 573-74 (D.D.C. 1984).

<sup>28</sup> *Vogtle*, CLI-94-5, 39 NRC at 197 (quoting *Jordan v. U.S. Department of Justice*, 591 F.2d 753, 772-73 (D.C. Cir. 1978) (en banc)) (internal quotation marks omitted).

<sup>29</sup> *National Wildlife Federation v. U.S. Forest Service*, 861 F.2d 1114, 1117 (9th Cir. 1988) (quoting *Jordan*, 591 F.2d at 774); accord *Vogtle*, CLI-94-5, 39 NRC at 197-98.

<sup>30</sup> *Nat'l Wildlife Fed'n*, 861 F.2d at 1117 (quoting *Julian v. U.S. Department of Justice*, 806 U.S. 1411, 1419 (1986), *aff'd*, 486 U.S. 1) (internal quotation marks omitted); accord *Vogtle*, CLI-94-5, 39 NRC at 198.

<sup>31</sup> *California v. Environmental Protection Agency*, No. C 07-2055 JSW(JL), 2008 WL 5384623, at \*5 (N.D. Cal. Dec. 22, 2008) (citing *Bristol-Meyers Co. v. Federal Trade Commission*, 598 F.2d 18 (D.C. Cir. 1978); *Vaughn v. Rosen*, 484 F.2d 820 (D.C. Cir. 1973)).

<sup>32</sup> *Id.* at \*7; see also *Entergy Nuclear Vermont Yankee LLC* (Vermont Yankee Nuclear Power Station), LBP-05-33, 62 NRC 828, 843 (2005).

documents reflecting personal and advisory opinions, and rejections of recommendations.”<sup>33</sup>

The privilege must be asserted by an individual who holds a sufficiently senior position such that he or she has control over the requested information and possesses a balanced perspective that enables him or her to discern the nature of the material at issue.<sup>34</sup> This person must be involved in the initial assertion of privilege.<sup>35</sup> Also, “the deliberative process privilege does not protect documents in their entirety; if the government can segregate and disclose non-privileged factual information within a document, it must.”<sup>36</sup>

#### IV. PARTIES’ POSITIONS

In her Motion to Compel, Ms. Smith argues that she needs the allegedly privileged documents to demonstrate that she was denied an independent review of the 2012 operating exam results.<sup>37</sup> In reviewing the public disclosures submitted by the NRC Staff on March 21, 2013, Ms. Smith discovered Staff e-mails stating “that the initial recommendation of the independent review panel was [she] passed the simulator examination.”<sup>38</sup> Thus, the review panel initially “made a recommendation or decision consistent with issuing a reactor operator license.”<sup>39</sup> Among other things, the Staff’s public disclosures include an unsigned draft letter from Ho K. Nieh, Director of the Division of Inspection and Regional Support, notifying Ms. Smith that, after review, the Staff determined that she passed the operating test and would be issued an SRO license:

In response to your letter received by this office on June 5, 2012, the staff of the U.S. Nuclear Regulatory Commission (NRC) has reviewed the grading of the operating

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<sup>33</sup> *California*, 2008 WL 5384623, at \*5 (citing *Federal Open Market Committee of the Federal Reserve System v. Merrill*, 443 U.S. 340 (1979); *McClelland v. Andrus*, 606 F.2d 1278 (D.C. Cir. 1979); *Ashley v. U.S. Department of Labor*, 589 F. Supp. 901 (D.D.C. 1983)).

<sup>34</sup> *Vermont Yankee*, LBP-05-33, 62 NRC at 843; *Geisen*, LBP-06-25, 64 NRC at 383 (“[A] qualified person, ‘such as the head of the department or division, having both expertise and an overview-type perspective concerning the balance between the agency’s duty of disclosure versus its need to conduct frank internal debate’ must sign an affidavit asserting the privilege.” (quoting *Vermont Yankee*, LBP-05-33, 62 NRC at 846-47)).

<sup>35</sup> *Vermont Yankee*, LBP-05-33, 62 NRC at 849-50.

<sup>36</sup> *Loving v. U.S. Department of Defense*, 550 F.3d 32, 38 (D.C. Cir. 2008) (citing *Army Times Publishing Co. v. U.S. Department of the Air Force*, 998 F.2d 1067, 1071 (D.C. Cir. 1993)).

<sup>37</sup> Motion to Compel at 2-3.

<sup>38</sup> *Id.* at 2 (citing E-mail from David Muller to John McHale, Donald Jackson, Chris Steely (Sept. 20, 2012) (ADAMS Accession No. ML13079A350)).

<sup>39</sup> *Id.*



test administered to you during the period of March 26 to April 13, 2012, and reconsidered the proposed denial issued to you on xxxx, 2012.

In light of the additional information you supplied and although the staff did not agree with all of your contentions, the staff has determined that you passed the operating test and satisfy the requirements of Title 10, Section 55.33(a), of the Code of Federal Regulations (10 CFR 55.33(a)) for approval of your license application. Region II will issue your reactor operator license pursuant to 10 CFR 55.51 and forward it to you under a separate cover letter.<sup>40</sup>

Subsequently, however, the review panel issued a final decision confirming the decision of the Region II examination team that Ms. Smith failed the operating exam. Ms. Smith asserts that the review panel's determination should have been "based on the outcome of the grading sheet by the Independent Review Team," but that instead the determination was altered based on extensive input from the team that conducted the operating exam.<sup>41</sup> She cites e-mails and other documents disclosed by the Staff reflecting the exam team's efforts to influence the review panel's decision.<sup>42</sup> As a consequence, Ms. Smith maintains, a process that "was intended to provide due process by allowing a team independent of influence by Region II to review the data provided and make an objective decision" instead resulted in a process in which she "was essentially re-graded by Region II examiners."<sup>43</sup> She asserts that she needs the documents listed on the Staff's privilege log because they

will shed light on the reason why the decision of the Independent Review Board quickly changed . . . . The items on the Privilege Log are the responses by email (and attachments) to a decision that was made by the Independent Review Board. These items will identify that the grading [was] subjective and not based on the examination process. These items will also explain why the administrative review sustained the failure when initial information concluded that the applicant[']s overall grade was passing.<sup>44</sup>

The NRC Staff states that, although the deliberative process privilege is a qualified privilege and the agency claiming the privilege bears the initial burden of demonstrating that it is applicable, once this demonstration is made, the moving

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<sup>40</sup> Letter from Ho K. Nieh, Director, Division of Inspection and Regional Support, Office of Nuclear Reactor Regulation, NRC, to Charliisa C. Smith (undated) at 1 (ADAMS Accession No. ML13079A352).

<sup>41</sup> Motion to Compel at 3.

<sup>42</sup> *Id.* at 2-5.

<sup>43</sup> *Id.* at 4.

<sup>44</sup> *Id.* at 5.

party can only defeat the privilege by a demonstration of an overriding need for the material.<sup>45</sup> The Staff argues that Ms. Smith has failed to make that demonstration.

## V. RULING ON THE MOTION TO COMPEL

### A. The Staff's Claim of Privilege

The seven documents at issue are presumed to be public, unless the Staff can demonstrate that they are protected by the asserted privilege.<sup>46</sup> The party invoking the deliberative process privilege bears the burden of explaining with particularity how and why disclosure of the documents' substance would harm an identified deliberative function.<sup>47</sup> In attempting to assert this agency privilege, the Staff must remember "that the burden is on [it] to establish [its] right to withhold information from the public and [it] must supply . . . sufficient information to allow [the decisionmaker] to make a reasoned determination that [it was] correct."<sup>48</sup> Thus, the Staff must supply the Board "with precise and certain reasons for maintaining the confidentiality of the requested document[s]."<sup>49</sup> The explanation need not reveal the contents of the documents, but it must identify, with respect to a specific document or type of document, why that document should be protected from discovery and what specific harm would result from its disclosure.<sup>50</sup> Because the Staff has not met its burden of demonstrating that the documents at issue should be protected by the deliberative process privilege, the documents are deemed public and are subject to disclosure.

In attempting to meet its burden, the Staff relies on the two-page Declaration of Mr. Ho Nieh, which was filed as an attachment to the Staff's response to support its claim of privilege.<sup>51</sup> Mr. Nieh states that he has

personally reviewed the documents identified as protected by the deliberative process privilege in Attachment 2, and [has] determined, in accordance with the guidance set forth in Management Directive 3.4, that all of the documents, with the exception of

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<sup>45</sup> NRC Staff Answer at 5 (citing *Vogtle*, CLI-94-5, 39 NRC at 198).

<sup>46</sup> See 5 U.S.C. § 552.

<sup>47</sup> *Vogtle*, CLI-94-5, 39 NRC at 198.

<sup>48</sup> *Coastal States Gas Corp. v. U.S. Department of Energy*, 617 F.2d 854, 861 (D.C. Cir. 1980).

<sup>49</sup> *Marriott International Resorts, L.P. v. United States*, 61 Fed. Cl. 411, 417 (2004) (alteration in original) (quoting *Walsky Construction Co. v. United States*, 20 Cl. Ct. 317, 320 (1990)) (internal quotation marks omitted).

<sup>50</sup> *Pacific Gas and Electric Co. v. United States*, 71 Fed. Cl. 205, 209 (2006).

<sup>51</sup> See Nieh Declaration.

document ML13071A228, contain predecisional information concerning the Staff's informal review of Charliisa C. Smith's 2012 operating test failure.<sup>52</sup>

He opines generally that “[t]hese documents contain *either* the Staff’s analyses, recommendations, opinions, or evaluations, and *may not necessarily* reflect the final agency position with respect to the matters discussed therein.”<sup>53</sup> Mr. Nieh concludes, again in general terms, that “[t]he documents comprise part of the deliberative process necessary for the Staff’s completion of the informal review.”<sup>54</sup> He further states that he has

determined that disclosure of these documents could result in harm to the agency, in that it would (a) disclose the preliminary views of individual Staff members and/or the Staff and thus potentially could create confusion as to the actual policy or views of the NRC; (b) hinder the efficiency of the Staff, in that forced disclosure of its internal discussion could serve to chill future deliberations and could interfere with its ability to engage in free exchange of opinions and analyses prior to publishing its final decisions; and (c) imply or suggest incorrectly that matters considered before the final agency decision may somehow call into doubt the integrity of that final decision.<sup>55</sup>

These cursory and conclusory assertions merely paraphrase the standards applicable to the deliberative process privilege without explaining how they apply to any specific document in dispute. “[C]onclusory assertions of privilege will not suffice to carry the Government’s burden of proof in defending FOIA cases.”<sup>56</sup> As the United States Court of Federal Claims stated concerning similar blanket claims of privilege, “such vague, general and conclusory statements — all purporting to apply to many documents but not connected to any particular document — fail to meet the requirement that defendant supply the court with precise and certain reasons for maintaining the confidentiality of the requested documents.”<sup>57</sup> As the court further explained,

Blanket assertions of the privilege are insufficient. Without indicating any specific, policy-oriented communication nor proffering any cogent reason for protecting it,

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<sup>52</sup> Nieh Declaration ¶ 3.

<sup>53</sup> *Id.* (emphasis added).

<sup>54</sup> *Id.*

<sup>55</sup> *Id.* ¶ 4. These statements in Mr. Nieh’s declaration appear to be a paraphrase from a Commission summary of the purposes of the deliberative process privilege. See *Vogtle*, CLI-94-5, 39 NRC at 197 (1994) (quoting *Jordan*, 591 F.2d at 772-73).

<sup>56</sup> *Coastal States Gas Corp.*, 617 F.2d at 861.

<sup>57</sup> *Pacific Gas and Electric Co. v. United States*, 70 Fed. Cl. 128, 140 (2006) (quoting *Walsky*, 20 Cl. Ct. at 320) (internal quotation marks omitted).

the bare assertion that internal agency discussions will be “chilled” is nothing but a legal platitude asserted in the abstract.<sup>58</sup>

Here, the Staff’s sweeping, undifferentiated claim that agency deliberations will be “chilled” is particularly unpersuasive because the Staff has disclosed other documents that reflect the agency’s administrative review of Ms. Smith’s 2012 operating test, without any apparent concern that disclosure of those documents will chill agency deliberations. The Staff makes no effort to explain any factor that distinguishes the seven disputed documents from those that discuss the same subject matter but for which no privilege was asserted.

For example, four of the allegedly privileged documents are drafts of the Staff’s Informal Review Results document (revisions 1-4). Because draft documents are not presumptively privileged, the Staff must provide specific information to justify withholding them from disclosure.<sup>59</sup> Not only has the Staff failed to do so, but it acknowledges that “the hearing file contains two versions of the NRC Staff Informal Review Results document that predate revision 1,”<sup>60</sup> as well as redacted versions of revision 5 of that document (the final version).<sup>61</sup> Thus, revisions 1-4 fall in between the initial and final versions of the Informal Review Results document that the Staff has disclosed.

Because an agency waives the deliberative process privilege for a document when it discloses the same document or one containing equivalent text,<sup>62</sup> the question necessarily arises whether the Staff has waived any deliberative process privilege that might otherwise apply to revisions 1-4. To answer that question, the Board compared revision 1 to one of the earlier versions that the Staff has disclosed,<sup>63</sup> and revision 4 to the disclosed revision 5. With only limited

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<sup>58</sup> *Id.* at 140-41 (quoting *Greenpeace v. National Marine Fisheries Service*, 198 F.R.D. 540, 545 (W.D. Wash. 2000)).

<sup>59</sup> *Judicial Watch, Inc. v. U.S. Postal Service*, 297 F. Supp. 2d 252, 261 (D.D.C. 2004).

<sup>60</sup> NRC Staff Answer at 2-3 (citing Letter from Ho K. Nieh, Director, Division of Inspection and Regional Support, Office of Nuclear Reactor Regulation, NRC, to Charlissa C. Smith (undated) (ADAMS Accession No. ML13079A344); Letter from Ho K. Nieh, Director, Division of Inspection and Regional Support, Office of Nuclear Reactor Regulation, NRC, to Charlissa C. Smith (undated) (ADAMS Accession No. ML13079A352)).

<sup>61</sup> NRC Staff Answer at 2 (citing Informal Review Results — Charlissa C. Smith Senior Reactor Operator Applicant, Vogtle Electric Generating Plant (Rev. 5, Redacted) (undated) (ADAMS Accession No. ML13079A367) (unsigned); Informal Review Results — Charlissa C. Smith Senior Reactor Operator Applicant, Vogtle Electric Generating Plant (Rev. 5, Redacted) (undated) (ADAMS Accession No. ML13079A399) (signed)).

<sup>62</sup> See *Sikorsky Aircraft Corp. v. United States*, 106 Fed. Cl. 571, 580 (2012); *U.S. Student Ass’n v. Central Intelligence Agency*, 620 F. Supp. 565, 571 (D.D.C. 1985); see also *Afshar v. U.S. Department of State*, 702 F.2d 1125, 1133 (D.C. Cir. 1983).

<sup>63</sup> Letter from Ho K. Nieh, Director, Division of Inspection and Regional Support, Office of Nuclear Reactor Regulation, NRC, to Charlissa C. Smith (undated).

exceptions, the allegedly privileged versions contain the same text as the versions that the Staff has disclosed.<sup>64</sup> The Board also compared revisions 2, 3, and 4, again finding the text of all three documents to be largely equivalent. To be sure, revisions 1-4 show that the review board changed its grading of Ms. Smith's 2012 operating exam and that its ultimate determination changed from pass to fail, but one can also discern both the grading changes and the change in the ultimate result by comparing the versions of the Informal Review Results document that the Staff has disclosed. Thus, the Staff's unqualified claim of privilege for every sentence in revisions 1-4 is either totally invalid or massively overbroad. To make a valid claim of privilege, the Staff should have compared revisions 1-4 to the disclosed versions, identified any specific parts of revisions 1-4 that are deliberative in nature and not included in or evident from the disclosed versions, and provided the Board with a convincing explanation of why those parts (if any exist) meet the requirements of the deliberative process privilege. Having failed to do that, the Staff has failed to make a legally sufficient claim of privilege for revisions 1-4.

Furthermore, as Ms. Smith shows, the Staff has disclosed e-mails and other documents that provide detailed information about the agency's internal discussions leading to the Independent Review Panel's final decision.<sup>65</sup> For example, the Staff disclosed a document entitled "Region II Recommendations/Comments on the 'Final' Independent Review Panel Document, October 12, 2012," which appears to be the Region II exam team's response to an Independent Review Panel Document concluding that Ms. Smith passed the operating exam.<sup>66</sup> The Region II document begins by stating:

This response to the Review Panel's conclusion is intended to show the NRR Program Office, the most accurate evaluation of the applicant's performance. The following conclusions by Region II's Exam Team are based on the observation of three examiners with extensive Industry and NRC experience. Region II considered

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<sup>64</sup> Although it may be possible for a presiding officer to make a determination about the validity of a privilege claim without reviewing a document *in camera* if the affidavit outlining the reasons for nondisclosure is sufficiently detailed, see *Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), LBP-08-7, 67 NRC 361, 372 n.7 (2008), the general nature of the Staff's claims in this instance makes that impossible. In such a situation, a board can request that a document be provided to it for *in camera* inspection. See 10 C.F.R. § 2.709(d). Here, however, a Board request to the Staff to provide copies of revisions 1-4 and the three e-mails at issue for *in camera* review was unnecessary because the Board members, by virtue of being agency personnel, already have secure access to the documents via the nonpublic portion of the agency's ADAMS system.

<sup>65</sup> Motion to Compel at 2-5.

<sup>66</sup> See Region II Recommendations/Comments on the "Final" Independent Review Panel Document (Oct. 12, 2012) (ADAMS Accession No. ML13071A242).

the Review Panel's Report in combination with the Exam Team's first hand observation of the applicant's performance and applied the guidance of NUREG-1021 to provide the Program Office with an accurate evaluation that is defensible by the only three examiners that actually observed the applicant's performance.

The Region II Exam Team concluded, with the opportunity of hindsight and deeper evaluation, that the initial evaluation as documented in the denial was largely accurate. The Region II Exam Team did, however, agree with some aspects of the Review Panel's Report for assigning some errors to additional rating factors. Region II's final conclusion is that the original denial should be sustained.<sup>67</sup>

This introduction is followed by the exam team's ten-page detailed critique of the Independent Review Panel document, including specific recommendations as to how the Panel should change its analysis of Ms. Smith's performance.<sup>68</sup> The Region II document concludes with a chart detailing the exam team's suggested grading of Ms. Smith's 2012 operating test.<sup>69</sup> The Region II document discloses more about internal agency deliberations than anything the Board can discern in the seven disputed documents, yet the Staff evidently concluded its disclosure would not chill agency deliberations or harm other protected agency interests.

The Staff's disclosure of the Region II document does not waive the deliberative process privilege because its text is not equivalent to that of any document the Staff seeks to withhold. Nevertheless, to make a persuasive claim of privilege, the Staff must explain why disclosure of revisions 1-4 to the Informal Review Results document and the three disputed e-mails would chill agency deliberations, while disclosure of other documents that reflect the agency's internal review in greater detail does not have such an effect. The Staff's Response to the Motion to Compel fails to address this inconsistency. Instead, the Staff's declaration provides only a sweeping, undifferentiated claim of privilege and legal boilerplate.

The Staff's privilege log is also insufficient to support application of the deliberative process privilege. The agency's regulations require the NRC Staff to "disclose or provide to the extent available . . . [a] list of all otherwise-discoverable documents for which a claim of privilege or protected status is being made, together with *sufficient information for assessing the claim of privilege or protected status of the documents.*"<sup>70</sup> The adequacy of the privilege log with respect to the sufficiency of the information contained therein is particularly important with respect to Subpart L proceedings "because without 'sufficient information' as to what allegedly makes the document 'deliberative,' the challenger is forced to shoot in the dark and face a substantive answer by the document withholder,

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<sup>67</sup> *Id.* at 1.

<sup>68</sup> *See id.* at 2-11.

<sup>69</sup> *Id.* at 11.

<sup>70</sup> 10 C.F.R. § 2.336(b)(5) (emphasis added).

without the right to reply.”<sup>71</sup> With regard to the first four documents, the Staff’s Privilege Log states only that they are “emails with discussion of draft informal review.”<sup>72</sup> With regard to the latter four documents, the Privilege Log merely states that they consist of “draft informal review[s].”<sup>73</sup> These cursory statements are “patently inadequate to permit a court to decide whether the exemption was properly claimed.”<sup>74</sup>

The Board therefore concludes that the Staff has failed to provide the requisite “precise and specific reasons” for maintaining the confidentiality of the documents requested by Ms. Smith. The Staff has not “proffer[ed] any cogent reason for protecting” the documents it seeks to withhold.<sup>75</sup> Nowhere does Mr. Nieh’s Declaration or the Staff’s privilege log provide “‘precise and certain’ reasons” for withholding the documents, nor do they “explain why, particularly, the documents in question here are so sensitive that disclosure would compromise the agency decision-making process to such a degree that the public interest in full disclosure is outweighed.”<sup>76</sup> “[A] blanket approach to asserting the privilege is unacceptable and is itself grounds for denying invocation of the privilege.”<sup>77</sup>

## **B. The Balance of Competing Interests**

Instead of addressing its burden to establish that the documents in question are privileged and supporting its position with a detailed and specific declaration, the Staff focuses on whether Ms. Smith’s request demonstrates “some overriding need or special circumstances” that would warrant disclosure of the documents.<sup>78</sup> But the “overriding need or special circumstances” test only applies *after* a showing that the requested materials are covered by the deliberative process privilege. For the reasons just explained, that showing has not been made here.

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<sup>71</sup> *Vermont Yankee*, LBP-05-33, 62 NRC at 839-40. As noted in the Board’s February 19, 2013, Order granting Ms. Smith’s hearing demand, the instant matter is proceeding pursuant to Subpart L, LBP-13-3, 77 NRC at 98.

<sup>72</sup> Privilege Log.

<sup>73</sup> *Id.*

<sup>74</sup> *Coastal States Gas Corp.*, 617 F.2d at 861.

<sup>75</sup> *See Greenpeace*, 198 F.R.D. at 545.

<sup>76</sup> *Resolution Trust Corp. v. Diamond*, 773 F. Supp. 597, 604-05 (S.D.N.Y. 1991); *see Reino de Espana v. American Bureau of Shipping*, No. 03CIV3573LTSRLE, 2005 WL 1813017, at \*13 (S.D.N.Y. 2005) (“While the Privilege Log identifies and describes the documents sought to be protected, it fails to give precise and certain reasons for asserting confidentiality over the documents.”).

<sup>77</sup> *Kaufman v. City of New York*, No. 98CIV.2648(MJL)(KNF), 1999 WL 239698, at \*4 (S.D.N.Y. 1999).

<sup>78</sup> NRC Staff Answer at 8 (quoting *Shoreham*, ALAB-773, 19 NRC at 1343).

In any event,

[a] claim of deliberative process privilege, even when properly established, is not absolute. The deliberative process privilege is qualified, requiring the court to balance the interests of the parties for and against disclosures. The privilege may “be defeated by a showing of evidentiary need by [a] plaintiff[] that outweighs the harm that disclosure of such information may cause to the defendant.”<sup>79</sup>

Thus, “[s]trong competing interests must be weighed against the government’s interest in nondisclosure. Foremost is the interest of the litigants, and ultimately of society, in accurate judicial fact finding.”<sup>80</sup> Here, the Board concludes that the balance of the competing interests would require disclosure of the seven disputed documents even had the Staff asserted a valid claim of privilege.

The Staff correctly identifies the factors the Board should consider in balancing Ms. Smith’s need for disclosure against the agency’s interest in confidentiality:

(i) the relevance of the evidence sought to be protected; (ii) the availability of other evidence; (iii) the “seriousness” of the litigation and the issues involved; (iv) the role of the government in the litigation; and (v) the possibility of future timidity by government employees who will be forced to recognize that their secrets are violable.<sup>81</sup>

Turning to the first of these factors, evidence is relevant if it has some tendency to make Ms. Smith’s allegations more or less likely.<sup>82</sup> The seven disputed documents satisfy that test because they help explain the process by which the independent review board arrived at its final decision denying Ms. Smith’s appeal. They are relevant to Ms. Smith’s allegation that, because of excessive influence of the exam team on the administrative review, she was effectively denied an independent determination whether she failed the 2012 operating test.

The Staff does not appear to dispute Ms. Smith’s claim that she was entitled to an independent review of the exam team’s finding, and the agency’s guidance states that the appeal board shall not include anyone who was involved with the applicant’s licensing examination, which is consistent with Ms. Smith’s claim that she was entitled to an independent review.<sup>83</sup> Moreover, the Staff’s November 15, 2012, letter sustaining the denial of Ms. Smith’s SRO application refers to the

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<sup>79</sup> *Sikorsky Aircraft Corp.*, 106 Fed. Cl. at 577 (second and third alterations in original) (citations omitted) (quoting *Alaska v. United States*, 16 Cl. Ct. 5, 11 (1988)).

<sup>80</sup> *In re Franklin National Bank Securities Litigation*, 478 F. Supp. 577, 582 (E.D.N.Y. 1979).

<sup>81</sup> NRC Staff Answer at 8-9 (quoting *In re Subpoena Served upon Comptroller of Currency*, 967 F.2d 630, 634 (D.C. Cir. 1992)).

<sup>82</sup> See Fed. R. Evid. 401.

<sup>83</sup> NUREG-1021, at ES-502-4.



“independent review” of Ms. Smith’s appeal.<sup>84</sup> Also, the Staff document entitled “Region II Recommendations/Comments on the ‘Final’ Independent Review Panel Document, October 12, 2012” refers to the “Independent Review Panel.”<sup>85</sup> Ms. Smith may therefore question whether the agency complied with its stated policy of providing an independent administrative review of the grading of SRO license examinations.

Without the disputed documents, however, Ms. Smith will have access only to the documents that the Staff has chosen to disclose, such as the final version (revision 5) of the Informal Review Results document and the two versions that precede revision 1. This will leave a gap in the administrative record, making it more difficult for this Board to understand the process by which the review board’s determination changed from an initial finding that Ms. Smith passed the 2012 operating test to a final ruling sustaining the exam team’s determination that she failed. In particular, revisions 1-4 will help this Board determine the point(s) at which the review board’s analysis changed, which will in turn help us decide whether the changes were connected with the exam team’s alleged efforts to alter the outcome. The disputed e-mails also appear to concern changes to the Informal Review Results document and may help in resolving the same question. Thus, the disputed documents will help the Board understand whether the exam team’s efforts in fact brought about a change in the independent review board’s determination such that, as Ms. Smith claims, the administrative review process amounted to little more than a regrading of her 2012 operating test by the exam team. Thus, the first factor favors disclosure.

Although the Staff has disclosed other evidence related to the process by which the review board reached its final decision, the disputed documents constitute a missing gap in the Staff’s decisionmaking process regarding Ms. Smith’s appeal of the grading of her 2012 operating exam, and Ms. Smith lacks any other means to obtain the missing evidence. Denial of the Motion to Compel would not only make it difficult for Ms. Smith to prove her case, but, of equal importance, would deprive the Board of a complete record on which to base its decision. Even where the government identifies significant reasons for nondisclosure, the interest in “[a]ccurate judicial factfinding is predominant. This factor is powerful

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<sup>84</sup>Letter from Ho K. Nieh, Director, Division of Inspection and Regional Support, Office of Nuclear Reactor Regulation, NRC, to Charliisa C. Smith (Nov. 15, 2012), at 1 (ADAMS Accession No. ML12307A152). Similarly, the Staff document entitled “Region II Recommendations/Comments on the ‘Final’ Independent Review Panel Document, October 12, 2012” repeatedly refers to the “Independent Review Panel.”

<sup>85</sup>Region II Recommendations/Comments on the “Final” Independent Review Panel Document (Oct. 12, 2012).

in a situation like that presented here, where no satisfactory alternative source of information exists.”<sup>86</sup> Consequently, factor two supports disclosure.

The third factor, the seriousness of the litigation, also supports disclosure. The importance of this litigation to Ms. Smith is obvious: the denial of her application for an SRO license has a direct and adverse impact upon her livelihood and her professional career. The Board also finds the issue presented to be a serious one. As explained, there is evidence to show that the exam team had significant input into the independent review board’s decisionmaking process. Whether that input was so substantial as to effectively deny Ms. Smith an independent review is a question that the Board can resolve only after it has heard and considered all the evidence. The Board can say, however, that the issue Ms. Smith presents is certainly “not the frivolous claim of an idle mischief maker,”<sup>87</sup> and that it merits full consideration upon an adequate record.

The fourth factor, the role of the government in the litigation, favors disclosure when the government is a party to the litigation and has been accused of unlawful conduct (other than a violation of its FOIA obligations).<sup>88</sup> The concern is that, when government conduct is challenged, claims of privilege may be used to obtain a litigating advantage.<sup>89</sup> Courts disfavor government efforts to “place[ ] a portion of privileged material at issue while self-servingly retaining the rest.”<sup>90</sup> Therefore, in this case the fourth factor favors disclosure, although the Board makes no finding that the Staff has attempted to misuse the privilege.

The fifth factor necessarily favors the Staff to some extent. Here, however, the risk of future timidity by NRC employees is attenuated for two reasons. First, as previously explained, the Staff has disclosed documents that appear to provide more information about internal agency discussions than do the disputed documents. The Staff’s willingness to disclose documents such as the “Region II Recommendations/Comments on the ‘Final’ Independent Review Panel Document” suggests that the Staff is not greatly concerned that disclosure will deter agency personnel from candidly expressing their views in other reviews. Second, if, unlike in this case, the Staff presents an appropriately focused claim of privilege, the Board can issue a protective order to preclude or limit the disclosure of specific information where it would likely have a chilling effect, while making the balance of the contested information publicly available.

The Board accordingly finds that the first four factors favor disclosure, and that the fifth factor, although favoring the Staff’s position to a limited extent,

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<sup>86</sup> *In re Franklin Nat’l Bank Sec. Litig.*, 478 F. Supp. at 577.

<sup>87</sup> *Bank of Dearborn v. Saxon*, 244 F. Supp. 394, 402 (E.D. Mich. 1965).

<sup>88</sup> See *Carl Zeiss Stiftung v. V. E. B. Carl Zeiss, Jena*, 40 F.R.D. 318, 329 (D.D.C. 1966), *aff’d*, 384 F.2d 979 (D.C. Cir. 1967).

<sup>89</sup> See *id.*

<sup>90</sup> *Sikorsky Aircraft Corp.*, 106 Fed. Cl. at 580 (citation omitted).

is insufficient to overcome the weight of the other factors. This is therefore a case where “overriding need or special circumstances” would support granting the Motion to Compel had the Board agreed with the Staff’s claims of privilege.<sup>91</sup>

#### **V. ORDER**

For the foregoing reasons, Ms. Smith’s March 28, 2013, Motion to Compel is GRANTED. The NRC Staff shall promptly produce the seven documents at issue as well as document number ML13071A228, for which the Staff withdrew its claim of privilege.

It is so ORDERED.

THE ATOMIC SAFETY AND  
LICENSING BOARD

Ronald M. Spritzer, Chair  
ADMINISTRATIVE JUDGE

William J. Froehlich  
ADMINISTRATIVE JUDGE

Brian K. Hajek  
ADMINISTRATIVE JUDGE

Rockville, Maryland  
April 24, 2013

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<sup>91</sup> NRC Staff Answer at 8 (quoting *Shoreham*, ALAB-773, 19 NRC at 1343).



UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**ATOMIC SAFETY AND LICENSING BOARD**

**Before Administrative Judges:**

**G. Paul Bollwerk, III, Chairman**  
**Dr. Richard E. Wardwell**  
**Dr. Thomas J. Hirons**

**In the Matter of**

**Docket No. 40-8943-MLA-2**  
**(ASLBP No. 13-926-01-MLA-BD01)**

**CROW BUTTE RESOURCES, INC.**  
**(Marsland Expansion Area)**

**May 10, 2013**

In this proceeding concerning the application of Crow Butte Resources, Inc. (CBR), for an amendment to the 10 C.F.R. Part 40 source materials license for its existing in situ uranium recovery (ISR) facility near Crawford, Nebraska, that would authorize CBR to operate a satellite ISR facility, the Marsland Expansion Area (MEA) site, the Licensing Board concludes that while a group of individuals and organizations denominated as the Consolidated Petitioners have failed to demonstrate their standing to intervene in this proceeding, petitioner Oglala Sioux Tribe has both established its standing and proffered two admissible environmental contentions so as to be afforded party status in this proceeding.

**RULES OF PRACTICE: STANDING TO INTERVENE**

For an individual or organization to be deemed a “person whose interest may be affected by the proceeding” under section 189a of the Atomic Energy Act of 1954 (AEA), 42 U.S.C. § 2239(a)(1)(A), so as to have standing “as of right” such that party status can be granted in an agency adjudicatory proceeding, the intervention petition must include a statement of (1) the petitioner’s name, address, and telephone contact information; (2) the nature of the petitioner’s

right under the AEA to be made a party; (3) the nature of the petitioner's interest in the proceeding, whether property, financial, or otherwise; and (4) the possible effect of any decision or order that might be issued in the proceeding on the petitioner's interest. *See* 10 C.F.R. § 2.309(d)(1)(i)-(iv). In assessing this information to determine whether a petitioner has established standing, the Commission generally applies contemporaneous judicial standing concepts to section 189a adjudicatory proceedings, inquiring whether the participant has established that (1) it has suffered or faces the genuine threat that it will suffer a distinct and palpable injury that constitutes injury in fact within the zones of interest arguably protected by the governing statutes (e.g., the AEA, the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. § 4321 et seq.); (2) the injury is fairly traceable to the challenged action; and (3) the injury is likely to be redressed by a favorable decision. *See, e.g., Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 6 (1996) (citing cases).

**RULES OF PRACTICE: STANDING TO INTERVENE  
(ORGANIZATIONAL; REPRESENTATIONAL)**

An organization that asserts it has standing to intervene in its own right, i.e., organizational standing, must establish a discrete institutional injury to the organization's interests, which must be based on something more than a general environmental or policy interest in the subject matter of the proceeding. *See, e.g., International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-01-21, 54 NRC 247, 252 (2001) (citing cases). Alternatively, an entity may seek to demonstrate its standing to intervene on behalf of its members, i.e., representational standing, by showing it has an individual member who can fulfill all the necessary standing elements and who has authorized the organization to represent his or her interests. *See, e.g., Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-00-20, 52 NRC 151, 163 (2000) (citing cases).

**RULES OF PRACTICE: INTERVENTION PETITION(S)  
(CONSTRUCTION); STANDING TO INTERVENE  
(CONSTRUCTION OF PETITION)**

In assessing whether a petition meets these standing elements, which a presiding officer must do even if there are no objections to a petitioner's standing, the board must apply a number of important benchmarks. Initially, "[t]he petitioner bears the burden to provide facts sufficient to establish standing." *PPL Bell Bend, LLC* (Bell Bend Nuclear Power Plant), CLI-10-7, 71 NRC 133, 139 (2010). Generally speaking, this burden is met "if the petitioner provides plausible

factual allegations that satisfy each element of standing.” *U.S. Army Installation Command* (Schofield Barracks, Oahu, Hawaii, and Pohakuloa Training Area, Island of Hawaii, Hawaii), LBP-10-4, 71 NRC 216, 229 (2010) (citing *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 561 (1992)), *aff’d*, CLI-10-20, 72 NRC 185 (2010). Moreover, in assessing whether a petitioner has demonstrated its standing, a licensing board is to “construe the petition in favor of the petitioner.” *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995). At the same time, however, if a petitioner’s factual claims in support of its standing are contested, untenable, conjectural, or conclusory, a board need not uncritically accept such assertions, but may weigh those informational claims and exercise its judgment about whether the standing element at issue has been satisfied. *See Schofield Barracks*, LBP-10-4, 71 NRC at 230 & n.14 (citing *Bell Bend*, CLI-10-7, 71 NRC at 139; *Consumers Energy Co.* (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 410 (2007); *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), CLI-00-5, 51 NRC 90, 98 (2000)).

#### **RULES OF PRACTICE: STANDING TO INTERVENE (MATERIALS LICENSING PROCEEDING)**

In a materials licensing action, in ascertaining whether a hearing requestor has demonstrated an “injury in fact” so as to have standing, often the initial focus is on whether the activity for which licensed authorization is sought may have any radiological impacts upon the petitioner. At the same time, however, it is not imperative that the potential harm involve physical or bodily injury caused by a radioactive source; nonradiological impacts can be a basis for standing as well. *See, e.g., Strata Energy, Inc.* (Ross In Situ Uranium Recovery Project), CLI-12-12, 75 NRC 603, 612-13 & n.49 (2012) (upholding standing based on dust impacts from ISR facility trucks using dirt road in front of petitioner’s home).

#### **RULES OF PRACTICE: STANDING TO INTERVENE (PROXIMITY PLUS; TRADITIONAL STANDING)**

In instances when a radiological health or safety impact is asserted to provide the basis for a petitioner’s injury in fact, in lieu of the usual injury and causation showings, a petitioner can attempt to establish its standing based on the “proximity plus” protocol by showing “(1) that the proposed licensing action involves a ‘significant source’ of radiation, which has (2) an ‘obvious potential for offsite consequences.’” *Schofield Barracks*, CLI-10-20, 72 NRC at 189 (footnote omitted) (quoting *Sequoyah Fuels Corp.* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 75 n.22 (1994)). If before a licensing board a petitioner has made no

effort to establish that any “proximity plus” presumption should be applicable in determining standing relative to the licensing action they are challenging, the board must look to the traditional standing precepts of injury and causation, as well as redressibility, to determine whether the petitioner has made a sufficient factual and legal demonstration regarding its standing to intervene. *See Schofield Barracks*, CLI-10-20, 72 NRC at 189; *see also Exelon Generation Co., LLC* (Peach Bottom Atomic Power Station, Units 2 and 3), CLI-05-26, 62 NRC 577, 581 (2005).

**RULES OF PRACTICE: STANDING TO INTERVENE (SHOWING REGARDING STANDING BASED ON GEOGRAPHIC PROXIMITY)**

In a materials licensing case in which an important factor in determining whether there is a cognizable injury for standing purposes is the actual distance the petitioner or its property is from the source of a radiological or other alleged health or safety impairment, the use of an imprecise and otherwise unexplicated reference to the term “proximity” to describe where the property the petitioner leases to others is situated relative to the applicant’s proposed facility is not particularly helpful to a presiding officer in making an informed standing decision.

**RULES OF PRACTICE: STANDING TO INTERVENE (SHOWING BY GOVERNMENTAL ENTITY REGARDING STANDING BASED ON GEOGRAPHIC PROXIMITY)**

Previous agency case law has acknowledged that in instances when a governmental organization, including a federally recognized Native American tribe, is unable to establish standing because the facility or nuclear material in question does not fall within its jurisdictional boundaries, *see* 10 C.F.R. § 2.309(d)(2), by reason of such an entity’s interest in protecting individuals and territory that fall within its sovereign guardianship, that entity nonetheless may be accorded standing if its boundaries come within a distance from the nuclear facility or material that otherwise would establish standing for an individual or nongovernmental organization, whether via a proximity presumption or otherwise. *See Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 6 and 7), LBP-11-6, 73 NRC 149, 169-70 (2011); *Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), LBP-08-26, 68 NRC 905, 912-14 (2008); *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), LBP-99-25, 50 NRC 25, 29-31 (1999); *see also Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-98-13, 48 NRC 26, 33 (1998) (holding that, as sovereign body, a Native American tribe maintains



a strong interest in its members' welfare such that its organizational purpose is germane to the interests it seeks to represent in the proceeding).

**RULES OF PRACTICE: STANDING TO INTERVENE (STANDING OF NATIVE AMERICAN TRIBE BASED ON INTEREST IN TRIBAL CULTURAL RESOURCES ON RECOGNIZED ABORIGINAL LANDS)**

A Native American tribe's statutorily recognized interest in the tribal cultural resources that may still be extant on its recognized aboriginal lands seemingly would provide a cognizable interest for the purpose of establishing its standing. *See Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 337-39 (2009) [hereinafter *Crow Butte Renewal*].

**RULES OF PRACTICE: STANDING TO INTERVENE (STANDING OF NATIVE AMERICAN TRIBE BASED ON INTEREST IN TRIBAL CULTURAL RESOURCES ON RECOGNIZED ABORIGINAL LANDS)**

Assuming that the tribal interest in cultural resources on established aboriginal lands is sufficient to provide the requisite injury in fact, it cannot be the case that simply because a cultural resources survey conducted at the behest of an applicant finds no artifacts or possible tribal sites, the tribe is deprived of standing to challenge the adequacy of that survey. For standing purposes, the focus is on the nature of the tribal interest in the cultural resources that might still exist on a federally recognized tribe's aboriginal lands, not the adequacy of the applicant's survey.

**RULES OF PRACTICE: STANDING TO INTERVENE (ADMISSIBILITY OF CONTENTIONS); ADMISSIBILITY OF CONTENTION(S) (LIMITATION BASED ON STANDING)**

Longstanding agency precedent makes clear that there is no "contention-based" requirement mandating that a petitioner establish a link between the injury in fact asserted to justify its standing and the particular issues the petitioner wants to litigate in challenging an application. Rather, to have standing, existing case law indicates that a petitioner need only show that a cognizable injury is associated with a proposed licensing action and that granting the relief sought, e.g., denial of the application, will address that injury. *See Crow Butte Renewal*, CLI-09-9, 69 NRC at 339-41; *Yankee Nuclear*, CLI-96-1, 43 NRC at 6.

**RULES OF PRACTICE: STANDING TO INTERVENE (SHOWING NEEDED IN EACH PROCEEDING)**

Standing in each agency proceeding depends on the factual circumstances associated with that case. See *PPL Bell Bend LLC* (Bell Bend Nuclear Power Plant), CLI-10-7, 71 NRC 133, 138 & n.27 (2010) (citing *Crow Butte Renewal*, CLI-09-9, 69 NRC at 343).

**RULES OF PRACTICE: STANDING TO INTERVENE (STANDING OF NATIVE AMERICAN TRIBAL MEMBER BASED ON INTEREST IN TRIBAL CULTURAL RESOURCES ON RECOGNIZED ABORIGINAL LANDS)**

Any interest an individual member of a Native American tribe might have in tribal cultural resources does not have same parameters as that of the tribe relative to a proposed site and any artifacts it might contain. Instead, for standing purposes an individual tribal member would need to demonstrate that the site holds some particular importance personally. For example, the individual might demonstrate that some particular activity on the property or specific location on the site, such as a place of worship or burial ground, has cultural or religious significance for that tribal member as an individual. See *Crow Butte Resources, Inc.* (North Trend Expansion Project), LBP-08-6, 67 NRC 241, 288-89 (2008) (petitioner asserts standing based on use of ISR expansion area to gather eagle feathers for ceremonial and religious uses), *aff'd in part and rev'd in part*, CLI-09-12, 69 NRC 535 (2009) [hereinafter *Crow Butte N. Trend*].

**RULES OF PRACTICE: STANDING TO INTERVENE (ORGANIZATIONAL)**

Organizational standing is footed in the capacity of an organization to show, consistent with the Supreme Court's decision in *Sierra Club v. Morton*, 405 U.S. 727 (1972), a discrete injury to its organizational interests. See *Powertech (USA), Inc.* (Dewey-Burdock In Situ Uranium Recovery Facility), LBP-10-16, 72 NRC 361, 389 (2010).

**RULES OF PRACTICE: STANDING TO INTERVENE (ORGANIZATIONAL)**

A purported interest in preventing abusive mining clearly is a generalized interest that will not support organizational standing. See *Dewey-Burdock*, LBP-10-16, 72 NRC at 389 (ruling organizational interest in protecting "the natural resources of the Black Hills of South Dakota with a focus on groundwater

contamination from uranium mining” insufficient to establish organizational standing (quoting Consolidated Request for Hearing and Petition for Leave to Intervene, *Powertech (USA), Inc.* (Dewey-Burdock In Situ Uranium Recovery Facility), Docket No. 40-9075-MLA (Mar. 8, 2010) at 27)).

**RULES OF PRACTICE: CONTENTIONS (CHALLENGE TO LICENSE APPLICATION; MATERIALITY; SCOPE OF THE PROCEEDING; SPECIFICITY AND BASIS; SUPPORTING INFORMATION OR EXPERT OPINION)**

Section 2.309(f)(1) of the Commission’s rules of practice specifies the requirements that must be met for a contention to be deemed admissible. Specifically, a contention must provide (1) a specific statement of the legal or factual issue sought to be raised; (2) a brief explanation of its basis; (3) a concise statement of the alleged facts or expert opinions, including references to specific sources and documents, that support the petitioner’s position and upon which the petitioner intends to rely at hearing; and (4) sufficient information demonstrating that a genuine dispute exists in regard to a material issue of law or fact, including references to specific portions of the application that the petitioner disputes, or in the case when the application is alleged to be deficient, the identification of such deficiencies and supporting reasons for this belief. *See* 10 C.F.R. § 2.309(f)(1)(i), (ii), (v), (vi). In addition, the petitioner must demonstrate that the issue raised in the contention is both “within the scope of the proceeding” and “material to the findings the NRC must make to support the action that is involved in the proceeding.” *Id.* § 2.309(f)(1)(iii), (iv). Failure to comply with any of these requirements is grounds for dismissing a contention. *See FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station, Unit 1), CLI-12-8, 75 NRC 393, 395-96 (2012).

**RULES OF PRACTICE: CONTENTIONS (CHALLENGE BASED ON REGULATORY POLICY VIEWS; CHALLENGE OF BASIC STRUCTURE OF AGENCY REGULATORY POLICY; CHALLENGE OF COMMISSION RULE; CHALLENGE OF STATUTORY REQUIREMENT)**

An adjudication is not the proper forum for challenging applicable statutory requirements or the basic structure of the agency’s regulatory process. *See Philadelphia Electric Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20, *aff’d in part on other grounds*, CLI-74-32, 8 AEC 217 (1974). Similarly, a contention that attacks a Commission rule, or which seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking,

is inadmissible. See 10 C.F.R. § 2.335; *Potomac Electric Power Co.* (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 85, 89 (1974). This includes contentions that advocate stricter requirements than agency rules impose or that otherwise seek to litigate a generic determination established by a Commission rulemaking. See *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 159 (2001); *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-93-1, 37 NRC 5, 29-30 (1993); *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), LBP-82-6, 16 NRC 1649, 1656 (1982); see also *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 251 (1996); *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), LBP-91-19, 33 NRC 397, 410, *aff'd in part and rev'd in part on other grounds*, CLI-91-12, 34 NRC 149 (1991). By the same token, a contention that simply states the petitioner's views about what regulatory policy should be does not present a litigable issue. See *Peach Bottom*, ALAB-216, 8 AEC at 20-21 & n.33.

#### **RULES OF PRACTICE: CONTENTIONS (SCOPE OF PROCEEDING)**

All proffered contentions must be within the scope of the proceeding as defined by the Commission in its initial hearing notice and directive referring the proceeding to the licensing board. See 10 C.F.R. § 2.309(f)(1)(iii); *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-00-23, 52 NRC 327, 329 (2000); *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-825, 22 NRC 785, 790-91 (1985). As a consequence, any contention that falls outside the specified scope of the proceeding must be rejected. See *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-11-11, 74 NRC 427, 435 (2011).

#### **RULES OF PRACTICE: CONTENTIONS (SUPPORTING INFORMATION OR EXPERT OPINION)**

It is the petitioner's obligation to present the factual allegations and/or expert opinion necessary to support its contention. See 10 C.F.R. § 2.309(f)(1)(v); *USEC Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 457 (2006). While a board may appropriately view a petitioner's supporting information in a light favorable to the petitioner, failure to provide such information regarding a proffered contention requires that the contention be rejected. See *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155 (1991). Neither mere speculation nor bare or conclusory

assertions, even by an expert, alleging that a matter should be considered will suffice to allow the admission of a proffered contention. *See Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003). If a petitioner neglects to provide the requisite support for its contentions, it is not within a board's power to make assumptions or draw inferences that favor the petitioner, nor may the board supply information that is lacking. *See Crow Butte N. Trend*, CLI-09-12, 69 NRC at 553; *Palo Verde*, CLI-91-12, 34 NRC at 155. Likewise, simply attaching material or documents as a basis for a contention, without setting forth an explanation of that information's significance, is inadequate to support the admission of the contention. *See Fansteel*, CLI-03-13, 58 NRC at 204-05.

**RULES OF PRACTICE: CONTENTIONS (CHALLENGE TO LICENSE APPLICATION; SUPPORTING INFORMATION OR EXPERT OPINION)**

All properly formulated contentions must focus on the license application in question, challenging either specific portions of or alleged omissions from the application (including the safety analysis report/technical report and the environmental report) so as to establish that a genuine dispute exists with the applicant on a material issue of law or fact. *See* 10 C.F.R. § 2.309(f)(1)(vi). Any contention that fails directly to controvert the application or that mistakenly asserts the application does not address a relevant issue will be dismissed. *See Crow Butte N. Trend*, CLI-09-12, 69 NRC at 557; *Am. Centrifuge Plant*, CLI-06-10, 63 NRC at 462-63.

**NEPA: IMPLEMENTATION OF NATIONAL HISTORIC PRESERVATION ACT (NHPA) (TIMING OF CONTENTION CHALLENGING STAFF'S ACTIONS CARRYING OUT NHPA TRIBAL CONSULTATION REQUIREMENT)**

**NATIONAL HISTORIC PRESERVATION ACT (NHPA): CHALLENGE TO NRC STAFF'S ACTIONS IMPLEMENTING NHPA DUTY TO CONSULT WITH NATIVE AMERICAN TRIBES (TIMING OF CONTENTION)**

**RULES OF PRACTICE: CONTENTIONS (PREMATURITY)**

Carrying out the National Historic Preservation Act § 106 consultation requirement, as implemented as part of the agency's NEPA review process, is a responsibility that accrues to the Staff rather than the applicant. As a consequence, according to the Commission, a contention seeking to contest how the consultation mandate is (or is not) being carried out is one that can be raised in the first

instance only after the Staff's draft environmental impact statement (EIS), which presumably provides some discussion regarding that matter, has been issued. *See Crow Butte N. Trend*, CLI-09-12, 69 NRC at 564-66; *Crow Butte Renewal*, CLI-09-9, 69 NRC at 348-51.

**RULES OF PRACTICE: ADMISSIBILITY OF CONTENTIONS (CHALLENGE SEEKING MERITS DETERMINATION NOT APPROPRIATE)**

Claim that second tribal cultural resources survey corrected any deficiencies in applicant's original survey has the hallmarks of an attempt to obtain a board "merits" determination regarding the contention, something the Commission has indicated is inappropriate at the contention admissibility stage. *See Diablo Canyon*, CLI-11-11, 74 NRC at 443 ("for the purposes of contention admissibility, we do not consider the merits of [a petitioner's] arguments").

**RULES OF PRACTICE: CONTENTIONS (SUPPORTING INFORMATION OR EXPERT OPINION)**

The Commission has made clear that section 2.309(f)(1)(v) "does not call upon the intervenor to make its case at this stage of the proceeding, but rather to indicate what facts or expert opinions, be it one fact or opinion or many, of which it is aware at that point in time which provide the basis for its contention." Rules of Practice for Domestic Licensing Proceedings — Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,170 (Aug. 11, 1989).

**RULES OF PRACTICE: CONTENTIONS (SUPPORTING INFORMATION OR EXPERT OPINION; RELIANCE ON NRC STAFF GUIDANCE DOCUMENTS)**

The Staff's NUREG standard review plan is merely a guidance document and thus is not legally binding. *See, e.g., Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-22, 54 NRC 255, 264 & n.37 (2001) (citing cases). NUREG provisions nonetheless are informative to the degree they support the commonsense approach that technical analyses and conclusions should be presented in a scientifically defensible manner. This is an obvious and reasonable threshold when documenting technical arguments associated with a complex scientific evaluation. In addition, guidance documents, while not binding, "describe an approach to compliance with [NRC] rules that is acceptable to the NRC," and so can be informative for that reason. *AREVA Enrichment*

*Services, LLC* (Eagle Rock Enrichment Facility), CLI-11-4, 74 NRC 1, 8 n.35 (2011).

**RULES OF PRACTICE: CONTENTIONS (CHALLENGE TO LICENSE APPLICATION)**

The purpose for the requirement in section 2.309(f)(1)(vi) that petitioners reference specific sections of an application appears to be twofold: (1) to demonstrate to the presiding officer that the petitioner's dispute with the applicant is indeed genuine and thereby assist the presiding officer in determining the scope of a potential evidentiary hearing; and (2) to put the applicant on notice regarding what portions of the application it needs to defend. *Cf. International Uranium (USA) Corp.* (Receipt of Material from Tonawanda, New York), LBP-98-21, 48 NRC 137, 142 n.7 (1998) ("A simple reference to a large number of documents is not enough to put the parties on notice as to the basis for intervention; rather, a petitioner must clearly identify and summarize the facts being relied on [in] the specific portions of the documents cited.").

**RULES OF PRACTICE: CONTENTIONS (CHALLENGE TO LICENSE APPLICATION)**

Requiring that a petitioner point to specific portions of the application allows (1) the board to determine what issues it must probe at an evidentiary hearing; (2) the applicant to determine what areas of its application it must defend; and (3) the Staff to determine what issues it may need to consider and address more carefully in its EIS or safety evaluation report. However, a petitioner can, in certain limited circumstances, put the other participants and the board on adequate notice of what sections of the application are being challenged even when the petitioner does not explicitly cite those sections in its petition.

**RULES OF PRACTICE: CONTENTIONS (SPECIFICITY AND BASIS; SUPPORTING INFORMATION OR EXPERT OPINION)**

The recognized precept that a board may not consider the merits of a contention at the admissibility stage of the proceeding does not excuse a petitioner from providing a sound basis for its contention in its petition or in an expert affidavit or other supporting information that specifically corroborates the contested issues framed by the contention. *See Luminant Generation Co., LLC* (Comanche Peak Nuclear Power Plant, Units 3 and 4), CLI-11-9, 74 NRC 233, 244 (2011).

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

Given the current structure of the agency’s adjudicatory process, petitioner’s claim that NEPA-related challenges to a proposed licensing action should not be filed until the agency’s NEPA analysis is completed clearly is not litigable in this proceeding. *See Dewey-Burdock*, LBP-10-16, 72 NRC at 435-38. This contention is a challenge to the agency’s rules, specifically 10 C.F.R. § 2.309(f)(2), that, in the absence of a section 2.335 waiver request, a board cannot consider.

**NEPA: NRC STAFF RELIANCE ON STATE PERMITTING PROCESS**

Any NEPA-based challenge to the efficacy of, or the Staff’s reliance on, a state water usage permitting process relative to the Staff’s environmental review, must await the Staff’s initial environmental review document. *Dewey-Burdock*, LBP-10-16, 72 NRC at 438-40; *see Progress Energy Florida, Inc.* (Levy County Nuclear Power Plant, Units 1 and 2), LBP-13-4, 77 NRC 107, 175 n.77 (2013).

**NEPA: ENVIRONMENTAL ASSESSMENT (TIMING OF CHALLENGE TO STAFF DETERMINATION TO ISSUE ENVIRONMENTAL ASSESSMENT RATHER THAN ENVIRONMENTAL IMPACT STATEMENT)**

A contention challenging the adequacy/propriety of a Staff determination to prepare an environmental assessment (EA) in lieu of a supplemental EIS would need to await the issuance of the draft EA as well. *See Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), LBP-00-19, 52 NRC 85, 93-98 (2000) (admitting post-EA submitted contention challenging Staff’s determination to issue EA rather than EIS).

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**MEMORANDUM AND ORDER**  
**(Ruling on Intervention Petitions)**

In a May 2012 application, Crow Butte Resources, Inc. (CBR) requests an amendment to its 10 C.F.R. Part 40 source materials license that authorizes the operation of its existing in situ uranium recovery (ISR) facility near Crawford, Nebraska. Specifically, CBR asks that the Nuclear Regulatory Commission (NRC) authorize the operation of a satellite ISR facility, the Marsland Expansion

Area (MEA) site, which is located in Dawes County, Nebraska, some 11 miles to the southeast of CBR's Crawford central processing facility (CPF). See Letter from Josh Leftwich, Director of Safety, Health, Environment and Quality, CBR, to Keith McConnell, Deputy Director, Decommissioning and Uranium Recovery Licensing Directorate, Division of Waste Management and Environmental Protection, NRC Office of Federal and State Materials and Environmental Management Programs (May 16, 2012) at 1 (ADAMS Accession No. ML12160A512). With the January 29, 2013 submission of hearing requests by petitioner Oglala Sioux Tribe (OST) and by petitioners Antonia Loretta Afraid of Bear Cook, Bruce McIntosh, Debra White Plume, Western Nebraska Resources Council (WNRC), and Aligning for Responsible Mining (ARM), referred to jointly herein as the Consolidated Petitioners (CP), challenging various aspects of the CBR application, there are now five ongoing ISR cases, including this one, pending before Atomic Safety and Licensing Boards. The other four are (1) two CBR-related cases, which we will refer to respectively as *Crow Butte Renewal* and *Crow Butte North Trend*, that involve the renewal of the current license for CBR's Crawford CPF and another CBR amendment request seeking authority to operate the proposed North Trend Expansion Area (NTEA) satellite facility located some 5 miles northwest of the Crawford facility; (2) a proceeding regarding initial operation of Powertech (USA) Inc.'s proposed Dewey-Burdock ISR facility near Edgemont, South Dakota; and (3) an adjudication concerning initial authorization to operate Strata Energy, Inc.'s proposed Ross ISR facility located in Cook County, Wyoming.<sup>1</sup> Moreover, various of the petitioners now before us are parties to one or more of the other two CBR cases and/or the Powertech proceeding.

We thus do not necessarily write upon a clean slate in this proceeding, particularly to the extent the Commission has made rulings regarding standing and contention admissibility matters in the other ongoing ISR cases. Nonetheless, it is incumbent upon us to look carefully at the particular factual and legal arguments made by the petitioners in this proceeding in support of their hearing requests. And after doing so, we conclude that although the Consolidated Petitioners lack standing as of right to intervene in this proceeding, OST has established its standing and has proffered two admissible contentions, with the result that we grant OST party status in this proceeding.

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<sup>1</sup> See *Strata Energy, Inc.* (Ross In Situ Uranium Recovery Project), LBP-12-3, 75 NRC 164, *aff'd in part and review declined*, CLI-12-12, 75 NRC 603 (2012) (affirming standing ruling and declining review as to contention admissibility rulings); *Powertech (USA), Inc.* (Dewey-Burdock In Situ Uranium Recovery Facility), LBP-10-16, 72 NRC 361 (2010); *Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), LBP-08-24, 68 NRC 691 (2008), *aff'd in part and rev'd in part*, CLI-09-9, 69 NRC 331 (2009); *Crow Butte Resources, Inc.* (North Trend Expansion Project), LBP-08-6, 67 NRC 241 (2008), *aff'd in part and rev'd in part*, CLI-09-12, 69 NRC 535 (2009).

## I. BACKGROUND

Regarding the technical background associated with this case, a synopsis of the ISR process as a means of extracting uranium for subsequent conversion to nuclear power reactor fuel and other uses was recently provided in the *Ross* and *Dewey-Burdock* licensing boards' standing and contention admissibility rulings and need not be repeated here.<sup>2</sup> See *Ross*, LBP-12-3, 75 NRC at 175-76; *Dewey-Burdock*, LBP-10-16, 72 NRC at 378-80. It is worth noting, however, that the authorization CBR seeks for its proposed MEA facility would be limited to extracting uranium via ion exchange lixiviant and then loading that uranium onto ion exchange resin, which will then be transported offsite by tanker truck to the existing Crawford CPF for processing, with barren resin then returned to the MEA facility by tanker truck for reuse. See 1 CBR, Application for Amendment of USNRC Source Materials License SUA-1534, [MEA], Crawford, Nebraska, Environmental Report at 1-2 to -3, -6 (May 2012) (ADAMS Accession No. ML12160A513) [hereinafter ER]; see also 1 CBR, Application for Amendment of USNRC Source Materials License SUA-1534, [MEA], Crawford, Nebraska, Technical Report at 1-4 (May 2012) (ADAMS Accession No. ML12160A527) [hereinafter TR].

Turning then to this proceeding's procedural background, in response to the May 2012 submission of CBR's application for the MEA facility, the NRC issued a hearing opportunity notice on November 26, 2012. See [CBR], License SUA-1534, License Amendment to Construct and Operate [MEA], 77 Fed. Reg. 71,454 (Nov. 30, 2012). By timely hearing petitions dated January 29, 2013, OST and CP submitted, respectively, six and five contentions challenging the validity of the CBR licensing request. See Petition to Intervene and Request for Hearing of [OST] (Jan. 29, 2013) [hereinafter OST Petition]; Consolidated Request for Hearing and Petition for Leave to Intervene (Jan. 29, 2013) [hereinafter CP Petition]. By memorandum dated February 4, 2013, the Secretary of the Commission referred these petitions to the Licensing Board Panel's Chief Administrative Judge. See Memorandum from Annette Vietti-Cook, NRC Secretary, to E. Roy Hawken, Chief Administrative Judge (Feb. 4, 2013) at 1. In response, on February 6 the Chief Administrative Judge referred the OST and CP submissions to this Licensing Board to rule on standing and contention admissibility matters and to preside at any hearing. See [CBR], Establishment of Atomic Safety and Licensing Board, 78 Fed. Reg. 9945 (Feb. 12, 2013).

In timely answers dated February 25, 2013, CBR and the NRC Staff asserted that OST and the various individuals and organizations that constitute the Con-

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<sup>2</sup>As has been noted previously, although the ISR process sometimes is referred to as the in situ leach (ISL) process, the ISL and ISR processes are the same, with ISR being a newer term. See *Ross*, LBP-12-3, 75 NRC at 176 n.3.

solidated Petitioners all lack standing to intervene and have failed to provide any admissible contentions. *See* Applicant's Response to Petition to Intervene Filed by [OST] (Feb. 25, 2013) at 1 [hereinafter CBR OST Answer]; NRC Staff Response to the [OST] Request for Hearing and Petition to Intervene (Feb. 25, 2013) at 1 [hereinafter Staff OST Answer]; Applicant's Response to Petition to Intervene Filed by [CP] (Feb. 25, 2013) at 1 [hereinafter CBR CP Answer]; NRC Staff Response to the Request for Hearing and Petition to Intervene by [CP] (Feb. 25, 2013) at 1 [hereinafter Staff CP Answer]. OST contested these assertions in a reply timely submitted on March 4, 2013. *See* Reply to NRC Staff and Applicant Responses to the Petition to Intervene and Request for Hearing of [OST] (Mar. 4, 2013) at 3 [hereinafter OST Reply]. CP did not submit a reply.

After reviewing these various filings, on March 15, 2013, the Licensing Board advised the participants it had concluded that, with one exception, the participants had provided the Board with information and explanations of their legal positions sufficient for the Board to reach the requisite standing and contention admissibility determinations without seeking additional participant input by way of a prehearing conference or otherwise. *See* Licensing Board Memorandum and Order (Requesting Additional Information) (Mar. 15, 2013) at 1-2 (unpublished). The exception, the Board indicated, was the need for more information from the Staff regarding the status of a report referenced by the Staff in its answer that was to address a fall 2012 cultural resources survey conducted on the MEA and other nearby CBR sites by representatives of Native American tribes other than OST. *See id.* at 2.

Thereafter, in a March 20 submission the Staff indicated that the Native American tribal survey report had been received on March 5 and would be distributed to the other participants no later than April 3, after appropriate redactions were made to avoid disclosing report-identified cultural resource locations at the MEA and other CBR sites. *See* NRC Staff Response to Board Order Requesting Additional Information (Mar. 20, 2013) at 1-2. As a consequence, on March 22 the Board issued an order establishing a further briefing schedule to allow the participants to address the relevance of that report to their previous arguments regarding the standing of OST and CP, as well as the admissibility of two contentions — OST contention 1 and CP contention D — that raised issues concerning the sufficiency of the cultural resources analysis provided in the CBR ISR application. *See* Licensing Board Memorandum and Order (Establishing Schedule for Additional Pleadings to Address Information in Recent Tribal Cultural Resources Survey Report) (Mar. 22, 2013) at 3 (unpublished). CBR and the Staff submitted filings addressing these matters on April 10. *See* Applicant's Supplemental Response on Standing and Contention Admissibility (Apr. 10, 2013) [CBR Cultural Resources Response]; NRC Staff's Supplemental Pleading Regarding the Santee Sioux Nation Report (Apr. 10, 2013) [hereinafter Staff Cultural Resources Response]. OST and CP did not file replies.

## II. ANALYSIS

### A. OST and CP Standing

#### 1. Standards Governing Standing

For an individual or organization to be deemed a “person whose interest may be affected by the proceeding” under section 189a of the Atomic Energy Act of 1954 (AEA), 42 U.S.C. § 2239(a)(1)(A), so as to have standing “as of right” such that party status can be granted in an agency adjudicatory proceeding, the intervention petition must include a statement of (1) the petitioner’s name, address, and telephone contact information; (2) the nature of the petitioner’s right under the AEA to be made a party; (3) the nature of the petitioner’s interest in the proceeding, whether property, financial, or otherwise; and (4) the possible effect of any decision or order that might be issued in the proceeding on the petitioner’s interest. *See* 10 C.F.R. § 2.309(d)(1)(i)-(iv).<sup>3</sup> In assessing this information to determine whether a petitioner has established standing, the Commission generally applies contemporaneous judicial standing concepts to section 189a adjudicatory proceedings, inquiring whether the participant has established that (1) it has suffered or faces the genuine threat that it will suffer a distinct and palpable injury that constitutes injury in fact within the zones of interest arguably protected by the governing statutes (e.g., the AEA, the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. § 4321, et seq.); (2) the injury is fairly traceable to the challenged action; and (3) the injury is likely to be redressed by a favorable decision. *See, e.g., Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 6 (1996) (citing cases). An organization that asserts it has standing to intervene in its own right, i.e., organizational standing, must establish a discrete institutional injury to the organization’s interests, which must be based on something more than a general environmental or policy interest in the subject matter of the proceeding. *See, e.g., International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-01-21, 54 NRC 247, 252 (2001) (citing cases). Alternatively, an entity may seek to demonstrate its standing to intervene on behalf of its members, i.e., representational standing, by showing it has an individual member who can fulfill all the necessary standing elements and who has authorized the organization to represent his or her interests. *See, e.g., Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-00-20, 52 NRC 151, 163 (2000) (citing cases).

Finally, in assessing whether a petition meets these standing elements, which a presiding officer must do even if there are no objections to a petitioner’s standing,

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<sup>3</sup>The references to 10 C.F.R. Part 2 contained in this issuance reflect the Part 2 changes adopted in August 2012. *See* Final Rule: “Amendments to Adjudicatory Process Rules and Related Requirements,” 77 Fed. Reg. 46,562 (Aug. 3, 2012).

the Board must apply a number of important benchmarks. Initially, “[t]he petitioner bears the burden to provide facts sufficient to establish standing.” *PPL Bell Bend, LLC* (Bell Bend Nuclear Power Plant), CLI-10-7, 71 NRC 133, 139 (2010). Generally speaking, this burden is met “if the petitioner provides plausible factual allegations that satisfy each element of standing.” *U.S. Army Installation Command* (Schofield Barracks, Oahu, Hawaii, and Pohakuloa Training Area, Island of Hawaii, Hawaii), LBP-10-4, 71 NRC 216, 229 (2010) (citing *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 561 (1992)), *aff’d*, CLI-10-20, 72 NRC 185 (2010). Moreover, in assessing whether a petitioner has demonstrated its standing, a licensing board is to “construe the petition in favor of the petitioner.” *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995). At the same time, however, if a petitioner’s factual claims in support of its standing are contested, untenable, conjectural, or conclusory, a board need not uncritically accept such assertions, but may weigh those informational claims and exercise its judgment about whether the standing element at issue has been satisfied. *See Schofield Barracks*, LBP-10-4, 71 NRC at 230 & n.14 (citing *Bell Bend*, CLI-10-7, 71 NRC at 139; *Consumers Energy Co.* (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 410 (2007); *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), CLI-00-5, 51 NRC 90, 98 (2000)).

We apply these general precepts below in evaluating the OST and CP standing presentations.<sup>4</sup>

## **2. Rulings on Standing**

### **a. OST**

DISCUSSION: OST Petition at 6-10; CBR OST Answer at 2-8; Staff OST Answer at 8-16; OST Reply at 4-13; CBR Cultural Resources Response at 6-8; Staff Cultural Resources Response at 3-4.

RULING: In a materials licensing action, in ascertaining whether a hearing requestor has demonstrated an “injury in fact” so as to have standing, often the initial focus is on whether the activity for which licensed authorization is sought may have any radiological impacts upon the petitioner. In such an instance, “whether a petitioner could be affected by the licensing action must be determined on a case-by-case basis, taking into account the petitioner’s distance from the source, the nature of the licensed activity, and the significance of the radioactive source.” *Schofield Barracks*, CLI-10-20, 72 NRC at 188 (footnote omitted). At

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<sup>4</sup>Section 2.309(e) of 10 C.F.R. permits an individual or group to seek discretionary intervention if the requirements necessary to be afforded standing as of right cannot be established. None of the petitioners here has requested that such intervention be granted.

the same time, however, it is not imperative that the potential harm involve physical or bodily injury caused by a radioactive source; nonradiological impacts can be a basis for standing as well.<sup>5</sup> See, e.g., *Ross*, CLI-12-12, 75 NRC at 612-13 & n.49 (upholding standing based on dust impacts from ISR facility trucks using dirt road in front of petitioner's home).

In this instance, OST asserts that the proposed MEA and its associated mining activities pose potential harm to cognizable interests sufficient to establish its standing based on potential radiological or nonradiological injuries associated with (1) the "proximity" of the MEA to lands the tribe owns and leases for domestic and agricultural purposes that require "the beneficial use of both groundwater and surface waters"; and (2) the tribe's interest in assuring the protection of (a) tribal "cultural resources" situated on the MEA as a result of the tribe's earlier use of that property as a part of the tribe's "aboriginal lands," and (b) the tribal procedural right to be consulted regarding historic preservation matters in accordance with section 106 of the 1966 National Historic Preservation Act (NHPA), 16 U.S.C. § 470a(b)(3)(E), (d)(2). OST Petition, unnumbered exh. 7, at 2, 3-4 (Declaration of Wilmer Mesteth) [hereinafter Mesteth Declaration]; *id.* unnumbered exh. 8, at 1-2 (Declaration of Denise M. Mesteth). The Board does have a concern about whether in this instance OST has met its burden to show the necessary injury in fact based on possible radiological (or other health and safety) impacts to the property it purportedly leases to others for domestic and agricultural uses.<sup>6</sup> It is

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<sup>5</sup> In instances when a radiological health or safety impact is asserted to provide the basis for a petitioner's injury in fact, in lieu of the usual injury and causation showings, a petitioner can attempt to establish its standing based on the "proximity plus" protocol by showing "(1) that the proposed licensing action involves a 'significant source' of radiation, which has (2) an 'obvious potential for offsite consequences.'" *Schofield Barracks*, CLI-10-20, 72 NRC at 189 (footnote omitted) (quoting *Sequoyah Fuels Corp. (Gore, Oklahoma Site)*, CLI-94-12, 40 NRC 64, 75 n.22 (1994)). Before us, OST has made no effort to establish that any "proximity plus" presumption should be applicable in determining standing relative to the licensing action they are challenging. See *Crow Butte N. Trend*, LBP-08-6, 67 NRC at 272-73. As a consequence, we must look to the traditional standing precepts of injury and causation, as well as redressibility, to determine whether OST has made a sufficient factual and legal demonstration regarding its standing to intervene. See *Schofield Barracks*, CLI-10-20, 72 NRC at 189; see also *Exelon Generation Co., LLC* (Peach Bottom Atomic Power Station, Units 2 and 3), CLI-05-26, 62 NRC 577, 581 (2005).

<sup>6</sup> With regard to this OST causation showing, a principal concern is OST's otherwise unexplicated use of the term "proximity" to describe where the property it leases to others is situated relative to the MEA. In a materials licensing case in which an important factor in determining whether there is a cognizable injury for standing purposes is the actual distance the petitioner or its property is from the source of a radiological or other alleged health or safety impairment, the use of such an imprecise description is not particularly helpful to a presiding officer in making an informed standing decision. Nor does OST's showing account for the circumstance here in which, in contrast to the *Crow Butte Renewal* proceeding, applicant CBR has alleged without contradiction that the MEA lies within the  
(Continued)

unnecessary for us to resolve that issue relative to OST's standing, however, given our conclusion that OST has demonstrated the requisite injury in fact based on its interest in protecting extant cultural resources located on its aboriginal lands.

In this regard, we note initially that we agree with the Staff in its assertion "that the MEA is situated within the aboriginal lands of [OST], and that [OST] has an interest in identifying and protecting cultural resources of [OST] that might be found at the MEA." Staff OST Answer at 11. With this statement, the Staff recognizes what the Commission has already endorsed relative to the nature of OST's interest as a federally recognized Native American tribe, *see Cogema Mining, Inc.* (Irigaray and Christensen Ranch Facilities), LBP-09-13, 70 NRC 168, 185 (2009) (noting OST listed on Bureau of Indian Affairs list of federally recognized Native American tribes), in the cultural resources in the area around the Crawford CPF and the nearby expansion areas, such as the MEA, that once were part of OST's recognized aboriginal lands.<sup>7</sup> *See Crow Butte Renewal*, CLI-09-9, 69 NRC at 337-39.

The Staff, however, goes on to make the additional claim, echoed by CBR, that this OST interest is not sufficiently "concrete" and "particularized" in this instance to justify a finding that OST has an "injury in fact" sufficient to afford it standing in this proceeding. *See* Staff OST Answer at 11; CBR OST Answer at 7. As the basis for this concern, the Staff and CBR in their answers initially posited the lack of any tribal sites or artifacts found as a result of the several-months-long

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watershed of the Niobrara River, which flows to the south, rather than in the watershed of the White River, which flows to the north toward OST's Pine Ridge Reservation and was acknowledged to encompass OST tribal lands. *See* CBR OST Answer at 8; *Crow Butte Renewal*, CLI-09-9, 69 NRC at 344, 345-46.

<sup>7</sup> Previous agency case law has acknowledged that in instances when a governmental organization, including a federally recognized Native American tribe, is unable to establish standing because the facility or nuclear material in question does not fall within its jurisdictional boundaries, *see* 10 C.F.R. § 2.309(d)(2), by reason of such an entity's interest in protecting individuals and territory that fall within its sovereign guardianship, that entity nonetheless may be accorded standing if its boundaries come within a distance from the nuclear facility or material that otherwise would establish standing for an individual or nongovernmental organization, whether via a proximity presumption or otherwise. *See Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 6 and 7), LBP-11-6, 73 NRC 149, 169-70 (2011); *Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), LBP-08-26, 68 NRC 905, 912-14 (2008); *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), LBP-99-25, 50 NRC 25, 29-31 (1999); *see also Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-98-13, 48 NRC 26, 33 (1998) (holding that, as sovereign body, Native American tribe maintains strong interest in its members' welfare such that its organizational purpose is germane to the interests it seeks to represent in proceeding). Although the existing jurisdictional boundaries of its Pine Ridge Reservation may well not accord OST such standing here, *see supra* p. 271 & note 6, as the Commission appears to have recognized in the *Crow Butte Renewal* proceeding, OST's statutorily recognized interest in the tribal cultural resources that may still be extant on its recognized aboriginal lands seemingly would provide a cognizable interest for the purpose of establishing its standing. *See Crow Butte Renewal*, CLI-09-9, 69 NRC at 337-39.



cultural resources survey conducted on the MEA at the behest of CBR. *See* Staff OST Answer at 11-12; CBR OST Answer at 7. And as additional evidence that a concrete OST interest is lacking, in its answer the Staff makes reference to the tribe's asserted failure to avail itself of an opportunity to send a representative to the MEA during a 3-week period from mid-November to early December 2012 to conduct a cultural resources field survey. *See* Staff OST Answer at 11 & n.47. Further, in its answer the Staff declares that to afford OST standing in this instance "would set a precedent which effectively allows an Indian tribe to establish standing to intervene in any NRC proceeding involving a site within the tribe's aboriginal territory merely by stating that there 'may be' cultural resources of interest to the tribe on that site." *Id.* at 13.

Nor, according to the Staff, does the March 2013 cultural resources report prepared by the Santee Sioux Nation (SSN) necessarily provide the support OST needs to establish its standing, notwithstanding the fact that the report identified eleven potential cultural resources sites on the MEA as a result of the late 2012 survey conducted by monitors from SSN and the Crow Nation (CN).<sup>8</sup> Instead, the Staff maintains that "the impact of the SSN report on standing ultimately rests on whether the OST can demonstrate how the report supports a finding of injury under that standard." Staff Cultural Resources Response at 4. CBR, on the other hand, asserts that while the report might supply OST with a concrete interest in the identified sites, it still does not support a finding that OST has standing in this proceeding. According to CBR, OST's basis for standing is an alleged procedural injury under NHPA § 106's consultation requirement. Yet, CBR claims, this purported harm is irrelevant to any challenge to CBR's ER, which is the focus of this proceeding, because section 106 implicates only the Staff's NEPA compliance responsibilities. Moreover, according to CBR, OST's injury is being alleged prematurely because the Staff's section 106 compliance activities are not yet completed. *See* CBR Cultural Resources Response at 7-8.

For several reasons, we find unpersuasive these arguments claiming OST's cultural resources injury showing is lacking for standing purposes. As to the CBR assertion that the "procedural" nature of OST's interest is disqualifying in this instance, we find this an overly narrow reading of the injury OST alleges. While it is true that OST has claimed that it has been injured by a Staff failure

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<sup>8</sup> Although OST, as an NHPA § 106 consulting tribe, was provided by the Staff with an unredacted version of the SSN/CN cultural resources report, CP (as well as CBR) were provided with access to a redacted version that does not disclose information regarding the location of the SSN/CN-identified cultural resource sites, which is considered protected information under NHPA § 304, 16 U.S.C. § 470w-3(a). *See* Letter from Marcia J. Simon, NRC Staff Counsel, to Licensing Board (Apr. 3, 2013); SSN, [Traditional Cultural Properties Survey], Crow Butte Project, Dawes County, Crawford, Nebraska, at unnumbered p. 10 (ADAMS Accession No. ML13093A123) [hereinafter Cultural Resources Survey].

to follow the procedural directives of NHPA § 106, as we indicated above, it is also apparent that OST has asserted an injury footed in its separate concern about harm to cultural resources that might be located within its aboriginal lands as they encompass the MEA. *See supra* p. 271; *see also* OST Petition at 8-9.

And with regard to the adequacy of this claimed interest as a basis for OST's standing, we note initially that even in the absence of the recent SSN cultural resources report, it is not apparent why, consistent with the Commission's determinations in both the *Crow Butte North Trend* and *Crow Butte Renewal* proceedings regarding tribal standing based on alleged cultural resources injuries, OST would lack standing here. Assuming, as the Commission found in those proceedings, that the tribal interest in cultural resources on established aboriginal lands is sufficient to provide the requisite injury in fact, it cannot be the case that simply because a cultural resources survey conducted at the behest of an applicant finds no artifacts or possible tribal sites, the tribe is deprived of standing to challenge the adequacy of that survey. For standing purposes, the focus is on the nature of the tribal interest in the cultural resources that might still exist on a federally recognized tribe's aboriginal lands, not the adequacy of the applicant's survey. Moreover, the Staff's concern that affording standing in such a situation effectively creates an open-ended opportunity for cultural resource-based claims of tribal standing comes down to no more than a worry about a licensing board's ability properly to adjudge assertions regarding the expanse of tribal aboriginal lands, a matter that, as we have indicated, *see supra* p. 272, we need not consider further in this proceeding.<sup>9</sup>

That being said, with nearly a dozen cultural resource sites now having been identified on the MEA site, consistent with board and Commission rulings in the

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<sup>9</sup> Because OST's proffered contention 1 raises cultural resource concerns, the redressibility element of its standing showing is evident. We also do not need to get into the matter of whether this standing basis allows OST to raise other contentions unrelated to cultural resource issues. Longstanding agency precedent makes clear that there is no "contention-based" requirement mandating that a petitioner establish a link between the injury in fact asserted to justify its standing and the particular issues the petitioner wants to litigate in challenging an application. Rather, to have standing, existing case law indicates that a petitioner need only show that a cognizable injury is associated with a proposed licensing action and that granting the relief sought, e.g., denial of the application, will address that injury. *See Crow Butte Renewal*, CLI-09-9, 69 NRC at 339-41; *Yankee Nuclear*, CLI-96-1, 43 NRC at 6.

*Crow Butte North Trend* and *Crow Butte Renewal* proceedings,<sup>10</sup> OST's standing to intervene as of right in this proceeding is manifest.<sup>11</sup>

b. CP

DISCUSSION: CP Petition at 4-7; CBR CP Answer at 2-12; Staff CP Answer at 5-18; CBR Cultural Resources Response at 3-5; Staff Cultural Resources Response at 4-5.

RULING: Because the Consolidated Petitioners consist of several different individuals and organizations, we deal with each separately below, concluding that every one of these individuals and organizations has failed to establish the requisite standing as of right so as to be admitted as a party to this proceeding.

(i) Antonia Loretta Afraid of Bear Cook

In an affidavit attached to the CP petition, Antonia Loretta Afraid of Bear Cook, who seemingly seeks to intervene as an individual petitioner, and also is willing to have her interests represented by WNRC or ARM, declares that she has a home in Chadron, Nebraska, where she takes water from a 90-foot-deep well in the Brule Formation and a farm on the Pine Ridge Reservation for which she utilizes water from the Arikaree aquifer and the White River, which flows near the reservation. *See* CP Petition, unnumbered Petitioner Declaration at 1 (Jan. 24, 2013 declaration of Antonia Loretta Afraid of Bear Cook). She also states that she is an OST enrolled member and has a “vested interest in Traditional Cultural Properties that may exist within the [MEA].” *Id.* at 2.

Both CBR and the Staff assert that these claims are insufficient to establish Ms. Cook's standing in the proceeding. Both contend that her reliance on her water usage from the Brule Formation at her home in Chadron, which is some 25 miles northeast of the MEA, and from the Arikaree aquifer and the White River on her

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<sup>10</sup> Although the Staff suggested in its answer that the failure of OST representatives to take part in the late 2012 SSN/CN survey that resulted in the identification of possible cultural resource sites indicated OST's asserted interest was not sufficiently concrete, *see supra* p. 273, in the wake of the survey's results the Staff has not made any renewed claim based on either which tribe found the cultural resource sites or whether those sites ultimately might be linked to OST aboriginal tribal activity. Certainly, nothing in the Commission's *Crow Butte North Trend* or *Crow Butte Renewal* proceeding rulings suggests that (1) who locates a particular cultural resource site or artifacts or (2) whether that site or the artifacts it might contain can be tied definitively to a particular tribe has any bearing on whether a tribe's cultural resource interest is sufficient to establish its standing regarding those resources that otherwise might exist on its recognized aboriginal lands.

<sup>11</sup> While somewhat surprising from a participant represented by counsel, the lack of an OST reply to the CBR and Staff responses to the Board's March 22 issuance does not affect our determination in this regard. As we observed above, even without the new cultural resources survey information, we would have concluded that OST had established its standing to intervene in this proceeding.

farm at the Pine Ridge Reservation, which is approximately 50 miles northeast of the MEA, are insufficient because she fails to suggest a plausible pathway for MEA contamination to reach these water sources. CBR and the Staff declare, without contradiction from CP, which did not submit a reply pleading regarding these CBR and Staff assertions, that both surface water and the Brule Formation, as the upper aquifer below the MEA, flow to the south toward the Niobrara River, which is in a different river basin from the White River, and flow away from Chadron and the Pine Ridge Reservation to the north. *See* CBR CP Answer at 7-8, 10 n.32; Staff CP Answer at 12-13. Further, the Staff maintains that Ms. Cook's asserted interest in tribal cultural resources is too conjectural or hypothetical to establish standing because she lives some distance from the MEA site and has not provided any information indicating that "she has ever visited the MEA site or is presently aware of any cultural properties of interest to her or the Tribe located within the MEA." Staff CP Answer at 13.

Relative to Ms. Cook's purported interest arising from her Chadron home and Pine River Reservation farm water usage, the Board agrees with CBR and the Staff that she has failed to demonstrate a "plausible pathway" from the MEA to either of these properties so as to establish the requisite injury in fact. Initially we note that standing in each agency proceeding depends on the factual circumstances associated with that case, so that the grant of standing to Ms. Cook in the *Crow Butte Renewal* case based on asserted water usage impacts is not dispositive here. *See PPL Bell Bend LLC* (Bell Bend Nuclear Power Plant), CLI-10-7, 71 NRC 133, 138 & n.27 (2010) (citing *Crow Butte Renewal*, CLI-09-9, 69 NRC at 343). As it turns out, the Crawford ISR facility that is the subject of that proceeding is not only closer to both Chadron and the Pine Ridge Reservation by some 10 miles, but the CPF also is undisputedly located in a different watershed than the MEA, i.e., that of the White River rather than the Niobrara River. As a consequence, the potential aquifer and associated White River impacts that were of import in that proceeding in establishing her standing are not relevant here. Ms. Cook thus cannot be afforded standing in this proceeding on the basis of her Chadron home and Pine Ridge Reservation farm water usage.

We also find her assertion of an interest based on cultural resource concerns insufficient to establish her injury in fact here because she has failed to show relative to such resources on the MEA site that there is a concrete or particularized injury to herself as an individual. Essentially Ms. Cook is attempting to establish as an OST member a cultural resources interest that is the same as that of the tribe. We, however, are unable to conclude that for standing purposes, even with the identification by the late-2012 SSN/CN survey of potential cultural resources sites on the MEA, any individual interest she might have has the same parameters as that of the tribe relative to those sites and any artifacts they might contain. Instead, for standing purposes as an individual, Ms. Cook would need to demonstrate that the MEA site holds some particular importance for her personally. For example,

she might demonstrate that some particular activity on the property or specific location on the site, such as a place of worship or burial ground, has cultural or religious significance for her as an individual.<sup>12</sup> See *Crow Butte N. Trend*, LBP-08-6, 67 NRC at 288-89 (petitioner asserts standing based on use of ISR expansion area to gather eagle feathers for ceremonial and religious uses).

Having failed to satisfy her burden of showing a cognizable injury in fact, we must find Ms. Cook lacks standing to intervene in this proceeding as an individual. Additionally, her asserted interest cannot provide the basis for representational standing for either WNRC or ARM.<sup>13</sup>

(ii) Bruce McIntosh

In affidavits supporting the CP hearing petition and seeking to intervene both as an individual and in support of the representational standing of WNRC and ARM, Bruce McIntosh declares that he has lived, worked, and recreated in Dawes County for 67 years, including having a home in Chadron where he uses water from the Brule and Arikaree aquifers for personal, household, domestic purposes, including gardening, bathing, and drinking. See CP Petition, unnumbered Petitioner Declaration at 1 (Jan. 29, 2013 declaration of Bruce McIntosh) [hereinafter

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<sup>12</sup> We consider our holding in this regard to be consistent with judicial authority regarding the standing of an individual tribal member to raise an NHPA claim, see *Nulankeyutmonen Nkihtaqmikon v. Impson*, 503 F.3d 18, 27 (1st Cir. 2007) (ruling tribal members who live very near proposed liquified natural gas terminal and use the land and surrounding waters have standing to raise NEPA and NHPA concerns); *Montana Wilderness Ass'n v. Frye*, 310 F. Supp. 2d 1127, 1150-51 (D. Mont. 2004) (determining tribal member who regularly visits tribal migratory route on national monument land to pursue cultural undertakings has standing under NHPA to raise concerns about proposed oil and gas leases); see also *La Cuna de Aztlan Sacred Sites Protection Circle Advisory Committee v. U.S. Department of the Interior*, No. EDCV 11-1478-GW(SSX), 2012 WL 6839790, at \*4 (C.D. Cal. 2012) (rejecting argument that, in addition to the tribe, individual tribal representative has standing to sue under NHPA section 106 consultation provisions); cf. 36 C.F.R. § 800.2(c)(2)(ii) (“Section 101(d)(6)(B) of the [NHPA] requires the agency official to consult with any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to historic properties that may be affected by an undertaking.”), as well as agency precedent suggesting that an individual tribal member who does not reside on a tribal reservation where a facility is proposed to be located must show injury in fact relative to that member’s activities on the reservation even when the reservation is asserted to be on aboriginal tribal lands, see *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 170-71, *aff’d*, CLI-98-13, 48 NRC at 31-32.

<sup>13</sup> With this determination, as well as our standing decisions in Sections II.A.2.b(ii)-(iii), below, we do not face the situation that arose in the *Dewey-Burdock* ISR proceeding when, because two petitioners seeking both to intervene as individuals and to provide the representational standing basis for an organization were found to have standing, each petitioner was required to choose whether he or she wished to proceed as an individual or allow the organization to go forward as his or her representative. See Licensing Board Order (Accepting Elections Regarding Representation), *Powertech (USA), Inc.* (Dewey-Burdock In Situ Uranium Recovery Facility), Docket No. 40-9075-MLA (Aug. 17, 2010) at 1 & n.3 (unpublished).

McIntosh Declaration]; *id.* unnumbered Petitioner Declaration at 1 (Jan. 29, 2013 declaration of WNRC vice-chair Bruce McIntosh) [hereinafter McIntosh WNRC Declaration]. CBR and the Staff assert he lacks standing for basically the same reasons as Ms. Cook did in claiming water usage-related injury in fact, i.e., that he has failed to establish a plausible water excursion pathway from the MEA site to where he resides, works, and recreates.

We must agree. Mr. McIntosh's assertion regarding the significance of water usage at his Chadron home has the same failing as that of Ms. Cook, as outlined in section II.A.2.b(i), above. By the same token, his additional claim based on his long-time residence in Dawes County, which lacks any showing about the extent, frequency, and duration of any employment or recreational pursuits he might have had in the vicinity of the MEA, fails to provide the particularity and concreteness needed to establish the requisite injury in fact. *See Bell Bend*, CLI-10-7, 71 NRC at 139-40. Thus, he too lacks standing to intervene in this proceeding as an individual, so that his asserted interest cannot provide the basis for representational standing for either WNRC or ARM.<sup>14</sup>

(iii) Debra White Plume

Debra White Plume has provided an affidavit in support of her standing to intervene as of right both as an individual and as a basis for the representational standing of WNRC and ARM. Her affidavit indicates that she resides in Manderson, South Dakota, where she uses water from the Arikaree aquifer for personal, household, and domestic purposes, including gardening, irrigation, bathing, and drinking, as well as for ranching purposes, including maintaining livestock such as horses and buffalo. She notes further that the elk, deer, and antelope drink this water as do the birds and other life forms. *See CP Petition*, unnumbered Petitioner Declaration at 1 (Jan. 29, 2013 declaration of Debra White Plume) [hereinafter White Plume Declaration]. For their part, observing that Manderson is nearly 65 miles to the northeast of the MEA site, CBR and the Staff assert Ms. White Plume likewise lacks standing for basically the same reasons as applied to Ms. Cook's and Mr. McIntosh's claims of water usage-related injury in fact, i.e., that she has failed to establish a plausible water excursion pathway for contaminants from the MEA site to her property.

Although Ms. White Plume was admitted as a party to both the *Crow Butte North Trend* and *Crow Butte Renewal* proceedings based on the potential for water-usage impacts, as we have pointed out previously, *see supra* p. 276, that is not dispositive of her standing in this case. And, in fact, for the same reasons

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<sup>14</sup> While not necessarily binding in this instance, we note that Mr. McIntosh also failed to establish his standing relative to the Crawford CPF in the *Crow Butte Renewal* proceeding. *See Crow Butte Renewal*, LBP-08-24, 68 NRC at 710.

we found applicable to Ms. Cook and Mr. McIntosh in sections II.A.2.b(i)-(ii), above, we conclude that she has failed to meet her burden of demonstrating the requisite injury in fact based on the distance and location of her residence relative to the MEA so as to establish her individual standing or provide the basis for representational standing for either WNRC or ARM.

(iv) ARM

As outlined in the affidavit of its legal director David Frankel, ARM seeks to establish its representational standing in this proceeding based upon ARM's representation of the interests of Ms. Cook, which are asserted to provide her with the requisite standing. *See* CP Petition, unnumbered Petitioner Declaration at 1 (Jan. 29, 2013 declaration of David Frankel) [hereinafter Frankel Declaration]. As with Ms. Cook's assertion of individual standing, both CBR and the Staff oppose granting ARM standing as her representative. As we indicated in section II.A.2.b(i), above, Ms. Cook has been unable to show the requisite injury in fact so as to establish her individual standing.<sup>15</sup> Concomitantly, ARM lacks representational standing.<sup>16</sup>

In addition, however, ARM claims organizational standing as a basis for its admission as a party to this proceeding, an assertion both CBR and the Staff contest. In this regard, Mr. Frankel's affidavit states that ARM's "physical address" is in Chadron, Nebraska, with a post-office box mailing address in Pine Ridge, South Dakota. Frankel Declaration at 1. Further, the CP hearing petition describes ARM as a "[nongovernmental organization] based at Pine Ridge Indian Reservation founded to prevent abusive mining which is mining that does not comply with the International Precautionary Principle." CP Petition at 6.

As was noted by the licensing board in the *Dewey-Burdock* ISR case,<sup>17</sup>

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<sup>15</sup> While Mr. Frankel's affidavit mentions only Ms. Cook's individual standing as a basis for ARM's representational standing, *see* Frankel Declaration at 1, the affidavits of Mr. McIntosh and Ms. White Plume also state that they have authorized ARM to represent their interests, *see* McIntosh Declaration at 1; White Plume Declaration at 1. For the reasons provided in Sections II.A.2.b(ii)-(iii), above, however, those individuals likewise lack individual standing and so cannot provide a basis for ARM's representational standing.

<sup>16</sup> Although ARM was able to establish its representational standing in the *Dewey-Burdock* ISR proceeding, that was done on the basis of the individual standing showing of Mr. Frankel, *see Dewey-Burdock*, LBP-10-16, 72 NRC at 390, whose individual standing has not been alleged as a supporting basis for ARM's representational standing in this instance. In any event, it seems unlikely that the circumstances supporting standing for Mr. Frankel in the *Dewey-Burdock* proceeding would suffice here. *See id.* at 386 (finding standing on the basis of Mr. Frankel's use of water from the Inyan Kara aquifer at his Buffalo Gap, South Dakota residence located to the north of the Pine Ridge Reservation).

<sup>17</sup> Although ARM petitioned to intervene in the *Dewey-Burdock* case, it apparently did not seek organizational standing. *See id.* at 389.

organizational standing is footed in the capacity of an organization to show, consistent with the Supreme Court's decision in *Sierra Club v. Morton*, 405 U.S. 727 (1972), a discrete injury to its organizational interests. See *Dewey-Burdock*, LBP-10-16, 72 NRC at 389. For the reasons stated in section II.A.2.b(i), above, regarding the purported standing of Ms. Cook relative to the location of her Chadron home and Pine Ridge Reservation farm property, we find nothing Mr. Frankel has provided in connection with ARM's physical location that would establish any specific injury in fact to ARM as an organized entity so as to provide organizational standing. So too, ARM's purported interest as an organization in preventing abusive mining clearly is a generalized interest that will not support organizational standing. See *Dewey-Burdock*, LBP-10-16, 72 NRC at 389 (ruling organizational interest in protecting "the natural resources of the Black Hills of South Dakota with a focus on groundwater contamination from uranium mining" insufficient to establish organizational standing (quoting Consolidated Request for Hearing and Petition for Leave to Intervene, *Powertech (USA), Inc.* (Dewey-Burdock In Situ Uranium Recovery Facility), Docket No. 40-9075-MLA (Mar. 8, 2010) at 27)).

As a consequence, we conclude that ARM has failed to establish its standing as of right in this proceeding.

(v) WNRC

The affidavit provided by WNRC vice-chair Bruce McIntosh in support of the CP hearing petition indicates that WNRC seeks to establish its representational standing in this proceeding based upon WNRC's representation of Ms. Cook, whose interests have been asserted to provide her with the requisite standing. See McIntosh WNRC Declaration at 1. Having contested Ms. Cook's standing, both CBR and the Staff assert that WNRC also lacks representational standing. As we indicated in section II.A.2.b(i), above, Ms. Cook has been unable to demonstrate the requisite injury in fact so as to establish her standing.<sup>18</sup> WNRC thus lacks representational standing as well.<sup>19</sup>

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<sup>18</sup>Mr. McIntosh's affidavit on behalf of WNRC likewise mentions only Ms. Cook's individual standing as a basis for WNRC's representational standing, see McIntosh WNRC Declaration at 1, although the individual affidavits of Mr. McIntosh and Ms. White Plume also state that they have authorized WNRC to represent their interests, see McIntosh Declaration at 1; White Plume Declaration at 1. For the reasons set forth in Sections II.A.2.b(ii)-(iii), above, however, those two individuals lack individual standing and so cannot provide a basis for WNRC's representational standing.

<sup>19</sup>WNRC was able to establish its representational standing in the *Crow Butte North Trend* and the *Crow Butte Renewal* proceedings, but it did so on the basis of the standing showings of individuals who have neither sought to intervene in this proceeding nor indicated they are willing to allow WNRC to represent their interests here. See *Crow Butte N. Trend*, LBP-08-6, 67 NRC at 281-82 (WNRC's

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WNRC also maintains that it should be admitted to this proceeding as a party because it has organizational standing, a claim that CBR and the Staff challenge.<sup>20</sup> In apparent support of this claim, Mr. McIntosh states in his affidavit on behalf of WNRC that the organization's "physical address" and its post-office box mailing address are in Chadron, Nebraska. McIntosh WNRC Declaration at 1. Further, he declares that

WNRC has existed since its inception in 1983 for the sole purpose of participating in public hearings by regulatory agencies concerning permitting and licensing of the operations at Crow Butte Resources, Crawford, NE, and enforcement of such permits and licenses. As such, WNRC's organizational purpose is limited to the operations of Crow Butte Resources and its purpose specifically includes intervention in proceedings such as this proceeding.

*Id.*

Once again, for the reasons stated in section II.A.2.b(i), above, regarding the purported standing of Ms. Cook relative to the location of her Chadron home, nothing Mr. McIntosh has provided regarding WNRC's physical location vis-à-vis the MEA site is sufficient to establish any concrete injury in fact to WNRC's interests that would provide organizational standing. Additionally, for the reasons discussed below, we are unable to conclude that WNRC's stated organizational interest is one that is cognizable for the purpose of establishing organizational standing, i.e., is one that is more than "a mere 'interest in a problem,' no matter how longstanding the interest and no matter how qualified the organization is in evaluating the problem." *Sierra Club v. Morton*, 405 U.S. at 739.

Certainly, in his description of WNRC's purpose quoted above, Mr. McIntosh has attempted to bring a greater degree of specificity to that organization's interest in this proceeding than is usually the case for public interest entities that seek to establish their organizational standing in this agency's adjudications. His above-quoted declaration about the organization's "sole" purpose, however, is not consistent with this much more generalized description of WNRC's organizational purpose/interest provided in the CP hearing petition that his declaration allegedly supports:

[WNRC] is a Nebraska nonprofit which was formed in 1983 to protect the natural

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representational standing based on individual standing of Dr. Francis Anders); *Crow Butte Renewal*, LBP-08-24, 68 NRC at 709 (WNRC's representational standing based on individual standing of David Alan House).

<sup>20</sup> Although WNRC asserted in the *Crow Butte North Trend* and *Crow Butte Renewal* proceedings that it had organizational standing, the licensing boards there found WNRC had established its representational standing and did not reach the question of its organizational standing. See *Crow Butte N. Trend*, LBP-08-6, 67 NRC at 281-82; *Crow Butte Renewal*, LBP-08-24, 68 NRC at 709.

resources of Western Nebraska with a focus on groundwater contamination from uranium mining.

See CP Petition at 6-7. Given this seeming inconsistency in the information that has been provided, and WNRC's acknowledged participation in other recent ISR licensing proceedings, we have looked to see what, if any, representations WNRC has made in those proceedings regarding its organizational purpose. And as it turns out, it is this CP petition description, rather than the statement provided by Mr. McIntosh in his declaration, that WNRC previously has proffered when representing the nature of its organizational interest in the *Crow Butte North Trend* and *Crow Butte Renewal* cases in which WNRC also has sought to intervene.<sup>21</sup>

Based on the totality of the information before us,<sup>22</sup> we find that the WNRC statement of interest that is found in the CP petition is the more accurate description of WNRC's organizational interest relative to this proceeding. Moreover, that statement has the same generality problem that was identified by the *Dewey-Burdock* licensing board as rendering a purported organizational interest insufficient to establish organizational standing. See *Dewey-Burdock*, LBP-10-16, 72 NRC at 389; *supra* section II.A.2.b(iv). We thus conclude that WNRC lacks organizational standing to intervene in this proceeding.<sup>23</sup>

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<sup>21</sup> See Request for Hearing and Petition to Intervene, *Crow Butte N. Trend*, Docket No. 40-8943-MLA (Nov. 12, 2007), exh. A, at A-1 (statement of WNRC Board Chairman Buffalo Bruce that WNRC "was formed (1983) specifically to protect the natural resources of Western NE") (ADAMS Accession No. ML073240313); Affidavit, *Crow Butte N. Trend*, Docket No. 40-8943-MLA (Dec. 28, 2007), at 1 (statement of Bruce McIntosh that WNRC "was formed in 1983 to protect the natural resources of Western Nebraska with a focus on groundwater contamination from uranium mining") (ADAMS Accession No. ML080080289); Consolidated Request for Hearing and Petition for Leave to Intervene, *Crow Butte Renewal*, Docket No. 40-8943-OLA (July 28, 2008), unnumbered affidavit at 1 (declaration of WNRC Vice Chair Buffalo Bruce that the WNRC "was formed in 1982 to protect the natural resources of Western Nebraska with a focus on groundwater contamination from uranium mining") (ADAMS Accession No. ML082170525).

We also note relative to the items referenced above that, based on the mailing address in the various declarations in the *Crow Butte North Trend* and *Crow Butte Renewal* proceedings provided by the individual calling himself Buffalo Bruce, it seems apparent that this person and Bruce McIntosh are one and the same.

<sup>22</sup> Although the submissions cited above, *see supra* note 21, are not within the docket of this proceeding, they are publicly available in the agency's electronic hearing docket/ADAMS database system and relate directly to a matter we previously advised the participants was of interest to the Board, i.e., "any similarities or differences regarding the issues of standing and contention admissibility that may exist relative to any of the standing or admissibility determinations made in [the *Crow Butte North Trend*, *Crow Butte Renewal*, and *Dewey-Burdock*] ISR licensing cases." Licensing Board Memorandum and Order (Initial Prehearing Order) (Feb. 8, 2013) at 3 (unpublished).

<sup>23</sup> Agency cases routinely acknowledge the availability of organizational standing as of right based on an organization's own interests, as opposed to an organization's representation of the interests of

(Continued)

## **B. Contention Admissibility**

With these standing determinations in hand, we turn next to the question of the admissibility of the OST and CP contentions under 10 C.F.R. § 2.309(f)(1). For the reasons set forth in section II.A.2, above, because each of the individuals and organizations who make up the Consolidated Petitioners has failed to establish standing as of right under section 2.309(c), we find it unnecessary to address the admissibility of their five proffered contentions. On the other hand, having found that OST has established its standing as of right under section 2.309(c), we turn to the question of the admissibility of its six proffered contentions.

### **1. Contention Admissibility Standards**

Section 2.309(f)(1) of the Commission's rules of practice specifies the requirements that must be met for a contention to be deemed admissible. Specifically, a contention must provide (1) a specific statement of the legal or factual issue

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one or more of its members. *See supra* p. 269. And while the cases are legion in which claims of interest-based organizational standing have been denied, *see, e.g., EnergySolutions, LLC* (Radioactive Waste Import/Export Licenses), CLI-11-3, 73 NRC 613, 621-22 (2011); *Entergy Nuclear Operations, Inc.* (Palisades Nuclear Plant), CLI-08-19, 68 NRC 251, 266, 269-70 (2008); *Nuclear Management Co., LLC* (Monticello Nuclear Generating Plant), CLI-06-6, 63 NRC 161, 163 (2006), only rarely has organizational standing been granted to a nongovernmental entity, *see Entergy Nuclear Operations, Inc.* (Indian Point, Units 2 and 3), LBP-08-13, 68 NRC 43, 60 (2008) (concluding that, with standing of various organizations unchallenged by applicant or the Staff, each organization has demonstrated institutional injury to the organization itself and representational standing); *Atlas Corp.* (Moab, Utah), LBP-00-4, 51 NRC 53, 59 (2000) (finding no need to analyze standing of other petitioning organizations when public interest organization had clear representational standing, other than to note that each meets standing requirements in its own right or as representative of its members). As a consequence, the parameters associated with granting (rather than denying) organizational standing in an agency adjudicatory proceeding are still somewhat imprecise, although it appears that such standing could arise based on an asserted injury to a tangible asset, such as a building or land owned or regularly utilized by an organization, that is located near a proposed licensing activity, *see Palisades*, CLI-08-19, 68 NRC at 269-70 (determining that, in a license transfer proceeding, 3-mile distance between facility and organization's offices does not qualify for organizational standing); *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-94-3, 39 NRC 95, 102 n.10 (1994) (finding that, in a reactor decommissioning proceeding, a public interest group lacked organizational standing when its business address did not lie within 50 miles of the facility), or perhaps could be based on an organizational interest that has well-recognized institutional underpinnings, *see supra* note 7; *see also Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-03-2, 57 NRC 19, 26-27 (2003) (finding organizational standing based on the interest of two state power generation and transmission agencies as beneficiaries of antitrust license condition under consideration in proceeding), or perhaps an organizational statement of interest/purpose that has a specific focus on challenging the particular licensing authorization that is being sought in a specific agency proceeding. That being said, given our finding above about the overly generalized nature of WNRC's organizational interest, this is not a matter we need parse further in this proceeding.

sought to be raised; (2) a brief explanation of its basis; (3) a concise statement of the alleged facts or expert opinions, including references to specific sources and documents, that support the petitioner's position and upon which the petitioner intends to rely at hearing; and (4) sufficient information demonstrating that a genuine dispute exists in regard to a material issue of law or fact, including references to specific portions of the application that the petitioner disputes, or in the case when the application is alleged to be deficient, the identification of such deficiencies and supporting reasons for this belief. *See* 10 C.F.R. § 2.309(f)(1)(i), (ii), (v), (vi). In addition, the petitioner must demonstrate that the issue raised in the contention is both "within the scope of the proceeding" and "material to the findings the NRC must make to support the action that is involved in the proceeding." *Id.* § 2.309(f)(1)(iii), (iv). Failure to comply with any of these requirements is grounds for dismissing a contention. *See FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station, Unit 1), CLI-12-8, 75 NRC 393, 395-96 (2012). And, as is pertinent to this proceeding, NRC case law has further developed these requirements, as summarized below.

*a. Challenges to Statutory Requirements/Regulatory Process/Regulations*

An adjudication is not the proper forum for challenging applicable statutory requirements or the basic structure of the agency's regulatory process. *See Philadelphia Electric Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20, *aff'd in part on other grounds*, CLI-74-32, 8 AEC 217 (1974). Similarly, a contention that attacks a Commission rule, or which seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking, is inadmissible. *See* 10 C.F.R. § 2.335; *Potomac Electric Power Co.* (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 85, 89 (1974). This includes contentions that advocate stricter requirements than agency rules impose or that otherwise seek to litigate a generic determination established by a Commission rulemaking.<sup>24</sup> By the same token, a contention that simply states the petitioner's views about what regulatory policy should be does not present a litigable issue. *See Peach Bottom*, ALAB-216, 8 AEC at 20-21 & n.33.

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<sup>24</sup> *See Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 159 (2001); *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-93-1, 37 NRC 5, 29-30 (1993); *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), LBP-82-6, 16 NRC 1649, 1656 (1982); *see also Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 251 (1996); *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), LBP-91-19, 33 NRC 397, 410, *aff'd in part and rev'd in part on other grounds*, CLI-91-12, 34 NRC 149 (1991).

*b. Challenges Outside Scope of Proceeding*

All proffered contentions must be within the scope of the proceeding as defined by the Commission in its initial hearing notice and order referring the proceeding to a licensing board. *See* 10 C.F.R. § 2.309(f)(1)(iii); *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-00-23, 52 NRC 327, 329 (2000); *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-825, 22 NRC 785, 790-91 (1985). As a consequence, any contention that falls outside the specified scope of the proceeding must be rejected. *See Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-11-11, 74 NRC 427, 435 (2011).

*c. Need for Adequate Factual Information or Expert Opinion*

It is the petitioner's obligation to present factual allegations and/or expert opinion necessary to support its contention. *See* 10 C.F.R. § 2.309(f)(1)(v); *USEC Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 457 (2006). While a board may appropriately view a petitioner's supporting information in a light favorable to the petitioner, failure to provide such information regarding a proffered contention requires that the contention be rejected. *See Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 143, 155 (1991). Neither mere speculation nor bare or conclusory assertions, even by an expert, alleging that a matter should be considered will suffice to allow the admission of a proffered contention. *See Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003). If a petitioner neglects to provide the requisite support for its contentions, it is not within a board's power to make assumptions or draw inferences that favor the petitioner, nor may the board supply information that is lacking. *See Crow Butte N. Trend*, CLI-09-12, 69 NRC at 553; *Palo Verde*, CLI-91-12, 34 NRC at 155. Likewise, simply attaching material or documents as a basis for a contention, without setting forth an explanation of that information's significance, is inadequate to support the admission of the contention. *See Fansteel*, CLI-03-13, 58 NRC at 204-05.

*d. Insufficient Challenge to the Application*

All properly formulated contentions must focus on the license application in question, challenging either specific portions of or alleged omissions from the application (including the safety analysis report/TR and the ER) so as to establish that a genuine dispute exists with the applicant on a material issue of law or fact. *See* 10 C.F.R. § 2.309(f)(1)(vi). Any contention that fails directly to controvert the application or that mistakenly asserts the application does not address a relevant

issue will be dismissed. *See Crow Butte N. Trend*, CLI-09-12, 69 NRC at 557; *Am. Centrifuge Plant*, CLI-06-10, 63 NRC at 462-63.

## 2. *OST's Contentions*

With these standards in mind, as well as our previous recognition that no ruling on the CP contentions is required because those petitioners lack standing, *see supra* p. 283, we turn to the admissibility of each of the OST contentions, beginning with a recitation of the contention as it is specified in the OST hearing request.

### a. *Contention 1: Failure to Meet Applicable Legal Requirements Regarding Protection of Historical and Cultural Resources, and Failure to Involve or Consult the Oglala Sioux Tribe as Required by Federal Law*

The Application fails to meet the requirements of 10 C.F.R. §§ 51.60 and 51.45, and the National Environmental Policy Act because it lacks an adequate description of either the affected environment or the impacts of the project on archaeological, historical, and traditional cultural resources. The Application also fails to demonstrate compliance under the National Historic Preservation Act, and the relevant portions of NRC guidance included at NUREG-1569 section 2.4.

DISCUSSION: OST Petition at 11-16; CBR OST Answer at 9-11; Staff OST Answer at 18-25; OST Reply at 17-19; CBR Cultural Resources Response at 8-9; Staff Cultural Resources Response at 5-8.

RULING: *Admissible in part*, as denominated in Appendix A to this decision, and *inadmissible in part* in that this contention and its foundational support (1) are sufficient to establish a genuine material dispute adequate to warrant further inquiry regarding the adequacy of the CBR ER's description of either the affected environment or the impacts of the project relative to archaeological, historical, and traditional cultural resources; but (2) fail to establish a material dispute relating to the application relative to the matter of the ER's compliance with the tribal consultation requirement of NHPA § 106 as it is implemented in the context of the agency's NEPA process, *see* 10 C.F.R. § 2.309(f)(1)(vi); *supra* sections II.B.1.d.

With this contention, OST seeks to raise two concerns relative to the ER's discussion regarding cultural resources that might exist within the MEA site. The first is the question whether, in light of the 2012 cultural survey conducted on the MEA site at the behest of CBR that is the principal basis for the CBR ER's cultural resources discussion, the ER complies with the NRC's NEPA implementation requirements as they mandate an adequate description of any extant cultural resources on the MEA site and an analysis of the impact of the proposed ISR project on those resources. Second, OST claims that the process being utilized by

the Staff to identify and address cultural resource issues fails to comply with the provisions of the NHPA, as they are implemented through the agency's NEPA review process, in particular the section 106 requirement for tribal consultation.

Looking at the latter issue first, we find that previous Commission rulings on that matter require that this portion of OST contention 1 be dismissed as failing to raise a material dispute because this matter has been raised prematurely. In its review of the admissibility of similar concerns set forth in contentions in both the *Crow Butte North Trend* and the *Crow Butte Renewal* proceedings, the Commission noted that carrying out the NHPA § 106 consultation requirement, as implemented as part of the agency's NEPA review process, is a responsibility that accrues to the Staff rather than the applicant. As a consequence, according to the Commission, a contention seeking to contest how the consultation mandate is (or is not) being carried out is one that can be raised in the first instance only after the Staff's draft environmental impact statement (EIS), which presumably provides some discussion regarding that matter, has been issued. *See Crow Butte N. Trend*, CLI-09-12, 69 NRC at 564-66; *Crow Butte Renewal*, CLI-09-9, 69 NRC at 348-51. The Commission thus dismissed the tribal consultation contentions as prematurely filed, albeit without prejudice to their renewal following issuance of the Staff's draft EIS, a result recently emulated by the *Dewey-Burdock* licensing board in disposing of an OST contention raising an identical concern in that proceeding, *see Dewey-Burdock*, LBP-10-16, 72 NRC at 421-22. We reach the same result here.

As to the first question whether the ER's description and analysis of MEA site cultural resources is adequate, in their initial answers arguing for dismissal of this contention, both CBR and the Staff placed considerable reliance on the fact that, notwithstanding the identification of Native American cultural resources on both of CBR's North Trend and CPR sites, a 3-month-long cultural resources survey process and the resulting April 2011 and March 2012 reports prepared by an archaeological survey firm at the behest of CBR found no Native American cultural resource sites on the MEA site.<sup>25</sup> But, as we have already noted above, *see supra* p. 273, the survey conducted in late 2012 by SSN and CN representatives identified eleven sites on the MEA as potentially being Native American cultural

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<sup>25</sup>In their answers, neither CBR nor the Staff disputed whether, consistent with the agency's 10 C.F.R. Part 51 NEPA implementation regulations, OST can contest in this proceeding the adequacy of the CBR ER's cultural resources discussion. Certainly, such an OST challenge appears to be appropriate in light of the guidance in the Staff's ISR standard review plan indicating that an ISR applicant is to provide such information for Staff review, *see* NUREG-1569, "Office of Nuclear Materials Safety and Safeguards, NRC, Standard Review Plan for In Situ Leach Uranium Extraction License Applications," at 9-10, 2-9 to -12 (June 2003) (<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1569/sr1569.pdf>) [hereinafter NUREG-1569], and the board's analysis of just such a claim in the *Dewey-Burdock* proceeding, *see Dewey-Burdock*, LBP-10-16, 72 NRC at 417-18, 421.

resource sites. CBR and the Staff, however, assert that this recent information does not provide a sufficient basis for this aspect of OST contention 1. According to CBR, its contractor's two surveys and the SSN/CN survey fulfill any NHPA requirements to the extent those studies assess whether the identified sites are eligible for inclusion in the National Register of Historic Places, thereby depriving the contention of any expert support or any semblance of a material dispute that needs resolution. The Staff takes a similar tack, declaring that the reported results of the SSN/CN survey address, and in fact moot, any deficiency alleged in the OST contention.

In support of its original contention, OST provided the declaration of its Tribal Historic Preservation Officer stating that the presence of current or extinct water resources on the MEA create a strong likelihood that, contrary to the results reported in the CBR cultural resource survey reports, cultural resource sites not only exist within the MEA, but those sites need to be identified and the impact of the proposed ISR activities on those sites needs to be evaluated properly. *See* OST Petition, unnumbered exh. 7, at 2 (Declaration of Wilmer Mesteth). Given the nature of Native American aboriginal culture, in these circumstances this statement, in and of itself, appears sufficient to support this contention. But to whatever degree it might not be sufficient, the subsequent SSN/CN survey has shown the concern to be well founded, providing further, compelling support for this OST contention. Nor do we find persuasive the assertions by CBR and the Staff that, by identifying these sites, the second survey has essentially corrected any deficiencies in the original CBR-sponsored survey so as to "moot" any aspect of this contention challenging the adequacy of the original survey. At this stage of the proceeding, such a claim has the hallmarks of an attempt to obtain a Board "merits" determination regarding this contention, something the Commission has indicated is inappropriate at the contention admissibility stage. *See Diablo Canyon*, CLI-11-11, 74 NRC at 443 ("for the purposes of contention admissibility, we do not consider the merits of [a petitioner's] arguments").

Thus, consistent with the licensing board rulings in the *Crow Butte North Trend*, *Crow Butte License Renewal*, and *Dewey-Burdock* proceedings, we find that the recent archaeological survey discovery of potential Native American cultural resource sites on the MEA is sufficient to establish the admissibility of this portion of OST contention 1,<sup>26</sup> the terms of which are specified in Appendix A below.

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<sup>26</sup> Although (as we noted previously, *see supra* note 11) OST's action is unusual for a participant represented by counsel, nothing before us suggests that its failure to respond to the CBR and Staff answers to the Board's March 22 request for additional information constitutes OST's abandonment of this contention.



b. *Contention 2: Failure to Include Adequate Hydrogeological Information to Demonstrate Ability to Contain Fluid Migration*

The application fails to provide sufficient information regarding the geological setting of the area to meet the requirements of 10 C.F.R. § 40.31(f); 10 C.F.R. § 51.45; 10 C.F.R. § 51.60; 10 C.F.R. Part 40, Appendix A, Criteria 4(e) and 5G(2); the National Environmental Policy Act; and NUREG-1569 section 2.6. The application similarly fails to provide sufficient information to establish potential effects of the project on the adjacent surface and ground-water resources, as required by 10 C.F.R. § 51.45, NUREG-1569 section 2.7, and the National Environmental Policy Act.

DISCUSSION: OST Petition at 17-18; CBR OST Answer at 12-14; Staff OST Answer at 25-30; OST Reply at 20-22.

RULING: *Admissible*, as denominated in Appendix A to this decision, in that this contention and its foundational support are sufficient to establish a genuine material dispute adequate to warrant further inquiry.

With this issue statement, OST contests the adequacy of the hydrogeologic information provided in CBR's application, claiming that the data provided do not demonstrate that CBR can contain fluid migration. OST asserts further that CBR's application fails to provide sufficient information to define the geological setting of the area in the vicinity of the MEA and to establish adequately the potential effects of the project on the adjacent surface and groundwater resources. OST supports its contention by alleging four specific deficits in CBR's application: (1) the descriptions of the affected environment are insufficient "to establish the potential effects of the proposed [ISR] operation on the adjacent surface water and ground water resources"; (2) "a description of the 'effective porosity, hydraulic conductivity, and hydraulic gradient' of site hydrogeology," is absent along with "other information relative to the control and prevention of excursions"; (3) "an acceptable conceptual model of site hydrology adequately supported by the data presented in the site characterization" has not been adequately developed to demonstrate "with scientific confidence that the area hydrogeology, including horizontal and vertical hydraulic conductivity, will result in the confinement of extraction fluids and expected operational and restoration performance"; and (4) the ER contains "unsubstantiated assumptions as to the isolation of the aquifers in the ore-bearing zones." OST Petition at 17-18 (quoting NUREG-1569, at 2-20 to -21).

For the reasons set forth below, we conclude that OST has satisfied the requirements of 10 C.F.R. § 2.309(f)(1).

First, OST has presented "a specific statement of law or fact," *id.* § 2.309(f)(1)(i), namely, the allegation that "[t]he application fails to provide sufficient information regarding the geological setting of the [MEA] area." OST

Petition at 17. More specifically, OST has presented the four particular deficits that we enumerated in the paragraph above.

Second, OST has provided “a brief explanation of the basis for the contention.” 10 C.F.R. § 2.309(f)(1)(ii). OST explains that contention 2 is based on a number of NRC regulations, the opinion of Dr. Hannan LaGarry that accompanies OST’s petition, the Staff’s ISR standard review plan NUREG-1569, and United States Environmental Protection Agency (EPA) comments on the review process associated with other Wyoming-based ISR facilities. OST Petition at 17-18.

Third, there appears to be no dispute that contention 2 is within the scope of this proceeding. *See* 10 C.F.R. § 2.309(f)(1)(iii); *see also Dewey-Burdock*, LBP-10-16, 72 NRC at 426 (admitting similar OST Contention 3); *Crow Butte Renewal*, LBP-08-24, 68 NRC at 727 (admitting similar OST Contention D). And indeed, given the nature of the ISR process, we find it difficult to imagine a more relevant issue to an ISR licensing proceeding than the adequacy of the applicant’s analysis of hydrogeology.

Fourth, the issue presented by contention 2 “is material to the findings the NRC must make” in this licensing proceeding. 10 C.F.R. § 2.309(f)(1)(iv); *see also Dewey-Burdock*, LBP-10-16, 72 NRC at 426 (admitting similar OST Contention 3); *Crow Butte Renewal*, LBP-08-24, 68 NRC at 727 (admitting similar OST Contention D). Again, issues relating to hydrogeology are of paramount importance in ISR licensing proceedings. If CBR’s analysis of the hydrogeology of the MEA site is inadequate, as OST argues is the case in contention 2, that inadequacy would most certainly impact the NRC’s decision on whether, and under what terms, to grant CBR the license it seeks.

Fifth, OST has provided the alleged facts and expert support on which it relies to support contention 2. *See* 10 C.F.R. § 2.309(f)(1)(v). Namely, OST relies on the opinion of Dr. Hannan LaGarry, the contents of NUREG-1569, and EPA comments on ISR license review processes. CBR and the Staff challenge OST’s reliance on each of these sources of information, *see* CBR OST Answer at 14, Staff OST Answer at 26-29, but we find that OST’s reliance on these items is sufficient to satisfy section 2.309(f)(1)(v).

And in that regard, we observe that we do not believe that now is the appropriate time to probe the merits of Dr. LaGarry’s opinion. *See Diablo Canyon*, CLI-11-11, 74 NRC at 443. We do note, however, that Dr. LaGarry has substantial experience dealing with the geology of northwestern Nebraska and has presented his opinion that ISR operations at the MEA site likely would “contribute toxic heavy metal contaminants, including but not limited to uranium, through three pathways.” OST Petition, unnumbered exh. 9, at unnumbered p. 4 (Expert Opinion [of Hannan E. LaGarry, Ph.D.] on the Environmental Safety of In-Situ Leach Mining of Uranium Near Marsland, Nebraska) [hereinafter LaGarry Opinion]. Moreover, this argument does not appear to be merely speculative, as Dr. LaGarry, in providing his expert opinion regarding the geology of northwestern

Nebraska, explains how contamination through these pathways would occur. The Commission has made clear that section 2.309(f)(1)(v) “does not call upon the intervenor to make its case at this stage of the proceeding, but rather to indicate what facts or expert opinions, be it one fact or opinion or many, of which it is aware at that point in time which provide the basis for its contention.” Rules of Practice for Domestic Licensing Proceedings — Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,170 (Aug. 11, 1989). As such, relative to this contention, Dr. LaGarry’s opinion is sufficient to satisfy section 2.309(f)(1)(v).<sup>27</sup>

In addition, though, we do not consider OST’s above-referenced reliance on NUREG-1569 and the EPA’s ISR comments to be flawed, as CBR and the Staff suggest. We understand and appreciate that NUREG-1569 is merely a guidance document and thus is not legally binding. *See, e.g., Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-22, 54 NRC 255, 264 & n.37 (2001) (citing cases). We believe, however, that these NUREG provisions are informative to the degree they support the commonsense approach that technical analyses and conclusions should be presented in a scientifically defensible manner. This is an obvious and reasonable threshold when documenting technical arguments associated with a complex evaluation like the analysis of hydrogeologic and hydrologic impacts from in-situ geologic recovery of uranium. In addition, guidance documents, while not binding, “describe an approach to compliance with [NRC] rules that is acceptable to the NRC,” and so can be informative for that reason. *AREVA Enrichment Servs., LLC* (Eagle Rock Enrichment Facility), CLI-11-4, 74 NRC 1, 8 n.35 (2011).<sup>28</sup> In addition, we find OST’s reference to the

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<sup>27</sup> Although we note that Dr. LaGarry has provided his input in the form of an “expert opinion” rather than an affidavit, neither CBR nor the Staff has raised any questions about the form or authenticity of this submission. Neither did the *Crow Butte Renewal* board when a document bearing the same label and Dr. LaGarry’s name was proffered by OST in that proceeding. *See Crow Butte Renewal*, LBP-08-24, 68 NRC at 727. Nor do we here.

<sup>28</sup> It is, of course, evident that a variety of technical and environmental subjects must be addressed in, and a detailed discussion about those subjects generally is required for, an application seeking authorization for a significant nuclear materials facility such as the MEA. It thus is not surprising that the Staff, as the agency organization with the primary responsibility for application review, provides various guidance documents, including regulatory guides, standard review plans, and Staff-sponsored generic licensing issue analyses, that outline what those subjects are and how they might be treated. In essence, these let an applicant know about the interpretations and expectations that the Staff has relative to an application’s compliance with the relevant requirements found in Title 10 of the *Code of Federal Regulations* as those regulatory mandates implement the applicable dictates of the Atomic Energy Act, NEPA, and other congressional enactments.

And while it is true that these guidance documents are not binding upon an applicant, it also seems apparent that an applicant that wants to pursue an alternative compliance path, as well as a petitioner that wants to assert in a contention that some compliance mechanism is needed other than  
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EPA comments provides some context for, and perspective on, OST's concerns about ISR activities. If nothing else, it shows that OST's misgivings are not an isolated instance.

Sixth, and finally, we conclude that contention 2 presents a genuine dispute between OST and CBR's application on a material issue of law or fact. 10 C.F.R. § 2.309(f)(1)(vi). We have already stated that the issue presented in contention 2 is material to this proceeding. Moreover, we consider the dispute genuine because it is adequately supported, as discussed *supra*, and, as we explain *infra*, is specific enough to allow CBR to understand what portions of its application are being challenged, notwithstanding the CBR and Staff assertions that the contention is inadmissible because it lacks specificity and fails to point to the specific portions of the application that it is challenging.

While it is true that OST does not cite to any specific portion of the CBR application to support its allegations, this is not an illogical or unreasonable approach in this particular instance. OST is essentially pointing to all sections of the application relating to hydrogeology as the source of its concern about alleged inadequacies that OST perceives as all-encompassing deficiencies in the application. The purpose for the requirement in section 2.309(f)(1)(vi) that petitioners reference specific sections of an application appears to be twofold: (1) to demonstrate to the presiding officer that the petitioner's dispute with the applicant is indeed genuine and thereby assist the presiding officer in determining the scope of a potential evidentiary hearing; and (2) to put the applicant on notice regarding what portions of the application it needs to defend.<sup>29</sup> While contention

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that provided for in the guidance document, must provide an explanation as to why this guidance is not sufficient/appropriate. Also, not surprising is that applicants and the Staff seek to rely upon an applicant's unchallenged compliance with such Staff guidance as dispositive of a contention raising an issue about whether the applicant has met the particular regulatory requirement addressed by that guidance. *See* Staff OST Answer at 36 (contending contention not admissible as failing to challenge applicant's reliance on NUREG/CR analysis to address tornado hazard concerns). Nor is it surprising that an applicant or the Staff would question whether a petitioner has provided adequate support for its claim regarding an applicant's failure to follow Staff guidance. *See id.* at 29 (asserting petitioner has not shown a basis for claim of applicant's noncompliance with Staff NUREG standard review plan guidance). What is surprising, however, is the assertion that the claimed failure of an applicant to meet the criteria in a Staff guidance document is facially insufficient to support an admissible contention, *see id.* (asserting alleged failure to meet NUREG criteria, which is not a requirement, is insufficient to support admissible contention), a misdirected averment that is inconsistent with the argument that applicant compliance with such guidance provides a basis for denying a contention.

<sup>29</sup> *Cf. International Uranium (USA) Corp.* (Receipt of Material from Tonawanda, New York), LBP-98-21, 48 NRC 137, 142 n.7 (1998) ("A simple reference to a large number of documents is not enough to put the parties on notice as to the basis for intervention; rather, a petitioner must clearly identify and summarize the facts being relied on [in] the specific portions of the documents cited.") In other words, the purpose of the requirement in 10 C.F.R. § 2.309(f)(1)(v) that a petitioner state with

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2 may not be drafted as clearly as we might have wished, it is sufficient in these circumstances to satisfy the apparent dual purposes of section 2.309(f)(1)(vi).

In making this determination, we do not in any way seek to marginalize the importance of this admissibility prerequisite. Indeed, requiring that a petitioner demonstrate that a contention presents a genuine dispute prevents a licensing board (and the participants) from wasting limited resources on adjudicating frivolous contentions. And requiring that a petitioner point to specific portions of the application allows (1) the Board to determine what issues it must probe at an evidentiary hearing; (2) the applicant to determine what areas of its application it must defend; and (3) the Staff to determine what issues it may need to consider and address more carefully in its EIS or safety evaluation report. What we do recognize, however, is that a petitioner can, in certain limited circumstances, put the other participants and the Board on adequate notice of what sections of the application are being challenged even when the petitioner does not explicitly cite those sections in its petition.

Here, a commonsense reading of OST's petition makes abundantly clear which sections of CBR's application it is challenging, namely those sections pertaining to CBR's discussion of the hydrogeologic conditions at and around the MEA site and CBR's discussion of fluid confinement at the site. It is apparent to us that OST is challenging section 3.4.3.2, "Aquifer Testing and Hydraulic Parameter Identification Information," and section 3.4.3.3, "Hydrologic Conceptual Model for the Marsland Expansion Area." *See* 1 ER at 3-40 to -45. Indeed, CBR undercuts its own argument regarding the vagueness of OST's petition, given that CBR's answer indicates the applicant knew exactly which sections to defend. *See* CBR OST Answer at 12-13 (citing and defending 1 ER at 3-41, 3-44 to -45). So, while OST may not have cited to specific portions of CBR's application, OST nonetheless pled its contention with enough specificity to alert CBR to the portions of its application that it will be called upon to defend.

In addition, while it is clear to us that CBR and the Staff both knew which portions of the ER OST has challenged, neither CBR nor the Staff has conclusively shown where in the application there is, as OST asserts there should be, a scientifically defensible characterization of onsite and offsite hydrogeology to ensure confinement of the extraction fluids. For instance, CBR makes much of one pumping test performed in the ore zone (i.e., the Chadron Formation) to define the production yield and, according to CBR, to demonstrate hydraulic isolation between the production zone and the overlying aquifer (i.e., the Brule Formation). *See id.* Yet without referencing any technical support regarding the adequacy of just one pumping test as being sufficient to support its conclusion, CBR declares

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specificity the facts and opinions it intends to rely on at hearing is to put the parties on notice about the arguments the petitioner intends to make at hearing. We see no reason that this same logic would not apply to section 2.309(f)(1)(vi).

that because this one finite-duration test showed no discernible responses in the overlying aquifer, that test supports the conclusion that aquifer confinement exists between the hydrogeologic units for continuous ISR operational pumping. *Id.* at 13. Thus, notwithstanding OST's stated concern about the adequacy of this single test, CBR has not shown that the rate and duration of the pumping test was adequate to represent the hydraulic stress that will be placed on the Chadron Formation ore zone during long-term operational pumping. Furthermore, CBR has made no attempt to show that this pumping test (or other investigations CBR performed) defines the hydraulic characteristics of the other confining layers and aquifers at the MEA site.<sup>30</sup>

For its part, the Staff points to the fact that

CBR describes site hydrogeology, including aquifer properties such as hydraulic gradient and hydraulic conductivity, in section 2.7.2 of the TR. CBR provides the estimated thickness and extent of confining units in the same section. Also, in section 2.7.2.3 of the TR (3.4.3.3 of the ER), CBR discusses the conceptual model of site hydrology.

Staff OST Answer at 29. While this summary description of the cited materials is accurate, the Staff provides no explanation of how these descriptions are sufficient to characterize the site adequately for assessing the viability of ISR operations. Nor could the Staff likely make such a representation at this point given it is just beginning its technical review of the application.

In sum, it is apparent to us that both CBR and the Staff (1) were adequately apprised of those portions of the application that OST was challenging; and (2) have not presented any information that persuasively counters the notion that this OST issue statement presents a genuine dispute with the application. As such, we must conclude that contention 2 meets the requirements of section 2.309(f)(1)(vi) as well.

Having thus reviewed the various elements of 10 C.F.R. § 2.309(f)(1), we find that contention 2 is admissible as satisfying those tenets. Contention 2 raises a genuine material dispute with CBR's application by appropriately posing several complex technical issues concerning the adequacy of the ER's hydrogeologic

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<sup>30</sup> We think it worth noting that added to this is the circumstance that six additional items presented by CBR as evidence for confinement seem to support rather than refute OST's arguments. CBR's use of imprecise qualifiers such as "[hydraulic head data] *indicate* strong vertically downward gradients," "particle size distribution results *suggest* a maximum *estimated* hydraulic conductivity," "vertical flow is *expected* to be low," and "[vertical conductivity value] is *likely to be* even lower" are nothing more than general, provisional statements that lack technical support. CBR OST Answer at 13 (emphasis added). Indeed, these broad-based statements seem to raise more questions about site characterization than they answer and suggest the need for a merits-based inquiry on the matter of extraction fluid confinement that is best achieved through the hearing process.

characterization of the MEA site and its environs that cannot be resolved at this stage of the adjudicatory process. Instead, the matters raised in OST contention 2 must await further consideration prior to their resolution, either by summary disposition or an evidentiary hearing during which the Board can obtain and perform a merits-based review of testimony from the participants' expert witnesses.

*c. Contention 3: Inadequate Analysis of Groundwater Quantity Impacts*

The application violates the National Environmental Policy Act in its failure to provide an analysis of the ground water quantity impacts of the project. Further, the application presents conflicting information on ground water consumption such that the water consumption impacts of the project cannot be accurately evaluated. These failings violate 10 C.F.R. § 40.32(c), 40.32(d), and 51.45.

DISCUSSION: OST Petition at 18-19; CBR OST Answer at 14-16; Staff OST Answer at 30-32; OST Reply at 22-23.

RULING: *Inadmissible*, in that this contention and its foundational support fail to present factual allegations and/or expert opinion necessary to support this contention and are insufficient to show that a genuine dispute on a material factual or legal issue exists so as to warrant admission of the contention. *See* 10 C.F.R. § 2.309(f)(1)(v), (vi); *supra* sections II.B.1.c, d.

With this contention, OST contests the failure of CBR to evaluate groundwater impacts from ISR activities at the MEA, claiming that CBR presented conflicting information on the quantity of groundwater consumption. Declaring that the opinion of Dr. LaGarry sets forth “the primary concerns related to the application’s lack of credible analysis of ground water quantity impacts based upon lack of knowledge as to the Stratigraphy of Water-Bearing Rocks in Northwestern Nebraska,” OST makes the claim that the application fails to meet agency NEPA requirements by not providing reliable and accurate information on groundwater consumption and so fails to establish that CBR procedures are adequate to protect human health and safety and the environment. OST Petition at 19.

CBR and the Staff maintain, however, that this contention fails to demonstrate the requisite material dispute with the application. Both point out that the ER does, in fact, address groundwater consumption. The Staff notes that “CBR discusses groundwater quantity (consumption) impacts in Section 7.2.5.1 of the TR ([4] TR at 7-12) and Section 4.4 of the ER ([4] ER at 4-9),” Staff OST Answer at 30, while CBR declares that the ER states that the quantified groundwater consumption from ISR operation of 0.5 to 2.0% of the total mining flow is estimated to have “minimal” drawdown effect on the Chadron aquifer, CBR OST Answer at 15 (citing 4 ER at 4-10) (ADAMS Accession No. ML12160A518). Both CBR and the Staff also declare that Dr. LaGarry’s expert opinion is silent on the issue of

water consumption, the Staff noting in particular that OST has not provided the requisite support for its claim. According to the Staff, OST does not explain how Dr. LaGarry's description of the stratigraphy has any relation to this contention in that the LaGarry opinion does not address groundwater quantity impacts at all. And while again recognizing, as with OST contention 2, that the *Dewey-Burdock* board admitted a contention identical to OST contention 3, the Staff nonetheless asserts that the expert in that case identified issues with water usage and cited specific portions of the application with which he disagreed, something the Staff asserts OST has failed to do in this proceeding. *See* Staff OST Answer at 31-32.

OST has failed to point out where in the CBR application the alleged discrepancy regarding groundwater quantity resides. Indeed, OST's cursory reference in its contention to potential groundwater quantity impacts is not substantiated by other information either in OST's petition or in its expert's written opinion. In its reply, OST does argue that both the CBR and Staff answers regarding the admissibility of this contention go to the merits of the issue, rather than the admissibility of the proffered contention. This recognized precept, however, does not excuse a petitioner from providing a sound basis for its contention in its petition or in an expert affidavit or other supporting information that specifically corroborates the contested issues framed by the contention. *See Luminant Generation Co., LLC* (Comanche Peak Nuclear Power Plant, Units 3 and 4), CLI-11-9, 74 NRC 233, 244 (2011). As a consequence, a mere allegation of conflicting application information on groundwater quantity consumption at the site without providing some specific examples of this conflict with reference to the application is insufficient to demonstrate the requisite material dispute. Certainly, Dr. LaGarry's mention of the potential ISR impacts to groundwater *quality* in the context of the complex hydrogeologic setting of the MEA site does not substitute for the lack of any apparent discussion in his opinion about groundwater *quantity* (i.e., consumption) impacts associated with ISR activities at the site.

For these reasons, OST's petition to admit contention 3 dealing with groundwater quantity impacts is denied for failing to provide adequate supporting information and to show a material dispute as required by 10 C.F.R. § 2.309(f)(1)(v), (vi).

*d. Contention 4: Requiring the Tribe to Formulate Contentions Before an EIS Is Released Violates NEPA*

The procedure used by NRC to consider the Crow Butte application fails to satisfy the public participation and informed decision-making mandates of NEPA. The procedural requirements of NEPA are designed to benefit those who participate in agency decision-making processes and to require that the agency take a "hard look" at the impacts, alternatives, mitigation measures, and other aspects of a federal action at the earliest stages of the decision process, in recognition that when a "decision



is made without the information that NEPA seeks to put before the decision maker, the harm that NEPA seeks to prevent occurs.” See: *Sierra Club v. Marsh*, 872 F.2d 497, 500 (1st Cir. 1989) quoting *Commonwealth of Massachusetts v. Watt*, 716 F.2d 946 at 953 (1st Cir. 1983)[.]

By contrast, the procedure used in the present proceedings denies the Tribe and the NRC the information that a NEPA analysis provides. Importantly, this interdisciplinary analysis and information is provided during the NEPA process by the applicant, staff, and members of the public. All of these sources of information are recognized by NEPA, but the Tribe is prejudiced here when significant sources of information are not available until the NRC has taken final action to accept or deny its contentions. It is of no consequence that the NRC provides an opportunity to seek permission to pursue new or rejected contentions later in the proceedings, based on information revealed in the NEPA analysis. See: *Id.* (“Once large bureaucracies are committed to a course of action, it is difficult to change that course — even if new, or more thorough, NEPA statements are prepared and the agency is told to ‘redecide.’”).

DISCUSSION: OST Petition at 19-21; CBR OST Answer at 16; Staff OST Answer at 32-33; OST Reply at 23-27.

RULING: *Inadmissible*, in that this contention and its foundational support raise matters that impermissibly challenge a Commission rule and so are outside the scope of this proceeding. See 10 C.F.R. § 2.309(f)(1)(iii); *supra* sections II.B.1.a, b.

In support of this contention, OST asserts that NEPA’s procedural requirements are intended to benefit those participating in agency decisionmaking processes as well as to ensure the agency has taken a “hard look” at the impacts, alternatives, and mitigation measures associated with a proposed agency action and that an agency decision regarding such an action is deficient if it is made without the information that the NEPA process is intended to generate. According to OST, however, the agency’s procedural construct for submitting contentions raising NEPA-related challenges to a proposed licensing action fails to fulfill these fundamental NEPA principles. To meet the Part 2 mandates that govern the timeliness and admissibility of any contentions raising NEPA-related matters, OST acknowledges it generally is required to contest the applicant’s ER, as opposed to the Staff’s draft or final EIS. But this procedural scheme, OST maintains, is both a waste of the agency and OST resources and counterproductive to the NEPA purpose of providing the agency’s environmental decisionmaking process with all significant relevant information.

We conclude, however, that, given the current structure of the agency’s adjudicatory process, this OST claim clearly is not litigable in this proceeding. For the reasons asserted by CBR and the Staff, and as the *Dewey-Burdock* licensing board recognized relative to an essentially identical OST-lodged contention, *see*

*Dewey-Burdock*, LBP-10-16, 72 NRC at 435-38, this contention is a challenge to the agency's rules, specifically 10 C.F.R. § 2.309(f)(2), that, in the absence of a section 2.335 waiver request, which OST has not submitted, this Board cannot consider. OST thus must avail itself of another agency process, i.e., a rulemaking petition, *see* 10 C.F.R. § 2.802, if it wishes to pursue this concern.<sup>31</sup>

*e. Contention 5: Failure to Consider Connected Actions*

The Crow Butte expansion proposal to further conduct ISL operations activities is being considered by multiple federal agencies. However, NRC, the lead agency for purposes of NEPA — has failed [to] engage these other agencies and therefore has failed to comply with the “action-forcing” mandate and purpose of NEPA.

DISCUSSION: OST Petition at 21-22; CBR OST Answer at 17-18; Staff OST Answer at 33-35; OST Reply at 27-28.

RULING: *Inadmissible*, in that this contention and its foundational support fail to present factual allegations and/or expert opinion necessary to support this contention and are insufficient to show that a genuine dispute on a material factual or legal issue exists so as to warrant admission of the contention. *See* 10 C.F.R. § 2.309(f)(1) (v), (vi); *supra* sections II.B.1.c., d.

Although this contention is worded generally, it is apparent from the supporting basis information supplied by OST that it has a very specific focus, which is what is of interest to us in determining its admissibility. *See Crow Butte N. Trend*, CLI-09-12, 69 NRC at 553 (observing that to define scope of admitted contention properly, board should have specified which bases were admitted); *see also Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-899, 28 NRC 93, 97 (1988) (“The reach of a contention necessarily hinges upon its

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<sup>31</sup>In the NEPA realm, for licensing adjudications conducted under what are, for all practical purposes, the default hearing procedures of 10 C.F.R. Part 2, Subpart L, it does not seem untoward to consider whether there are avenues to eliminate what has become, with the truncated Subpart L discovery process, a virtual adjudicatory “dead zone” during the often-lengthy period between the admission of ER-based contentions and the Staff's issuance of a draft EIS. One way would be to have any NEPA-based contentions first filed after the Staff's draft EIS is issued. This change, which seemingly would go a long way toward addressing OST's concern about ensuring more timely and cost-effective intervenor input, also could make the hearing process more efficient by eliminating the oft-invoked need to amend ER-focused contentions based on the draft EIS, while still affording the Staff some opportunity to account in its final EIS for any issues raised in an adjudicatory proceeding. Nor would such a revision appear to run afoul of the general principle that the application, not the Staff's review, is to be the focus of a licensing adjudication, given that the responsibility for fulfilling NEPA's requirements ultimately rests with the agency, not the applicant. *See Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-728, 17 NRC 777, 807, *review denied*, CLI-83-32, 18 NRC 1309 (1983). Be that as it may, if this is a matter OST wishes to pursue further, it must do so in the rulemaking context.

terms coupled with its stated bases.”), *aff’d sub nom. Massachusetts v. NRC*, 924 F.2d 311 (D.C. Cir. 1991). And the focus of this OST concern is CBR’s plan to employ a deep injection well for disposal of hazardous materials, which OST asserts is a “connected action” to the MEA, along with the responsibility of the NRC and the EPA to assess this proposal as part of their respective NEPA review and purported well permitting processes.

Initially, in contesting this contention’s admissibility, both CBR and the Staff make the point that it is the State of Nebraska Department of Environmental Quality (NDEQ), rather than EPA, that is responsible for issuing a Class I underground injection control (UIC) permit that would authorize CBR to dispose of facility waste using a deep injection well. Also, according to CBR, the possibility of a deep injection well being utilized for waste disposal and its potential impacts is discussed in various portions of its ER and TR, thereby nullifying what is essentially a contention of omission. Finally, according to the Staff and CBR, like the NHPA § 106 cultural consultation contentions rejected by the Commission in the *Crow Butte North Trend* and *Crow Butte Renewal* proceedings and a similar OST contention that was ruled inadmissible by the *Dewey-Burdock* licensing board, this contention is essentially a challenge to the Staff’s review process rather than a challenge to the ER and so must await, at a minimum, the issuance of the Staff’s initial environmental review document.

As is reflected in ER Table 1.5-2, which is cited by OST as support for its contention, *see* OST Petition at 22 (citing 1 ER at Table 1.5-2 (Environmental Approvals for Crow Butte Project)), and consistent with section 147.1401 of Title 40 of the *Code of Federal Regulations* as it implements EPA’s authority under section 1422 of the Safe Drinking Water Act, 42 U.S.C. § 1422, the NDEQ is the EPA-approved permitting authority for Class I injection wells within the state and is the regulatory entity from which CBR must seek and obtain the UIC permit necessary to allow CBR to operate a deep injection well at the MEA site. Thus, the OST premise that EPA has some type of NEPA responsibility in connection with the UIC permitting process that NRC must seek to incorporate into this proceeding is mistaken and fails to allege a material dispute with the CBR application. Moreover, to the degree that OST’s contention might be considered to be challenging either the omission from, or the adequacy of, the ER’s impacts analysis regarding the proposed deep disposal well on the MEA site, neither of these claims would provide a basis for contention admission. The ER does, in fact, contain such an analysis, *see, e.g.*, 4 ER at 4-11, 4-45, and neither OST’s contention nor the supporting technical opinion of Dr. LaGarry makes any attempt to contravene any part of that analysis.

Finally, as is reflected in the determination of the *Dewey-Burdock* board on an almost identical contention in that proceeding, *Dewey-Burdock*, LBP-10-16, 72 NRC at 438-40, as well as the recent consideration by the *Levy* combined license board of a post-draft EIS challenge to the Staff’s reliance on a state water usage

permitting process relative to the adequacy of the Staff's NEPA finding on the environmental impacts of potential power reactor facility groundwater usage, *see Progress Energy Florida, Inc.* (Levy County Nuclear Power Plant, Units 1 and 2), LBP-13-4, 77 NRC 107, 175 n.77 (2013), any OST NEPA-based challenge to the efficacy of, or the Staff's reliance on, the Nebraska DEQ UIC permitting process relative to the Staff's environmental review, must await the Staff's initial environmental review document.<sup>32</sup>

*f. Contention 6: The Environmental Report Does Not Examine Impacts of a Direct Tornado Strike*

The Environmental Report provides an encyclopedic recital of considerable irrelevant information, but fails to provide information on reasonably foreseeable impacts of the proposal. ER 3-66[.] As one example, although tornado strikes are common occurrences in the region, there is no recognition of this reasonably foreseeable impact, even though it is coupled with catastrophic consequences. See <http://www.crh.noaa.gov/unr/?n=svrtor> NOAA Rapid City regarding tornado preparedness in region surrounding Rapid City, South Dakota). This is but one example of the applicant's failure to provide a complete Environmental Report and the NRC failure to comply with the NEPA requirements at the earliest stages of the proceedings.

DISCUSSION: OST Petition at 22-24; CBR OST Answer at 18-19; Staff OST Answer at 35-37; OST Reply at 28-29.

RULING: *Inadmissible*, in that this contention and its foundational support fail to present factual allegations and/or expert opinion necessary to support this contention and are insufficient to show that a genuine dispute on a material factual

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<sup>32</sup>In that regard, the Board notes that on the Staff's website page describing its environmental and safety review schedules for this proceeding, *see* Application Review Schedule for Marsland, <http://www.nrc.gov/materials/uranium-recovery/license-apps/marsland/marsland-schedule.html> (last visited May 10, 2013), the Staff indicates that its initial environmental review document may be a draft environmental assessment (EA) rather than a draft supplemental EIS, as has been issued relative to a number of other ISR facilities, *see, e.g.*, Office of Federal and State Materials and Environmental Management Programs, NRC, [Draft EIS] for the Ross ISR Project in Crook County, Wyoming; Supplement to the Generic [EIS] for In-Situ Leach Uranium Milling Facilities, NUREG-1910 (supp. 5 Mar. 2013) (ADAMS Accession No. ML13078A036). As 10 C.F.R. § 51.31 makes clear, such an assessment can be the basis of a finding under section 51.32 that the proposed agency action will not have a significant effect upon the environment such that a full-blown EIS (or supplemental EIS) is not required. And, of course, a contention challenging the adequacy/propriety of a Staff determination to prepare an EA in lieu of a supplemental EIS would need to await the issuance of the draft EA as well. *See Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), LBP-00-19, 52 NRC 85, 93-98 (2000) (admitting post-EA submitted contention challenging Staff's determination to issue EA rather than EIS).

or legal issue exists so as to warrant admission of the contention. *See* 10 C.F.R. § 2.309(f)(1) (v), (vi); *supra* sections II.B.1.c, d.

Citing a 1991 incident in which a tornado struck and damaged a number of buildings at the now-shuttered-and-being-decommissioned Fansteel rare earths extraction facility in Oklahoma, OST asserts that the possibility that a tornado might strike the MEA site is a foreseeable one and that the CBR ER fails to discuss the impacts of such an event. Both CBR and the Staff maintain, however, that the ER does have a discussion of the impacts of a tornado strike, so that this attempt by OST to gain admission of a contention of omission is unavailing.

The true nature of this issue statement as a contention of omission is apparent from the last sentence of its basis, as provided by OST:

Where it is reasonably foreseeable that a tornado could strike the proposed ISL facility and damage the control facilities, with the associated winds dispersing toxic and radioactive materials across the landscape, the NRC and the applicant have ignored an important, and foreseeable, environmental impact with potentially catastrophic consequences.

OST Petition at 24. Yet, as both CBR and the Staff point out, within the CBR ER discussion of “Natural Disaster Risk,” the possibility of tornadic dispersal of toxic and radioactive materials has not been ignored. In that regard, the ER states that

the primary hazard from these natural events was from dispersal of yellowcake from a tornado strike and failure of chemical storage facilities and the possible reaction of process chemicals during either event. [NUREG]/CR-6733 recommended that licensees follow industry best practices during design and construction of chemical facilities. CBR is committed to following these standards.

4 ER at 4-42; *see also* 4 TR at 7-36 (ADAMS Accession No. ML12160A531). There thus is a discussion in the ER (and the CBR TR as well) regarding the possibility of both chemical and radiological impacts from a tornado, the nature of which it indicates are described in more detail in NUREG/CR-6733, a study performed at the behest of the Staff by the Center for Nuclear Waste Regulatory Analysis (CNWRA) to define the risks associated with ISR facility operations, *see* CNWRA, A Baseline Risk-Informed, Performance-Based Approach for In Situ Leach Uranium Extraction Licensees, NUREG/CR-6733 (Sept. 2001) (ADAMS Accession No. ML012840152) [hereinafter NUREG/CR-6733]. Therefore, OST contention 6 cannot move forward as a contention of omission. Further, even if considered as a contention attempting to challenge the adequacy of this ER discussion on tornado impacts, other than to reference the Fansteel event that involved an entirely different type of facility, OST has made no effort to contest the substance of the ER discussion, or the associated NUREG analyses, of either

the chemical or radiological impacts of a tornado strike at an ISR facility.<sup>33</sup> As a result, this contention cannot be admitted.

### III. PROCEDURAL/ADMINISTRATIVE MATTERS

Having thus determined in section II, above, that petitioner OST has established standing and has set forth at least one admissible contention, OST is admitted as a party to this proceeding. Consequently, below we set forth procedural guidance for further litigation regarding OST's admitted contentions.

#### A. General Guidance

Given there was no request in OST's hearing petition that the Board ask the Commission for permission to conduct this proceeding under the procedures specified in 10 C.F.R. Part 2, Subpart G, *see Crow Butte N. Trend*, CLI-09-12, 69 NRC at 571-73, unless all parties agree that this proceeding should be conducted pursuant to 10 C.F.R. Part 2, Subpart N, this proceeding will be conducted in accordance with the procedures of 10 C.F.R. Part 2, Subparts C and L. Assuming all the parties currently do not consent to conducting this proceeding under Subpart N, the parties should hold a conference within 10 days of the date of this issuance to discuss their particular claims and defenses and the possibility of settlement or resolution of any part of this proceeding and to make arrangements for the required disclosures under 10 C.F.R. § 2.336(a).<sup>34</sup>

The Board will oversee the discovery process through status reports and/or conferences, and expects that each of the parties will comply with the process to the maximum extent possible, with the understanding that failing to do so will result in appropriate Board sanctions.<sup>35</sup>

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<sup>33</sup>In the NUREG/CR-6733 impacts analysis referenced in the ER, CNWRA declares the possible reactivity of dispersed stored chemicals on an ISR site or the exposure to dispersed yellowcake from 110 55-gallon drums are the bounding tornado-generated accident sequences that need to be considered for an ISR site. *See* NUREG/CR-6733, at 4-55 to -56. To contest the merits of this impacts analysis, among other things OST could have challenged whether, relative to the MEA site, the impacts outlined in the CNWRA study and, in the case of a possible chemical dispersal, proposed mitigation measures, had, in fact, been correctly determined or whether those chemical and radiological accident sequences indeed are bounding. OST, however, has made no substantive challenge to the CNWRA analysis upon which CBR relied in its ER.

<sup>34</sup>Among the items to be discussed is whether the Staff's section 2.336(b) hearing file can be provided electronically via the NRC website sooner than 30 days from the date of this issuance.

<sup>35</sup>In this regard, when a party claims a privilege and withholds information otherwise discoverable under the rules, the party shall expressly make the claim and describe the nature of what is not being

*(Continued)*

Pursuant to 10 C.F.R. § 2.332(d), the Board is to consider the Staff's projected schedule for completion of its safety and environmental evaluations in developing the hearing schedule. Accordingly, on or before *Friday, May 17, 2013*, the Staff shall submit to the Board through the E-Filing system a written estimate of its current projected schedule for completion of its safety and environmental evaluations, including, but not limited to, its best estimate of the dates for issuance of any open item and final safety evaluation reports and the draft and final supplemental EIS or EA evaluations relative to the MEA facility.

**B. Prehearing Conference to Establish General Schedule for the Proceeding**

The Board thereafter will conduct a prehearing conference to discuss initial discovery disclosures, scheduling, and other matters on a date to be established by the Board in a subsequent order. The parties should be prepared to address the following matters at the prehearing conference:

1. Estimates (discussed during the parties' conference) regarding when this case will be ready for an evidentiary hearing.
2. Time limits for updating mandatory disclosures under 10 C.F.R. § 2.336(d) and for updating the hearing file under 10 C.F.R. § 2.1203(c).
3. Whether any party intends to assert a privilege or protected status for any information or documents otherwise required to be disclosed herein and, if so, proposals for the submission of privilege logs under 10 C.F.R. § 2.336(a)(3), (b)(5), procedures and time limits for challenges to such assertions, and the development of a protective order and nondisclosure agreement.
4. Whether any of the parties anticipates submitting a motion for summary disposition regarding any of the admitted contentions and the timing and page length of such a motion and responses thereto.
5. Time limits for various evidentiary hearing-related filings, including:
  - a. The final list of potential witnesses for each contention pursuant to 10 C.F.R. § 2.336(a)(1).

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disclosed to the extent that, without revealing what is sought to be protected, other parties will be able to determine the applicability of the privilege or protection. The claim and identification of privileged materials must occur within the time provided for disclosing withheld materials. *See* 10 C.F.R. § 2.336(a)(3), (b)(5).

- b. Any unanimous request, pursuant to 10 C.F.R. § 2.310(h), to handle any specific contention under 10 C.F.R. Part 2, Subpart N.
  - c. Any motion for cross-examination under 10 C.F.R. § 2.1204(b).
  - d. The parties' initial written statements of position and written direct testimony with supporting affidavits pursuant to 10 C.F.R. § 2.1207(a)(1), along with consideration of (i) whether the parties should file simultaneously or sequentially, and, if sequentially, which party should file first; and (ii) the timing of filing of written responses, rebuttal testimony, and in limine motions relative to direct or rebuttal testimony.
6. The items outlined in 10 C.F.R. § 2.329(c)(1)-(3).
  7. The possibility of settling any of the contentions, in whole or in part, including the status of any current settlement negotiations and the utility of appointing a settlement judge pursuant to 10 C.F.R. § 2.338(b).
  8. Whether a site visit would be appropriate and helpful to the Board in the resolution of the contentions.
  9. Any other procedural or scheduling matters the Board may deem appropriate.

#### IV. CONCLUSION

For the reasons set forth above, we conclude that in challenging CBR's license amendment application for authorization to construct and operate the MEA ISR satellite facility, although the individuals and organizations that constitute the Consolidated Petitioners have failed to establish their standing as of right to intervene in this proceeding, petitioner OST has demonstrated its standing and has provided two admissible contentions. As a consequence, the CP intervention petition is denied, while OST's hearing request is granted and it is admitted as a party to this proceeding. The text of OST's admitted contentions is set forth in Appendix A to this decision.

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For the foregoing reasons, it is, this 10th day of May 2013, ORDERED that:

1. Having established its standing to participate in this proceeding, with respect to the contentions specified in paragraph 3, below, the hearing request of OST is *granted* and that petitioner is admitted as a party to this proceeding.
2. Having failed to establish their standing to participate in this proceeding, the hearing request of petitioners Antonia Loretta Afraid of Bear Cook, Bruce



McIntosh, Debra White Plume, Western Nebraska Resources Council (WNRC), and Aligning for Responsible Mining (ARM), referred to jointly as the Consolidated Petitioners, is *denied*.

3. The following of OST's contentions are *admitted* for litigation in this proceeding: contention 1, in part, and contention 2.

4. The following of OST's contentions are *rejected* as inadmissible for litigation in this proceeding: contention 1, in part, contention 3, contention 4, contention 5, and contention 6.

5. The parties are to undertake the administrative/procedural actions required by section III above in accordance with the schedule established therein.

6. In accordance with the provisions of 10 C.F.R. § 2.311, as it rules upon intervention petitions, any appeal to the Commission from this Memorandum and Order must be taken within twenty-five (25) days after it is served, except with respect to an appeal regarding selection of a hearing procedure, which must be filed within ten (10) days after this issuance is served.

THE ATOMIC SAFETY AND  
LICENSING BOARD

G. Paul Bollwerk, III, Chairman  
ADMINISTRATIVE JUDGE

Richard E. Wardwell  
ADMINISTRATIVE JUDGE

Thomas J. Hiron  
ADMINISTRATIVE JUDGE

Rockville, Maryland  
May 10, 2013

## APPENDIX A

### ADMITTED CONTENTIONS

**1. *OST Contention 1: Failure to Meet Applicable Legal Requirements Regarding Protection of Historical and Cultural Resources***

The Application fails to meet the requirements of 10 C.F.R. §§ 51.60 and 51.45, the National Environmental Policy Act, the National Historic Preservation Act, and the relevant portions of NRC guidance included at NUREG-1569 section 2.4., in that it lacks an adequate description of either the affected environment or the impacts of the project on archaeological, historical, and traditional cultural resources.

**2. *OST Contention 2: Failure to Include Adequate Hydrogeological Information to Demonstrate Ability to Contain Fluid Migration***

The application fails to provide sufficient information regarding the geological setting of the area to meet the requirements of 10 C.F.R. § 40.31(f); 10 C.F.R. § 51.45; 10 C.F.R. § 51.60; 10 C.F.R. Part 40, Appendix A, Criteria 4(e) and 5G(2); the National Environmental Policy Act; and NUREG-1569 section 2.6. The application similarly fails to provide sufficient information to establish potential effects of the project on the adjacent surface and ground-water resources, as required by 10 C.F.R. § 51.45, NUREG-1569 section 2.7, and the National Environmental Policy Act.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**ATOMIC SAFETY AND LICENSING BOARD**

**Before Administrative Judges:**

**E. Roy Hawkens**, Chairman  
**Dr. Anthony J. Baratta**  
**Dr. Gary S. Arnold**

In the Matter of

Docket Nos. 50-361-CAL  
50-362-CAL  
(ASLBP No. 13-924-01-CAL-BD01)

**SOUTHERN CALIFORNIA  
EDISON COMPANY**  
(San Onofre Nuclear Generating  
Station, Units 2 and 3)

May 13, 2013

The Board resolves two issues referred by the Commission in CLI-12-20, holding that (1) the Confirmatory Action Letter (CAL) process in this case constitutes a *de facto* license amendment proceeding that is subject to a hearing opportunity under section 189a of the Atomic Energy Act, and (2) the resolution of the first issue grants Petitioner all the relief it seeks in its contention, thus mooted the contention and terminating the proceeding before the Board.

**NUCLEAR REGULATORY COMMISSION: CONFIRMATORY  
ACTION LETTER PROCESS**

The NRC Enforcement Manual (rev. 7, Oct. 1, 2010) at 3-30, describes CALs as “flexible and valuable tools available to the staff to resolve licensee issues in a timely and efficient manner, *e.g.*, when an order is warranted to address a specific issue, a CAL is a suitable instrument to confirm initial, agreed upon, short-term actions covering the interval period prior to the actual issuance of the order.”

### **NUCLEAR REGULATORY COMMISSION: CONFIRMATORY ACTION LETTER PROCESS**

The CAL process, as described in the NRC Enforcement Manual and as explained by the NRC Staff, involves (1) the identification of a significant concern regarding health and safety, safeguards, or the environment; (2) the NRC Staff's issuance of a specific CAL; (3) a licensee responding by taking action and/or providing information as prescribed in the CAL; and (4) when the circumstances that prompted the NRC to issue the CAL have been addressed, the closing out of the CAL.

### **NUCLEAR REGULATORY COMMISSION: CONFIRMATORY ACTION LETTER PROCESS**

The NRC Enforcement Manual describes the process for closing out a CAL as follows:

#### 3.5.7 Closing Out CALs

- A. A CAL may or may not require follow-up inspection to verify completion of the specified licensee actions. Whether the staff believes that an inspection is necessary to close a CAL will be determined on a case-by-case basis and will depend on the circumstances of the case.
- B. The issuing office (*i.e.*, region, NRR, NMSS, FSME, NRO or NSIR) will issue documentation formally closing out the CAL.
- C. Correspondence closing out a CAL should be sent to the same person/address as the CAL; however, verbal notification, in advance of written correspondence, may be sufficient to permit plant restart or resumption of affected licensee activities.

### **LICENSING BOARD(S): SCOPE OF REVIEW (*DE FACTO* LICENSE AMENDMENT)**

The CAL process can be a lengthy, complex, and evolving procedure. To determine whether that process constitutes a *de facto* license amendment proceeding, a Licensing Board must look beyond the four corners of the confirmatory action letter itself and consider the entire CAL process, including the documents generated incident to that process.

### **LICENSING BOARD(S): AUTHORITY OVER STAFF ACTION**

Licensing Boards are not empowered "to supervise or direct NRC Staff

regulatory reviews.” *Duke Energy Corp.* (Catawba Nuclear Station, Units 1 and 2), CLI-04-6, 59 NRC 62, 74 (2004).

**ATOMIC ENERGY ACT (AEA): HEARING RIGHT**

“[I]t 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.” *Citizens Awareness Network, Inc. v. NRC*, 59 F.3d 284, 295 (1st Cir. 1995).

**REGULATIONS: INTERPRETATION (10 C.F.R. § 50.59)**

There can be no actual license amendment until (and unless) it is issued by the NRC Staff. *See* 10 C.F.R. § 50.92.

**ATOMIC ENERGY ACT (AEA): HEARING RIGHT**

If the hearing provision in section 189a of the AEA is to serve its intended purpose, the parties in interest should be afforded a meaningful opportunity to request a hearing *before* the NRC Staff takes final action that could result in authorizing a licensee to operate in a manner that is beyond the ambit of its existing license. *Cf. Citizens Awareness Network, Inc.*, 59 F.3d at 294-95 (“[I]f section 189a is to serve its intended purpose, surely it contemplates that parties in interest be afforded a meaningful opportunity to request a hearing *before* the Commission *retroactively* reinvents the terms of an extant license by voiding its implicit limitations on the licensee’s conduct.”).

**LICENSING DECISIONS: SCOPE**

“[U]nreviewed Board rulings do not constitute precedent or binding law.” *Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 343 n.3 (1998).

**RULES OF PRACTICE: POLICY ARGUMENTS**

A party’s policy arguments that are advanced during the adjudicatory process before a Licensing Board cannot trump directives issued by the Commission.

**ATOMIC ENERGY ACT (AEA): SECTION 101**

It is imperative that the terms of a reactor operating license be clear and unambiguous, and also that a licensee scrupulously adhere to those terms, because

section 101 of the AEA makes it “unlawful . . . for any person within the United States to . . . use . . . any utilization . . . facility except under and in accordance with a license issued by the Commission.” 42 U.S.C. § 2131.

**ATOMIC ENERGY ACT (AEA): SECTION 182a**

Section 182a of the AEA addresses what must be included in a reactor operating license. It states that such licenses must include “technical specifications” that include, *inter alia*, “the specific characteristics of the facility, and such other information as the Commission may, by rule or regulation, deem necessary in order to enable it to find that the utilization . . . of special nuclear material . . . will provide adequate protection to the health and safety of the public.” 42 U.S.C. § 2232(a).

**ATOMIC ENERGY ACT (AEA): COMMISSION’S AUTHORITY**

“The AEA, however, leaves it up to the Commission to determine, and prescribe by rule or regulation, what additional information should be included in technical specifications to ensure public health and safety and the common defense and security.” *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 351 (2001).

**ATOMIC ENERGY ACT (AEA): COMMISSION’S AUTHORITY**

The Commission is empowered to issue an order amending any license as it deems necessary to “effectuate the provisions of [the AEA]” (42 U.S.C. § 2233) — that is, to “promote the common defense and security or to protect health or to minimize danger to life or property.” 42 U.S.C. § 2201; *see also* 42 U.S.C. § 2237.

**NUCLEAR REGULATORY COMMISSION: COMMISSION’S AUTHORITY**

The Commission “may at any time . . . before the expiration of the license, require further written statements [from the licensee] to determine whether . . . a license should be modified.” 42 U.S.C. § 2232(a).

**ATOMIC ENERGY ACT (AEA): COMMISSION’S AUTHORITY**

Section 189a of the AEA states that “[i]n any proceeding under [the AEA], for the . . . amending of any license . . . , the Commission shall grant a hearing upon the

request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding.” 42 U.S.C. § 2239(a)(1)(A).

**REGULATIONS: INTERPRETATION (10 C.F.R. §§ 50.90 to 50.92)**

Sections 50.90 to 50.92 of 10 C.F.R. provide the applicable process when a licensee wishes to request a license amendment. Specifically, section 50.90 authorizes applications to amend existing operating licenses; section 50.91 provides for notice and comment regarding license amendment applications, as well as consultation with the state in which the facility is located; and section 50.92 provides the standard considered by the NRC when determining whether to issue an amendment.

**REGULATIONS: INTERPRETATION (10 C.F.R. § 50.59)**

Section 50.59 establishes standards for a licensee to request a license amendment before it may make “changes in the facility as described in the [updated] final safety analysis report [UFSAR], make changes in the procedures as described in the [UFSAR], and conduct tests or experiments not described in the [UFSAR].” 10 C.F.R. § 50.59(c)(1).

**REGULATIONS: INTERPRETATION (10 C.F.R. § 50.59)**

**OPERATING LICENSE APPLICATION: FINAL SAFETY ANALYSIS REPORT**

A final safety analysis report (FSAR) is part of the application for an operating license, and it contains “a description of the facility; the design bases and limits on operation; and the safety analysis for the structures, systems, and components (SSC) and of the facility as a whole.” Changes, Tests, and Experiments: Proposed Rule, 63 Fed. Reg. 56,098, 56,099 (Oct. 21, 1998). “When a plant is licensed, the NRC states in its Safety Evaluation Report (SER) why it found each FSAR analysis acceptable.” *Id.* Licensees must periodically update their FSARs to reflect changes to the facility “so that the [updated FSAR (UFSAR)] remains a complete and accurate description and analysis of the facility.” *Id.*

**REGULATIONS: INTERPRETATION (10 C.F.R. § 50.59)**

Section 50.59 states that a licensee need not request a license amendment pursuant to section 50.90 if “(i) A change to the technical specifications incorporated in the license is not required, and (ii) The change, test, or experiment

does not meet any of the criteria in paragraph (c)(2) of this section.” 10 C.F.R. § 50.59(c)(1)(i)-(ii).

**REGULATIONS: INTERPRETATION (10 C.F.R. § 50.59;  
TECHNICAL SPECIFICATIONS)**

Because changes to technical specifications require a license amendment, the Commission has instructed that technical specifications should be limited to “those plant conditions most important to safety.” *Millstone*, CLI-01-24, 54 NRC at 360 (quoting Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors, 58 Fed. Reg. 39,132, 39,135 (July 22, 1993)). Thus, technical specifications “should be reserved for those reactor operation ‘conditions or limitations . . . necessary to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to the public health or safety.’” *Id.* at 361 (quoting Final Rule: “Technical Specifications,” 60 Fed. Reg. 36,953, 36,957 (July 19, 1995)). *See also* 10 C.F.R. § 50.36 (identifying criteria to be used in determining what items must be included in technical specifications).

**REGULATIONS: INTERPRETATION (10 C.F.R. § 50.59)  
DESIGN BASES: INTERPRETATION (10 C.F.R. § 50.2)**

The term “design bases” to which section 50.59(c)(2)(vii) and (viii) refers is defined in 10 C.F.R. § 50.2 as follows: “*Design bases* means that information which identifies the specific functions to be performed by a structure, system, or component of a facility, and the specific values or ranges of values chosen for controlling parameters as reference bounds for a design. These values may be (1) restraints derived from generally accepted ‘state of the art’ practices for achieving functional goals, or (2) requirements derived from analysis (based on calculation and/or experiments) of the effects of a postulated accident for which a structure, system, or component must meet its functional goals.”

**REGULATIONS: INTERPRETATION (SUBPART C,  
10 C.F.R. PART 2)**

Section 2.105 of 10 C.F.R. implements the hearing opportunity provision for license amendment procedures that is mandated by section 189a of the AEA, and Subpart C of 10 C.F.R. Part 2 contains the general rules governing hearing requests and subsequent hearing-related activities.



#### **ATOMIC ENERGY ACT (AEA): HEARING RIGHT**

Congress has commanded that licensees may not, under penalty of law, deviate from the terms of their reactor operating licenses. *See* 42 U.S.C. § 2131. If a licensee is unable to operate a reactor in strict accordance with its license, it must seek authorization from the NRC for a license amendment (10 C.F.R. §§ 50.59, 50.90 to 50.92), which is a process that triggers a right to request an adjudicatory hearing by persons whose interests may be affected by the proceeding. *See* 42 U.S.C. § 2239(a)(1)(A); 10 C.F.R. § 2.105.

#### **NUCLEAR REGULATORY COMMISSION: DE FACTO LICENSE AMENDMENT**

There have been occasions when the NRC has — without formally amending a license and without providing the public with the opportunity for a hearing as required by section 189a of the AEA — authorized activity by the licensee that was incompatible with the statutory requirement that the facility operate “in accordance with” its existing operating license. 42 U.S.C. § 2131. Such NRC action is characterized as a *de facto* license amendment.

#### **RULES OF PRACTICE: CONFIRMATORY ACTION LETTER PROCESS AND DE FACTO LICENSE AMENDMENT PROCEEDING**

Although determining whether a CAL process constitutes a *de facto* license amendment proceeding is a highly fact-specific question, case law provides a straightforward analytic framework for assessing the relevant facts. *See, e.g., Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant), CLI-96-13, 44 NRC 315, 326-27 (1996)*. As relevant here, this Licensing Board must consider the following connate factors: whether the licensee’s startup request, if granted, would permit it to operate (1) in a manner that deviates from a technical specification in its existing license; (2) beyond the ambit, or outside the restrictions, of its existing license; or (3) in a manner that is neither delineated nor reasonably encompassed within the prescriptive terms of its existing license.

#### **LICENSING BOARD(S): SCOPE OF REVIEW (DE FACTO LICENSE AMENDMENT)**

The Board’s use of 10 C.F.R. § 50.59 as a tool in deciding whether a CAL process is a *de facto* license amendment is to be distinguished from a Board entertaining a challenge to the actions taken by a licensee under section 50.59. The latter is prohibited by case law, which establishes that “[a] member of the public may challenge an action taken under 10 C.F.R. § 50.59 only by means

of a petition under 10 C.F.R. § 2.206.” *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-94-3, 39 NRC 95, 101 n.7 (1994). The former is manifestly appropriate in circumstances where the Commission has directed a Licensing Board to determine whether a CAL process constitutes a *de facto* license amendment proceeding.

**RULES OF PRACTICE: CONFIRMATORY ACTION LETTER  
PROCESS AND *DE FACTO* LICENSE AMENDMENT PROCEEDING**

Although the term “scope of an operating license” does not have a regulatory definition, it is a useful concept in this context, because the Court of Appeals for the First Circuit has held that actions by the NRC Staff constitute a *de facto* license amendment when they authorize a licensee to “engage in [activities] beyond the ambit [i.e., scope] of [its] original license.” *CAN*, 59 F.3d at 295; *accord Perry*, CLI-96-13, 44 NRC at 327. As described by the Commission, an operating license reflects a specific facility-design basis, a safety analysis documented in an FSAR, facility-specific technical specification, and NRC regulations. *See* 63 Fed. Reg. 56,098, 56,099-100. These factors comprise the scope of an operating license as we use the term here.

**REGULATIONS: INTERPRETATION (10 C.F.R. § 50.59)**

“Tests or experiments not described in the [UFSAR]” constitute “any activity where any structure, system, or component is utilized or controlled in a manner which is either: (i) [o]utside the reference bounds of the design bases as described in the [UFSAR] or (ii) [i]nconsistent with the analyses or descriptions in the [UFSAR].” 10 C.F.R. § 50.59(a)(6).

**REGULATIONS: GENERAL DESIGN CRITERIA**

The General Design Criteria in Appendix A of 10 C.F.R. Part 50 establish minimum requirements for the principal design criteria for water-cooled nuclear reactor plants. 10 C.F.R. Part 50, App. A — General Design Criteria for Nuclear Power Plants, Criterion 14, states: “*Reactor Coolant Pressure Boundary*. The reactor coolant pressure boundary shall be designed, fabricated, erected, and tested so as to have an extremely low probability of abnormal leakage, of rapidly propagating failure, and of gross rupture.”

**REGULATIONS: INTERPRETATION (10 C.F.R. § 50.59)**

When a current analysis described in the FSAR fails to achieve its intended

purpose, it must be changed. Such a change is sufficiently significant to trigger the license amendment requirement of section 50.59(c)(2)(viii) because it is “[i]nconsistent with the analyses or descriptions in the [UFSAR].” 10 C.F.R. § 50.59(a)(6)(ii).

#### **LICENSE AMENDMENT: CONFIRMATORY ACTION LETTER PROCESS AND *DE FACTO* LICENSE AMENDMENT PROCEEDING**

A CAL process constitutes a *de facto* license amendment proceeding that is subject to a hearing opportunity under section 189a of the AEA, if it (1) grants a licensee’s authority to operate without the ability to comply with all technical specifications; (2) grants a licensee’s authority to operate beyond the scope of its existing license; or (3) grants a licensee’s authority to operate a test or experiment that meets the criteria in 10 C.F.R. § 50.59(c)(2)(viii).

#### **ADVISORY OPINIONS**

To adjudicate either (1) the admissibility of a moot contention, or (2) the standing of a petitioner who sought to adjudicate a moot contention, a Board would be issuing an advisory opinion in derogation of Commission precedent. *See U.S. Department of Energy (High-Level Waste Repository)*, CLI-08-21, 68 NRC 351, 352 (2008); *accord Texas Utilities Generating Co. (Comanche Peak Steam Electric Station)*, ALAB-714, 17 NRC 86, 94 (1983).

#### **“CASE” OR “CONTROVERSY” DOCTRINE**

“[A]bsent compelling reasons, the Commission adheres to the ‘case’ or ‘controversy’ doctrine in its adjudicatory proceedings.” *Hydro Resources, Inc.* (P.O. Box 777, Crownpoint, New Mexico 87313), LBP-05-17, 62 NRC 77, 91 (2005) (citing *Texas Utilities Electric Co. (Comanche Peak Steam Electric Station)*, CLI-93-10, 37 NRC 192, 200 n.28 (1993)). Pursuant to this doctrine, a justiciable controversy must involve parties who raise questions “presented in an adversary context and in a form historically viewed as capable of resolution through the judicial process.” *Flast v. Cohen*, 392 U.S. 83, 95 (1968). When a petitioner obtains the relief it is seeking before the admissibility of its contention is resolved, the admissibility *vel non* of the contention is no longer justiciable, because it no longer presents a live controversy involving a true clash of interests that is susceptible to meaningful adjudicative relief. *Cf. Moore v. Charlotte-Mecklenburg Board of Education*, 402 U.S. 47, 48 (1971) (*per curiam*) (dismissing appeal for lack of live controversy where both litigants desired the same result); *David B. Kuhl* (Denial of Senior Reactor Operator License), LBP-09-14, 70 NRC 193,

195-96 (2009) (dismissing hearing request as moot where petitioner's claim was not susceptible to meaningful adjudicative relief).

**MEMORANDUM AND ORDER**  
**(Resolving Issues Referred by the Commission in CLI-12-20)**

In its November 8, 2012 decision in CLI-12-20, the Commission referred to the Atomic Safety and Licensing Board Panel (ASLBP) a portion of the June 18, 2012 hearing request filed by Friends of the Earth (Petitioner) challenging aspects of a Confirmatory Action Letter (CAL) issued by the NRC to Southern California Edison Company (SCE) on March 27, 2012.<sup>1</sup> In particular, the Commission directed a duly constituted Licensing Board to “consider whether: (1) the [CAL] issued to SCE constitutes a *de facto* license amendment that would be subject to a hearing opportunity under section 189a [of the Atomic Energy Act (AEA)]; and, if so, (2) whether the petition meets the standing and contention admissibility requirements of 10 C.F.R. § 2.309.” CLI-12-20, 76 NRC at 440-41.

For the reasons discussed below, we resolve the first issue in the affirmative, concluding that this CAL process constitutes a *de facto* license amendment proceeding that is subject to a hearing opportunity. Because this resolution provides Petitioner with all the relief its contention seeks, the second issue referred by the Commission is moot, and the proceeding before this Board is therefore terminated.

**I. FACTUAL AND PROCEDURAL BACKGROUND**

**A. Factual Background**

The San Onofre Nuclear Generating Station (SONGS) is located near San Clemente, California.<sup>2</sup> SONGS Units 2 and 3 are pressurized water nuclear reactors with two steam generators per unit.<sup>3</sup> SCE is the licensee for SONGS Units 2 and 3. *See* Brabec Aff. at 3-4.

SCE's steam generators are recirculating, vertical U-tube type heat exchangers in which primary coolant is circulated inside the tubes, with heat from the primary-side coolant transferred to the secondary-side feedwater that circulates

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<sup>1</sup> *See* CLI-12-20, 76 NRC 437, 440-41 (2012).

<sup>2</sup> *See* [SCE's] Brief on Issues Referred by the Commission (Jan. 30, 2013) at 3 [hereinafter SCE's Answering Brief].

<sup>3</sup> *See id.*, Att. 1, Affidavit of Richard Brabec (Jan. 30, 2013) at 3-4 [hereinafter Brabec Aff.]. SONGS Unit 1 ceased operation in 1992 and has since been decommissioned. *See* SCE's Answering Brief at 3.

outside the tubes. This converts the feedwater into saturated steam that is used to drive a turbine generator to create electricity. *See* Brabec Aff. at 4.

Steam generator tubes serve critical safety functions. For example, they are an integral part of the reactor coolant pressure boundary and thus are essential for maintaining primary system pressure and coolant inventory. They also isolate the radioactive fission products in the primary coolant from the secondary system.<sup>4</sup>

In September 2009, SCE shut down Unit 2 for a scheduled refueling outage and the replacement of its steam generators to resolve corrosion and other degradation issues in the original steam generators, which had been in service for nearly 30 years.<sup>5</sup> SCE completed the Unit 2 refueling and steam generator replacement outage in April 2010, and that unit returned to full power in May 2010.<sup>6</sup>

In October 2010, SCE shut down Unit 3 for a scheduled refueling outage and the replacement of its steam generators, which also had been in service for nearly 30 years.<sup>7</sup> In February 2011, SCE completed the Unit 3 refueling and steam generator replacement outage, and that unit returned to full power in March 2011.<sup>8</sup>

The replacement steam generators for Units 2 and 3, which were manufactured by Mitsubishi Heavy Industries (MHI) (*see* Brabec Aff. at 4), differ in design from the original steam generators.<sup>9</sup> For example, each replacement steam generator

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<sup>4</sup> *See* SCE's Answering Brief, Att. 8 [SONGS] Unit 2 Return to Service Report (Oct. 3, 2012) at 14 [hereinafter Unit 2 Return to Service Report].

<sup>5</sup> *See* Brabec Aff. at 4; Unit 2 Return to Service Report at 10, 17; Letter from Ryan E. Lantz, Chief, Project Branch D, Division of Reactor Projects, US NRC, to Ross T. Ridenoure, Senior Vice President and Chief Nuclear Officer, SCE, NRC's [SONGS] — Unit 2 Steam Generator Replacement Project Inspection Report 05000361/2009007 (Mar. 4, 2010), Enclosure at 5 (ADAMS Accession No. ML100630838).

<sup>6</sup> *See* Letter from Ryan E. Lantz, Chief, Project Branch D, Division of Reactor Projects, US NRC, to Ross T. Ridenoure, Senior Vice President and Chief Nuclear Officer, SCE, NRC's [SONGS] — Unit 2 Steam Generator Replacement Project Inspection Report 05000361/20010008 (June 30, 2010), Enclosure at 3 (ADAMS Accession No. ML101810506).

<sup>7</sup> *See* Letter from Ryan E. Lantz, Chief, Project Branch D, Division of Reactor Projects, US NRC, to Peter Dietrich, Senior Vice President and Chief Nuclear Officer, SCE, NRC's [SONGS] — NRC Integrated Inspection Report 05000361/2010005 and 05000362/2010005 (Feb. 10, 2011), Enclosure at 7 (ADAMS Accession No. ML110420223).

<sup>8</sup> *See* Letter from Ryan E. Lantz, Chief, Project Branch D, Division of Reactor Projects, US NRC, to Peter Dietrich, Senior Vice President and Chief Nuclear Officer, SCE, NRC's [SONGS] — Unit 3 Steam Generator Replacement Project Inspection Report No. 05000362/2010009 (May 10, 2011), Enclosure at 3 (ADAMS Accession No. ML111300448).

<sup>9</sup> *See* SCE's Answering Brief, Att. 31, NRC Augmented Inspection Team [AIT] Report (July 18, 2012) at 36 [hereinafter July 18 AIT Report]; *see also* Opening Brief of Petitioner Friends of the Earth (Jan. 11, 2013) at 1, 3 [hereinafter Petitioner's Opening Brief]; Petitioner's Opening Brief, Att. 3, *Far Outside the Norm: The San Onofre Nuclear Plant's Generator Problems in the Context of the National Experience with Replacement Steam Generators* at 4 [hereinafter Hirsch Report]; Petition to

(Continued)

(1) has 9727 tubes, which is 377 more tubes than are in the original; (2) does not have a stay cylinder supporting the tube sheet; and (3) has a broached tube design rather than an “egg crate” tube support.<sup>10</sup>

As discussed *infra* Part II.B.2, a licensee must obtain a license amendment from the NRC if a change to its facility triggers the safety standards described in 10 C.F.R. § 50.59. Despite the design differences mentioned above between the replacement and original steam generators, SCE concluded that the replacements were a like-for-like change that did not require a license amendment.<sup>11</sup>

On January 9, 2012, SCE shut down Unit 2 for a scheduled refueling outage and steam generator inspection.<sup>12</sup> On January 31, 2012, while Unit 2 was still shut down, Unit 3 operators received secondary plant system radiation alarms, diagnosed a steam generator tube leak of approximately 82 gallons per day, and shut down Unit 3 as required by plant procedures. *See* May 8, 2012 Inspection Report at 39.

SCE’s inspection of the Unit 3 steam generators revealed “extensive [tube-

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Intervene and Request for Hearing by Friends of the Earth (June 18, 2012), Exh. 1, Declaration of Arnold Gundersen Supporting the Petition to Intervene by Friends of the Earth Regarding the Ongoing Failure of the Steam Generators at [SONGS] at 3 [hereinafter May 31 Gundersen Decl.].

SCE urges this Board to discount the Hirsch Report attached to Petitioner’s Opening Brief because, in alleged disregard of the directive in this Board’s December 7 Order, Petitioner “did not provide an affidavit to support the factual assertions in the Hirsch Report, which are relied upon throughout [Petitioner’s] Brief.” SCE’s Answering Brief at 14. Petitioner counters that an affidavit was not necessary to support the Hirsch Report because (1) it “uses data submitted to the NRC by utilities operating nuclear reactors with replacement steam generators to compare San Onofre to the experience of [replacement steam generators] nationally”; (2) it was “commissioned by Senator Barbara Boxer, Chair of the Senate Environment and Public Works Committee, and admitted into the Senate record in a joint hearing on September 12, 2012”; and (3) the NRC Commissioners “placed the Hirsch Report into the record of the Commission briefing on steam generator problems held on February 7, 2013, . . . at which Daniel Hirsch was invited to testify.” Reply Brief of Petitioner Friends of the Earth (Feb. 13, 2013) at 27-28 [hereinafter Petitioner’s Reply Brief]. In these circumstances, and given that SCE does not identify particular factual errors in the Hirsch Report, we decline SCE’s suggestion to disregard that Report.

<sup>10</sup> *See* July 18 AIT Report at 36; *see also* May 31 Gundersen Decl. at 4-6; Petitioner’s Opening Brief, Att. 2, Affidavit of Arnold Gundersen (Jan. 9, 2013) at 8-9 [hereinafter Gundersen Aff.]; Petitioner’s Opening Brief, Att. 1, Corrected Affidavit of John H. Large (Jan. 22, 2013) at 11 [hereinafter Jan. 22 Large Aff.]. For a full description of the replacement steam generators, including a diagram, *see* Brabec Aff. at 4-5.

<sup>11</sup> *See* May 31 Gundersen Decl. at 7; Gundersen Aff. at 8. Although SCE did not seek a license amendment relating to the design differences of the steam generators, it did obtain a license amendment in 2009 for changes to certain “SONGS Technical Specifications related to steam generator tube integrity.” SCE’s Answering Brief at 6.

<sup>12</sup> *See* NRC Staff’s Answering Brief in the [SONGS] CAL Proceeding (Jan. 30, 2013) [hereinafter NRC’s Answering Brief], Att. 1, NRC Integrated Inspection Report 05000361/2012002 and 05000362/2012002 (May 8, 2012) at 18-19 [hereinafter May 8, 2012 Inspection Report].

to-tube wear]” (SCE’s Answering Brief at 9) that SCE determined “was caused by in-plane fluid elastic instability from the combination of localized high steam velocity, high steam void fraction, and insufficient contact forces between the tubes and the [anti-vibration bars].” *Id.* SCE states that

more than 150 tubes of the 9,727 tubes in each [of the Unit 3 replacement steam generators] experienced [tube-to-tube wear], including more than 100 tubes in each [replacement steam generator] with wear equal to or greater than 35% of the width of the tube wall (which is the criterion in SONGS Technical Specification 5.5.2.11 for removal of the tube from service by plugging of the tube).

*Id.* (footnote omitted).<sup>13</sup>

Significantly, SCE acknowledges that “[tube-to-tube wear] due to in-plane [fluid elastic instability] had not been previously experienced in U-tube steam generators.” SCE’s Answering Brief at 10. SCE describes fluid elastic instability as

a phenomenon in which the tubes vibrate with increasingly larger amplitudes due to the flow velocity exceeding the critical velocity for a tube, given its supporting conditions and thermal-hydraulic environment. [Fluid elastic instability] occurs when the amount of energy imparted on the tube by the fluid is greater than the amount of energy that the tube can dissipate back to the fluid and to the supports. During in-plane [fluid elastic instability], tubes within the same column are excited by the fluid and move with the plane of the column, resulting in tube-to-tube contact and wear of the tubes.

*Id.* at 9 (footnotes omitted).

With regard to Unit 2, SCE states, “[i]n contrast to the extensive [tube-to-tube wear] in Unit 3, [tube-to-tube wear in Unit 2] existed in only a single pair of tubes . . . in one of the two . . . [steam generators].” SCE’s Answering Brief at 9. One of SCE’s contractors “concluded that the [tube-to-tube wear] in Unit 2 was not due to [fluid elastic instability], but instead to proximity of the tubes in question and random vibration of those tubes.” *Id.* at 10. But other SCE analyses “assumed that [fluid elastic instability] could occur in Unit 2 at 100% power.” *Id.* SCE

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<sup>13</sup> As characterized by Petitioner, each Unit 3 steam generator “exhibited approximately 5,000+ indications of wear localities, with many tubes having wear indications at more than one locality and of differing degrees of wear severity, with a total of about 900 individual tubes affected in each [replacement steam generator].” Jan. 22 Large Aff. at 10. A total of 193 tubes in one steam generator and a total of 188 in the other exceeded the wall thinning threshold of 35%, above which tube plugging is mandatory. *See id.* “Because of the depth and length of certain of the tube wear scars, a number of tubes were subjected to in situ hydrostatic pressure testing in March 2012, [which] resulted in 8 individual tube failures, all located in one [replacement steam generator].” *Id.*; *see also* Hirsch Report at 4-5, 7-9.

attributes the difference in tube-to-tube wear between Units 2 and 3 to fabrication differences arising from allowable fabrication tolerances.<sup>14</sup> *See id.* at 10, 92; *infra* note 43.

On March 23, 2012, SCE submitted to the NRC Staff a “Steam Generator Return-to-Service Action Plan” and described actions it committed to take before restarting Units 2 and 3.<sup>15</sup> On March 26, 2012, the NRC Staff confirmed, by telephone, its understanding of the actions to which SCE had committed. *See* NRC Staff’s Answering Brief at 3. On March 27, 2012, the NRC Staff memorialized its understanding in a CAL that confirmed the actions SCE would take prior to restarting either unit.<sup>16</sup>

As discussed in greater detail *infra* Part II.A.1, the NRC Staff uses a CAL to commence an enforcement process in which (as relevant here) a licensee agrees “to take certain actions to remove significant concerns regarding health and safety, safeguards, or the environment.”<sup>17</sup> In the instant case, the March 27, 2012 CAL provides, *inter alia*, that (1) SCE will take specified investigatory and corrective actions and provide information to the NRC Staff as prescribed in the CAL; and (2) SCE may not restart Units 2 and 3 until the NRC Staff has completed its review of SCE’s Restart Reports and has authorized such restarts. *See* CAL at 2.

## B. Procedural Background

On June 18, 2012, Petitioner submitted a hearing request to the Commission arising out of the Staff’s issuance of the CAL.<sup>18</sup> Petitioner (1) requested that the Commission recognize that the CAL process for the startup of Units 2 and 3 is

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<sup>14</sup> The extent of the tube-to-tube wear is described in the SONGS Unit 2 Return to Service Report’s Steam Generator Operational Assessment for Tube-to-Tube Wear. *See* SCE’s Answering Brief, Att. 12, SONGS U2C17 Steam Generator Operational Assessment for Tube-to-Tube Wear [hereinafter Assessment for Tube-to-Tube Wear]; *see also* Jan. 22 Large Aff. at 10-11; Hirsch Report at 4-6, 8-10.

<sup>15</sup> *See* SCE’s Answering Brief, Att. 7, Docket Nos. 50-361 and 50-362 Steam Generator Return-to-Service Action Plan [SONGS] (Mar. 23, 2012) [hereinafter Mar. 23, 2012 Return-to-Service Plan].

<sup>16</sup> *See* SCE’s Answering Brief, Att. 3, [CAL] — [SONGS], Units 2 and 3, Commitments to Address Steam Generator Tube Degradation (Mar. 27, 2012) [hereinafter CAL].

<sup>17</sup> SCE Answering Brief, Att. 13, NRC Enforcement Policy (June 7, 2012) at 68 [hereinafter NRC Enforcement Policy]. The NRC Enforcement Manual describes a CAL as follows:

[Confirmatory Action Letters (CALs)] are flexible and valuable tools available to the staff to resolve licensee issues in a timely and efficient manner, e.g., when an order is warranted to address a specific issue, a CAL is a suitable instrument to confirm initial, agreed upon, short-term actions covering the interval period prior to the actual issuance of the order.

SCE’s Answering Brief, Att. 14, [NRC] Enforcement Manual (rev. 7, Oct. 1, 2010) at 3-30 [hereinafter NRC Enforcement Manual].

<sup>18</sup> *See* Petition to Intervene and Request for Hearing by Friends of the Earth (June 18, 2012) [hereinafter Petition to Intervene].



a *de facto* license amendment proceeding requiring an adjudicatory hearing (*see* Petition to Intervene at 2), and (2) proffered the following contention: “Petitioner contends that [SONGS] cannot be allowed to restart without a license amendment and attendant adjudicatory public hearing as required by 10 C.F.R. § 2.309, in which Petitioner and other members of the public may participate.” *Id.* at 16.<sup>19</sup>

On July 13, 2012, SCE and the NRC Staff filed answers opposing Petitioner’s hearing request.<sup>20</sup> Petitioner filed a reply to those answers on July 20, 2012.<sup>21</sup>

Meanwhile, consistent with its commitment in the CAL, on October 3, 2012, SCE submitted a CAL response to the NRC Staff entitled “Unit 2 Return to Service Report.”<sup>22</sup> In that Report, SCE represented that it had taken the following corrective actions for Unit 2 and would impose the following operational limits to prevent loss of tube integrity in the steam generators due to tube-to-tube wear:

- SCE will administratively limit Unit 2 to 70% reactor power prior to a mid-cycle inspection outage. . . . This administrative limit is temporary and may change based upon the results of inspections, further analysis and long-term corrective actions.
- SCE has plugged the tubes adjacent to the retainer bars, plugged the two tubes with [tube-to-tube wear] in Unit 2, plugged the tubes with wear that exceeds the 35% through-wall criterion in SONGS Technical Specifications, and preventively plugged additional tubes in Unit 2 based on wear characteristics in Unit 3 tubes and actual wear patterns in Unit 2 (those tubes are in approximately the same region that experienced [fluid elastic instability] in Unit 3 at 100% power). . . . [A]bout 3% of the total number of tubes in each of the [steam generators] in Unit 2 have been plugged.
- SCE will shut down for a mid-cycle steam generator tube inspection outage within 150 cumulative days of operation at or above 15% power.

SCE’s Answering Brief at 10-11.<sup>23</sup>

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<sup>19</sup> Petitioner also advanced two other claims in its hearing request that are not relevant to this proceeding. *See infra* note 24. In the meantime, on June 27, 2012, the National Resources Defense Council (NRDC) filed a response in support of Petitioner’s hearing request. *See* NRDC’s Response in Support of FOE Petition to Intervene, San Onofre Units 2 and 3 (June 27, 2012).

<sup>20</sup> *See* [SCE’s] Answer Opposing Friends of the Earth Hearing Request and the [NRDC] Response Regarding [SONGS] Unit 2 and 3 (July 13, 2012); NRC Staff’s Answer to Petition to Intervene and Request for Hearing by Friends of the Earth on the Restart of the San Onofre Reactors (July 13, 2012).

<sup>21</sup> *See* Reply to SCE’s and NRC Staff’s Answer to Petition to Intervene and Request for Hearing by Friends of the Earth (July 20, 2012).

<sup>22</sup> *See* SCE’s Answering Brief, Att. 4, Docket No. 50-361, [CAL] — Actions to Address Steam Generator Tube Degradation [SONGS], Unit 2 (Oct. 3, 2012) [hereinafter SCE’s Unit 2 Restart Plan].

<sup>23</sup> SCE has not yet submitted a Unit 3 Return to Service Report (*see* SCE’s Answering Brief at 11),  
(Continued)

On November 8, 2012, the Commission issued a decision on Petitioner's hearing request. As relevant here, the Commission referred to the ASLBP that portion of the request in which Petitioner argued that "the [CAL] issued to SCE, including the process for resolving the issues raised in the [CAL], constitutes a *de facto* license amendment proceeding." CLI-12-20, 76 NRC at 440. The Commission thus directed a duly constituted Licensing Board to "consider whether: (1) the [CAL] issued to SCE constitutes a *de facto* license amendment that would be subject to a hearing opportunity under [s]ection 189a [of the Atomic Energy Act]; and, if so, (2) whether the petition meets the standing and contention admissibility requirements of 10 C.F.R. § 2.309." *Id.* at 440-41.<sup>24</sup>

Following its establishment on November 19, 2012,<sup>25</sup> this Licensing Board held a conference call on December 3, 2012 to discuss the procedural path forward, including a briefing schedule.<sup>26</sup> Petitioner filed its opening brief with attachments on January 11, 2013 (*see* Petitioner's Opening Brief); SCE and the NRC Staff each filed an answering brief with attachments on January 30, 2013 (*see* SCE's Answering Brief; NRC Staff's Answering Brief); and Petitioner filed its reply brief on February 13, 2013. *See* Petitioner's Reply Brief.<sup>27</sup>

On March 22, 2013, this Board held an oral argument in the ASLBP's Rockville Hearing Room on the issues referred by the Commission.<sup>28</sup>

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and it represents that "its CAL response and restart actions for Unit 3 . . . may be quite different than those for Unit 2 because the [tube-to-tube wear] in Unit 3 is far more extensive and severe than in Unit 2." *Id.* at 21.

<sup>24</sup> As mentioned *supra* note 19, in its hearing request, Petitioner also advanced two additional claims, asserting that (1) SCE violated 10 C.F.R. § 50.59 insofar as it replaced the steam generators in Units 2 and 3 without seeking a license amendment; and (2) the Commission should exercise its inherent supervisory authority to initiate a discretionary adjudicatory hearing. *See* Petition to Intervene at 2. The Commission (1) referred Petitioner's section 50.59 claim to the NRC Executive Director for Operations for consideration as a petition under 10 C.F.R. § 2.206 (*see* CLI-12-20, 76 NRC at 440); and (2) denied, without prejudice, Petitioner's request that the Commission initiate a discretionary adjudicatory hearing. *See id.* at 442.

<sup>25</sup> *See* Southern California Edison Co., Establishment of Atomic Safety and Licensing Board, 77 Fed. Reg. 70,487 (Nov. 26, 2012).

<sup>26</sup> *See* Licensing Board Order (Scheduling Conference Call) (Nov. 26, 2012) (unpublished). This Board's subsequent procedural directives are contained in the following orders: Licensing Board Order (Conference Call Summary and Directive Relating to Briefing) (Dec. 7, 2012) (unpublished); Licensing Board Order (Granting in Part and Denying in Part Petitioner's Motion for Clarification and Extension) (Dec. 20, 2012) (unpublished).

<sup>27</sup> Additionally, NRDC filed an amicus brief in support of Petitioner (*see* [NRDC's] Amicus Response in Support of Friends of the Earth (Jan. 18, 2013)), and Nuclear Energy Institute (NEI) filed an amicus brief in support of SCE and the NRC Staff. *See* Amicus Curiae Brief of [NEI] in Response to the NRC [ASLBP's] Briefing Order (Jan. 30, 2013).

<sup>28</sup> *See* Official Transcript of Proceedings (Mar. 22, 2013) [hereinafter Tr.]. The oral argument was  
(Continued)

## II. ANALYSIS

In Part II.A, we define the scope of the *de facto* license amendment issue referred by the Commission, concluding that — based on the nature of the CAL process and the language in CLI-12-20 — the Commission tasked us with determining whether any aspect of this CAL process, including a closeout of the CAL for Unit 2 that results in a plant startup pursuant to SCE’s Unit 2 Return to Service Plan, would constitute a *de facto* license amendment proceeding.<sup>29</sup> In Part II.B, we discuss the legal standards that will guide us in resolving this issue. In Part II.C, we apply the governing legal standards to the facts of this case, and we conclude that this CAL process constitutes a *de facto* license amendment proceeding that triggers the hearing requirements in section 189a of the AEA. Finally, in Part II.D, we consider the second issue referred by the Commission — i.e., whether Petitioner has standing and has submitted an admissible contention. We conclude that, because our resolution of the first issue grants Petitioner all the relief that its contention seeks, the second issue referred by the Commission is now moot.

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web streamed for the benefit of individuals who were unable to attend. *See* Licensing Board Order (Format for Oral Argument) (Mar. 12, 2013) at 2 (unpublished).

During oral argument, SCE announced that it was “considering filing a voluntary license amendment request with a no significant[t] hazards consideration as the most expeditious method to resolve the issue raised by [Request for Additional Information] 32.” *See* Tr. at 10. Subsequently, on April 8 and 9, 2013, respectively, SCE filed (1) a License Amendment Request for Unit 2; and (2) Supplement 1 to the License Amendment Request for Unit 2. *See* Docket No. 50-361, Amendment Application Number 263, Steam Generator Program, [SONGS], Unit 2 (Apr. 8, 2013); Docket No. 50-361, Supplement 1 to Amendment Application Number 263, Steam Generator Program, [SONGS], Unit 2 (Apr. 9, 2013). On April 11, 2013, the NRC Staff filed a copy of a “Notice of Application and Amendment to Facility Operating License Involving Proposed No Significant Hazards Consideration Determination, and Opportunity for a Hearing,” which it had forwarded the previous day to the Office of the Federal Register for publication. *See* [SONGS], Unit 2 — Notice of Application and Amendment to Facility Operating License Involving Proposed No Significant Hazards Consideration Determination, and Opportunity for Hearing (TAC No. MF1379) (Apr. 11, 2013). No party has filed a motion suggesting that this new development materially affects this proceeding, nor do we discern such an effect, because SCE’s license amendment request for Unit 2 does not fully resolve the referred issue for Unit 2 (*see infra* note 48), much less for Unit 3.

<sup>29</sup>In this decision, we focus principally on Unit 2, because SCE has not yet submitted a “Unit 3 Return to Service Report.” However, because SCE concedes that the tube-to-tube wear in Unit 3 is “far more extensive and severe” than in Unit 2 (*see* SCE’s Answering Brief at 21), our conclusion on the first referred issue (*infra* Part II.C) would perforce apply to Unit 3 if SCE sought to restart it without a license amendment.

**A. The Scope of the *De Facto* License Amendment Issue Referred to This Board**

SCE and the Petitioner disagree sharply about the scope of the first issue referred to this Board. The Commission “direct[ed] the Board to consider whether . . . the [CAL] issued to SCE constitutes a *de facto* license amendment that would be subject to a hearing opportunity under section 189a [of the AEA].”<sup>30</sup> CLI-12-20, 76 NRC at 440-41. SCE argues that, consistent with the above language, this Board should cabin its review to “the provisions in the [March 27, 2012 letter] itself, without recourse to SCE’s CAL response or its restart actions.” SCE’s Answering Brief at 20. The NRC Staff agrees with SCE’s narrow view of the issue. *See* NRC Staff’s Answering Brief at 48-49.

On the other hand, Petitioner argues that the Commission referred a broader issue to this Board. Petitioner claims that the Commission viewed the CAL as a process, not as a discrete letter, and it therefore directed this Board to resolve whether any aspect of the CAL process, including a closeout of the CAL that results in a plant startup pursuant to SCE’s Unit 2 Return to Service Plan, would constitute a *de facto* license amendment proceeding. *See* Petitioner’s Opening Brief at 6. This conclusion, argues Petitioner, is compelled by (1) the nature of the CAL process; (2) the plain language in CLI-12-20; and (3) common sense. *See* Petitioner’s Opening Brief at 9-10; Tr. at 23-24. We agree with Petitioner.

***1. The Nature of the CAL Process Supports Petitioner’s Interpretation Regarding the Scope of the Referred Issue***

SCE and the NRC Staff argue that the first issue requires us to limit our review to the four corners of the March 27, 2012 confirmatory action letter and determine whether that letter, viewed in isolation, constitutes a *de facto* license amendment. This argument ignores that, although a “confirmatory action letter” can be referred to as a “CAL,” the NRC Enforcement Manual also considers the term “CAL” to be a “process.” *See* NRC Enforcement Manual at 3-32.

As described in the NRC Enforcement Manual and as explained by the NRC Staff, the CAL process involves (1) the identification of a significant concern regarding health and safety, safeguards, or the environment; (2) the NRC Staff’s issuance of a specific CAL; (3) a licensee responding by taking action and/or providing information as prescribed in the CAL; and (4) when the circumstances that prompted the NRC to issue the CAL have been addressed, the closing out of

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<sup>30</sup>The hearing opportunity mandated by section 189a of the AEA is discussed *infra* Part II.B.1.

the CAL.<sup>31</sup> See NRC Staff's Answering Brief at 31; NRC Enforcement Manual at 3-29 to 3-36; see also NRC Enforcement Policy at 68.

In the instant case, the NRC Staff's use of the CAL process serves, *inter alia*, to confirm SCE's "[v]oluntary . . . suspension of licensed activities" and its "agreement to NRC approval prior to resumption of licensed activities." NRC Enforcement Manual at 3-30. The March 27, 2012 letter thus states that the CAL will remain in effect until the NRC Staff (1) completes its review of SCE's tests, assessments and evaluations, corrective actions, and proposed protocol of inspections and/or operational limits; and (2) concludes that the SONGS Units 2 and 3 can be operated without undue risk to public health and safety, and the environment. See CAL at 2, 3.

On October 3, 2012, SCE informed the NRC Staff that it had completed the actions prescribed in the March 27, 2012 letter for the restart of Unit 2, and it provided detailed information regarding fulfillment of those actions in a document entitled "Unit 2 Return to Service Report." See Unit 2 Return to Service Report.

The NRC Staff has not yet closed out the CAL for Unit 2, because it continues to review SCE's "Unit 2 Return to Service Report." Incident to that review, to date, the NRC Staff has issued over 70 Requests for Additional Information (RAIs) to SCE, while SCE has submitted eight voluminous responses.<sup>32</sup>

In short, the CAL process for Units 2 and 3 is a protracted and evolving process. It will culminate in a closeout that will permit plant restart if the NRC Staff concludes such action can be accomplished without undue risk to public health and safety, and the environment.

This Board cannot determine whether that process constitutes a *de facto* license amendment proceeding by looking solely at the March 27, 2012 document that set this lengthy and complex process in motion. Rather, our resolution of that issue

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<sup>31</sup>The Enforcement Manual describes the process for closing out a CAL as follows:

3.5.7 Closing Out CALs

A. A CAL may or may not require follow-up inspection to verify completion of the specified licensee actions. Whether the staff believes that an inspection is necessary to close a CAL will be determined on a case-by-case basis and will depend on the circumstances of the case.

B. The issuing office (*i.e.*, region, NRR, NMSS, FSME, NRO or NSIR) will issue documentation formally closing out the CAL.

C. Correspondence closing out a CAL should be sent to the same person/address as the CAL; however, verbal notification, in advance of written correspondence, may be sufficient to permit plant restart or resumption of affected licensee activities.

NRC Enforcement Manual at 3-35 to 3-36.

<sup>32</sup>The NRC Staff issued RAIs to SCE on December 26, 2012 (RAIs 1-32), March 18, 2013 (RAIs 33-67), and March 15, 2013 (RAIs 68-72). See SCE's Eighth Notification of Responses to RAIs (Apr. 23, 2013).

must be informed by considering the entire process and the documents generated incident to that process.

We recognize that Licensing Boards are not empowered “to supervise or direct NRC Staff regulatory reviews.” *Duke Energy Corp.* (Catawba Nuclear Station, Units 1 and 2), CLI-04-6, 59 NRC 62, 74 (2004). Our resolution of the referred issue will not violate that rule. We do not presume to supervise or to direct the NRC Staff in the performance of its CAL duties, including its review of the adequacy and safety of SCE’s restart plan; rather, the scope of our authority is limited to adjudicating the issue referred by the Commission — i.e., whether this CAL process constitutes a *de facto* license amendment proceeding.

The NRC Staff nevertheless argues that the CAL process “does not involve issuing [a license] amendment. Instead, closing out a CAL would ‘permit plant restart or resumption of affected licensee activities.’” NRC Staff’s Answering Brief at 32 (quoting NRC Enforcement Manual at 3-36). “If the licensee or Staff determined a license amendment was required,” argues the NRC Staff, “that would be done separately from the CAL close-out process.” NRC Staff’s Answering Brief at 32 n.157.

The short answer to this argument is 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.” *Citizens Awareness Network, Inc. v. NRC*, 59 F.3d 284, 295 (1st Cir. 1995). Consistent with the Commission’s directive in CLI-12-20, it is this Board’s responsibility to scrutinize the substance of *this CAL process* to determine whether it constitutes a *de facto* license amendment proceeding. To resolve that issue, our inquiry must extend to determining whether the Unit 2 Return to Service Report, in which SCE seeks a CAL closeout that “permit[s a] plant restart” (NRC Enforcement Manual at 3-36), constitutes a *de facto* license amendment proceeding that triggers a hearing opportunity under section 189a of the AEA.

## **2. *The Language in the Commission’s Referral Order Supports Petitioner’s Interpretation Regarding the Scope of the Referred Issue***

The above conclusion is compelled by the plain language in the Commission’s referral order. The Commission explicitly stated that Petitioner “contend[ed] that the [CAL] issued to SCE, including the process for resolving the issues raised in the [CAL], constitutes a *de facto* license amendment proceeding” (CLI-12-20, 76 NRC at 440), and it was “this portion of the petition” that the Commission referred to the ASLBP for resolution. *Id.* at 440-41.

Insofar as the Commission referred a *de facto* license amendment claim that “*includ[ed a challenge to] the process for resolving the issues raised in the [CAL]*” (CLI-12-20, 76 NRC at 440 (emphasis added)), we conclude that the referred issue requires us to determine whether this process, in which SCE seeks a

CAL closeout resulting in a plant restart, constitutes a *de facto* license amendment proceeding.

It is true that there can be no actual license amendment until (and unless) it is issued by the NRC Staff. *See* 10 C.F.R. § 50.92. It might therefore be argued that this Board should refrain from resolving the *de facto* license amendment issue until the Staff completes the CAL process by, for example, authorizing the startup of Units 2 and 3.

This we decline to do for three reasons. First and foremost, we see no indication in CLI-12-20 that the Commission intended this Board to stay its hand until the Staff has taken final action in the CAL process. Second, if the hearing provision in section 189a of the AEA is to serve its intended purpose, the parties in interest should be afforded a meaningful opportunity to request a hearing *before* the NRC Staff takes final action that could result in authorizing SCE to operate in a manner that is beyond the ambit of its existing license. *Cf. Citizens Awareness Network, Inc.*, 59 F.3d at 294-95 (“[I]f section 189a is to serve its intended purpose, surely it contemplates that parties in interest be afforded a meaningful opportunity to request a hearing *before* the Commission *retroactively* reinvents the terms of an extant license by voiding its implicit limitations on the licensee’s conduct.”). Third, all the parties urge this Board to resolve the referred issue without awaiting final Staff action. *See* Tr. at 59 (SCE), 27 (Petitioner), 112 (NRC Staff). To do otherwise could result in years of delay. *See* Tr. at 59 (SCE advises that, in its estimation, the CAL closeout for Unit 3 is “not imminent” and is not likely to occur for several years).

### **3. *Common Sense Supports Petitioner’s Interpretation Regarding the Scope of the Referred Issue***

Common sense also supports the conclusion that the Commission did not intend this Board to limit its review to the four corners of the March 27, 2012 confirmatory action letter. Otherwise, it would have resolved the issue itself, concluding — without difficulty — that this austere four-page document, viewed in isolation at the incipient stage of the CAL process, does *not* constitute a *de facto* license amendment.

However, by referring the issue to the ASLBP, and by acknowledging that Petitioner’s claim “include[ed] the *process* for resolving the issues raised in the [CAL]” (CLI-12-20, 76 NRC at 440 (emphasis added)), it may fairly be concluded that the Commission intended a Licensing Board to examine the entire CAL process, and to determine whether any aspect of that process — including

a closeout of the CAL that results in a plant startup pursuant to SCE's Unit 2 Return to Service Plan — constitutes a *de facto* license amendment proceeding.<sup>33</sup>

SCE advances a policy reason in support of its argument that this Board should focus exclusively on the March 27, 2012 CAL and conclude that it is not a *de facto* license amendment. Namely, to do otherwise may discourage licensees in the future from agreeing to a CAL, thus (1) diminishing the NRC Staff's use of this important regulatory tool in the future; and (2) undermining the Staff's discretion to select the enforcement action that best fits the factual circumstances. *See* SCE Brief at 20-23.

This argument lacks merit. First, whether a CAL process constitutes a *de facto* license amendment proceeding is a highly fact-specific question, and there is no reason to believe that this Board's resolution of this fact-specific issue in this exceptionally unusual case will influence other licensees when they are considering whether to agree to a CAL. Second, "unreviewed Board rulings do not constitute precedent or binding law" (*Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 343 n.3 (1998)), which fortifies our conclusion that our resolution of the referred issue in this unique case will not impact the decisionmaking process of other licensees when they are considering whether to agree to a CAL. Finally, and dispositively, SCE's policy argument cannot trump the Commission's directive in CLI-12-20 that a Licensing Board examine this CAL process and determine whether it constitutes a *de facto* license amendment proceeding.

## **B. Legal Standards That Address License Amendments**

### ***1. Relevant Statutory Provisions Related to License Amendments***

It is imperative that the terms of a reactor operating license be clear and unambiguous, and also that a licensee scrupulously adhere to those terms, because section 101 of the AEA makes it "unlawful . . . for any person within the United States to . . . use . . . any utilization . . . facility except under and in accordance with a license issued by the Commission." 42 U.S.C. § 2131.<sup>34</sup>

Section 182a of the AEA addresses what must be included in a reactor operating license. It states that such licenses must include "technical specifications" that include, *inter alia*, "the specific characteristics of the facility, and such other

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<sup>33</sup> We thus agree with the NRC Staff's assertion (*see* NRC Staff's Answering Brief at 35) that if we were to limit our review to the March 27, 2012 letter, we would conclude that this document, viewed in isolation, is not a *de facto* license amendment. In our judgment, however, the Commission eschewed such a facile analytic approach by referring Petitioner's claim to the ASLBP, "including the process for resolving the issues raised in the [CAL]." CLI-12-20, 76 NRC at 440.

<sup>34</sup> A "utilization facility" includes a commercial nuclear power reactor. *See* 10 C.F.R. § 50.2.



information as the Commission may, by rule or regulation, deem necessary in order to enable it to find that the utilization . . . of special nuclear material . . . will provide adequate protection to the health and safety of the public.” 42 U.S.C. § 2232(a).<sup>35</sup>

The Commission is empowered to issue an order amending any license as it deems necessary to “effectuate the provisions of [the AEA]” (42 U.S.C. § 2233) — that is, to “promote the common defense and security or to protect health or to minimize danger to life or property.” *Id.* § 2201; *see also id.* § 2237. Additionally, the Commission “may at any time . . . before the expiration of the license, require further written statements [from the licensee] to determine whether . . . a license should be modified.” *Id.* § 2232(a).

Finally, section 189a of the AEA states that “[i]n any proceeding under [the AEA], for the . . . amending of any license . . . , the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding.” 42 U.S.C. § 2239(a)(1)(A).

## **2. Relevant Regulatory Provisions Related to License Amendments**

Sections 50.90 to 50.92 of 10 C.F.R. provide the applicable process when a licensee wishes to request a license amendment. Specifically, section 50.90 authorizes applications to amend existing operating licenses; section 50.91 provides for notice and comment regarding license amendment applications, as well as consultation with the state in which the facility is located; and section 50.92 provides the standard considered by the NRC when determining whether to issue an amendment.

Section 50.59 establishes standards for a licensee to request a license amendment before it may make “changes in the facility as described in the [updated] final safety analysis report [UFSAR<sup>36</sup>], make changes in the procedures as described in the [UFSAR], and conduct tests or experiments not described in the [UFSAR].”

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<sup>35</sup>“The AEA, however, leaves it up to the Commission to determine, and prescribe by rule or regulation, what additional information should be included in technical specifications to ensure public health and safety and the common defense and security.” *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 351 (2001).

<sup>36</sup>A final safety analysis report (FSAR) is part of the application for an operating license, and it contains “a description of the facility; the design bases and limits on operation; and the safety analysis for the structures, systems, and components (SSC) and of the facility as a whole.” Changes, Tests, and Experiments: Proposed Rule, 63 Fed. Reg. 56,098, 56,099 (Oct. 21, 1998). “When a plant is licensed, the NRC states in its Safety Evaluation Report (SER) why it found each FSAR analysis acceptable.” *Id.* Licensees must periodically update their FSARs to reflect changes to the facility “so that the [updated FSAR (UFSAR)] remains a complete and accurate description and analysis of the facility.” *Id.*

10 C.F.R. § 50.59(c)(1). Section 50.59 states that a licensee need not request a license amendment pursuant to section 50.90 if “(i) A change to the technical specifications incorporated in the license is not required, and (ii) The change, test, or experiment does not meet any of the criteria in paragraph (c)(2) of this section.” *Id.* § 50.59(c)(1)(i)-(ii).

Restated, a licensee *must* request a license amendment if the proposed action requires that existing technical specifications be changed (*see* 10 C.F.R. § 50.59(c)(1)(i)),<sup>37</sup> or if a change, test, or experiment satisfies any of the eight criteria in section 50.59(c)(2). *See id.* § 50.59(c)(1)(ii). The section 50.59(c)(2) criteria require a licensee to seek a license amendment if the proposed change, test, or experiment would

- (i) Result in more than a minimal increase in the frequency of occurrence of any accident previously evaluated in the [UFSAR];
- (ii) Result in more than a minimal increase in the likelihood of occurrence of a malfunction of a structure, system, or component (SSC) important to safety previously evaluated in the [UFSAR];
- (iii) Result in more than a minimal increase in the consequences of an accident previously evaluated in the [UFSAR];
- (iv) Result in more than a minimal increase in the consequences of a malfunction of an SSC important to safety previously evaluated in the [UFSAR];
- (v) Create a possibility for an accident of a different type than any previously evaluated in the [UFSAR];
- (vi) Create a possibility for a malfunction of an SSC important to safety with a different result than any previously evaluated in the [UFSAR];
- (vii) Result in a design basis limit for a fission product barrier as described in the [UFSAR] being exceeded or altered; or
- (viii) Result in a departure from a method of evaluation described in the [UFSAR] used in establishing the design bases or in the safety analyses.

*Id.* § 50.59(c)(2).<sup>38</sup>

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<sup>37</sup> Because changes to technical specifications require a license amendment, the Commission has instructed that technical specifications should be limited to “those plant conditions most important to safety.” *Millstone*, CLI-01-24, 54 NRC at 360 (quoting Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors, 58 Fed. Reg. 39,132, 39,135 (July 22, 1993)). Thus, technical specifications “should be reserved for those reactor operation ‘conditions or limitations . . . necessary to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to the public health or safety.’” *Id.* at 361 (quoting Final Rule: “Technical Specifications,” 60 Fed. Reg. 36,953, 36,957 (July 19, 1995)). *See also* 10 C.F.R. § 50.36 (identifying criteria to be used in determining what items must be included in technical specifications).

<sup>38</sup> The term “design bases” to which section 50.59(c)(2)(vii) and (viii) refer is defined as follows:

*Design bases* means that information which identifies the specific functions to be performed

(Continued)

Finally, 10 C.F.R. § 2.105 implements the hearing opportunity provision for license amendment procedures that is mandated by section 189a of the AEA, and Subpart C of 10 C.F.R. Part 2 contains the general rules governing hearing requests and subsequent hearing-related activities.

In sum, Congress has commanded that licensees may not, under penalty of law, deviate from the terms of their reactor operating licenses. *See* 42 U.S.C. § 2131. If a licensee is unable to operate a reactor in strict accordance with its license, it must seek authorization from the NRC for a license amendment (10 C.F.R. §§ 50.59, 50.90 to 50.92), which is a process that triggers a right to request an adjudicatory hearing by persons whose interests may be affected by the proceeding. *See* 42 U.S.C. § 2239(a)(1)(A); 10 C.F.R. § 2.105.

### 3. *De Facto License Amendments*

As shown above, amending a license is, by design, a carefully considered process that is closely regulated by the NRC and in which “any person whose interest may be affected” is entitled to request a hearing. 42 U.S.C. § 2239(a)(1)(A). As discussed below, however, there have been occasions when the NRC has taken action that effectively constituted a license amendment, but it failed to recognize that its actions effectively amended the license.

In other words, there have been occasions when the NRC has — without formally amending a license and without providing the public with the opportunity for a hearing as required by section 189a of the AEA — authorized activity by the licensee that was incompatible with the statutory requirement that the facility operate “in accordance with” its existing operating license. 42 U.S.C. § 2131. Such NRC action is characterized as a *de facto* license amendment. According to Petitioner, this CAL process is a *de facto* license amendment proceeding because SCE seeks effectively to amend its license via the CAL process.

Specifically, Petitioner argued to the Commission that “the [CAL] issued to SCE, including the process for resolving the issues raised in the [CAL], constitutes a *de facto* license amendment proceeding within the hearing provision of section 189a of the AEA, and therefore an adjudicatory hearing is required.” CLI-12-20, 76 NRC at 440-41. The Commission referred that claim to the ASLBP for resolution. *Id.* at 440.

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by a structure, system, or component of a facility, and the specific values or ranges of values chosen for controlling parameters as reference bounds for a design. These values may be (1) restraints derived from generally accepted “state of the art” practices for achieving functional goals, or (2) requirements derived from analysis (based on calculation and/or experiments) of the effects of a postulated accident for which a structure, system, or component must meet its functional goals.

10 C.F.R. § 50.2.

Determining whether the CAL process constitutes a *de facto* license amendment proceeding “is a highly fact-specific question.” NRC Staff’s Answering Brief at 10. Case law, however, provides a straightforward analytic framework for assessing the relevant facts. For example, in *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant), CLI-96-13, 44 NRC 315 (1996), the Commission considered whether the NRC Staff’s decision to authorize changes to a material specimen withdrawal schedule was a *de facto* license amendment. Examining decisions from the U.S. Courts of Appeals for the First Circuit and the District of Columbia Circuit, the Commission distilled the following factors that are material to determining whether NRC actions constitute a *de facto* license amendment:

In evaluating whether challenged NRC authorizations effected license amendments within the meaning of section 189a, courts repeatedly have considered the same key factors: did the challenged approval grant the licensee any “greater operating authority,” or otherwise “alter the original terms of a license”? If so, hearing rights likely were implicated. For example, in *Citizens Awareness Network, Inc. v. NRC*, 59 F.3d 284, 295 (1st Cir. 1995) (*CAN*), . . . the court found that the challenged NRC approval “undeniably *supplement[ed]*” the original license. The agency had permitted the licensee to dismantle major structural components, an activity that the court found unauthorized by the original license and agency rules. Similarly, in another case [*San Luis Obispo Mothers for Peace v. NRC*, 751 F.2d 1287 (D.C. Cir. 1984) (*SLO*)], where the NRC Staff extended the duration of a low-power license, a reviewing court viewed the Staff approval to be a license amendment changing a term of the license, and therefore triggering an opportunity for a hearing under section 189a.

44 NRC at 326-27 (footnotes omitted). Guided by *CAN* and *SLO*, the Commission in *Perry* considered whether the Staff’s action (1) “alter[ed] the . . . license,” or (2) “permit[ted] the licensee to operate ‘in any greater capacity’ than [the original license prescribes].” *Id.* After examining the relevant terms and technical specifications in the license, the Commission resolved both inquiries in the negative.<sup>39</sup>

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<sup>39</sup> For additional pronouncements on standards employed by tribunals in the context of considering *de facto* license amendment issues, see, e.g., *Perry*, CLI-96-13, 44 NRC at 319 (“Because technical specifications are an integral part of an operating license, changes to technical specifications require a license amendment.”); *id.* at 320 (the UFSAR “can be modified without a license amendment, so long as the modifications do not involve a change to the technical specifications or an unreviewed safety question”); *CAN*, 59 F.3d at 294 (“[B]y its nature a license is presumptively an exclusive — not an inclusive — regulatory device. . . . Regulated conduct which is neither delineated, nor reasonably encompassed within delineated categories of authorized conduct, presumptively remains unlicensed.”); *id.* at 295 (NRC’s actions constitute *de facto* license amendment when they authorize licensee to “engage in [activities] beyond the ambit of [its] original license”); *Massachusetts v.* (Continued)

As illustrated in the *Perry* case, a *de facto* license amendment claim typically involves a tribunal “looking backward” to determine whether action already taken by the NRC Staff effectively constituted a license amendment. Here, however, consistent with the Commission’s referral order, we are tasked with looking at an ongoing CAL process to determine whether that process constitutes a *de facto* license amendment proceeding. *See supra* Part II.A. To resolve that issue, this Board must determine whether the requested change in authority to operate Unit 2 sought by SCE pursuant to the CAL process is strictly “in accordance with” the terms and technical specifications in its existing license. 42 U.S.C. § 2131.

In other words, this Board must consider the following connate factors: whether SCE’s startup request, if granted, would permit SCE to operate (1) in a manner that deviates from a technical specification in its existing license; (2) beyond the ambit, or outside the restrictions, of its existing license; or (3) in a manner that is neither delineated nor reasonably encompassed within the prescriptive terms of its existing license. *See supra* note 39 and accompanying text.<sup>40</sup>

In assessing the referred issue, this Board can refer to 10 C.F.R. § 50.59, which — as discussed *supra* Part II.B.2 — identifies situations where a licensee *must* request a license amendment. In our view, reference to the criteria in section 50.59 is eminently appropriate here, because the ultimate question before this Board is whether SCE’s request that the Staff close out the CAL by permitting a plant restart constitutes a *de facto* license amendment proceeding that triggers a hearing opportunity under section 189a of the AEA. To resolve this question, we must look at SCE’s Unit 2 Return to Service Plan to determine whether SCE is seeking authority from the NRC Staff to deviate from a technical specification or to otherwise operate in a manner that is beyond the ambit, or inconsistent with the prescriptive terms, of its existing license. Section 50.59 establishes standards that may guide this Board in resolving that issue.

Contrary to arguments advanced by the NRC Staff (*see* NRC Staff Answer at 43-47; Tr. at 140), the fact that section 50.59 is designed for a licensee to determine

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*NRC*, 878 F.2d 1516, 1520-21 (1st Cir. 1989) (NRC’s actions in requiring forty-seven improvements, granting an exemption from emergency drills, and lifting a license suspension did not require a license amendment, because the licensee can “operate[ ] in accordance with its unaltered license” and need not be “exempted . . . from following a specific license requirement”); *In re Three Mile Island Alert, Inc.*, 771 F.2d 720, 729 (3d Cir. 1985) (NRC’s lifting of license suspension and authorizing restart under stipulated restrictions was not a license amendment because “nothing in this record . . . indicates . . . that license amendments are necessary to permit the licensee to operate in accordance with the restrictions which have been imposed”), *cert. denied*, 475 U.S. 1082 (1986).

<sup>40</sup> At the March 22, 2013 oral argument, counsel for the NRC Staff was asked whether the need for a license amendment is limited to circumstances that involve an *increase* in licensing authority, or whether a license amendment would also be required where, for example, the Staff were to change the licensing authority by decreasing the maximum operating thermal power for a nuclear reactor. Counsel responded that a license amendment would be required for both situations. *See* Tr. at 130.

whether it must seek a license amendment *ab initio* poses no impediment to this Board referring to those same regulatory standards as guides in determining whether this CAL process constitutes a *de facto* license amendment proceeding. The standards in section 50.59 — which establish when a “licensee shall obtain a license amendment” (10 C.F.R. § 50.59(c)(2)) — have the imprimatur of the Commission and therefore, *a fortiori*, are appropriate guides for determining whether SCE’s Unit 2 Return to Service Plan requires a license amendment, thereby converting the CAL process into a *de facto* license amendment proceeding.

Our use of section 50.59 as a tool in resolving the referred issue is to be distinguished from scrutinizing the actual actions taken by SCE under section 50.59. The latter is prohibited by case law, which establishes that “[a] member of the public may challenge an action taken under 10 C.F.R. § 50.59 only by means of a petition under 10 C.F.R. § 2.206.” *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-94-3, 39 NRC 95, 101 n.7 (1994). Contrary to the NRC Staff’s assertion (*see* NRC Staff Answer at 44-49; Tr. at 141), any reference we might make to section 50.59 will not run afoul of this rule, because the issue presented here is not a challenge to SCE’s previous actions taken under section 50.59.<sup>41</sup> Rather, the Commission directed us to determine whether this CAL process constitutes a *de facto* license amendment proceeding. To resolve this issue, it is manifestly appropriate for this Board to consider, and to be guided by, all relevant analytic tools, including — if warranted — the standards in section 50.59. *Cf.* Tr. at 31-32, 59-60 (SCE and Petitioner both agree that this Board can properly refer to section 50.59 for purposes of resolving whether this CAL process constitutes a *de facto* license amendment proceeding).

### **C. This CAL Process Constitutes a *De Facto* License Amendment Proceeding**

We turn now to the first of the two issues referred by the Commission: whether this CAL process for the startup of SONGS Unit 2 constitutes a *de facto* license amendment proceeding.<sup>42</sup> As discussed *supra* Part II.B.3, to constitute a *de facto* license amendment proceeding, this CAL process must involve proposed actions by SCE that, if authorized, would allow SCE to deviate from a technical specification or otherwise operate Unit 2 in a manner that is inconsistent with existing licensing requirements or restrictions. We conclude that this CAL

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<sup>41</sup> Indeed, it is impossible on the present record — as a legal and factual matter — for Petitioner to challenge, or for this Board to review, SCE’s section 50.59 analysis for the Unit 2 Return to Service Plan because a copy of SCE’s analysis has not even been filed with this Board.

<sup>42</sup> As stated *supra* note 29, although our analysis focuses on Unit 2, it would necessarily apply to Unit 3 if SCE sought to restart it without a license amendment.

process constitutes a *de facto* license amendment proceeding for the following three independent reasons:

- (1) The restart of Unit 2 would grant SCE authority to operate without the ability to comply with all applicable technical specifications;
- (2) The restart of Unit 2 would allow SCE to operate beyond the scope of its existing license; and
- (3) SCE's Unit 2 Return to Service Plan includes a test or experiment that meets the criteria in 10 C.F.R. § 50.59 that require a license amendment.

Below, we provide a factual backdrop for our analysis, after which we discuss each of the above reasons in turn.

The unprecedented extent of tube wear and failures that SCE experienced in the SONGS Unit 3 replacement steam generators reveal that these steam generators have serious design and operational issues (*see* SCE's Answering Brief at 10; *supra* Part I.A), placing them beyond the envelope of experience with U-tube steam generators. SCE's investigation into the cause of the multiple tube leaks indicates that the design is prone to tube-to-tube wear caused by in-plane fluid elastic instability, which "had not been previously experienced in U-tube steam generators." SCE's Answering Brief at 10.

As mentioned *supra* Part I.A, fluid elastic instability results from the combination of localized high steam velocity, high steam void fraction, and insufficient contact forces between the tubes and the anti-vibration bars. The fluid elastic instability caused vibration of steam generator tubes in the in-plane direction resulting in rapid, localized tube wear. *See* SCE's Unit 2 Restart Plan at 2; Assessment for Tube-to-Tube Wear at 15.

"In contrast to the extensive [tube-to-tube wear] in Unit 3, [tube-to-tube wear in Unit 2] existed in only a single pair of tubes . . . in one of the two [replacement steam generators]." SCE's Answering Brief at 9. Although the Unit 2 steam generators did not experience the accelerated and extensive tube-to-tube wear suffered in the Unit 3 steam generators, they nevertheless are the identical design as those in Unit 3 and they operate under similar conditions. *See* SCE's Answering Brief, Att. 18, SONGS UFSAR Excerpt at 5.4-20 [hereinafter SONGS UFSAR]; Brabec Aff. at 4-6, 18.

SCE claims that the fact that steam generator tube-to-tube wear was significantly less in Unit 2 than in Unit 3 is attributable to the differences in meeting fabrication tolerances. *See* SCE's Answering Brief at 10, 92. Fabrication tolerances permit small differences between components designed to the

same specifications, and SCE attributes the large difference in steam generator operational performance to very small differences in their construction.<sup>43</sup>

More precisely, SCE asserts that the difference in steam generator tube wear between Unit 3 and Unit 2 is due in large part to differences in contact between the steam generator tubes and the anti-vibration bars arising from differences in meeting fabrication tolerances. SCE explains the role played by anti-vibration bars in preventing in-plane vibrations as follows: “The effect of flat bar supports with small clearance is to act as apparent nodal points for flow-induced tube response. They not only prevent out-of-plane mode as expected but also in-plane modes.” Assessment for Tube-to-Tube Wear at 17.

But “[w]ear at [anti-vibration bar] locations will degrade in-plane support effectiveness over time.” Assessment for Tube-to-Tube Wear at 104. Such degradation can be caused “by a combination of turbulence and out-of-plane fluid-elastic excitation.” *Id.* at 15. As contact is lost between the tube and the bar, the restraining effect of the anti-vibration bars in the in-plane direction decreases. These decreases, when combined with certain thermal hydraulic conditions, allow in-plane vibration and tube-to-tube wear to develop over time at locations where it previously had not occurred. *See id.* at 104; SONGS Unit 2 Return to Service Report, Att. 6 — App. B, SONGS U2C17 Generator Operational Assessment for Tube-to-Tube Wear at 21 (ADAMS Accession No. ML12285A268). Moreover, tube-to-tube wear “due to in-plane fluid elastic instability is a unique degradation mechanism because one unstable tube can drive its neighbor into instability through repeated impact events.” Assessment for Tube-to-Tube Wear at 18. It is thus possible for in-plane instability to develop in a single tube and propagate to a larger number of tubes in the vicinity.

Wear of steam generator tubes is of critical importance to evaluations performed in the FSAR, because the tubes are part of the reactor coolant pressure boundary, and assurance of their integrity is required by General Design Criterion

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<sup>43</sup> Manufacturing of components is never perfectly exact. Thus, if the nominal design specifies a required distance between adjacent steam generator tubes, it will also specify how closely the manufacturer must come to that required distance. This permitted variance from the design is referred to as the fabrication tolerance. *See* SONGS Unit 2 Return to Service Report, Att. 6 — App. D, Operational Assessment of Wear Indications in the U-bend Region of San Onofre Unit 2 Replacement Steam Generators at 100-02 (ADAMS Accession No. ML12285A269, which is entitled “Attachment 6: Appendix A: Estimate of FEI-Induced TTW Rates” on ADAMS, but also contains Appendix D, starting on page 78 of 209 of the ADAMS portable document format (PDF) version). Ironically, SCE indicates that the steam generators for Unit 3 were built more closely to design specifications than those in Unit 2, and it maintains that this greater manufacturing precision rendered the Unit 3 steam generators more susceptible to in-plane tube vibration. *See* SCE’s Answering Brief at 92; *accord* Unit 2 Return to Service Report at 36.



14.<sup>44</sup> Numerous analyses are grounded on the assumed integrity of steam generator tubes, and technical specifications exist to assure their integrity.<sup>45</sup> Any new phenomenon that could negatively impact tube integrity can affect, and possibly negate, assumptions used in FSAR analyses.

SCE and its contractors have evaluated the in-plane tube-to-tube wear due to fluid elastic instability and have developed a theory to explain its occurrence and to predict how it can be avoided. As a result of comparing the thermal hydraulic conditions in the SONGS replacement steam generators with those of other steam generators, SCE concluded that the likelihood of fluid elastic instability will decrease if the steam quality in the steam generators is reduced (i.e., if the moisture content of the steam is increased). *See* Unit 2 Return to Service Report at 37. SCE determined that a reduced steam quality results in greater “damping” within the steam generators, which decreases the potential for fluid elastic instability. *See id.*

SCE provided the following explanation regarding the relation between steam quality and damping, and the effect of damping on fluid elastic instability:

Damping is the result of energy dissipation and delays the onset of [fluid elastic instability]. Damping is greater for a tube surrounded by liquid compared to a tube surrounded by gas. Since quality describes the mass fraction of a vapor in a two-phase mixture, it provides insight into the fluid condition surrounding the tube. A higher steam quality correlates with dryer conditions and provides less damping. Conversely, lower steam quality correlates with wetter conditions resulting in more damping, which decreases the potential for [fluid elastic instability].

Unit 2 Return to Service Report at 38.

When compared to steam generators at other plants that do not experience fluid elastic instability, SCE calculated that the steam quality in the SONGS replacement steam generators was higher when operated at 100% power. On the other hand, when SONGS steam generators were operated at 70% power, steam quality was in the same range as those steam generators that did not experience fluid elastic instability. *See* Assessment for Tube-to-Tube Wear, Figures 4-3 and 5-1.

SCE concluded that limiting the power generated at SONGS Unit 2 to 70% would reduce steam quality and hydrodynamic pressure to values that would eliminate the thermal hydraulic conditions that cause fluid elastic instability and

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<sup>44</sup> 10 C.F.R. Part 50, App. A — General Design Criteria for Nuclear Power Plants, Criterion 14, states: “*Reactor Coolant Pressure Boundary*. The reactor coolant pressure boundary shall be designed, fabricated, erected, and tested so as to have an extremely low probability of abnormal leakage, of rapidly propagating failure, and of gross rupture.”

<sup>45</sup> *See, e.g.,* SCE’s Answering Brief, Att. 9, SONGS Technical Specification 5.5.2.11, Steam Generator Program [hereinafter SONGS Unit 2 Technical Specifications].

associated tube-to-tube wear in the SONGS Unit 2 steam generators. *See* SCE's Unit 2 Restart Plan at 3; Unit 2 Return to Service Report at 37.<sup>46</sup>

SCE's most recent assessment indicates that, after operating for less than 2 years (i.e., 20.6 months), tube integrity for the Unit 2 steam generators can be guaranteed only for another 11 months of operation at 100% power. *See* SCE's Fifth Notification of Responses to RAIs, Enc. 1, Docket No. 50-361, Operational Assessment for 100% Power Case Regarding [CAL] Response (TAC No. ME9727) [SONGS], Unit 2 (Mar. 14, 2013) [hereinafter SCE's Fifth Notification of Responses to RAIs].

Against the above backdrop, we explain below why we conclude that this CAL process is a *de facto* license amendment proceeding.

***1. Under SCE's Return to Service Plan, Unit 2 Cannot Be Operated "Over the Full Range of Normal Operating Conditions" Up to 100% Power, Which Is Inconsistent with a Technical Specification and Therefore Requires a License Amendment***

SONGS Unit 2 Technical Specification 5.5.2.11b.1 requires that "[a]ll inservice steam generator tubes shall retain structural integrity over the full range of normal operating conditions (including startup, operation in the power range, hot standby, and cool down and all anticipated transients included in the design specification) and design basis accidents."<sup>47</sup> Under its current license, SCE is authorized to operate Unit 2 up to 3438 megawatts thermal, which is defined as 100% power. *See* SCE's Answering Brief, Att. 19, SONGS Operating License 226 at 3.

In its Unit 2 Return to Service Report, SCE proposes administratively to limit Unit 2 to 70% reactor power prior to a mid-cycle inspection outage. *See* SCE's Unit 2 Restart Plan at 3. Based on its analyses, asserts SCE, a 70% power-level limit will provide adequate margin to preclude the onset of in-plane fluid elastic instability and excessive tube wear. *See id.*

If, pursuant to the CAL process, the NRC Staff were to authorize SCE to operate Unit 2 at a power limit not to exceed 70%, this condition would result in a deviation from the technical specification requirement that tube integrity be maintained over the "full range of normal operation conditions" up to 100%.

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<sup>46</sup> *See also* Transcript of Briefing Before Commission on Steam Generator Tube Degradation (Feb. 7, 2013) at 48 (MHI agrees that a reduction to 70% power would improve the thermal hydraulic condition in the steam generators by reducing the steam quality and bringing it into a range seen in other steam generators manufactured by MHI).

<sup>47</sup> *See* NRC's Answering Brief, Att. 8, Docket No. 50-361, SONGS Unit 2 Facility Operating License No. NPF-10 Excerpts at 5.0-14.

Such a deviation from a technical specification requires a license amendment, thus converting this CAL process to a *de facto* license amendment proceeding.<sup>48</sup>

**2. Unit 2 Cannot Operate Within the Scope of Its Operating License,<sup>49</sup>  
Which Requires That the License Must Be Amended**

SONGS Unit 2 is currently licensed to operate anywhere in the normal power range from 0% to 100% power with steam generators that meet the original design specifications. The original steam generators in SONGS Unit 2 (and Unit 3) were replaced without a license amendment arising from design differences, which SCE claims was in compliance with 10 C.F.R. § 50.59. *See* Tr. at 79-81. As discussed in greater detail *supra* Part II.B.2, section 50.59 permits changes with respect to components (i.e., steam generators) without a license amendment under prescribed conditions that assure the replacement components are sufficiently similar to the original so that safety requirements are maintained or improved. *See* 10 C.F.R. § 50.59(c)(2).

The replacement steam generators in SONGS Unit 3, however, unexpectedly demonstrated significant in-plane vibrations due to fluid elastic instability. The vibrations were severe enough to cause tube-to-tube contact resulting in accelerated wear of the tube wall and premature wall failure. *See* Assessment for Tube-to-Tube Wear at 18. This phenomenon has never before been seen in a U-tube steam generator (*see* SCE's Answering Brief at 10), which supports a

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<sup>48</sup>In SCE's license amendment request for Unit 2 (*see supra* note 28), SCE seeks the following licensing revisions:

The proposed amendment requests that Technical Specification 5.5.2.11.b.1 be revised to add a footnote to require that compliance with the steam generator structural integrity performance criterion (SIPC) be demonstrated up to 70% Rated Thermal Power (2406.6 megawatts thermal) and that Facility Operating License Condition 2.C(1) "Maximum Power Level" be revised to add a footnote to restrict operation of SONGS Unit 2 to no more than 70% Rated Thermal Power for the SONGS Unit 2, Cycle 17.

Docket No. 50-361, Amendment Application Number 263, Steam Generator Program [SONGS], Unit 2 (Apr. 5, 2013) at 1. Although SCE's license amendment request addresses the first reason underlying our conclusion that this CAL process constitutes a *de facto* license amendment proceeding, it does not address the alternative reasons underlying our conclusion (*see infra* Parts II.C.2 and II.C.3) and it, thus, does not fully address, much less moot, the first issue referred by the Commission.

<sup>49</sup>Although the term "scope of an operating license" does not have a regulatory definition, it is a useful concept in the instant context, because the Court of Appeals for the First Circuit has held that actions by the NRC Staff constitute a *de facto* license amendment when they authorize a licensee to "engage in [activities] beyond the ambit [i.e., scope] of [its] original license." *CAN*, 59 F.3d at 295; *accord Perry*, CLI-96-13, 44 NRC at 327. As described by the Commission, an operating license reflects a specific facility-design basis, a safety analysis documented in an FSAR, facility-specific technical specification, and NRC regulations. *See* 63 Fed. Reg. 56,098, 56,099-100. These factors comprise the scope of an operating license as we use the term in this Memorandum and Order.

conclusion that the replacement steam generators differ in significant respects from the originals. Because the Unit 3 steam generators are identical in design to the Unit 2 steam generators (*see* SONGS UFSAR at 5.4-20; Brabec Aff. at 4-6, 18), we conclude that the latter steam generators likewise differ in significant respects from the originals.

Concerning the FSAR analysis of steam generator tube integrity, SCE states that “[t]he original analysis was fine if we had simply received steam generators that met our specifications” (i.e., were like-for-like replacements), but “[w]hat we had is a degraded or nonconforming condition in our steam generators where they did not perform per the procurement specifications.” *See* Tr. at 98. The extent to which the replacement steam generators failed to perform per the procurement specifications is graphically illustrated by the fact that the original steam generators lasted about 28 years, whereas SCE’s most recent operational assessment indicates that, after less than 2 years of operation (i.e., 20.6 months), tube integrity for Unit 2 steam generators can be guaranteed only for another 11 months of operation at 100% power. *See* SCE’s Fifth Notification of Responses to RAIs.

Significantly, the UFSAR for the original steam generators for SONGS Units 2 and 3 excluded the possibility of in-plane vibrations caused by fluid elastic instability when evaluating the conditions necessary to maintain steam generator tube integrity. In this regard, the UFSAR states:

The steam generator was designed to ensure that critical vibration frequencies are well out of the range expected during normal operation and during abnormal conditions. The tubing and tubing supports are designed and fabricated with considerations given to both secondary side flow-induced vibration and reactor coolant pump-induced vibrations.

SONGS UFSAR at 5.4-21;<sup>50</sup> *see also id.* at 5.4-23 to 5.4-26 (analysis in section 5.4.2.3.1.3 evaluating conditions necessary to maintain tube integrity in the original steam generators based on the assumption that vibrations caused by in-plane fluid elastic instability will not occur).

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<sup>50</sup>The reference in the UFSAR to “critical vibration frequencies” and “secondary side flow-induced vibration” subsume the in-plane vibrations caused by fluid elastic instability experienced in the SONGS replacement steam generators. *See generally* SONGS Unit 2 Return to Service Report, Att. 6 — App. D, Operational Assessment of Wear Indications in the U-bend Region of San Onofre Unit 2 Replacement Steam Generators at 10-12 (ADAMS Accession No. ML12285A269, which is entitled “Attachment 6: Appendix A: Estimate of FEI-Induced TTW Rates” on ADAMS, but also contains Appendix D, starting on page 78 of 209 of the ADAMS portable document format (PDF) version); *cf.* SCE’s Answering Brief, Att. 5, MHI Document L5-04GA564 Tube Wear of Unit-3 RSG Technical Evaluation Report at 11 (MHI states that incident to the design of the SONGS replacement steam generators, “only out-of-plane vibration of the [steam generator] U-tubes was evaluated”).

However, the UFSAR assumption for the original steam generators that in-plane vibrations caused by fluid elastic instability were excluded by design is demonstrably unjustified for the replacement steam generators. This renders inadequate the UFSAR § 5.4.2.3.1.3 analysis of steam generator tube integrity, which places the replacement steam generators outside the scope of the operating license.<sup>51</sup>

We conclude that until the tube degradation mechanism is fully understood, until reasonable assurance of safe operation of the replacement steam generators is demonstrated, and until there has been a rigorous NRC Staff review appropriate for a licensing action, the operation of Unit 2 would be outside the scope of its operating license because the replacement steam generator design must be considered to be inconsistent with the steam generator design specifications assumed in the FSAR and supporting analysis. In short, the startup of Unit 2 pursuant to the CAL process would transform that process into a *de facto* license amendment proceeding by allowing steam generator operation with a tube degradation mechanism not considered in the FSAR — i.e., in-plane vibrations due to fluid elastic instability.<sup>52</sup>

**3. *A Unit 2 Startup Pursuant to SCE’s Return to Service Report Would Result in SCE Conducting a Test or Experiment Pursuant to 10 C.F.R. § 50.59(c)(2)(viii), Which Requires a License Amendment***

In Part II.B.3, *supra*, we determined that we may use the standards in section 50.59 — which establish when a “licensee shall obtain a license amendment” (10 C.F.R. § 50.59(c)(2)) — as guidance to determine whether implementation of SCE’s Unit 2 Return to Service Report requires a license amendment. As relevant here, section 50.59 requires a licensee to seek a license amendment before implementing a “test or experiment” that will “[r]esult in a departure from a method of evaluation described in the [UFSAR] used in establishing the design basis or in the safety analysis.” 10 C.F.R. § 50.59(c)(2)(viii). Guided by that provision, we conclude that the authority to operate sought by SCE in its

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<sup>51</sup> The purpose of the UFSAR § 5.4.2.3.1.3 analysis is to verify that General Design Criterion 14 — which concerns maintaining integrity of the reactor coolant pressure boundary (*see supra* note 44) — is satisfied. We now know that General Design Criterion 14 cannot be satisfied for the steam generator tubes without an analysis of in-plane fluid elastic instability.

<sup>52</sup> The required change to the current FSAR analysis is that it must be augmented with a vibration analysis to assure that steam generator tubes do not fail prematurely due to tube-to-tube wear and that tubes are thus able to satisfy their design bases. As the Commission has explained, a licensee must seek a license amendment “at the point in time [when] the revised method [in the FSAR] becomes the means used for purposes of satisfying FSAR safety analysis or design bases.” Final Rule: “Changes, Tests, and Experiments,” 64 Fed. Reg. 53,582, 53,598 (Oct. 4, 1999).

Unit 2 Return to Service Report is such a “test or experiment” that requires a license amendment and, thus, transforms this CAL process into a *de facto* license amendment proceeding.<sup>53</sup>

SCE’s analysis of the cause of the excessive tube wear and the measures it proposes to implement to preclude such wear are based on a theory as applied to U-tube steam generators, although that theory is not yet supported by actual experience.<sup>54</sup> SCE nevertheless proposes to implement the following sequence of steps incident to the startup and operation of Unit 2: (1) Unit 2 will be operated at 70% power for a limited duration; (2) this duration will be selected in such a manner that if the calculations are wrong, tube-to-tube wear will likely not progress far enough to cause any tube failures; (3) Unit 2 will then be shut down; and (4) 100% of the steam generator tubes will be inspected, and the inspection results can be compared to current wear data to determine the wear rate and provide confirmation *vel non* of the theoretical analysis. *See* SCE’s Answering Brief at 10-11.

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<sup>53</sup> Although Petitioner’s briefs rely heavily on 10 C.F.R. § 50.59 in support of its argument that this CAL process constitutes a *de facto* license amendment proceeding (*see, e.g.*, Petitioner’s Brief at 19-23), they do not specifically reference section 50.59(c)(2)(viii). We do not view this omission as a waiver, however, because Petitioner’s brief included an argument based on the rationale in section 50.59(c)(2)(viii). *See* Petitioner’s Brief at 13; Large Aff. at 5; *see also* Tr. at 42-44. Indeed, SCE understood Petitioner to be advancing such an argument, as evidenced by the fact that SCE endeavored to rebut it. *See* SCE’s Answering Brief, App. A, Examples of Mischaracterizations in the FOE Brief, Affidavits, and NRDC Brief at 118-19.

<sup>54</sup> As evidenced by the following, SCE’s prediction that accelerated tube wear will be precluded by plant operations limited to 70% power is grounded on theory that is not yet supported by actual experience. First, SCE’s Steam Generator Operational Assessment for Tube-to-Tube Wear by AREVA states that “[i]n-plane modes that have never been observed to be unstable even though the computed fluid-elastic stability margins are well below 1.” Assessment for Tube-to-Tube Wear at 16. In other words, in-plane vibrations due to fluid elastic instability have not occurred even though the theory predicts in-plane instability. Second, regarding the tests conducted by Westinghouse, which developed the criteria for in-plane vibrations used for the Unit 2 steam generators, SCE states that the “[in-plane] instability was never observed in any of [the] square-pitch U-bend tests despite early attempts to force its occurrence without any [anti-vibration bar] support for flows up to three times the [out-of-plane] instability threshold.” SONGS Unit 2 Return to Service Report, Att. 6 — App. D, Operational Assessment of Wear Indications in the U-bend Region of San Onofre Unit 2 Replacement Steam Generators at 14 (ADAMS Accession No. ML12285A269, which is entitled “Attachment 6: Appendix A: Estimate of FEI-Induced TTW Rates” on ADAMS, but also contains Appendix D, starting on page 78 of 209 of the ADAMS portable document format (PDF) version). Additionally, SCE states that in subsequent tests using triangular arrays, “[a]s was the case for square array patterns, no in-plane instability was observed in these tests even for U-bend tubes with no supports above the top tube support plate.” *Id.* In short, there is a dearth of applicable experiential data available for in-plane vibrational motion, because, as conceded by SCE, “tube-to-tube wear due to in-plane [fluid elastic instability] ha[s] not been previously experienced in U-tube steam generators.” SCE’s Answering Brief at 10.

The above steps satisfy the regulatory definition of “tests or experiments not described in the [UFSAR,]” which constitute “any activity where any structure, system, or component is utilized or controlled in a manner which is either: (i) [o]utside the reference bounds of the design bases as described in the [UFSAR] or (ii) [i]nconsistent with the analyses or descriptions in the [UFSAR].” 10 C.F.R. § 50.59(a)(6). Because the phenomenon of in-plane fluid elastic instability had not previously been observed in U-tube steam generators, and because tube failures based on that phenomenon had not been envisioned, the FSAR did not include an analysis or description of it. *See supra* note 50 and accompanying text. Accordingly, any operation of Unit 2 that might result in in-plane vibrations due to fluid elastic instability is “[i]nconsistent with the analyses or descriptions in the UFSAR” (10 C.F.R. § 50.59(a)(6)), which, in turn, is the type of “test or experiment” that triggers the obligation under section 50.59(c)(2)(viii) to seek a license amendment.<sup>55</sup>

According to SCE, even if the sequence of startup and operational steps in its Unit 2 Return to Service Report are viewed as tests or experiments that result in a “substantial change in an analysis” in the UFSAR, such a change “does not *per se* require a license amendment under 10 C.F.R. § 50.59.” SCE’s Answering Brief at 83. For example, “[i]f the analytical method is not described in the UFSAR,” states SCE, “a change to that method does not require [a license amendment pursuant to section 50.59].” *Id.* “Furthermore, only changes to the ‘method of evaluation’ are covered by 10 C.F.R. § 50.59(c)(2)(viii). Changes to inputs to methods of evaluation are not covered by this provision” and, hence, do not trigger the requirement of seeking a license amendment. *Id.*

In other words, SCE claims that the standard in section 50.59(c)(2)(viii) has not been triggered because the tests or experiments embodied in its Unit 2 Return to Service Report are not inconsistent with the analysis or descriptions in the UFSAR. We disagree.

The General Design Criteria in Appendix A of 10 C.F.R. Part 50 establish minimum requirements for the principal design criteria for water-cooled nuclear reactor plants. And as discussed *supra* note 44, General Design Criterion 14 refers to the reactor coolant boundary and includes steam generator tubes.

Section 5.4.2.3.1 of the SONGS FSAR analyzes the maintenance of steam generator tube integrity. Subsection 5.4.2.3.1.3.A describes the “Degraded Tube Evaluation.” Its methodology essentially consists of calculating the maximum thinning for which tube integrity can be assured.<sup>56</sup> Additionally, an inspection

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<sup>55</sup> The test or experiment proposed by SCE that must be the subject of a license amendment is required (1) to validate the vibration analysis that will become part of the FSAR (*see supra* note 52); and (2) to assure the steam generator tubes do not fail prematurely due to tube-to-tube wear and, thus, are able to satisfy their design bases. *See id.* (quoting 64 Fed. Reg. at 53,598).

<sup>56</sup> *See* SONGS UFSAR at 5.4-24 § 5.4.2.3.1.3.A.

program, defined in Technical Specification 5.5.2.11, assures that tubes are removed from service before they reach maximum wall thinning.<sup>57</sup>

SCE's experience with SONGS Unit 3 forcefully demonstrates that the current analysis used to support the maintenance of steam generator tube integrity is inadequate for the replacement steam generators. More specifically, the current analysis underlying tube inspections to prevent maximum thinning is inadequate to assure tube integrity in light of the accelerated wear mechanism that might occur in this type of steam generator, and that did occur in the Unit 3 steam generators.

Without question, the current analysis described in the FSAR failed to achieve its intended purpose, and it must therefore be changed. We view this change as sufficiently significant to trigger the license amendment requirement of section 50.59(c)(2)(viii), because it is "[i]nconsistent with the analyses or descriptions in the [UFSAR]." 10 C.F.R. § 50.59(a)(6)(ii). Indeed, this change is a radical deviation from the prior analysis and description in the UFSAR, because without this change, tube integrity cannot be assured for the SONGS steam generators.

\* \* \* \*

In sum, we conclude that SCE's Unit 2 Restart Plan, if implemented, would (1) grant SCE authority to operate without the ability to comply with all technical specifications; (2) grant SCE authority to operate beyond the scope of its existing license; and (3) grant SCE authority to operate its replacement steam generators in a manner that constitutes a test or experiment that meets the criteria in 10 C.F.R. § 50.59(c)(2)(viii) for seeking a license amendment. For these three independent reasons, this CAL process constitutes a *de facto* license amendment proceeding that is subject to a hearing opportunity under section 189a of the AEA.

**D. Because Our Resolution of the First Referred Issue Grants Petitioner All the Relief Its Contention Seeks, the Second Issue Referred by the Commission Is Moot**

The second issue referred to this Licensing Board is whether Petitioner "meets the standing and contention admissibility requirements of 10 C.F.R. § 2.309." CLI-12-20, 76 NRC at 441.<sup>58</sup> In its contention, Petitioner claims that "SONGS cannot

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<sup>57</sup> See SONGS Unit 2 Technical Specification § 5.5.2.11.

<sup>58</sup> SCE urged this Board to resolve the standing and contention admissibility issues before considering the *de facto* license amendment issue. See Tr. at 63-65. The NRC Staff and Petitioner disagreed (see Tr. at 138 (NRC Staff); Tr. at 150 (Petitioner)), arguing that SCE's suggested approach was inconsistent with the Commission's unequivocal directive "to consider whether: (1) the [CAL] . . . constitutes a *de facto* license amendment that would be subject to a hearing opportunity . . . ; and, if so, (2) whether the petition meets the standing and contention admissibility requirements." CLI-12-20, (Continued)



be allowed to restart without a license amendment and attendant adjudicatory public hearing as required by 10 C.F.R. § 2.309, in which Petitioner and other members of the public may participate.” Petition to Intervene at 16.

In the course of resolving the first issue referred by the Commission (*supra* Part II.C), we concluded that this CAL process constitutes a *de facto* license amendment proceeding that is subject to a hearing opportunity. As Petitioner conceded during oral argument (*see* Tr. at 29), such a conclusion grants all the relief sought in its contention. Petitioner’s contention, therefore, is moot.

Were we to adjudicate either (1) the admissibility of a moot contention, or (2) the standing of a petitioner who sought to adjudicate a moot contention, we would be issuing an advisory opinion in derogation of Commission precedent. This we decline to do. *See U.S. Department of Energy* (High-Level Waste Repository), CLI-08-21, 68 NRC 351, 352 (2008); *accord Texas Utilities Generating Co.* (Comanche Peak Steam Electric Station), ALAB-714, 17 NRC 86, 94 (1983).<sup>59</sup>

### III. CONCLUSION

For the foregoing reasons, we resolve the first issue referred by the Commission in the affirmative, concluding that the CAL process for SONGS Units 2 and 3 constitutes a *de facto* license amendment proceeding that is subject to a hearing opportunity under section 189a of the AEA. Our resolution of the first issue grants Petitioner the relief it seeks in its contention; namely, the opportunity for an adjudicatory hearing incident to the license amendment proceedings for the restart of Units 2 and 3. Petitioner’s contention is thus moot, which renders moot the second issue referred by the Commission. The proceeding before this Board is therefore terminated.

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76 NRC at 440-41. We agree with the NRC Staff and Petitioner that SCE’s suggested approach is at odds with the Commission’s clearly expressed instruction in CLI-12-20.

<sup>59</sup>“It is well established that, absent compelling reasons, the Commission adheres to the ‘case’ or ‘controversy’ doctrine in its adjudicatory proceedings.” *Hydro Resources, Inc.* (P.O. Box 777, Crownpoint, New Mexico 87313), LBP-05-17, 62 NRC 77, 91 (2005) (citing *Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station), CLI-93-10, 37 NRC 192, 200 n.28 (1993)). Pursuant to this doctrine, a justiciable controversy must involve parties who raise questions “presented in an adversary context and in a form historically viewed as capable of resolution through the judicial process.” *Flast v. Cohen*, 392 U.S. 83, 95 (1968). When — as is the case here — a petitioner obtains the relief it is seeking before the admissibility of its contention is resolved, the admissibility *vel non* of the contention is no longer justiciable, because it no longer presents a live controversy involving a true clash of interests that is susceptible to meaningful adjudicative relief. *Cf. Moore v. Charlotte-Mecklenburg Board of Education*, 402 U.S. 47, 48 (1971) (*per curiam*) (dismissing appeal for lack of live controversy where both litigants desired the same result); *David B. Kuhl* (Denial of Senior Reactor Operator License), LBP-09-14, 70 NRC 193, 195-96 (2009) (dismissing hearing request as moot where petitioner’s claim was not susceptible to meaningful adjudicative relief).

If a party wishes to appeal this decision, it must file a petition for review with the Commission within 25 days after service of this decision. *See* 10 C.F.R. § 2.341(b)(1). Unless otherwise authorized by law, a party to an NRC adjudicatory proceeding must seek Commission review before seeking judicial review of an agency action. *See id.*

It is so ORDERED.

THE ATOMIC SAFETY AND  
LICENSING BOARD

E. Roy Hawkens, Chairman  
ADMINISTRATIVE JUDGE

Dr. Anthony J. Baratta  
ADMINISTRATIVE JUDGE

Dr. Gary S. Arnold  
ADMINISTRATIVE JUDGE

Issued at Rockville, Maryland,  
this 13th day of May 2013.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

## OFFICE OF NUCLEAR REACTOR REGULATION

Jennifer L. Uhle, Deputy Director

In the Matter of

Docket No. 50-247  
(License No. DPR-26)ENTERGY NUCLEAR OPERATIONS,  
INC., and ENTERGY NUCLEAR  
INDIAN POINT 2, LLC  
(Indian Point, Unit 2)

June 7, 2013

By electronic transmission dated April 16, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12108A052), Dr. C. Jordan Weaver of the Natural Resources Defense Council, Inc. (NRDC), the Petitioner, submitted a petition under Title 10 of the *Code of Federal Regulations* (10 C.F.R.), section 2.206, "Requests for Action Under This Subpart," to Mr. R. W. Borchardt, Executive Director for Operations, U.S. Nuclear Regulatory Commission (NRC or Commission). The Petitioner requested that the NRC take enforcement action by ordering Entergy Nuclear Operations, Inc. (Entergy), the licensee for Indian Point Nuclear Generating Unit No. 2 (Indian Point 2), to remove the passive autocatalytic recombiners (PARs) from the Indian Point 2 containment. The Petitioner subsequently supplemented the petition by requesting that the PARs be replaced with electrically powered thermal hydrogen recombiners.

In the petition, the Petitioner requested that the NRC order the licensee to remove the PARs from the Indian Point 2 containment because the PAR system could have unintended ignitions in the event of a severe reactor accident, which, in turn, could cause a hydrogen detonation (i.e., a combustion wave traveling at a supersonic speed, relative to the unburned gas). The Petitioner stated that experimental data demonstrate that Indian Point 2's two PAR units could have at least one unintended ignition on their catalytic surfaces after a severe reactor accident.

In this Director's Decision, the Deputy Director of the Office of Nuclear Reactor Regulation denied the Petitioner's request. The NRC Staff has reviewed

the petition and does not agree that the presence of PARs represents a sufficient risk to warrant their removal by order. Following a severe reactor accident, multiple ignition sources, besides PARs, would be present in containment to initiate combustion at lower flammability limits, which would be expected to keep hydrogen concentrations below detonable levels. Furthermore, the NRC Staff believes that the presence of PARs could prove beneficial in the event of an extended station blackout.

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

### **I. INTRODUCTION**

By electronic transmission dated April 16, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12108A052), Dr. C. Jordan Weaver of the Natural Resources Defense Council, Inc. (NRDC), the Petitioner, submitted a petition under Title 10 of the *Code of Federal Regulations* (10 C.F.R.), section 2.206, "Requests for Action Under This Subpart," to Mr. R. W. Borchardt, Executive Director for Operations, U.S. Nuclear Regulatory Commission (NRC or Commission). The Petitioner requested that the NRC take enforcement action by ordering Entergy Nuclear Operations, Inc. (Entergy), the licensee for Indian Point Nuclear Generating Unit No. 2 (Indian Point 2), to remove the passive autocatalytic recombiners (PARs) from the Indian Point 2 containment. The Petitioner subsequently supplemented the petition by requesting that the PARs be replaced with electrically powered thermal hydrogen recombiners.

#### **A. Actions Requested**

In the petition dated April 16, 2012, the Petitioner requested that the NRC order the licensee for Indian Point 2 to remove the PARs from the Indian Point 2 containment because the PAR system could have unintended ignitions in the event of a severe reactor accident, which, in turn, could cause a hydrogen detonation (i.e., a combustion wave traveling at a supersonic speed, relative to the unburned gas). The Petitioner stated that experimental data demonstrate that Indian Point 2's two PAR units could have at least one unintended ignition on their catalytic surfaces after a severe reactor accident.

As the basis for the request, the Petitioner stated, in part:

- The PAR systems are simple devices consisting of catalyst surfaces where spontaneous catalytic reactions occur in the presence of hydrogen and oxygen to form water vapor. PARs are passive systems and do not need external power supplies or operator action to function. As a consequence,

control room operators cannot deactivate them or remove them from service.

- The PARs at Indian Point 2 are capable of controlling hydrogen generated from the NRC's design-basis accident as described in the Indian Point 2 updated final safety analysis report. The focus of the petition is on the behavior of PARs following a severe reactor accident.
- Following a severe reactor accident, hydrogen generation rates could overwhelm the PARs at Indian Point 2. As a result, the containment atmosphere could have elevated concentrations of hydrogen gas approaching 8% to 10% or greater.
- The petition refers to data from tests, including work sponsored by the NRC at the Sandia National Laboratory Surtsey test facility, in which PARs were observed to have unintended ignitions in environments containing elevated levels of hydrogen gas (i.e., 8% to 10%). According to the Petitioner, ignitions could lead to detonations.
- The NRC has not published any documentation indicating that the issue of PAR ignitions has been studied and resolved.
- Removal of the PARs at Indian Point 2 will lead to a safer post-accident condition because a potential source of ignition would be removed. Furthermore, if the PARs are replaced by electrically powered hydrogen thermal recombiners, control room operators would have the option of deactivating them because electrically powered hydrogen thermal recombiners can also have unintended ignitions.

Representatives of the Petitioner made a presentation before the NRC's Petition Review Board (PRB) on June 14, 2012, to clarify the bases for the petition. The Petitioner acknowledged that the PARs at Indian Point 2 could adequately control hydrogen generated from the NRC's design-basis accident. The Petitioner focused on severe reactor accidents in which significant quantities of hydrogen gas can be generated very quickly. The Petitioner stated that test results demonstrate that PARs can have ignitions in environments containing high concentrations of combustible gases that could lead to a detonation. During the presentation, the Petitioner supplemented the petition by requesting that the licensee replace the PARs with electrically powered thermal hydrogen recombiners because control room operators would have the option of deactivating electrically powered recombiners during a severe reactor accident. The transcript of this meeting (ADAMS Accession No. ML12300A412) has been added as a supplement to the petition.

By electronic transmission dated July 30, 2012 (ADAMS Accession No. ML122550089), the PRB informed the Petitioner that its initial recommendation was to reject the petition from the 10 C.F.R. § 2.206 review process based on the

finding that (1) the Petitioner raises issues that have already been the subject of NRC Staff review and evaluation either at that facility, at other similar facilities, or on a generic basis for which a resolution has been achieved, the issues have been resolved, and the resolution is applicable to the facility in question; and (2) the request addresses deficiencies within existing NRC rules.

Representatives of the Petitioner made a second presentation before the PRB on September 12, 2012. The Petitioner objected to the PRB's initial recommendation because the PRB did not address the petition's research regarding PARs malfunctioning by having ignitions in environments containing elevated hydrogen concentration. The Petitioner questioned whether detonations would be acceptable to the NRC following a severe reactor accident and noted that the PRB did not cite any document indicating that the NRC had reviewed and resolved this possibility. The Petitioner also cited a 2011 International Atomic Energy Agency report indicating that the PAR ignition problem has not been resolved. In the concluding remarks, the Petitioner stressed that the petition was not about whether a large dry containment could withstand a detonation, but rather that PARs can initiate ignitions following a severe reactor accident that could lead to a detonation. The transcript of this meeting (ADAMS Accession No. ML12300A428) has been added as a supplement to the petition.

By letter dated November 16, 2012 (ADAMS Accession No. ML12305A436), the Petitioner was informed that, based on the additional information provided in the second presentation before the PRB, the PRB reconsidered its initial recommendation and accepted the petition for review under 10 C.F.R. § 2.206. Furthermore, the Petitioner was informed that, while evaluating the petition, the NRC Staff would take into consideration long-term actions taken or planned by the NRC's task force responding to the events of March 2011 at the Fukushima Dai-ichi nuclear power plant in Japan.

All documents cited in this Director's Decision are available for inspection at the NRC's Public Document Room (PDR), located at One White Flint North, Room O1-F21, 11555 Rockville Pike (first floor), Rockville, Maryland. 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 sending an e-mail to [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov).

## II. DISCUSSION

Indian Point 2 is a pressurized water reactor characterized as having a large dry containment. The containment building is a reinforced concrete axisymmetric

right vertical cylindrical structure with a hemispherical dome lined with a steel plate on the inside. Two PARs are located on the operating deck outside the missile shield wall at the 29-meter (95-foot) elevation. This location is away from the reactor coolant piping and possible impingement from high-energy line breaks. There are five safety-related fan coolers that cool and mix the post-accident containment atmosphere. Two seismic class 1 hydrogen and oxygen analyzers are available to monitor hydrogen and oxygen concentrations and provide the sampling capability required by NUREG-0737, "Clarification of TMI Action Plan Requirements," Item II.B.3.

In the NRC's design-basis accident, the amount of hydrogen gas generated is limited to the amount produced by an oxidation reaction of 5% of the cladding metal with steam over a 2-minute period. The Petitioner does not question the ability of the PARs to adequately control hydrogen following the NRC's design-basis accident. The Petitioner states that hydrogen generation during a design-basis accident is estimated at 0.001 to 0.05 kilograms per second and the hydrogen-removal capacity per PAR unit is several grams per second of hydrogen. Therefore, the PARs would be sufficient to keep hydrogen concentrations below 4 volume percent so that there would not be any reasonable expectation of deflagrations (i.e., combustion waves traveling at a subsonic speed, relative to the unburned gas) within containment.

Following a severe reactor accident, the zirconium-alloy fuel cladding used in U.S. light-water reactors begins reacting with steam at a significant rate, producing zirconium oxide, hydrogen gas, and heat. The mass of zirconium present in a typical commercial light-water reactor core is sufficient to produce hundreds of kilograms (kg) of hydrogen. The Petitioner cites reports of hydrogen generation of 0.1 to 10 kg per second during a severe reactor accident. The Petitioner further states that pressurized-water reactors, similar to Indian Point 2, would need 30 to 60 hydrogen recombiners in containment to mitigate these levels of hydrogen production. As a matter of reference, it has been estimated that the 1979 accident at Three Mile Island produced 400 kg of hydrogen.

PARs are characterized as simple devices without moving parts that do not need power supplies to operate. They consist of multiple cartridges with catalytic surfaces that are exposed to the containment atmosphere. When exposed to free hydrogen, a catalytic reaction combines the hydrogen and available oxygen to form water vapor. While PARs do not require a power supply to operate, they also cannot be stopped or deactivated by control room operators. For this reason, the Petitioner requests the NRC to order the removal of PARs from the Indian Point 2 containment and replace them with electrically powered thermal hydrogen recombiners that can be started or deactivated by control room operators.

The Petitioner states that PARs would be overwhelmed by the production of hydrogen following a severe reactor accident resulting in elevated concentrations of hydrogen, which would lead to combustion. Combustion, in turn, could lead

to a detonation. The NRC has acknowledged that electrically powered hydrogen recombiners would be overwhelmed by the production of hydrogen following a severe reactor accident, and the agency does not question the Petitioner's assertion that PARs would be similarly overwhelmed.

The Petitioner also cites the results of tests in which PARs had unintended ignitions in environments containing elevated concentrations of hydrogen. The Petitioner made numerous references to the NRC-sponsored tests conducted by Sandia National Laboratory at the Surtsey test vessel in 1998. The results of this work were published in NUREG/CR-6580, "Performance Testing of Passive Autocatalytic Recombiners." The Surtsey tests, which were conducted to evaluate and understand the behavior of PARs under varying conditions, documented that PARs can have ignitions. As a result of ignitions, the PARs would effectively become igniters. The petition cites a number of studies describing the risks and difficulties of modeling igniters for hydrogen control.

In summary, the Petitioner believes that after a severe reactor accident, the PARs at Indian Point 2 would be overwhelmed by the production of hydrogen, combustible levels of hydrogen would be created, the PARs would have unintended ignitions, and the ignitions could be followed by a detonation. While the petition does not focus on whether the Indian Point 2 containment could withstand a detonation, this is clearly inferred as the ultimate safety consideration. The Petitioner believes that ordering the removal of the PARs and replacing them with electrically powered thermal hydrogen recombiners would result in a safer configuration because control room operators would be able to deactivate conventional recombiners, if necessary. In support of the petition, the Petitioner cites a number of research papers that have been published and testing that has taken place since 2003 (when the NRC revised 10 C.F.R. § 50.44, "Combustible Gas Control for Nuclear Power Reactors," resulting in the current Staff position on hydrogen control).

In its evaluation of the NRDC petition, the NRC Staff notes that when hydrogen concentration reaches the lower flammability limit of five volume percent at room temperature and 1 atmosphere of pressure, it can be ignited (i.e., burned by deflagration) and will generate a slowly rising pressure spike (on the order of several seconds long). For hydrogen concentrations greater than 10 volume percent, experimental results have shown that flame acceleration could occur and reach sonic velocity. If the hydrogen concentration exceeds 19 volume percent in a confined volume or becomes stratified, it will detonate rather than burn. As a matter of reference, the 1979 accident at Three Mile Island, which included a hydrogen deflagration and a resultant pressure spike of 28 pounds per square inch, was attributed to a hydrogen concentration of eight and a half volume percent (NUREG/CR-2569, "Response of the Zion and Indian Point Containment Buildings to Severe Accident Pressures").

The discussion in the remainder of this section conveys the NRC Staff's belief



that (1) a detonation caused by hydrogen combustion during a degraded core accident at Indian Point 2 is considered unlikely, and (2) there are benefits for keeping the PARs and, therefore, they should not be removed from the Indian Point 2 containment. The benefits include the following:

- (1) Hydrogen deflagrations are the most likely mode of combustion in degraded core accidents. The likelihood and nature of deflagrations inside containment are influenced by gas-mixture composition and availability of ignition sources. Because of the small amount of energy needed to ignite combustible mixtures, there are numerous potential ignition sources, such as sparks from electrical equipment, electrostatic discharges, hot jets and gases, hot surfaces (including PARs), core melt particles, etc. Most of these sources tend to occur randomly and for a short duration. What makes PARs beneficial compared to these selected ignition sources is that they continually remove hydrogen from the atmosphere before hydrogen concentrations reach the lower flammability limit. If the unit exceeds its recombination range, resulting in locally high surface temperatures, the PAR will act as a reliable igniter, thereby initiating combustion at “lean” hydrogen concentrations resulting in “milder” deflagrations.
- (2) Indian Point 2’s large dry containment exhibits extremely favorable design characteristics: (a) it has a large free volume that would dilute any releases from the reactor coolant system, (b) hydrogen generation will tend to be in the lower containment region, promoting gas mixing, and (c) it has high containment-pressure capacity. During a degraded core accident, the containment could withstand the consequences of a global deflagration without loss of function.
- (3) In SECY-00-0198, “Status Report on Study of Risk-Informed Changes to the Technical Requirements of 10 CFR Part 50 (Option 3) and Recommendations on Risk-Informed Changes to 10 CFR 50.44 (Combustible Gas Control),” the NRC Staff concluded that combustible gases are not a significant challenge to containment integrity for approximately 24 hours after the onset of core damage for large dry containments. However, hydrogen concentration could increase over a long period of time (on the order of days). SECY-00-0198 recommended that licensees have severe-accident management strategies for control of combustible gases because they might challenge the containment integrity in the long term (over more than 24 hours). Indian Point 2 has Severe Accident Management Guidelines (SAMGs) that provide options to control room operators for managing long-term accumulation of combustible gases. Entry into the SAMGs will only occur after

it has been determined that the Emergency Operating Procedures are no longer effective in controlling a severe reactor accident. Options within the SAMGs include (a) preventing undue hydrogen accumulation by intentionally igniting hydrogen when concentrations are still relatively low and deflagration-induced pressures would be relatively benign, and (b) preventing hydrogen from igniting by keeping the containment steam inert. The Indian Point 2 SAMGs, combined with the hydrogen and oxygen analyzers, are designed to control the long-term threat to containment integrity from a combustion event late in a core-meltdown accident sequence. It should be noted that while, at present, the development of the SAMGs is an industry initiative that is neither required nor reviewed by the NRC, a rulemaking has been initiated in response to the Fukushima Dai-ichi accident to require better integration of emergency response procedures, including SAMGs.

- (4) The Staff believes that the presence of PARs at Indian Point 2 would make it safer and would outweigh the benefits of replacing them. In the event of an extended station-blackout condition, similar to what occurred at Fukushima, the PARs would be an effective means of controlling long-term accumulation of hydrogen gas. If the PARs were removed and replaced by electrically powered hydrogen thermal recombiners, as recommended by the Petitioner, this means of controlling hydrogen gas accumulation during station-blackout conditions would not be available.

### III. CONCLUSION

The Petitioner sought enforcement action to improve public and plant worker safety at Indian Point 2. The Petitioner requested that the NRC order the licensee for Indian Point 2 to remove the PARs from the Indian Point 2 containment and replace them with electrically powered thermal hydrogen recombiners. The Petitioner believes that the PAR system could have unintended ignitions on their catalytic surfaces in the event of a severe reactor accident, which in turn could cause a hydrogen detonation.

The NRC Staff has reviewed the NRDC petition and does not agree that the presence of PARs represents a sufficient risk to warrant their removal by order. Following a severe reactor accident, multiple ignition sources, besides PARs, would be present in containment to initiate combustion at lower flammability limits, which would be expected to keep hydrogen concentrations below detonable levels. Furthermore, the NRC Staff believes that the presence of PARs could prove beneficial in the event of an extended station blackout. Therefore, the Petitioner's request to order the removal of PARs at Indian Point 2 is denied.

The NRC sent the proposed Director's Decision to both the Petitioner and the licensee by letters dated March 29, 2013 (ADAMS Accession No. ML13050A543). The Petitioner and the licensee were asked 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. Comments were not received from either the Petitioner or the licensee.

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

Jennifer L. Uhle, Deputy Director  
Reactor Safety Programs,  
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland,  
this 7th day of June 2013.



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ALL OPERATING BOILING WATER REACTOR LICENSEES WITH MARK I AND MARK II CONTAINMENTS: ORDER MODIFYING LICENSES WITH REGARD TO RELIABLE HARDENED CONTAINMENT VENTS (EFFECTIVE IMMEDIATELY)  
ENFORCEMENT; MEMORANDUM AND ORDER; Docket No. EA-12-050; CLI-13-2, 77 NRC 39 (2013)

ALL POWER REACTOR LICENSEES AND HOLDERS OF CONSTRUCTION PERMITS IN ACTIVE OR DEFERRED STATUS: ORDER MODIFYING LICENSES WITH REGARD TO RELIABLE SPENT FUEL POOL INSTRUMENTATION (EFFECTIVE IMMEDIATELY)  
ENFORCEMENT; MEMORANDUM AND ORDER; Docket No. EA-12-051; CLI-13-2, 77 NRC 39 (2013)

CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC  
COMBINED LICENSE; MEMORANDUM AND ORDER; Docket No. 52-016-COL; CLI-13-4, 77 NRC 101 (2013)

CHARLISSA C. SMITH  
SPECIAL PROCEEDING; DECISION (Granting Demand for Hearing); Docket No. 55-23694-SP (ASLBP No. 13-925-01-SP-BD01); LBP-13-3, 77 NRC 82 (2013)  
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CROW BUTTE RESOURCES, INC.  
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ENTERGY NUCLEAR INDIAN POINT 2, LLC  
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REQUEST FOR ACTION; DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206; Docket No. 50-247 (License No. DPR-26); DD-13-1, 77 NRC 347 (2013)

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HONEYWELL INTERNATIONAL, INC.  
MATERIALS LICENSE AMENDMENT; MEMORANDUM AND ORDER; Docket No. 40-3392-MLA; CLI-13-1, 77 NRC 1 (2013)

NEXTERA ENERGY SEABROOK, LLC  
LICENSE RENEWAL; MEMORANDUM AND ORDER; Docket No. 50-443-LR; CLI-13-3, 77 NRC 51 (2013)

PROGRESS ENERGY FLORIDA, INC.  
COMBINED LICENSE; PARTIAL INITIAL DECISION (Ruling on Contention 4A); Docket Nos. 52-029-COL, 52-030-COL (ASLBP No. 09-879-04-COL-BD01); LBP-13-4, 77 NRC 107 (2013)

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### SOUTHERN CALIFORNIA EDISON COMPANY

CONFIRMATORY ACTION LETTER; ORDER (Denying SCE's Motion for Sanctions Against Friends of the Earth for Violating the Protective Order, but Imposing an Enhanced Document-Review Requirement); Docket Nos. 50-361-CAL, 50-362-CAL (ASLBP No. 13-924-01-CAL-BD01); LBP-13-2, 77 NRC 71 (2013)

CONFIRMATORY ACTION LETTER; MEMORANDUM AND ORDER (Resolving Issues Referred by the Commission in CLI-12-20); Docket Nos. 50-361-CAL, 50-362-CAL (ASLBP No. 13-924-01-CAL-BD01); LBP-13-7, 77 NRC 307 (2013)

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ENFORCEMENT; MEMORANDUM AND ORDER; NRC Investigation Case No. 2-2013-001; CLI-13-5, 77 NRC 223 (2013)

### UNISTAR NUCLEAR OPERATING SERVICES, LLC

COMBINED LICENSE; MEMORANDUM AND ORDER; Docket No. 52-016-COL; CLI-13-4, 77 NRC 101 (2013)

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- Afshar v. U.S. Department of State*, 702 F.2d 1125, 1133 (D.C. Cir. 1983)  
when an agency waives the deliberative process privilege for a document when it discloses the same document or one containing equivalent text, the question necessarily arises whether the NRC Staff has waived any deliberative process privilege that might otherwise apply; LBP-13-5, 77 NRC 244 (2013)
- Alabama Power Co. v. Costle*, 636 F.2d 323, 357 (D.C. Cir. 1979)  
limited grounds for creation of exemptions are inherent in the administrative process, and agencies may use equitable discretion to afford case-by-case treatment, taking into account circumstances peculiar to individual parties in the application of a general rule or even in appropriate cases to grant dispensation from the rule's operation; CLI-13-1, 77 NRC 9 n.33 (2013)
- Alaska v. United States*, 16 Cl. Ct. 5, 11 (1988)  
claims of deliberative process privilege, even when properly established, are not absolute; LBP-13-5, 77 NRC 248 (2013)  
deliberative process privilege is qualified, requiring the court to balance the interests of the parties for and against disclosures; LBP-13-5, 77 NRC 248 (2013)  
deliberative process privilege may be defeated by a showing of evidentiary need by a plaintiff that outweighs the harm that disclosure of such information may cause to the defendant; LBP-13-5, 77 NRC 248 (2013)
- Alaska Department of Transportation and Public Facilities*, CLI-04-26, 60 NRC 399, 401-04, *reconsideration denied*, CLI-04-38, 60 NRC 652 (2004)  
measures intended to strengthen an enforcement order issued under 10 C.F.R. 2.202 are not within the limited scope of enforcement proceedings; CLI-13-2, 77 NRC 43 (2013)
- Alaska Department of Transportation and Public Facilities*, CLI-04-26, 60 NRC 399, 405, *reconsideration denied*, CLI-04-38, 60 NRC 652 (2004)  
in seeking rescission of an enforcement order, although petitioner said he was not seeking a harsher penalty, that is precisely what he wanted; CLI-13-2, 77 NRC 47 n.39 (2013)
- Alaska Department of Transportation and Public Facilities*, CLI-04-26, 60 NRC 399, 406 n.28, *reconsideration denied*, CLI-04-38, 60 NRC 652 (2004)  
third-party petitioners would have standing where the terms of a confirmatory order, as written, would harm the petitioner; CLI-13-2, 77 NRC 46 (2013)
- Alaska Department of Transportation and Public Facilities*, CLI-04-26, 60 NRC 399, 408, *reconsideration denied*, CLI-04-38, 60 NRC 652 (2004)  
that the corrective measures outlined in a confirmatory order do not improve petitioner's personal situation does not provide grounds to rescind the confirmatory order; CLI-13-2, 77 NRC 46 n.29 (2013)  
where an enforcement order imposes measures to enhance safety, no hearing will be granted to litigate additional measures the petitioner would like to see imposed; CLI-13-2, 77 NRC 45 (2013)
- AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-08-23, 68 NRC 461, 484 n.103 (2008)  
deliberative process privilege applied under 10 C.F.R. 2.390(a)(5) to interagency or intra-agency memorandums or letters is similar to Exemption 5 under the Freedom of Information Act; LBP-13-5, 77 NRC 238 (2013)
- AREVA Enrichment Services, LLC* (Eagle Rock Enrichment Facility), CLI-11-4, 74 NRC 1, 8 n.35 (2011)

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- guidance documents, although not binding, describe an approach to compliance with NRC rules that is acceptable to the NRC, and thus can be informative for that reason; LBP-13-6, 77 NRC 291 (2013)
- Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 143, 155 (1991)
- boards may appropriately view petitioner's supporting information in a light favorable to petitioner, but failure to provide such information regarding a proffered contention requires that the contention be rejected; LBP-13-6, 77 NRC 285 (2013)
- if petitioner neglects to provide the requisite support for its contentions, it is not within a board's power to make assumptions or draw inferences that favor petitioner, nor may the board supply information that is lacking; LBP-13-6, 77 NRC 285 (2013)
- Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), LBP-91-19, 33 NRC 397, 410, *aff'd in part and rev'd in part on other grounds*, CLI-91-12, 34 NRC 149 (1991)
- contentions that advocate stricter requirements than agency rules impose or that otherwise seek to litigate a generic determination established by a Commission rulemaking are inadmissible; LBP-13-6, 77 NRC 284 (2013)
- Army Times Publishing Co. v. U.S. Department of the Air Force*, 998 F.2d 1067, 1071 (D.C. Cir. 1993)
- deliberative process privilege does not protect documents in their entirety and if the government can segregate and disclose nonprivileged factual information within a document, it must; LBP-13-5, 77 NRC 240 (2013)
- Ashley v. U.S. Department of Labor*, 589 F. Supp. 901 (D.D.C. 1983)
- deliberative process privilege has been extended to draft documents, proposals, suggestions, instructions to work deletions and alterations into drafts, instructions to conduct an investigation, documents reflecting personal and advisory opinions, and rejections of recommendations; LBP-13-5, 77 NRC 239-40 (2013)
- Atlas Corp.* (Moab, Utah), LBP-00-4, 51 NRC 53, 59 (2000)
- analysis of standing of other petitioning organizations was unnecessary when public interest organization had clear representational standing; LBP-13-6, 77 NRC 283 n.23 (2013)
- Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc.*, 462 U.S. 87, 97 (1983)
- NEPA requirement to prepare an environmental impact statement places upon an agency the obligation to consider every significant aspect of the environmental impact of a proposed action; LBP-13-4, 77 NRC 119 (2013)
- Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 343 n.3 (1998)
- unreviewed board rulings do not constitute precedent or binding law; LBP-13-7, 77 NRC 328 (2013)
- Bank of Dearborn v. Saxon*, 244 F. Supp. 394, 402 (E.D. Mich. 1965)
- seriousness of the litigation supports disclosure of material for which deliberative process privilege is sought; LBP-13-5, 77 NRC 250 (2013)
- Bellotti v. NRC*, 725 F.2d 1380, 1382 (D.C. Cir. 1983), *aff'g Boston Edison Co.* (Pilgrim Nuclear Power Station), CLI-82-16, 16 NRC 44 (1982)
- issue to be determined at hearing on a confirmatory order is whether the order should be sustained or denied, not whether the order should be enhanced; CLI-13-2, 77 NRC 44 (2013)
- Bellotti v. NRC*, 725 F.2d 1380, 1383 (D.C. Cir. 1983), *aff'g Boston Edison Co.* (Pilgrim Nuclear Power Station), CLI-82-16, 16 NRC 44 (1982)
- automatic participation at a hearing may be denied only when the Commission is seeking to make a facility's operation safer; CLI-13-2, 77 NRC 45 n.24 (2013)
- when NRC issues orders that require additional or better safety measures, AEA § 189a does not provide a vehicle for third parties to seek a hearing on any issue some member of the public may wish to litigate; CLI-13-2, 77 NRC 45 (2013)
- Boston Edison Co.* (Pilgrim Nuclear Power Station), CLI-82-16, 16 NRC 44, 45 (1982)
- scope of a section 2.202 proceeding is limited to the narrow issues of whether the facts stated in the order are true and whether the remedy selected is supported by those facts; CLI-13-2, 77 NRC 44-45 (2013)
- Boston Edison Co.* (Pilgrim Nuclear Power Station), CLI-82-16, 16 NRC 44, 46-47 (1982)
- measures intended to strengthen an enforcement order issued under 10 C.F.R. 2.202 are not within the limited scope of enforcement proceedings; CLI-13-2, 77 NRC 43 (2013)



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- Brandt v. Hickel*, 427 F.2d 53, 57 (9th Cir. 1970)  
to say to appellants that the joke is on you, you shouldn't have trusted us, is hardly worthy of our great government; LBP-13-3, 77 NRC 96 n.68 (2013)
- Bristol-Meyers Co. v. Federal Trade Commission*, 598 F.2d 18 (D.C. Cir. 1978)  
to qualify for deliberative process privilege, documents must be generated as part of a definable decisionmaking process that results in a final agency decision and must reflect the flow of opinions, recommendations, or advice between policymakers in formulating some type of definitive and conclusive ruling; LBP-13-5, 77 NRC 239 (2013)
- California v. Environmental Protection Agency*, No. C 07-2055 JSW(JL), 2008 WL 5384623, at \*5 (N.D. Cal. Dec. 22, 2008)  
deliberative process privilege has been extended to draft documents, proposals, suggestions, instructions to work deletions and alterations into drafts, instructions to conduct an investigation, documents reflecting personal and advisory opinions, and rejections of recommendations; LBP-13-5, 77 NRC 239-40 (2013)  
to qualify for deliberative process privilege, documents must be generated as part of a definable decisionmaking process that results in a final agency decision and must reflect the flow of opinions, recommendations, or advice between policymakers in formulating some type of definitive and conclusive ruling; LBP-13-5, 77 NRC 239 (2013)
- California v. Environmental Protection Agency*, No. C 07-2055 JSW(JL), 2008 WL 5384623, at \*7 (N.D. Cal. Dec. 22, 2008)  
factual material that does not reveal the deliberative process is not protected by privilege, unless it is inextricably intertwined with the deliberative portions of the document or it could reveal the deliberative process being protected if it were disclosed; LBP-13-5, 77 NRC 239 (2013)
- California v. Federal Energy Regulatory Commission*, 329 F.3d 700, 706-07 (9th Cir. 2003)  
boards may not rely on a *Federal Register* notice to put petitioner on constructive notice of a requirement that the board itself cannot discern in the regulations; LBP-13-3, 77 NRC 97 (2013)
- Calvert Cliffs 3 Nuclear Project, LLC* (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-12-16, 76 NRC 63, 68-69 (2012)  
as an exercise of its inherent supervisory authority over adjudications, the Commission directs that waste confidence contentions and any related contentions that may be filed in the near term be held in abeyance pending further order; LBP-13-1, 77 NRC 69 n.46 (2013); LBP-13-4, 77 NRC 114 n.1, 221 n.101 (2013)
- Calvert Cliffs 3 Nuclear Project, LLC* (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-12-16, 76 NRC 63, 69 n.11 (2012)  
should the Commission determine at a future time that case-specific waste confidence challenges are appropriate for consideration, normal procedural rules will apply; LBP-13-1, 77 NRC 69 n.46 (2013)
- Calvert Cliffs' Coordinating Committee v. AEC*, 449 F.2d 1109, 1123 (D.C. Cir. 1971)  
NRC may not abdicate its duty under NEPA to other agencies to consider environmental impacts, even if those agencies have special expertise relating to environmental impacts; LBP-13-4, 77 NRC 213 n.91 (2013)
- Carl Zeiss Stiftung v. V. E. B. Carl Zeiss, Jena*, 40 F.R.D. 318, 329 (D.D.C. 1966), *aff'd*, 384 F.2d 979 (D.C. Cir. 1967)  
role of the government in litigation favors disclosure when the government is a party to the litigation and has been accused of unlawful conduct; LBP-13-5, 77 NRC 250 (2013)  
when government conduct is challenged, claims of privilege may be used to obtain a litigating advantage; LBP-13-5, 77 NRC 250 (2013)
- Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), LBP-99-25, 50 NRC 25, 29-31 (1999)  
when a governmental organization, including a federally recognized Native American tribe, is unable to establish standing because the facility or nuclear material in question does not fall within its jurisdictional boundaries, that entity may be accorded standing if its boundaries come within a distance from the nuclear facility or material that otherwise would establish standing for an individual or nongovernmental organization, whether via a proximity presumption or otherwise; LBP-13-6, 77 NRC 272 n.7 (2013)

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- Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), LBP-00-19, 52 NRC 85, 93-98 (2000)  
contention challenging the adequacy/propriety of a Staff determination to prepare an environmental assessment in lieu of a supplemental EIS would need to await the issuance of the draft EA;  
LBP-13-6, 77 NRC 300 n.32 (2013)
- Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant, Units 1, 2, 3, and 4), ALAB-490, 8 NRC 234, 236, 241 (1978)  
where the licensing board independently analyzed the data in the record and made its own need-for-power projection based thereon, the NRC did not abdicate its NEPA responsibilities by placing heavy reliance on the judgment of local regulatory bodies; LBP-13-4, 77 NRC 214 (2013)
- Citizens Awareness Network, Inc. v. NRC*, 59 F.3d 284, 294 (1st Cir. 1995)  
by its nature a license is presumptively an exclusive (not an inclusive) regulatory device; LBP-13-7, 77 NRC 332 n.39 (2013)
- Citizens Awareness Network, Inc. v. NRC*, 59 F.3d 284, 294-95 (1st Cir. 1995)  
if AEA § 189a is to serve its intended purpose, surely it contemplates that parties in interest be afforded a meaningful opportunity to request a hearing before the Commission retroactively reinvents the terms of an extant license by voiding its implicit limitations on the licensee's conduct;  
LBP-13-7, 77 NRC 327 (2013)
- Citizens Awareness Network, Inc. v. NRC*, 59 F.3d 284, 295 (1st Cir. 1995)  
actions by the NRC Staff constitute a de facto license amendment when they authorize a licensee to engage in activities beyond the scope of its original license; LBP-13-7, 77 NRC 339 n.49 (2013)  
factors material to determining whether NRC actions constitute a de facto license amendment are described; LBP-13-7, 77 NRC 332 (2013)  
regulated conduct that is neither delineated nor reasonably encompassed within delineated categories of authorized conduct presumptively remains unlicensed; LBP-13-7, 77 NRC 332 n.39 (2013)  
substance of the NRC action determines entitlement to a section 189a hearing, not the particular label that NRC chooses to assign to its action; LBP-13-7, 77 NRC 326 (2013)
- Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant), CLI-96-13, 44 NRC 315, 319 (1996)  
because technical specifications are an integral part of an operating license, changes to technical specifications require a license amendment; LBP-13-7, 77 NRC 332 n.39 (2013)
- Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant), CLI-96-13, 44 NRC 315, 320 (1996)  
updated final safety analysis reports can be modified without a license amendment as long as the modifications do not involve a change to the technical specifications or an unreviewed safety question; LBP-13-7, 77 NRC 332 n.39 (2013)
- Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant), CLI-96-13, 44 NRC 315, 326-27 (1996)  
analytic framework for assessing whether a confirmatory action letter process constitutes a de facto license amendment proceeding is provided; LBP-13-7, 77 NRC 332 (2013)
- Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant), CLI-96-13, 44 NRC 315, 327 (1996)  
actions by the NRC Staff constitute a de facto license amendment when they authorize a licensee to engage in activities beyond the scope of its original license; LBP-13-7, 77 NRC 339 n.49 (2013)
- Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Unit 1), LBP-95-17, 42 NRC 137, 143 (1995), *rev'd on other grounds*, CLI-96-13, 44 NRC 315 (1996)  
rules of interpretation applicable to statutes are equally germane in determining a regulation's meaning; LBP-13-3, 77 NRC 92 n.53 (2013)
- Coastal States Gas Corp. v. U.S. Department of Energy*, 617 F.2d 854, 861 (D.C. Cir. 1980)  
cursory and conclusory assertions that merely paraphrase the standards applicable to the deliberative process privilege without explaining how they apply to any specific document in dispute will not suffice to carry the government's burden of proof in defending FOIA cases; LBP-13-5, 77 NRC 243, 247 (2013)  
in attempting to assert agency privilege, NRC Staff must remember that the burden is on it to establish its right to withhold information from the public and it must supply sufficient information to allow the decisionmaker to make a reasoned determination that it was correct; LBP-13-5, 77 NRC 242 (2013)
- Cogema Mining, Inc.* (Irigaray and Christensen Ranch Facilities), LBP-09-13, 70 NRC 168, 185 (2009)  
Bureau of Indian Affairs lists federally recognized Native American tribes; LBP-13-6, 77 NRC 272 (2013)

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- Cohen v. de la Cruz*, 523 U.S. 213, 220 (1998)  
equivalent words have equivalent meaning when repeated in the same statute; LBP-13-3, 77 NRC 91-92 (2013)
- Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), CLI-00-5, 51 NRC 90, 94-98 (2000)  
rule exemption requests are not entitled to a hearing under AEA § 189a; CLI-13-1, 77 NRC 10 n.36 (2013)
- Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), CLI-00-5, 51 NRC 90, 98 (2000)  
if petitioner's factual claims in support of its standing are contested, untenable, conjectural, or conclusory, boards need not uncritically accept such assertions, but may weigh those informational claims and exercise its judgment about whether the standing element at issue has been satisfied; LBP-13-6, 77 NRC 270 (2013)
- Commonwealth of Massachusetts v. Watt*, 716 F.2d 946 at 953 (1st Cir. 1983)  
when a decision is made without the information that NEPA seeks to put before the decision maker, the harm that NEPA seeks to prevent occurs; LBP-13-6, 77 NRC 296-97 (2013)
- Connecticut Yankee Atomic Power Co.* (Haddam Neck Plant), CLI-03-7, 58 NRC 1, 7 & n.14 (2003)  
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- Consolidated Edison Co. of New York* (Indian Point, Unit 2), LBP-82-1, 15 NRC 37, 40 (1982)  
publication of a regulation in the *Federal Register* constitutes notice to all persons residing in the United States; LBP-13-3, 77 NRC 97 (2013)
- Consolidated Edison Co. of New York* (Indian Point, Units 1, 2, and 3), CLI-75-8, 2 NRC 173, 175-76 (1975)  
abuse of discretion standard of review is applicable to discretionary Staff actions not subject to a hearing opportunity; CLI-13-1, 77 NRC 29 n.158 (2013)
- Consumers Energy Co.* (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 410 (2007)  
if petitioner's factual claims in support of its standing are contested, untenable, conjectural, or conclusory, boards need not uncritically accept such assertions, but may weigh those informational claims and exercise its judgment about whether the standing element at issue has been satisfied; LBP-13-6, 77 NRC 270 (2013)
- Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 337-39 (2009)  
Native American tribe's statutorily recognized interest in tribal cultural resources that may still be extant on its recognized aboriginal lands provides a cognizable interest for the purpose of establishing its standing; LBP-13-6, 77 NRC 272 n.7 (2013)
- Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 339-41 (2009)  
to have standing, petitioner need only show that a cognizable injury is associated with a proposed licensing action and that granting the relief sought will address that injury; LBP-13-6, 77 NRC 274 n.9 (2013)
- Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 343 (2009)  
standing in each agency proceeding depends on the factual circumstances associated with that case; LBP-13-6, 77 NRC 276 (2013)
- Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 348-51 (2009)  
contention contesting how the consultation mandate is being carried out can be raised in the first instance only after the Staff's draft environmental impact statement; LBP-13-6, 77 NRC 287 (2013)
- Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 365 (2009)  
contention admissibility decisions generally are not considered to be extraordinary for purposes of interlocutory appellate review, particularly where petitioner has been admitted as a party and has other contentions pending; CLI-13-3, 77 NRC 55 (2013)

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- Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), LBP-08-24, 68 NRC 691, 709 (2008), *aff'd in part and rev'd in part*, CLI-09-9, 69 NRC 331 (2009)  
representational standing must be based on individual standing of at least one member; LBP-13-6, 77 NRC 280-81 n.19 (2013)
- Crow Butte Resources, Inc.* (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 553 (2009)  
if petitioner neglects to provide the requisite support for its contentions, it is not within a board's power to make assumptions or draw inferences that favor petitioner, nor may the board supply information that is lacking; LBP-13-6, 77 NRC 285 (2013)  
to define the scope of an admitted contention properly, the board should have specified which bases were admitted; LBP-13-6, 77 NRC 298 (2013)
- Crow Butte Resources, Inc.* (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 557 (2009)  
contentions that fail to directly controvert the application or that mistakenly assert that the application does not address a relevant issue will be dismissed; LBP-13-6, 77 NRC 285-86 (2013)
- Crow Butte Resources, Inc.* (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 564-66 (2009)  
contention contesting how the consultation mandate is being carried out can be raised in the first instance only after the Staff's draft environmental impact statement; LBP-13-6, 77 NRC 287 (2013)
- Crow Butte Resources, Inc.* (North Trend Expansion Project), LBP-08-6, 67 NRC 241, 272-273 (2008), *aff'd in part and rev'd in part*, CLI-09-12, 69 NRC 535 (2009)  
petitioner made no effort to establish that any proximity plus presumption should be applicable in determining standing relative to the challenged licensing action; LBP-13-6, 77 NRC 271 n.5 (2013)
- Crow Butte Resources, Inc.* (North Trend Expansion Project), LBP-08-6, 67 NRC 241, 288-89 (2008), *aff'd in part and rev'd in part*, CLI-09-12, 69 NRC 535 (2009)  
petitioner asserts standing based on use of proposed site to gather eagle feathers for ceremonial and religious uses; LBP-13-6, 77 NRC 277 (2013)
- David B. Kuhl, II* (Denial of Senior Reactor Operator License), LBP-09-14, 70 NRC 193 (2009)  
hearing demand under section 2.103(b)(2) has only to meet the prescribed filing deadline and specify the reasons why the demander deemed the denial of the sought operator's license to have been unjustified; LBP-13-3, 77 NRC 94 (2013)
- David B. Kuhl, II* (Denial of Senior Reactor Operator License), LBP-09-14, 70 NRC 193, 195 (2009)  
section 2.309(f)(1) has no application to reactor operator licensee proceedings; LBP-13-3, 77 NRC 94 n.64 (2013)
- David B. Kuhl, II* (Denial of Senior Reactor Operator License), LBP-09-14, 70 NRC 193, 195-96 (2009)  
hearing request was dismissed as moot where petitioner's claim was not susceptible to meaningful adjudicative relief; LBP-13-7, 77 NRC 345 n.59 (2013)
- David B. Kuhl, II* (Denial of Senior Reactor Operator License), LBP-09-14, 70 NRC 193, 196 (2009)  
any senior reactor operator license is limited to the facility for which it is issued; LBP-13-3, 77 NRC 94 (2013)
- David Geisen*, CLI-10-23, 72 NRC 210, 220 (2010)  
where issues in a case have been sharply contested, the Commission will explain its view of the case in some detail; CLI-13-1, 77 NRC 19 (2013)
- David Geisen*, CLI-10-23, 72 NRC 210, 224-25 & n.61 (2010)  
deferential clear error standard is applied in analyzing a board's findings of fact; CLI-13-1, 77 NRC 18 n.102 (2013)  
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- David Geisen*, LBP-06-25, 64 NRC 367, 380 (2006)  
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- David Geisen*, LBP-06-25, 64 NRC 367, 383 (2006)  
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- Detroit Edison Co.* (Fermi Nuclear Power Plant, Unit 3), LBP-12-23, 76 NRC 445, 461, 465, 466, 468 (2012)  
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- Detroit Edison Co.* (Fermi Power Plant Independent Spent Fuel Storage Installation), CLI-10-3, 71 NRC 49 (2010)  
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- Detroit Edison Co.* (Fermi Power Plant Independent Spent Fuel Storage Installation), CLI-10-3, 71 NRC 49, 51 n.4 (2010)  
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- Detroit Edison Co.* (Fermi Power Plant Independent Spent Fuel Storage Installation), CLI-10-3, 71 NRC 49, 52-53 (2010)  
petitioner does not meet the redressability requirement for standing, because vacating the confirmatory orders would not ameliorate the injury of which petitioner complains; CLI-13-2, 77 NRC 49 (2013)
- Detroit Edison Co.* (Fermi Power Plant Independent Spent Fuel Storage Installation), CLI-10-3, 71 NRC 49, 53 (2010)  
petitioners' argument opposing an order that imposed additional security measures at a spent fuel storage facility, because it created a false sense of security was rejected because petitioners did not explain how they would be better off without the measures in the order; CLI-13-2, 77 NRC 48 (2013)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 351 (2001)  
the Commission has authority to determine, and prescribe by rule or regulation, what additional information should be included in technical specifications to ensure public health and safety and the common defense and security; LBP-13-7, 77 NRC 329 n.35 (2013)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 360 (2001)  
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- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 559-60 (2005)  
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- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 565 & n.60 (2005)  
even one lacking actual notice may be charged with constructive notice of regulations published in the *Federal Register*; LBP-13-3, 77 NRC 97 (2013)
- Dow, Lohnes & Alberson v. Presidential Commission on Broadcasting to Cuba*, 624 F. Supp. 572, 573-74 (D.D.C. 1984)  
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- Dr. James E. Bauer* (Order Prohibiting Involvement in NRC-Licensed Activities), LBP-95-7, 41 NRC 323, 328 (1995)  
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- Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-02-7, 55 NRC 205, 213-14 (2002)  
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- Duke Energy Corp.* (Catawba Nuclear Station, Units 1 and 2), CLI-04-6, 59 NRC 62, 71 (2004)  
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- Duke Energy Corp.* (Catawba Nuclear Station, Units 1 and 2), CLI-04-6, 59 NRC 62, 74 (2004)  
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- Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-825, 22 NRC 785, 790-91 (1985)  
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- EnergySolutions, LLC* (Radioactive Waste Import/Export Licenses), CLI-11-3, 73 NRC 613, 621-22 (2011)  
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- Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 315 (2010)  
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- Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 315-16 (2010)  
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- Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-22, 72 NRC 202, 208 (2010)  
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- Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-12-1, 75 NRC 39, 46 (2012)  
although the Commission has authority to undertake a de novo factual review, where a board's decision rests on a weighing of extensive fact-specific evidence presented by technical experts, the Commission generally defers to the board's factual findings, unless there appears to be a clearly erroneous factual finding or related oversight; CLI-13-1, 77 NRC 19 n.110 (2013)  
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- Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-12-6, 75 NRC 352, 357 & nn.10-11 (2012)  
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- Entergy Nuclear Operations, Inc.* (Indian Point, Units 2 and 3), CLI-10-30, 72 NRC 564, 568-69 (2010)  
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- Entergy Nuclear Operations, Inc.* (Indian Point, Units 2 and 3), LBP-08-13, 68 NRC 43, 60 (2008)  
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- Entergy Nuclear Operations, Inc.* (Palisades Nuclear Plant), CLI-08-19, 68 NRC 251, 266, 269-70 (2008)  
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- Entergy Nuclear Vermont Yankee LLC* (Vermont Yankee Nuclear Power Station), CLI-07-3, 65 NRC 13, 17-18 (2007)  
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- Entergy Nuclear Vermont Yankee LLC* (Vermont Yankee Nuclear Power Station), LBP-05-33, 62 NRC 828, 839-40 (2005)  
adequacy of the privilege log with respect to the sufficiency of the information contained therein is particularly important with respect to Subpart L proceedings because without sufficient information as to what allegedly makes the document deliberative, the challenger is forced to shoot in the dark and face a substantive answer by the document withholder, without the right to reply; LBP-13-5, 77 NRC 246-47 (2013)
- Entergy Nuclear Vermont Yankee LLC* (Vermont Yankee Nuclear Power Station), LBP-05-33, 62 NRC 828, 843 (2005)  
deliberative process privilege must be asserted by an individual who holds a sufficiently senior position such that he or she has control over the requested information and possesses a balanced perspective that enables him or her to discern the nature of the material at issue; LBP-13-5, 77 NRC 240 (2013)  
factual material that does not reveal the deliberative process is not protected by privilege, unless it is inextricably intertwined with the deliberative portions of the document or it could reveal the deliberative process being protected if it were disclosed; LBP-13-5, 77 NRC 239 (2013)
- Entergy Nuclear Vermont Yankee LLC* (Vermont Yankee Nuclear Power Station), LBP-05-33, 62 NRC 828, 846-47 (2005)  
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- Entergy Nuclear Vermont Yankee LLC* (Vermont Yankee Nuclear Power Station), LBP-05-33, 62 NRC 828, 849-50 (2005)  
person qualified to assert deliberative process privilege must be involved in the initial assertion of privilege; LBP-13-5, 77 NRC 240 (2013)
- Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-04-31, 60 NRC 461, 465-66 (2004)  
piecemeal review of licensing board rulings during ongoing proceedings is disfavored; CLI-13-3, 77 NRC 54 (2013)
- Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-04-31, 60 NRC 461, 466-67 (2004)  
contention admissibility decisions generally are not considered to be extraordinary for purposes of interlocutory appellate review, particularly where petitioner has been admitted as a party and has other contentions pending; CLI-13-3, 77 NRC 55 (2013)
- Exelon Generation Co., LLC* (Peach Bottom Atomic Power Station, Units 2 and 3), CLI-05-26, 62 NRC 577, 581 (2005)  
where petitioner has made no effort to establish that any proximity plus presumption should be applicable in determining standing relative to the challenged licensing action, boards must look to traditional standing precepts of injury and causation, as well as redressibility, to determine whether a

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- sufficient factual and legal demonstration of standing has been made; LBP-13-6, 77 NRC 271 n.5 (2013)
- Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003)  
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- Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 204-05 (2003)  
attaching material or documents as a basis for a contention, without setting forth an explanation of that information's significance, is inadequate to support the admission of the contention; LBP-13-6, 77 NRC 285 (2013)
- Federal Open Market Committee of the Federal Reserve System v. Merrill*, 443 U.S. 340 (1979)  
deliberative process privilege has been extended to draft documents, proposals, suggestions, instructions to work deletions and alterations into drafts, instructions to conduct an investigation, documents reflecting personal and advisory opinions, and rejections of recommendations; LBP-13-5, 77 NRC 239-40 (2013)
- FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station), CLI-04-23, 60 NRC 154, 157 (2004)  
before any hearing is granted on a confirmatory order, a threshold question, intertwined with both standing and contention admissibility issues, is whether the hearing requests are within the scope of the proceeding outlined in the order itself, that is, whether the order should be sustained; CLI-13-2, 77 NRC 44 (2013)
- FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station), CLI-04-23, 60 NRC 154, 158 (2004)  
enforcement proceeding's limited scope undermines petitioner's claim of standing as well as the materiality of its proposed contentions; CLI-13-2, 77 NRC 49 (2013)
- FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station, Unit 1), CLI-12-8, 75 NRC 393, 395-96 (2012)  
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- FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station, Unit 1), LBP-12-27, 76 NRC 583, 592-94 (2012)  
SAMA analysis is an analysis of a class of SAMA candidates using probabilistic risk assessment techniques to determine whether any of the SAMA candidates would be cost-beneficial; LBP-13-1, 77 NRC 65 (2013)
- Flast v. Cohen*, 392 U.S. 83, 95 (1968)  
pursuant to the case or controversy doctrine, a justiciable controversy must involve parties who raise questions presented in an adversary context and in a form historically viewed as capable of resolution through the judicial process; LBP-13-7, 77 NRC 345 n.59 (2013)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-00-23, 52 NRC 327, 329 (2000)  
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- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 159 (2001)  
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- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 6 and 7), LBP-11-6, 73 NRC 149, 169-70 (2011)  
when a governmental organization, including a federally recognized Native American tribe, is unable to establish standing because the facility or nuclear material in question does not fall within its jurisdictional boundaries, that entity nonetheless may be accorded standing if its boundaries come within a distance from the nuclear facility or material that otherwise would establish standing for an



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- individual or nongovernmental organization, whether via a proximity presumption or otherwise; LBP-13-6, 77 NRC 272 n.7 (2013)
- Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995)
- in assessing whether petitioner has demonstrated standing, boards are to construe the petition in favor of the petitioner; LBP-13-6, 77 NRC 270 (2013)
- Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-94-5, 39 NRC 190, 193 (1994) where the adverse impact of disclosure would occur immediately, the alleged harm is immediate for purpose of interlocutory review; CLI-13-3, 77 NRC 55 n.18 (2013)
- Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-94-5, 39 NRC 190, 197 (1994) among the categories of privileged documents are interagency or intra-agency memorandums or letters that would not be available by law to a party other than an agency in litigation with the Commission; LBP-13-5, 77 NRC 238 (2013)
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- deliberative process privilege applied under 10 C.F.R. 2.390(a)(5) to interagency or intra-agency memorandums or letters is similar to Exemption 5 under the Freedom of Information Act; LBP-13-5, 77 NRC 238 (2013)
- deliberative process privilege serves to protect creative debate and candid consideration of alternatives within an agency, to guard against public confusion that could result from the release of policy-oriented discussions that occur prior to policy being made, and to protect the integrity of the decisionmaking process; LBP-13-5, 77 NRC 239 (2013)
- Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-94-5, 39 NRC 190, 197-98 (1994)
- to qualify for deliberative process privilege, a document must be both predecisional or antecedent to the adoption of agency policy and deliberative, meaning it must actually be related to the process by which policies are formulated; LBP-13-5, 77 NRC 239 (2013)
- Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-94-5, 39 NRC 190, 198 (1994) although deliberative process privilege is a qualified privilege and the agency claiming the privilege bears the initial burden of demonstrating that it is applicable, once this demonstration is made, the moving party can only defeat the privilege by a demonstration of an overriding need for the material; LBP-13-5, 77 NRC 241-42 (2013)
- in applying deliberative process privilege, courts have allowed the government to withhold memoranda containing advice, opinions, recommendations, and subjective analysis; LBP-13-5, 77 NRC 239 (2013)
- party invoking deliberative process privilege bears the burden of explaining with particularity how and why disclosure of the documents' substance would harm an identified deliberative function; LBP-13-5, 77 NRC 242 (2013)
- Gordon v. United States*, 344 U.S. 414, 420-21 (1953)
- best evidence rule rests on the fact that the document is a more reliable, complete, and accurate source of information as to its contents and meaning than anyone's description; CLI-13-5, 77 NRC 231 n.36 (2013)
- Greenpeace v. National Marine Fisheries Service*, 198 F.R.D. 540, 545 (W.D. Wash. 2000)
- without indicating any specific, policy-oriented communication or proffering any cogent reason for protecting it, the bare assertion that internal agency discussions will be "chilled" is nothing but a legal platitude asserted in the abstract; LBP-13-5, 77 NRC 243-44, 247 (2013)
- Heckler v. Community Health Services*, 467 U.S. 51, 61 n.13 (1984)
- to say to appellants that the joke is on you, you shouldn't have trusted us, is hardly worthy of our great government; LBP-13-3, 77 NRC 96 (2013)
- Hells Canyon Alliance v. U.S. Forest Service*, 227 F.3d 1170, 1185 (9th Cir. 2000)
- NEPA does not require NRC to use the absolutely best scientific methodology available; LBP-13-4, 77 NRC 211 (2013)

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- Honeywell v. NRC*, 628 F.3d 568, 575-76 (D.C. Cir. 2010)  
when licensee requests a rule exemption in a related license amendment application, hearing rights on the amendment application are considered to encompass the exemption request as well; CLI-13-1, 77 NRC 10 (2013)
- Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), ALAB-639, 13 NRC 469, 473 (1981), *reconsideration denied*, CLI-81-28, 14 NRC 933 (1981)  
government may withhold from disclosure the identity of persons who furnish information on violations of law to officers charged with enforcement of the law; CLI-13-5, 77 NRC 229 (2013)
- Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), ALAB-639, 13 NRC 469, 477 (1981), *reconsideration denied*, CLI-81-28, 14 NRC 933 (1981)  
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- Hydro Resources, Inc.* (P.O. Box 777, Crownpoint, New Mexico 87313), LBP-05-17, 62 NRC 77, 91 (2005)  
absent compelling reasons, the Commission adheres to the case or controversy doctrine in its adjudicatory proceedings; LBP-13-7, 77 NRC 345 n.59 (2013)
- In re Franklin National Bank Securities Litigation*, 478 F. Supp. 577 (E.D.N.Y. 1979)  
even where the government identifies significant reasons for nondisclosure, the interest in accurate judicial factfinding is predominant, especially where no satisfactory alternative source of information exists; LBP-13-5, 77 NRC 249-50 (2013)
- In re Franklin National Bank Securities Litigation*, 478 F. Supp. 577, 582 (E.D.N.Y. 1979)  
strong competing interests must be weighed against the government's interest in nondisclosure and foremost is the interest of the litigants, and ultimately of society, in accurate judicial fact finding; LBP-13-5, 77 NRC 248 (2013)
- In re Subpoena Served upon Comptroller of Currency*, 967 F.2d 630, 634 (D.C. Cir. 1992)  
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- In re Three Mile Island Alert, Inc.*, 771 F.2d 720, 729 (3d Cir. 1985), *cert. denied*, 475 U.S. 1082 (1986)  
NRC's lifting of license suspension and authorizing restart under stipulated restrictions was not a license amendment because nothing in the record indicates that license amendments are necessary to permit the licensee to operate in accordance with the restrictions that have been imposed; LBP-13-7, 77 NRC 333 n.39 (2013)
- International Uranium (USA) Corp.* (Receipt of Material from Tonawanda, New York), LBP-98-21, 48 NRC 137, 142 n.7 (1998)  
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- International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-01-21, 54 NRC 247, 252 (2001)  
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- John Doe Agency v. John Doe Corp.*, 493 U.S. 146, 152 (1989)  
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- Jordan v. U.S. Department of Justice*, 591 F.2d 753, 772-73 (D.C. Cir. 1978) (en banc)  
cursory and conclusory assertions that merely paraphrase the standards applicable to the deliberative process privilege without explaining how they apply to any specific document in dispute will not suffice to carry the government's burden of proof in defending FOIA cases; LBP-13-5, 77 NRC 243 (2013)  
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- Jordan v. U.S. Department of Justice*, 591 F.2d 753, 774 (D.C. Cir. 1978)  
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- Judicial Watch, Inc. v. U.S. Postal Service*, 297 F. Supp. 2d 252, 261 (D.D.C. 2004)  
because draft documents are not presumptively privileged, the Staff must provide specific information to justify withholding them from disclosure; LBP-13-5, 77 NRC 244 (2013)
- Julian v. U.S. Department of Justice*, 806 U.S. 1411, 1419 (1986), *aff'd*, *Department of Justice v. Julian*, 486 U.S. 1 (1988)  
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- Kaufman v. City of New York*, No. 98CIV.2648(MJL)(KNF), 1999 WL 239698, at \*4 (S.D.N.Y. 1999)  
a blanket approach to asserting the deliberative process privilege is unacceptable and is itself grounds for denying invocation of the privilege; LBP-13-5, 77 NRC 247 (2013)
- La Cuna de Aztlan Sacred Sites Protection Circle Advisory Committee v. U.S. Department of the Interior*, No. EDCV 11-1478-GW(SSX), 2012 WL 6839790, at \*4 (C.D. Cal. 2012)  
argument that, in addition to the tribe, individual tribal representative has standing to sue under NHPA section 106 consultation provisions is rejected; LBP-13-6, 77 NRC 277 n.12 (2013)
- Limerick Ecology Action v. NRC*, 869 F.2d 719, 722-23 (3d Cir. 1989)  
grant of full-power license was challenged in part on the ground that NRC did not consider severe accident mitigation alternatives; LBP-13-1, 77 NRC 61 (2013)
- Limerick Ecology Action v. NRC*, 869 F.2d 719, 727 (3d Cir. 1989)  
individual licensing proceedings are not the appropriate forum for evaluating SAMAs; LBP-13-1, 77 NRC 61 (2013)
- Limerick Ecology Action v. NRC*, 869 F.2d 719, 739 (3d Cir. 1989)  
National Environmental Policy Act requires NRC to consider severe accident mitigation alternatives; LBP-13-1, 77 NRC 61 (2013)
- Link v. Wabash Railroad Co.*, 370 U.S. 626, 633-34 (1962)  
to the extent that petitioner's counsel is blameworthy, petitioner may be held accountable; LBP-13-2, 77 NRC 77 n.14 (2003)
- Long Island Lighting Co.* (Shoreham Nuclear Power Station), ALAB-99, 6 AEC 53, 55-56 (1973)  
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- Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-773, 19 NRC 1333, 1341 n.30 (1984)  
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- Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-773, 19 NRC 1333, 1343 (1984)  
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- Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-84-8, 19 NRC 1154, 1156 n.3 (1984)  
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- Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), LBP-82-82, 16 NRC 1144, 1163-64 (1982)  
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- Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-97-2, 45 NRC 3, 4 (1997)  
cursory assertions are insufficient to raise an issue for appeal; CLI-13-1, 77 NRC 22 n.129 (2013)
- Loving v. U.S. Department of Defense*, 550 F.3d 32, 38 (D.C. Cir. 2008)  
deliberative process privilege does not protect documents in their entirety and if the government can segregate and disclose nonprivileged factual information within a document, it must; LBP-13-5, 77 NRC 240 (2013)
- Lujan v. Defenders of Wildlife*, 504 U.S. 555, 561 (1992)  
intervention petitioner's burden is met if petitioner provides plausible factual allegations that satisfy each element of standing; LBP-13-6, 77 NRC 270 (2013)
- Luminant Generation Co., LLC* (Comanche Peak Nuclear Power Plant, Units 3 and 4), CLI-11-9, 74 NRC 233, 244 (2011)  
petitioner must provide a sound basis for its contention in its petition or in an expert affidavit or other supporting information that specifically corroborates the contested issues framed by the contention; LBP-13-6, 77 NRC 296 (2013)
- Maine Yankee Atomic Power Co.* (Maine Yankee Atomic Power Station), CLI-04-5, 59 NRC 52 (2004)  
measures intended to strengthen an enforcement order issued under 10 C.F.R. 2.202 are not within the limited scope of the proceedings; CLI-13-2, 77 NRC 43 (2013)
- Maine Yankee Atomic Power Co.* (Maine Yankee Atomic Power Station), LBP-03-26, 58 NRC 396, 401, 402 (2003), *aff'd*, CLI-04-5, 59 NRC 52 (2004)  
petitioner argued against an enforcement order unless it were modified to clarify various points, including the costs of state and local law enforcement resources that would be needed to implement the order, but the board based its analysis on whether petitioner had shown that the requirements, as stated in the order, would make the facility less safe; CLI-13-2, 77 NRC 48 (2013)
- Maine Yankee Atomic Power Co.* (Maine Yankee Atomic Power Station), LBP-03-26, 58 NRC 396, 402 (2003), *aff'd*, CLI-04-5, 59 NRC 52 (2004)  
whether and to what extent measures a state sought were needed to make the facility safer was essentially irrelevant because those additional measures were outside the scope of the enforcement order; CLI-13-2, 77 NRC 48 (2013)
- Marriott International Resorts, L.P. v. United States*, 61 Fed. Cl. 411, 417 (2004)  
NRC Staff must supply the board with precise and certain reasons for maintaining the confidentiality of requested documents; LBP-13-5, 77 NRC 242 (2013)
- Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 374 (1989)  
NEPA requires that the agency take a hard look at environmental consequences of each agency action; LBP-13-4, 77 NRC 120 (2013)
- Massachusetts v. NRC*, 878 F.2d 1516, 1520-21 (1st Cir. 1989)  
NRC's actions constitute de facto license amendment when they authorize licensee to engage in activities beyond the ambit of its original license; LBP-13-7, 77 NRC 332-33 n.39 (2013)
- McClelland v. Andrus*, 606 F.2d 1278 (D.C. Cir. 1979)  
deliberative process privilege has been extended to draft documents, proposals, suggestions, instructions to work deletions and alterations into drafts, instructions to conduct an investigation, documents reflecting personal and advisory opinions, and rejections of recommendations; LBP-13-5, 77 NRC 239-40 (2013)
- Menges v. Dentler*, 33 Pa. 495, 500 (1859)  
men naturally trust in their government, and ought to do so, and they ought not to suffer for it; LBP-13-3, 77 NRC 96 n.68 (2013)
- Montana Wilderness Ass'n v. Frye*, 310 F. Supp. 2d 1127, 1150-51 (D. Mont. 2004)  
tribal member who regularly visits tribal migratory route on national monument land to pursue cultural undertakings has standing under NHPA to raise concerns; LBP-13-6, 77 NRC 277 n.12 (2013)
- Moore v. Charlotte-Mecklenburg Board of Education*, 402 U.S. 47, 48 (1971) (*per curiam*)  
when petitioner obtains the relief it is seeking before the admissibility of its contention is resolved, the admissibility *vel non* of the contention is no longer justiciable, because it no longer presents a

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- live controversy involving a true clash of interests that is susceptible to meaningful adjudicative relief; LBP-13-7, 77 NRC 345 n.59 (2013)
- Mullins v. TestAmerica, Inc.*, 564 F.3d 386, 410 n.10 (5th Cir. 2009)  
“credit facility” carries various definitions; CLI-13-1, 77 NRC 20 n.114 (2013)  
“revolving credit” arrangement is one type of credit facility, and may be used repeatedly up to the limit specified after partial or total repayments have been made; CLI-13-1, 77 NRC 20 n.114 (2013)
- National Wildlife Federation v. U.S. Forest Service*, 861 F.2d 1114, 1117 (9th Cir. 1988)  
in applying deliberative process privilege, courts have allowed the government to withhold memoranda containing advice, opinions, recommendations, and subjective analysis; LBP-13-5, 77 NRC 239 (2013)  
to qualify for deliberative process privilege, a document must be both predecisional or antecedent to the adoption of agency policy and deliberative, meaning it must actually be related to the process by which policies are formulated; LBP-13-5, 77 NRC 239 (2013)
- Natural Resources Defense Council, Inc. v. Callaway*, 524 F.2d 79, 88 (2d Cir. 1975)  
environmental impact statements are required to furnish only such information as appears reasonably necessary under the circumstances for evaluation of the project, rather than to be so all-encompassing in scope that the task of preparing it would become either fruitless or well nigh impossible; LBP-13-4, 77 NRC 211 (2013)
- Natural Resources Defense Council, Inc. v. Hodel*, 865 F.2d 288, 294 (D.C. Cir. 1988)  
NEPA should be construed in the light of reason if it is not to demand virtually infinite study and resources; LBP-13-4, 77 NRC 211 (2013)
- New York v. NRC*, 681 F.3d 471, 481 (D.C. Cir. 2012)  
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- NextEra Energy Seabrook, LLC* (Seabrook Station, Unit 1), CLI-12-5, 75 NRC 301, 342 (2012)  
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- North Alabama Express, Inc. v. United States*, 585 F.2d 783, 786 (5th Cir. 1978)  
boards may not rely on a *Federal Register* notice to put petitioner on constructive notice of a requirement that the board itself cannot discern in the regulations; LBP-13-3, 77 NRC 97 (2013)
- Northern Indiana Public Service Co.* (Bailly Generating Station, Nuclear-1), CLI-78-7, 7 NRC 429, 433 (1978), *aff'd*, *Porter County Chapter of Izaak Walton League v. NRC*, 606 F.2d 1363 (D.C. Cir. 1979)  
abuse of discretion standard of review is applicable to discretionary Staff actions not subject to a hearing opportunity; CLI-13-1, 77 NRC 29 n.158 (2013)
- Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-455, 7 NRC 41, 54 (1978)  
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- Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), LBP-08-26, 68 NRC 905, 912-14 (2008)  
when a governmental organization, including a federally recognized Native American tribe, is unable to establish standing because the facility or nuclear material in question does not fall within its jurisdictional boundaries, that entity nonetheless may be accorded standing if its boundaries come within a distance from the nuclear facility or material that otherwise would establish standing for an individual or nongovernmental organization, whether via a proximity presumption or otherwise; LBP-13-6, 77 NRC 272 n.7 (2013)
- Nuclear Management Co., LLC* (Monticello Nuclear Generating Plant), CLI-06-6, 63 NRC 161, 163 (2006)  
claims of interest-based organizational standing were denied; LBP-13-6, 77 NRC 282-83 n.23 (2013)
- Nulankeyutmonen Nkihtaqmikon v. Impson*, 503 F.3d 18, 27 (1st Cir. 2007)  
individual tribal member’s assertion of an interest based on cultural resource concerns must show that there is a concrete or particularized injury to herself as an individual; LBP-13-6, 77 NRC 277 n.12 (2013)
- Pacific Gas and Electric Co. v. United States*, 70 Fed. Cl. 128, 140 (2006)  
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- with precise and certain reasons for maintaining the confidentiality of requested documents; LBP-13-5, 77 NRC 243 (2013)
- Pacific Gas and Electric Co. v. United States*, 70 Fed. Cl. 128, 140-41 (2006)  
without indicating any specific, policy-oriented communication or proffering any cogent reason for protecting it, the bare assertion that internal agency discussions will be “chilled” is nothing but a legal platitude asserted in the abstract; LBP-13-5, 77 NRC 243-44 (2013)
- Pacific Gas and Electric Co. v. United States*, 71 Fed. Cl. 205, 209 (2006)  
explanation of reasons for asserting deliberative process privilege need not reveal the contents of the documents, but it must identify, with respect to a specific document or type of document, why that document should be protected from discovery and what specific harm would result from its disclosure; LBP-13-5, 77 NRC 242 (2013)
- Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-728, 17 NRC 777, 807, *review denied*, CLI-83-32, 18 NRC 1309 (1983)  
license applications, not Staff’s review, are to be the focus of a licensing adjudication; LBP-13-6, 77 NRC 298 n.31 (2013)
- Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-03-2, 57 NRC 19, 26-27 (2003)  
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- Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-03-2, 57 NRC 19, 29 (2003)  
absent information to the contrary, NRC may properly assume that an applicant or licensee will comply with concrete and enforceable conditions and requirements imposed by statutes, regulations, licenses, or permits issued by competent federal, state, or local governmental entities; LBP-13-4, 77 NRC 218 n.95 (2013)
- Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-11-11, 74 NRC 427, 435 (2011)  
any contention that falls outside the specified scope of the proceeding must be rejected; LBP-13-6, 77 NRC 285 (2013)
- Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-11-11, 74 NRC 427, 443 (2011)  
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- Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-12-13, 75 NRC 681, 687 n.32 (2012)  
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- Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-93-1, 37 NRC 5, 29-30 (1993)  
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- Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), LBP-08-7, 67 NRC 361, 372 n.7 (2008)  
presiding officers may make a determination about the validity of a deliberative process privilege claim without reviewing a document *in camera* if the affidavit outlining the reasons for nondisclosure is sufficiently detailed; LBP-13-5, 77 NRC 245 n.64 (2013)
- Pa’ina Hawaii, LLC*, CLI-10-18, 72 NRC 56, 89 (2010)  
NEPA only requires that the environmental impact statement address those environmental impacts that are reasonably foreseeable; LBP-13-4, 77 NRC 120 (2013)
- Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-262, 1 NRC 163, 193 (1975)  
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- Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-785, 20 NRC 848, 868 (1984)  
NRC Staff and the NRC must exercise independent judgment with regard to its ultimate conclusions about the environmental impacts of the project; LBP-13-4, 77 NRC 213 n.91 (2013)  
NRC Staff need not perform a wholly independent analysis from scratch, but may rely on the scientific data and inferences drawn by another federal agency; LBP-13-4, 77 NRC 213 n.91 (2013)
- Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-785, 20 NRC 848, 868 n.65 (1984)  
NRC Staff may rely on the scientific data and inferences drawn by another government agency but need not slavishly defer to that agency's findings or its conclusions about water quality; LBP-13-4, 77 NRC 213-14 (2013)
- Philadelphia Electric Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20, *aff'd in part on other grounds*, CLI-74-32, 8 AEC 217 (1974)  
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- Philadelphia Electric Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20-21 & n.33, *aff'd in part on other grounds*, CLI-74-32, 8 AEC 217 (1974)  
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- Potomac Alliance v. NRC*, 682 F.2d 1030, 1035 (D.C. Cir. 1982)  
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NEPA only requires that the environmental impact statement address those impacts that are reasonably foreseeable; LBP-13-4, 77 NRC 120 (2013)
- Potomac Electric Power Co.* (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 85, 89 (1974)  
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- Powertech (USA), Inc.* (Dewey-Burdock In Situ Uranium Recovery Facility), LBP-10-16, 72 NRC 361, 389 (2010)  
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- Powertech (USA), Inc.* (Dewey-Burdock In Situ Uranium Recovery Facility), LBP-10-16, 72 NRC 361, 390 (2010)  
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- Powertech (USA), Inc.* (Dewey-Burdock In Situ Uranium Recovery Facility), LBP-10-16, 72 NRC 361, 421-22 (2010)  
tribal consultation contentions have been dismissed as prematurely filed, albeit without prejudice to their renewal following issuance of the Staff's draft environmental impact statement; LBP-13-6, 77 NRC 287 (2013)
- Powertech (USA), Inc.* (Dewey-Burdock In Situ Uranium Recovery Facility), LBP-10-16, 72 NRC 361, 435-38 (2010)  
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- Powertech (USA), Inc.* (Dewey-Burdock In Situ Uranium Recovery Facility), LBP-10-16, 72 NRC 361, 438-40 (2010)  
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- PPL Bell Bend LLC* (Bell Bend Nuclear Power Plant), CLI-10-7, 71 NRC 133, 138 & n.27 (2010)  
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- PPL Bell Bend, LLC* (Bell Bend Nuclear Power Plant), CLI-10-7, 71 NRC 133, 139 (2010)  
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- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-98-13, 48 NRC 26, 33 (1998)  
as a sovereign body, Native American tribes maintain a strong interest in its members' welfare such that its organizational purpose is germane to the interests it seeks to represent in proceeding; LBP-13-6, 77 NRC 272 n.7 (2013)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-00-2, 51 NRC 77, 80 (2000)  
contention admissibility decisions generally are not considered to be extraordinary for purposes of interlocutory appellate review, particularly where petitioner has been admitted as a party and has other contentions pending; CLI-13-3, 77 NRC 55 (2013)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-12, 53 NRC 459, 465-67 (2001)  
because resolution of a rule exemption request directly affects licensability of the proposed facility, the exemption raises material questions directly connected to an agency licensing action and thus comes within the hearing rights of interested parties; CLI-13-1, 77 NRC 10 n.37 (2013)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-22, 54 NRC 255, 264 & n.37 (2001)  
NUREGs are merely guidance documents and thus not legally binding; LBP-13-6, 77 NRC 291 (2013)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340, 348 (2002)  
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NEPA does not call for examination of every conceivable aspect of federally licensed projects, but requires only a discussion of reasonably foreseeable impacts; LBP-13-4, 77 NRC 211 (2013)  
NEPA's rule of reason excludes consideration of remote and speculative impacts or worst-case scenarios; LBP-13-4, 77 NRC 211 (2013)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 25-27 (2003)  
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- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 26 (2003)  
deference to a board's factual determinations is particularly high when they are based in significant part on its assessment of expert testimony and credibility of the witnesses offering that testimony; CLI-13-1, 77 NRC 18 n.104 (2013)  
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- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-03-8, 57 NRC 293, 544, petition for review denied, CLI-03-8, 58 NRC 11, 33 (2003)  
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- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 170-71, aff'd, 48 NRC 26, 31-32 (1998)  
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- Progress Energy Florida, Inc.* (Levy County Nuclear Power Plant, Units 1 and 2), LBP-13-4, 77 NRC 107, 175 n.77 (2013)  
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- Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), CLI-80-10, 11 NRC 438, 441 (1980)  
terms of section 2.202 orders often have been negotiated with the affected licensees, who would have little incentive to negotiate if doing so would expose them to formal litigation over additional terms or requirements that third-party petitioners would like to see imposed; CLI-13-2, 77 NRC 45-46 (2013)
- Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-899, 28 NRC 93, 97 (1988), aff'd sub nom. *Massachusetts v. NRC*, 924 F.2d 311 (D.C. Cir. 1991)  
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- Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), LBP-82-6, 16 NRC 1649, 1656 (1982)  
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- Ratzlaf v. United States*, 510 U.S. 135, 143 (1994)  
equivalent words have equivalent meaning when repeated in the same statute; LBP-13-3, 77 NRC 91-92 (2013)
- Reino de Espana v. American Bureau of Shipping*, No. 03CIV3573LTSRLE, 2005 WL 1813017, at \*13 (S.D.N.Y. 2005)  
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- Renegotiation Board v. Grumman Aircraft Engineering Corp.*, 421 U.S. 168, 183 (1975)  
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- Resolution Trust Corp. v. Diamond*, 773 F. Supp. 597, 604-05 (S.D.N.Y. 1991)  
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- Richard E. Dow*, CLI-91-9, 33 NRC 473, 478 (1991)  
NRC has authority to conduct any investigations it deems necessary and proper to the administration or enforcement of its authority, which includes any regulations or orders issued pursuant to the AEA; CLI-13-5, 77 NRC 227 (2013)
- Richard E. Dow*, CLI-91-9, 33 NRC 473, 479 (1991)  
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- Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 348 (1989)  
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- Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989)  
NEPA is intended to ensure that environmental impacts will not be overlooked or underestimated only to be discovered after resources have been committed or the die otherwise cast; LBP-13-4, 77 NRC 120, 210 (2013)  
NEPA requirement to prepare an environmental impact statement ensures that the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts; LBP-13-4, 77 NRC 119-20, 209-10 (2013)
- Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989)  
although NEPA mandates that an agency prepare an environmental impact statement and take a hard look at the environmental impacts of a proposed agency action, NEPA itself does not mandate particular results, but simply prescribes the necessary process; LBP-13-4, 77 NRC 120 (2013)  
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- Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 351 (1989)  
although NEPA establishes a national policy in favor of protecting the human environment, NEPA does not require the agency to select the most environmentally benign alternative, but rather merely prohibits uninformed rather than unwise agency action; LBP-13-4, 77 NRC 120-21 (2013)  
NEPA requires each environmental impact statement to include a detailed discussion of measures that might mitigate the adverse environmental consequences of the proposed action; LBP-13-4, 77 NRC 216 (2013)  
requirement that an environmental impact statement contain a detailed discussion of possible mitigation measures flows both from the language of NEPA and, more expressly, from the Council on Environmental Quality's implementing regulations; LBP-13-4, 77 NRC 216 (2013)
- Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 352 (1989)  
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NEPA does not require that a complete mitigation plan be actually formulated and adopted before the agency makes its decision; LBP-13-4, 77 NRC 216 (2013)  
numerous Council on Environmental Quality regulations require an agency to discuss possible mitigation measures, including 40 C.F.R. §§ 1508.25(b), 1502.14(f), 1502.16(h), and 1508.20; LBP-13-4, 77 NRC 216 (2013)
- Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 353 (1989)  
it would be inconsistent with NEPA's reliance on procedural mechanisms, as opposed to substantive, result-based standards, to demand the presence in an environmental impact statement of a fully developed plan that will mitigate environmental harm before an agency can act; LBP-13-4, 77 NRC 216 (2013)  
NEPA generally does not mandate that identified mitigation measures be implemented; LBP-13-4, 77 NRC 216 (2013)
- Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 356, 358 (1989)  
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- Council on Environmental Quality regulation requiring an environmental impact statement to consider reasonably foreseeable impacts rather than a worst-case analysis is entitled to substantial deference and NEPA does not require a worst-case analysis in an EIS; LBP-13-4, 77 NRC 120 n.25, 210 (2013)
- Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 371 (1989)  
NEPA does not require that a complete mitigation plan be actually formulated and adopted before the federal agency can issue an environmental impact statement and render its decision; LBP-13-4, 77 NRC 219 (2013)
- Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 371-72 (1989)  
where state and local governmental bodies that have jurisdiction over the area in which adverse effects need to be addressed and since they have the authority to mitigate them, it would be incongruous to conclude that a federal agency has no power to act until the local agencies have reached a final conclusion on what mitigation measures they consider necessary; LBP-13-4, 77 NRC 219 (2013)
- Roviaro v. United States*, 353 U.S. 53, 59 (1957)  
government may withhold from disclosure the identity of persons who furnish information of violations of law to officers charged with enforcement of the law; CLI-13-5, 77 NRC 229 (2013)
- San Luis Obispo Mothers for Peace v. NRC*, 751 F.2d 1287 (D.C. Cir. 1984)  
factors material to determining whether NRC actions constitute a de facto license amendment are described; LBP-13-7, 77 NRC 332 (2013)
- Sequoyah Fuels Corp.* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 75 n.22 (1994)  
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- Sequoyah Fuels Corp.* (Gore, Oklahoma Site Decommissioning), CLI-01-2, 53 NRC 9, 13 (2001)  
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- Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site Decontamination and Decommissioning Funding), LBP-94-5, 39 NRC 54, 64 (1994)  
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- Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site Decontamination and Decommissioning Funding), LBP-94-5, 39 NRC 54, 65-66 (1994)  
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- Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site Decontamination and Decommissioning Funding), LBP-94-5, 39 NRC 54, 72 (1994)  
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- Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site Decontamination and Decommissioning Funding), LBP-94-5, 39 NRC 54, 73 n.19 (1994)  
application of the precept that different language is intended to mean different things may be suspended if the purpose or regulatory history behind the language shows that no difference was intended; LBP-13-3, 77 NRC 90 (2013)
- Sierra Club v. Marsh*, 872 F.2d 497, 500 (1st Cir. 1989)  
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- Sierra Club v. Morton*, 405 U.S. 727 (1972)  
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- Sierra Club v. Morton*, 405 U.S. 727, 739 (1972)  
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- Sikorsky Aircraft Corp. v. United States*, 106 Fed. Cl. 571, 577 (2012)  
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- Sikorsky Aircraft Corp. v. United States*, 106 Fed. Cl. 571, 580 (2012)  
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- South Texas Project Nuclear Operating Co.* (South Texas Project, Units 3 and 4), CLI-10-16, 71 NRC 486, 489 (2010)  
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- South Texas Project Nuclear Operating Co.* (South Texas Project, Units 3 and 4), CLI-10-16, 71 NRC 486, 489-90 (2010)  
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- South Texas Project Nuclear Operating Co.* (South Texas Project, Units 3 and 4), CLI-10-16, 71 NRC 486, 490 (2010)  
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- South Texas Project Nuclear Operating Co.* (South Texas Project, Units 3 and 4), CLI-10-24, 72 NRC 451, 468 n.99 (2010)  
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- Southern California Edison Co.* (San Onofre Nuclear Generating Station, Units 2 and 3), CLI-12-20, 76 NRC 437, 439-40 (2012)  
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- Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), LBP-09-7, 69 NRC 613, 648-50, 662, 671-74, 681-82 (2009)  
NEPA does not require that the final environmental impact statement be a Ph.D. dissertation on specific topics; LBP-13-4, 77 NRC 212 (2013)
- St. Regis Paper Co. v. United States*, 368 U.S. 208, 229 (1961) (Black, J., dissenting)  
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- State of North Carolina v. Federal Aviation Administration*, 957 F.2d 1125, 1129-30 (4th Cir. 1994)  
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NEPA precludes an agency from avoiding the Act's requirements by simply relying on another agency's conclusions about a federal action's impact on the environment; LBP-13-4, 77 NRC 213 n.91 (2013)
- Statement of Policy on Conduct of Licensing Proceedings*, CLI-81-8, 13 NRC 452, 453, 454 (1981)  
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- Statement of Policy on Conduct of Licensing Proceedings*, CLI-81-8, 13 NRC 452, 454 (1981)  
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- Strata Energy, Inc.* (Ross In Situ Uranium Recovery Project), CLI-12-12, 75 NRC 603, 607 (2012)  
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- Strata Energy, Inc.* (Ross In Situ Uranium Recovery Project), CLI-12-12, 75 NRC 603, 612-13 & n.49 (2012)  
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- Strycker's Bay Neighborhood Council, Inc. v. Karlen*, 444 U.S. 223, 227-28 (1980) (per curiam)  
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- Tennessee Valley Authority* (Hartsville Nuclear Plants, Units 1A, 2A, 1B, and 2B), ALAB-467, 7 NRC 459, 463 (1978)  
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- Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station), CLI-93-10, 37 NRC 192, 200 n.28 (1993)  
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- Texas Utilities Generating Co.* (Comanche Peak Steam Electric Station), ALAB-714, 17 NRC 86, 94 (1983)  
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- Town of Winthrop v. Federal Aviation Administration*, 535 F.3d 1, 11 (1st Cir. 2008)  
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- Town of Winthrop v. Federal Aviation Administration*, 535 F.3d 1, 11-13 (1st Cir. 2008)  
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- U.S. Army Installation Command* (Schofield Barracks, Oahu, Hawaii, and Pohakuloa Training Area, Island of Hawaii, Hawaii), CLI-10-20, 72 NRC 185, 188 (2010)  
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- U.S. Army Installation Command* (Schofield Barracks, Oahu, Hawaii, and Pohakuloa Training Area, Island of Hawaii, Hawaii), CLI-10-20, 72 NRC 185, 189 (2010)  
when a radiological health or safety impact is asserted to provide the basis for a petitioner's injury in fact, in lieu of the usual injury and causation showings, petitioner can attempt to establish its standing based on the proximity plus protocol by showing that the proposed licensing action involves a significant source of radiation, which has an obvious potential for offsite consequences; LBP-13-6, 77 NRC 271 n.5 (2013)  
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- U.S. Army Installation Command* (Schofield Barracks, Oahu, Hawaii, and Pohakuloa Training Area, Island of Hawaii, Hawaii), LBP-10-4, 71 NRC 216, 229 (2010), *aff'd*, CLI-10-20, 72 NRC 185 (2010)  
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- U.S. Army Installation Command* (Schofield Barracks, Oahu, Hawaii, and Pohakuloa Training Area, Island of Hawaii, Hawaii), LBP-10-4, 71 NRC 216, 230 & n.14 (2010)  
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whether petitioner could be affected by the licensing action must be determined on a case-by-case basis, taking into account the petitioner's distance from the source, the nature of the licensed activity, and the significance of the radioactive source; LBP-13-6, 77 NRC 270 (2013)
- U.S. Department of Energy* (Clinch River Breeder Reactor Plant), CLI-82-23, 16 NRC 412, 421, *remanded on other grounds, Natural Resources Defense Council, Inc. v. NRC*, 695 F.2d 623 (D.C. Cir. 1982)  
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- U.S. Department of Energy* (Clinch River Breeder Reactor Plant), CLI-82-23, 16 NRC 412, 426, *remanded on other grounds, Natural Resources Defense Council, Inc. v. NRC*, 695 F.2d 623, 625 (D.C. Cir. 1982)  
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- U.S. Department of Energy* (High-Level Waste Repository), CLI-04-32, 60 NRC 469, 473 (2004)  
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- U.S. Department of Energy* (High-Level Waste Repository), CLI-08-21, 68 NRC 351, 352 (2008)  
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- U.S. Department of Energy* (High-Level Waste Repository), CLI-08-21, 68 NRC 351, 353 (2008)  
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- U.S. Department of Energy* (High-Level Waste Repository), LBP-09-6, 69 NRC 367, 466 (2009)  
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- U.S. Department of the Air Force v. Rose*, 425 U.S. 352, 360-61 (1976)  
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- U.S. Student Ass'n v. Central Intelligence Agency*, 620 F. Supp. 565, 571 (D.D.C. 1985)  
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- United States v. Allegheny-Ludlum Steel Corp.*, 406 U.S. 742, 755 (1972)  
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- United States v. Comley*, 890 F.2d 539, 542 (1st Cir. 1989)  
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- United States v. Comley*, 890 F.2d 539, 544-45 (1st Cir. 1989)  
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- United States v. Garde*, 673 F. Supp. 604, 606 (D.D.C. 1987)  
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- United States v. Garde*, 673 F. Supp. 604, 607 (D.D.C. 1987)  
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- United States v. Morton Salt Co.*, 338 U.S. 632, 652 (1950)  
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- United States v. Oncology Services Corp.*, 60 F.3d 1015, 1020 (3d Cir. 1995)  
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- United States v. Stauffer Chemical Co.*, 684 F.2d 1174, 1186 (6th Cir. 1982), *aff'd*, 464 U.S. 165 (1984)  
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- United States v. Westinghouse Electric Corp.*, 788 F.2d 164, 166 (3d Cir. 1986)  
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- USEC Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 457 (2006)  
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- USEC Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 462-63 (2006)  
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- Vaughn v. Rosen*, 484 F.2d 820 (D.C. Cir. 1973)  
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- Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 551 (1978)  
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- Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 553 (1978)  
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- Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 558 (1978)  
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- Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-00-20, 52 NRC 151, 163 (2000)  
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- Virginia Electric and Power Co.* (North Anna Power Station, Unit 3), CLI-12-14, 75 NRC 692, 700-01 (2012)  
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- Walsky Construction Co. v. United States*, 20 Cl. Ct. 317, 320 (1990)  
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- exemption from the decommissioning financial assurance requirements is considered to be an extraordinary equitable remedy to be used only sparingly; CLI-13-1, 77 NRC 9 (2013)
- Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-94-3, 39 NRC 95, 101 n.7 (1994)
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- Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-94-3, 39 NRC 95, 102 n.10 (1994)
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- Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 6 (1996)
- contemporaneous judicial standing concepts are generally applied in NRC proceedings; LBP-13-6, 77 NRC 269 (2013)
- to have standing, petitioner need only show that a cognizable injury is associated with a proposed licensing action and that granting the relief sought will address that injury; LBP-13-6, 77 NRC 274 n.9 (2013)
- Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 251 (1996)
- contentions that advocate stricter requirements than agency rules impose or that otherwise seek to litigate a generic determination established by a Commission rulemaking are inadmissible; LBP-13-6, 77 NRC 284 (2013)
- Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 272 (1996)
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- 10 C.F.R. 2.103(b)  
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- 10 C.F.R. 2.103(b)(2)  
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- 10 C.F.R. 2.105  
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- 10 C.F.R. 2.202  
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- 10 C.F.R. 2.202(a)  
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- 10 C.F.R. 2.202(a)(3) and (c)  
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- 10 C.F.R. 2.206  
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- 10 C.F.R. 2.309(d)(1)(i)-(iv)  
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- 10 C.F.R. 2.309(d)(2)  
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- 10 C.F.R. 2.309(e)  
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- 10 C.F.R. 2.309(f)(1)  
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- 10 C.F.R. 2.309(f)(1)(iii)  
contentions must be within the scope of the proceeding as defined by the Commission in its initial hearing notice and order referring the proceeding to a licensing board; LBP-13-6, 77 NRC 285 (2013)  
contentions that raise matters that impermissibly challenge a Commission rule are outside the scope of the proceeding; LBP-13-6, 77 NRC 297 (2013)
- 10 C.F.R. 2.309(f)(1)(v)  
contention contesting failure of applicant to evaluate groundwater impacts of in situ recovery is inadmissible for failure to present factual allegations and/or expert opinion to support the contention; LBP-13-6, 77 NRC 295 (2013)  
intervenor need not make its case at the contention admission stage, but must indicate what facts or expert opinions provide the basis for its contention; LBP-13-6, 77 NRC 291 (2013)  
petitioner is obliged to present factual allegations and/or expert opinion necessary to support its contention; LBP-13-6, 77 NRC 285 (2013)
- 10 C.F.R. 2.309(f)(1)(vi)  
contention contesting failure of applicant to evaluate groundwater impacts of in situ recovery is inadmissible for failure to present factual allegations and/or expert opinion to support the contention; LBP-13-6, 77 NRC 295 (2013)  
contentions must focus on the license application in question, challenging either specific portions of or alleged omissions from the application so as to establish that a genuine dispute exists with the applicant on a material issue of law or fact; LBP-13-6, 77 NRC 285 (2013)  
requests for hearing must provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact; LBP-13-3, 77 NRC 91 (2013)
- 10 C.F.R. 2.310(a)  
in the interest of expediting the further proceedings, hearing on senior reactor operator license denial will be conducted under the provisions of Subpart L of the Commission's Rules of Practice; LBP-13-3, 77 NRC 98 (2013)  
proceedings for the grant, renewal, licensee-initiated amendment, or termination of licenses or permits subject to Part 55 may be conducted under the procedures of Subpart L; LBP-13-3, 77 NRC 98 n.79 (2013)
- 10 C.F.R. 2.310(b)  
enforcement proceedings are typically conducted pursuant to the procedures in Subpart G; LBP-13-3, 77 NRC 98 n.79 (2013)
- 10 C.F.R. 2.310(g)  
licensing boards have all the powers necessary to perform their duties, including powers to regulate the conduct of the participants; LBP-13-2, 77 NRC 75 n.12 (2003)
- 10 C.F.R. 2.310(h)  
unless the parties request a hearing pursuant to Subpart N, the board will hold a hearing pursuant to the procedures announced in Subpart L; LBP-13-3, 77 NRC 98 n.79 (2013)

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- 10 C.F.R. 2.310(q)  
licensing boards have all the powers necessary to perform their duties, including powers to regulate the conduct of the participants and to issue orders necessary to carry out their duties and responsibilities; LBP-13-2, 77 NRC 75 n.12 (2003)
- 10 C.F.R. 2.311(a)  
piecemeal review of licensing board rulings during ongoing proceedings is disfavored; CLI-13-3, 77 NRC 54 (2013)
- 10 C.F.R. 2.311(c)  
appeals of contention admissibility rulings are available only upon denial of a petition to intervene and/or request for hearing on the question of whether it should have been granted or upon the grant of a petition to intervene and/or request for hearing on the question of whether it should have been wholly denied; CLI-13-3, 77 NRC 54 (2013)  
denial of hearing request is appealable as of right; CLI-13-2, 77 NRC 44 n.20 (2013)  
petitioner is not allowed to reply to its opponent's answer; CLI-13-2, 77 NRC 44 n.20 (2013)  
piecemeal review of licensing board rulings during ongoing proceedings is disfavored; CLI-13-3, 77 NRC 54 (2013)
- 10 C.F.R. 2.311(d)  
piecemeal review of licensing board rulings during ongoing proceedings is disfavored; CLI-13-3, 77 NRC 54 (2013)
- 10 C.F.R. 2.311(d)(1)  
appeals of contention admissibility rulings are available only upon denial of a petition to intervene and/or request for hearing on the question of whether it should have been granted or upon the grant of a petition to intervene and/or request for hearing on the question of whether it should have been wholly denied; CLI-13-3, 77 NRC 54 (2013)  
applicant denied a senior reactor operator license has the right to demand a hearing, rather than being required to negotiate the contention admissibility requirements and a possible appeal in the event a hearing is granted; LBP-13-3, 77 NRC 92 n.53 (2013)
- 10 C.F.R. 2.314(c)  
licensing boards may impose on contumacious parties or their representatives reprimands, censures, or suspensions from proceedings; LBP-13-2, 77 NRC 76 n.13 (2003)
- 10 C.F.R. 2.319  
licensing boards have all the powers necessary to perform their duties; LBP-13-2, 77 NRC 75 n.12 (2003)
- 10 C.F.R. 2.323(f)(1)  
board denies petition for rule waiver but refers the decision to the Commission because the legal issue presented by the petition is novel and worthy of the Commission's immediate attention; LBP-13-1, 77 NRC 60, 69 (2013)
- 10 C.F.R. 2.325  
party moving for sanctions has the burden of establishing by a preponderance of the evidence that petitioner violated the protective order; LBP-13-2, 77 NRC 75 (2003)
- 10 C.F.R. 2.335  
contention that attacks a Commission rule, or which seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking, is inadmissible; LBP-13-6, 77 NRC 284 (2013)
- 10 C.F.R. 2.335(a)  
adjudications are not the proper arena for challenges to NRC regulations; CLI-13-1, 77 NRC 9-10, 35 (2013); LBP-13-1, 77 NRC 62 (2013)
- 10 C.F.R. 2.335(b)  
petitioner who believes a regulation should not be applied in a particular proceeding may seek a waiver of that regulation; LBP-13-1, 77 NRC 63 (2013)  
petitioners are not required to demonstrate that their complaint is unique to the facility in question or that their complaint reflects a significant safety issue; LBP-13-1, 77 NRC 64 (2013)  
sole ground for rule waiver or exception is that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation (or a provision of it) would not serve the purposes for which it was adopted; LBP-13-1, 77 NRC 63, 66 (2013)

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- 10 C.F.R. 2.335(c)  
role of the board when a rule waiver request is filed is limited to determining whether petitioner has made a prima facie showing that it has satisfied 10 C.F.R. 2.335(b), and if not, the board may not further consider the matter; LBP-13-1, 77 NRC 64 (2013)
- 10 C.F.R. 2.335(d)  
where petitioner has successfully made a prima facie showing for rule waiver, the board shall, before ruling on the petition, certify the matter directly to the Commission, and the Commission shall determine whether to grant or deny the waiver request; LBP-13-1, 77 NRC 64 (2013)
- 10 C.F.R. 2.336(a)(3)  
claim and identification of privileged materials must occur within the time provided for disclosing withheld materials; LBP-13-6, 77 NRC 303 n.35 (2013)
- 10 C.F.R. 2.336(b)(3)  
in a Subpart L proceeding, NRC Staff must disclose or provide documents that support Staff's review of the application or proposed action, together with a list of all otherwise-discoverable documents for which a claim of protected or privileged status is being made; LBP-13-5, 77 NRC 238 (2013)
- 10 C.F.R. 2.336(b)(5)  
claim and identification of privileged materials must occur within the time provided for disclosing withheld materials; LBP-13-6, 77 NRC 303 n.35 (2013)  
in a Subpart L proceeding, NRC Staff must disclose or provide documents that support Staff's review of the application or proposed action, together with a list of all otherwise-discoverable documents for which a claim of protected or privileged status is being made; LBP-13-5, 77 NRC 238, 246 (2013)
- 10 C.F.R. 2.341(a), (b)  
piecemeal review of licensing board rulings during ongoing proceedings is disfavored; CLI-13-3, 77 NRC 54 (2013)
- 10 C.F.R. 2.341(b)(4)(ii), (iii)  
applicant satisfied the regulatory standards for discretionary review by identifying a substantial question as to whether the board decision reaches at least one necessary legal conclusion without governing precedent or addresses at least one substantial and important question of law, policy, or discretion; CLI-13-1, 77 NRC 17 (2013)
- 10 C.F.R. 2.341(f)(2)  
interlocutory review is discretionary and will be granted only upon a showing that the issue for which review is sought threatens the party adversely affected by it with immediate and serious irreparable impact which, as a practical matter, could not be alleviated through a petition for review of the presiding officer's final decision or affects the basic structure of the proceeding in a pervasive or unusual manner; CLI-13-3, 77 NRC 54 (2013)  
where an admitted contention is pending before the board, appeals do not lie under section 2.311, but rather under this section, which governs petitions for interlocutory review, including board rulings on new contentions; CLI-13-3, 77 NRC 54 (2013)
- 10 C.F.R. 2.390  
NRC regulations encompass the FOIA exemptions as well as instructions for outside entities who might submit nonpublic information to the NRC; CLI-13-5, 77 NRC 228 (2013)
- 10 C.F.R. 2.390(a)(5)  
among the categories of privileged documents are interagency or intra-agency memorandums or letters that would not be available by law to a party other than an agency in litigation with the Commission; LBP-13-5, 77 NRC 238 (2013)
- 10 C.F.R. 2.702(f)  
licensees motion to quash subpoena duces tecum because production of the requested file would compromise its employee concerns program by potentially subjecting information contained in the file to public disclosure as an official agency record under FOIA is denied; CLI-13-5, 77 NRC 226-27 (2013)
- 10 C.F.R. 2.709(d)  
boards can request that a document for which a deliberative process privilege is claimed be provided to it for *in camera* inspection; LBP-13-5, 77 NRC 245 n.64 (2013)
- 10 C.F.R. 2.802  
petitioner must avail itself of a rulemaking petition if it wishes to pursue a challenge to a Commission rule; LBP-13-6, 77 NRC 298 (2013)

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- 10 C.F.R. 20.1402, 20.1403(a)  
objective of decommissioning is to reduce residual radioactivity in structures, soils, groundwater, and other media at the site so that the concentration of each radionuclide that could contribute to residual radioactivity is indistinguishable from the background radiation concentration for that nuclide; CLI-13-1, 77 NRC 6 (2013)
- 10 C.F.R. Part 30, App. C, § II.A.1  
intangible assets may be used to meet specified criteria in the financial tests for self-guarantees; CLI-13-1, 77 NRC 8 (2013)  
to qualify for the alternative method of self-funding for decommissioning, licensee must have, among other things, a tangible net worth at least ten times the total current decommissioning cost estimate (a 10:1 ratio requirement); CLI-13-1, 77 NRC 6 (2013)
- 10 C.F.R. Part 30, App. C, § II.A.3  
to qualify for the alternative method of self-funding for decommissioning, licensee must have, among other things, a bond rating of "A" or better, as issued by Standard and Poor's or Moody's; CLI-13-1, 77 NRC 6 (2013)
- 10 C.F.R. Part 30, App. C, § II.B.3  
self-guaranteeing licensees must pass the financial test annually; CLI-13-1, 77 NRC 12-13 (2013)
- 10 C.F.R. 40.14(a)  
source materials licensees can seek an exemption from the decommissioning financial assurance requirements; CLI-13-1, 77 NRC 9 (2013)
- 10 C.F.R. 40.36  
with limited exceptions, source material licensees must demonstrate that they can pay for the decommissioning of their regulated facilities; CLI-13-1, 77 NRC 5 (2013)
- 10 C.F.R. 40.36(a)  
source materials licensees must submit a decommissioning funding plan far in advance of submitting the actual plans for decommissioning; CLI-13-1, 77 NRC 6 (2013)
- 10 C.F.R. 40.36(d)  
decommissioning funding plans must include a periodically adjusted cost estimate, specify the method for assuring that sufficient funds will be available when needed, and certify that the amount assured for decommissioning meets or exceeds estimated decommissioning costs; CLI-13-1, 77 NRC 6 (2013)  
source materials licensees must submit a decommissioning funding plan far in advance of submitting the actual plans for decommissioning; CLI-13-1, 77 NRC 6 (2013)
- 10 C.F.R. 40.36(e)  
source materials licensees must submit a decommissioning funding plan far in advance of submitting the actual plans for decommissioning; CLI-13-1, 77 NRC 6 (2013)
- 10 C.F.R. 40.36(e)(1)-(3)  
nongovernment licensees must demonstrate financial assurance for decommissioning by prepayment, use of a surety method, insurance, or other guarantee method, or use of an external sinking fund; CLI-13-1, 77 NRC 5-6 (2013)
- 10 C.F.R. 40.36(e)(2)  
bond-issuing licensees may provide a self-guarantee of funds for decommissioning costs based on a financial test set forth in Appendix C of Part 30; CLI-13-1, 77 NRC 6 (2013)
- 10 C.F.R. 40.42  
licensee must submit a decommissioning plan when it decides to cease NRC-licensed activities at its facility; CLI-13-1, 77 NRC 6 (2013)
- 10 C.F.R. 50.2  
utilization facilities include commercial nuclear power reactors; LBP-13-7, 77 NRC 328 n.34 (2013)
- 10 C.F.R. 50.12  
for there to be any statutory right to a hearing on the granting of a rule exemption, such a grant must be part of a proceeding for the granting, suspending, revoking, or amending of any license or construction permit under the Atomic Energy Act; CLI-13-1, 77 NRC 10 n.37 (2013)  
rule exemption requests that do not involve special circumstances must be denied as a matter of law; CLI-13-1, 77 NRC 16, 35 n.188 (2013)

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- 10 C.F.R. 50.36  
criteria to be used in determining what items must be included in technical specifications are identified; LBP-13-7, 77 NRC 330 n.37 (2013)
- 10 C.F.R. 50.36b(a) & (b)  
NRC is clearly authorized to require licensees to protect the environment and to prevent them from causing adverse environmental impacts; LBP-13-4, 77 NRC 217 (2013)
- 10 C.F.R. 50.38  
NRC is prohibited from issuing a license for a production and utilization facility to any corporation or other entity if the Commission knows or has reason to believe it is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government; CLI-13-4, 77 NRC 102-03 n.1 (2013)
- 10 C.F.R. 50.44  
measures for combustible gas control for nuclear power reactors are discussed; DD-13-1, 77 NRC 352, 353-54 (2013)
- 10 C.F.R. 50.59  
if licensee is unable to operate a reactor in strict accordance with its license, it must seek authorization from NRC for a license amendment; LBP-13-7, 77 NRC 331 (2013)  
licensee must obtain a license amendment from NRC if a change to its facility triggers the safety standards described in this section; LBP-13-7, 77 NRC 318 (2013)  
members of the public may challenge an action taken under this section only by means of a petition under 10 C.F.R. 2.206; LBP-13-7, 77 NRC 334 (2013)  
standards are provided for a licensee to request a license amendment before it may make changes in the facility as described in the updated final safety analysis report; LBP-13-7, 77 NRC 329 (2013)
- 10 C.F.R. 50.59(a)(6)  
any operation of that might result in in-plane vibrations due to fluid elastic instability is inconsistent with the analyses or descriptions in the UFSAR is the type of test or experiment that triggers the obligation to seek a license amendment; LBP-13-7, 77 NRC 343 (2013)  
“tests or experiments not described in the UFSAR,” constitute any activity where any structure, system, or component is utilized or controlled in a manner that is either outside the reference bounds of the design bases as described in the UFSAR or inconsistent with the analyses or descriptions in the UFSAR; LBP-13-7, 77 NRC 343 (2013)
- 10 C.F.R. 50.59(c)(1)  
licensees must periodically update their final safety analysis reports to reflect changes to the facility, make changes in the procedures as described in the UFSAR, and conduct tests or experiments not described in the UFSAR; LBP-13-7, 77 NRC 329 (2013)
- 10 C.F.R. 50.59(c)(1)(i)  
licensee must request a license amendment if the proposed action requires that existing technical specifications be changed; LBP-13-7, 77 NRC 329 (2013)
- 10 C.F.R. 50.59(c)(2)  
changes with respect to components (e.g., steam generators) are permitted without a license amendment under prescribed conditions that assure that the replacement components are sufficiently similar to the original that safety requirements are maintained or improved; LBP-13-7, 77 NRC 339 (2013)  
conditions under which licensee must seek a license amendment are specified; LBP-13-7, 77 NRC 330 (2013)
- 10 C.F.R. 50.59(c)(2)(vii) & (viii)  
“design bases” means information that identifies the specific functions to be performed by a structure, system, or component of a facility, and the specific values or ranges of values chosen for controlling parameters as reference bounds for a design; LBP-13-7, 77 NRC 330-31 n.38 (2013)
- 10 C.F.R. 50.59(c)(2)(viii)  
any operation of that might result in in-plane vibrations due to fluid elastic instability is inconsistent with the analyses or descriptions in the UFSAR is the type of test or experiment that triggers the obligation to seek a license amendment; LBP-13-7, 77 NRC 343 (2013)  
licensee must seek a license amendment before implementing a test or experiment that will result in a departure from a method of evaluation described in the updated final safety analysis report used in establishing the design basis or in the safety analysis; LBP-13-7, 77 NRC 341 (2013)



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- 10 C.F.R. 50.90-92  
if licensee is unable to operate a reactor in strict accordance with its license, it must seek authorization from NRC for a license amendment; LBP-13-7, 77 NRC 331 (2013)
- 10 C.F.R. 50.92  
there can be no actual license amendment until and unless it is issued by the NRC Staff; LBP-13-7, 77 NRC 327 (2013)
- 10 C.F.R. Part 50, App. A, GDC 14  
wear of steam generator tubes is of critical importance to evaluations performed in the final safety analysis report, because the tubes are part of the reactor coolant pressure boundary, and assurance of their integrity is required; LBP-13-7, 77 NRC 336-37 n.44 (2013)
- 10 C.F.R. 51.14(b)  
cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time; LBP-13-4, 77 NRC 120 (2013)  
effects and impacts as used in this regulation are synonymous with 40 C.F.R. 1508.8; LBP-13-4, 77 NRC 120 (2013)  
environmental impact statements must address the cumulative impact of the proposed action, which is defined as the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions; LBP-13-4, 77 NRC 120 (2013)
- 10 C.F.R. 51.31  
an environmental assessment can be the basis of a finding under section 51.32 that the proposed agency action will not have a significant effect upon the environment such that a full-blown EIS (or supplemental EIS) is not required; LBP-13-6, 77 NRC 300 n.32 (2013)
- 10 C.F.R. 51.41  
NRC is required to independently assess the validity of the information that applicant submits in its environmental report; LBP-13-4, 77 NRC 213 (2013)
- 10 C.F.R. 51.53(c)(3)  
contradiction between paragraphs (ii)(L) and (iv) is discussed; LBP-13-1, 77 NRC 62 (2013)
- 10 C.F.R. 51.53(c)(3)(ii)(L)  
board denies petition for rule waiver but refers the decision to the Commission because the legal issue presented by the petition is novel and worthy of the Commission's immediate attention; LBP-13-1, 77 NRC 60 (2013)  
if NRC Staff has not previously considered severe accident mitigation alternatives for applicant's plant in an environmental impact statement or related supplement or in an environmental assessment, SAMAs must be considered for license renewal; LBP-13-1, 77 NRC 61 (2013)  
possibility that new SAMA candidates may become available cannot be the basis for a successful petition to waive this regulation, because the Commission knew that SAMA technology would change, but was confident that processes, other than the SAMA analysis process, would adequately address any such developments; LBP-13-1, 77 NRC 67-68 (2013)  
purpose of subsection (L) is to limit the analysis during relicensing to exclude consideration of SAMAs regarding plant operation that were previously considered; LBP-13-1, 77 NRC 64-65 (2013)  
subsection (L) operates as the functional equivalent of a Category I issue, removing SAMAs from litigation in case-by-case license renewal adjudications; LBP-13-1, 77 NRC 67 (2013)
- 10 C.F.R. 51.53(c)(3)(iv)  
environmental reports must contain any new and significant information regarding the environmental impacts of license renewal of which the applicant is aware; LBP-13-1, 77 NRC 62 (2013)
- 10 C.F.R. 51.70(b)  
NRC Staff will independently evaluate and be responsible for the reliability of all information used in the draft environmental impact statement; LBP-13-4, 77 NRC 213 (2013)
- 10 C.F.R. 51.71(d) n.3  
if a federal or state environmental agency issues a permit to the operator of a nuclear power plant that imposes numerical limits on the amount of pollution that the plant may emit, then NRC's final environmental impact statement may reasonably assume that the company's emissions will comply with those numerical limits; LBP-13-4, 77 NRC 218 n.96 (2013)

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- 10 C.F.R. 51.75(c)  
issuance of a combined license is a major federal action significantly affecting the quality of the human environment, and requiring an environmental impact statement; LBP-13-4, 77 NRC 119 (2013)
- 10 C.F.R. 51.107(a)(1)-(4)  
NRC must conduct a hearing on the uncontested environmental and safety aspects of the proposed plant; LBP-13-4, 77 NRC 220 n.99 (2013)
- 10 C.F.R. 51.107(a)(3)  
in every combined license proceeding, the presiding officer must determine whether the license should be issued, denied, or appropriately conditioned to protect environmental values; LBP-13-4, 77 NRC 217 (2013)
- 10 C.F.R. Part 51, Subpart A, App. B, tbl. B-1  
bird collisions with cooling towers have not been found to be a problem at operating nuclear power plants and are not expected to be a problem during the license renewal term; LBP-13-1, 77 NRC 67 (2013)
- 10 C.F.R. 52.75(a)  
any person except one excluded by section 50.38 may file an application for a combined license for a nuclear power facility; CLI-13-4, 77 NRC 103 n.1 (2013)
- 10 C.F.R. 55.4  
senior reactor operator is any individual licensed under 10 C.F.R. Part 55 to manipulate the controls of a facility and to direct the licensed activities of licensed operators; LBP-13-3, 77 NRC 85 (2013)
- 10 C.F.R. 55.31  
applicant who passes both a written examination and operating test and meets the other requirements specified in 10 C.F.R. Part 55 will be eligible to receive a senior reactor operator license; LBP-13-5, 77 NRC 236 (2013)
- 10 C.F.R. 55.33(a)  
to obtain a senior reactor operator license, applicant must pass both the written examination and the operating test and meet the other requirements specified in 10 C.F.R. Part 55; LBP-13-3, 77 NRC 85 (2013)
- 10 C.F.R. 55.35(b)  
senior reactor operator license applicant who has passed either the written examination or operating test and failed the other may request in a new application on Form NRC-398 to be excused from reexamination on the portions of the examination or test that the applicant has passed; LBP-13-3, 77 NRC 85 (2013)
- 10 C.F.R. 55.43, 55.45  
applicant who passes both a written examination and operating test and meets the other requirements specified in 10 C.F.R. Part 55 will be eligible to receive senior reactor operator license; LBP-13-5, 77 NRC 236 (2013)
- 33 C.F.R. 328.3(b)  
“wetlands” are those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions and generally include swamps, marshes, bogs, and similar areas; LBP-13-4, 77 NRC 136 (2013)
- 36 C.F.R. 800.2(c)(2)(ii)  
individual tribal representative does not have standing to sue under NHPA § 106 consultation provisions; LBP-13-6, 77 NRC 277 n.12 (2013)
- 40 C.F.R. 147.1401  
the EPA-approved state permitting authority for Class I injection wells is the regulatory entity from which applicant must seek and obtain the permit necessary to allow it to operate a deep injection well at the site; LBP-13-6, 77 NRC 299 (2013)
- 40 C.F.R. 1508.7  
cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time; LBP-13-4, 77 NRC 120 (2013)
- 40 C.F.R. 1508.8(a)  
direct effects are caused by the action and occur at the same time and place; LBP-13-4, 77 NRC 120 (2013)

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40 C.F.R. 1508.8(b)

indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable; LBP-13-4, 77 NRC 120 (2013)  
within the rule of reason, an environmental impact statement must address both the direct and indirect effects or impacts; LBP-13-4, 77 NRC 120 (2013)



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- Administrative Procedure Act, 5 U.S.C. §§ 551-559  
if NRC lacks sufficient information to reach an informed decision, then the agency has a duty to collect further information and conduct further analysis; CLI-13-1, 77 NRC 29 (2013)
- Atomic Energy Act, 101, 42 U.S.C. § 2131  
it is imperative that terms of a reactor operating license be clear and unambiguous and that licensee scrupulously adhere to those terms, because it is unlawful for any person within the United States to use any utilization facility except under and in accordance with a license issued by NRC; LBP-13-7, 77 NRC 328 (2013)
- licensees may not, under penalty of law, deviate from the terms of their reactor operating licenses; LBP-13-7, 77 NRC 331 (2013)
- to determine whether an ongoing CAL process constitutes a de facto license amendment proceeding, the board must determine whether the requested change in operating authority sought by licensee is strictly in accordance with the terms and technical specifications in its existing license; LBP-13-7, 77 NRC 333 (2013)
- Atomic Energy Act, 103d, 42 U.S.C. § 2133(d)  
NRC is prohibited from issuing a license for a nuclear power reactor if it would be inimical to the health or safety of the public; LBP-13-4, 77 NRC 217 (2013)
- NRC is prohibited from issuing a license for a production and utilization facility to any corporation or other entity if the Commission knows or has reason to believe it is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government; CLI-13-4, 77 NRC 102 n.1 (2013)
- Atomic Energy Act, 161, 42 U.S.C. § 2201  
the Commission is empowered to issue an order amending any license as it deems necessary to effectuate the provisions of the Act to promote the common defense and security or to protect health or to minimize danger to life or property; LBP-13-7, 77 NRC 329 (2013)
- Atomic Energy Act, 161c, 42 U.S.C. § 2201(c)  
licensee's concerns about NRC's administration of FOIA cannot overcome the agency's duty to investigate alleged violations; CLI-13-5, 77 NRC 228 (2013)
- NRC has authority to conduct any investigations it deems necessary and proper to the administration or enforcement of its authority, which includes any regulations or orders issued pursuant to the AEA; CLI-13-5, 77 NRC 227 (2013)
- NRC is authorized to issue any necessary subpoenas; CLI-13-5, 77 NRC 227 (2013)
- Atomic Energy Act, 182a, 42 U.S.C. § 2232(a)  
licensee's concerns about NRC's administration of FOIA cannot overcome the agency's statutory obligation to protect the public health and safety; CLI-13-5, 77 NRC 228 (2013)
- reactor operating licenses must include technical specifications that include specific characteristics of the facility and such other information as the Commission may, by rule or regulation, deem necessary in order to enable it to find that the utilization of special nuclear material will provide adequate protection to the health and safety of the public; LBP-13-7, 77 NRC 328-29 (2013)
- the Commission may at any time before expiration of a license, require further written statements from licensee to determine whether a license should be modified; LBP-13-7, 77 NRC 329 (2013)
- Atomic Energy Act, 42 U.S.C. §§ 2233, 2237  
the Commission is empowered to issue an order amending any license as it deems necessary to effectuate the provisions of the Act to promote the common defense and security or to protect health or to minimize danger to life or property; LBP-13-7, 77 NRC 329 (2013)

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- Atomic Energy Act, 189a, 42 U.S.C. § 2239(a)  
any person whose interest may be affected may request a hearing in a proceeding granting, suspending, revoking, or amending any license; CLI-13-2, 77 NRC 44 (2013)
- Atomic Energy Act, 189a(1)(A), 42 U.S.C. § 2239(a)(1)(A)  
in any proceeding for the amending of any license, the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding; LBP-13-7, 77 NRC 329 (2013)  
license amendment requests trigger hearing rights; LBP-13-7, 77 NRC 331 (2013)  
license denial letter that contained apparent boilerplate that was incomplete and perforce misleading does not accord with concepts of fundamental fairness and might well counter hearing rights granted under the Act; LBP-13-3, 77 NRC 96 (2013)  
NRC must conduct a hearing on the uncontested environmental and safety aspects of the proposed plant; LBP-13-4, 77 NRC 220 n.99 (2013)  
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- Federal Register Act, 44 U.S.C. § 1507  
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- Federal Water Pollution Control Act, 404  
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- Florida Electrical Power Plant Siting Act, Fla. Stat. §§ 403.501-.518  
state water use permit is required for construction and operation of the nuclear units, associated facilities, and transmission lines and corridor; LBP-13-4, 77 NRC 135 (2013)
- Florida Electrical Power Plant Siting Act, Fla. Stat. § 403.507(2)(a)(2)  
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- Freedom of Information Act, 5 U.S.C. § 552  
agencies must make available certain records to members of the public upon specific request for those records except to the extent that the records (or portions of them) are exempt from public disclosure by one of the nine enumerated exemptions or are excluded from disclosure; CLI-13-5, 77 NRC 228 (2013)  
documents at issue are presumed to be public unless NRC Staff can demonstrate that they are protected by the deliberative process privilege; LBP-13-5, 77 NRC 242 (2013)  
NRC considers whether Exemption 7 would prevent public disclosure of allegation and investigation information from release; CLI-13-5, 77 NRC 228 n.25 (2013)
- Freedom of Information Act, 5 U.S.C. § 552(a)  
agencies must make available for public inspection a broad range of information, including the agency's organization, general methodology, rules of procedure, substantive rules, final opinions, and statements of policy and interpretation that have been adopted by the agency; LBP-13-5, 77 NRC 238 (2013)
- Freedom of Information Act, 5 U.S.C. § 552(a)(3)  
the government has the burden of proving that a requested document falls within one of FOIA's exemptions; LBP-13-5, 77 NRC 238 (2013)
- Freedom of Information Act, 5 U.S.C. § 552(b)  
agencies may avoid disclosing documents only if they prove that the documents fall within one of the exemptions; LBP-13-5, 77 NRC 238 (2013)  
nine categories of documents may be exempted from disclosure; LBP-13-5, 77 NRC 238 (2013)
- Freedom of Information Act, 5 U.S.C. § 552(c)  
documents are presumed to be available for public inspection if they do not fall within one of the nine exemptions; LBP-13-5, 77 NRC 238 (2013)
- National Environmental Policy Act, 101, 42 U.S.C. § 4331  
to ensure that the Act's broad national commitment to protect and promote environmental quality is infused in the actions of the federal government, NEPA establishes certain action-forcing procedures on each federal agency; LBP-13-4, 77 NRC 119 (2013)

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- National Environmental Policy Act, 101a, 42 U.S.C. § 4331(a)  
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- National Environmental Policy Act, 102, 42 U.S.C. § 4332(2)(C)(i)  
to the fullest extent possible, all federal agencies shall include in every major federal action significantly affecting the quality of the human environment, a detailed statement by the responsible official on the environmental impact of the proposed action; LBP-13-4, 77 NRC 119 (2013)
- National Historic Preservation Act, 101(d)(6)(B)  
agency official must consult with any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to historic properties that may be affected by an undertaking; LBP-13-6, 77 NRC 277 n.12 (2013)
- National Historic Preservation Act, 106, 16 U.S.C. § 470a(b)(3)(E), (d)(2)  
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- Safe Drinking Water Act, 1422, 42 U.S.C. § 1422  
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- Fed. R. Evid. 1002-1003  
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- Webster's Third New International Dictionary of the English Language, Unabridged* 1945 (2002)  
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qualified persons, such as head of a department or division, having both expertise and an overview-type perspective concerning the balance between the agency's duty of disclosure versus its need to conduct frank internal debate must sign an affidavit asserting deliberative process privilege; LBP-13-5, 77 NRC 233 (2013)
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- petition to intervene and/or request for hearing on the question of whether it should have been wholly denied; CLI-13-3, 77 NRC 51 (2013)
- contention admissibility decisions generally are not considered to be extraordinary for purposes of interlocutory appellate review, particularly where petitioner has been admitted as a party and has other contentions pending; CLI-13-3, 77 NRC 51 (2013)
- interlocutory review is discretionary and will be granted only upon a showing that the issue for which review is sought threatens the party adversely affected by it with immediate and serious irreparable impact which, as a practical matter, could not be alleviated through a petition for review of the presiding officer's final decision or affects the basic structure of the proceeding in a pervasive or unusual manner; CLI-13-3, 77 NRC 51 (2013)
- petition for interlocutory review that questions the very structure of the two-step licensing process is suitable for consideration; CLI-13-3, 77 NRC 51 (2013)
- petitions to review interlocutory board orders typically are denied summarily, without engaging in extensive merits discussion; CLI-13-3, 77 NRC 51 (2013)
- piecemeal review of licensing board rulings during ongoing proceedings is disfavored; CLI-13-3, 77 NRC 51 (2013)
- review at the end of a case would be meaningless if the Commission could not later, on appeal from a final board decision, rectify an erroneous disclosure order; CLI-13-3, 77 NRC 51 (2013)
- where an admitted contention is pending before the board, appeals do not lie under section 2.311, but rather under section 2.341(f)(2), which governs petitions for interlocutory review, including board rulings on new contentions; CLI-13-3, 77 NRC 51 (2013)
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- abuse of discretion standard of review is applicable to discretionary Staff actions not subject to a hearing opportunity; CLI-13-1, 77 NRC 1 (2013)
- although the Commission has authority to undertake a de novo factual review, where a board's decision rests on a weighing of extensive fact-specific evidence presented by technical experts, the Commission generally will defer to the board's factual findings, unless there appears to be a clearly erroneous factual finding or related oversight; CLI-13-1, 77 NRC 1 (2013)
- applicant satisfied the regulatory standards for discretionary review by identifying a substantial question as to whether the board decision reaches at least one necessary legal conclusion without governing precedent or addresses at least one substantial and important question of law, policy, or discretion; CLI-13-1, 77 NRC 1 (2013)
- contention admissibility decisions generally are not considered to be extraordinary for purposes of interlocutory appellate review, particularly where petitioner has been admitted as a party and has other contentions pending; CLI-13-3, 77 NRC 51 (2013)
- deference to a board's factual determinations is particularly high when they are based in significant part on its assessment of expert testimony and credibility of the witnesses offering that testimony; CLI-13-1, 77 NRC 1 (2013)
- deferential clear error standard is applied in analyzing a board's findings of fact; CLI-13-1, 77 NRC 1 (2013)
- grant of discretionary review requires a showing that the board's findings are not even plausible in light of the record viewed in its entirety; CLI-13-1, 77 NRC 1 (2013)
- licensing board rulings will be addressed by the Commission after the board has issued a final decision in a case, barring extraordinary circumstances; CLI-13-3, 77 NRC 51 (2013)
- petition for interlocutory review that questions the very structure of the two-step licensing process is suitable for consideration; CLI-13-3, 77 NRC 51 (2013)
- petitions to review interlocutory board orders typically are denied summarily, without engaging in extensive merits discussion; CLI-13-3, 77 NRC 51 (2013)
- question before the Commission is not whether it would have made different factual findings than those of the board but whether the board's findings of fact are so lacking in record support as to be clearly erroneous; CLI-13-1, 77 NRC 1 (2013)
- review at the end of a case would be meaningless if the Commission could not later, on appeal from a final board decision, rectify an erroneous disclosure order; CLI-13-3, 77 NRC 51 (2013)

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where issues in a case have been sharply contested, the Commission will explain its view of the case in some detail; CLI-13-1, 77 NRC 1 (2013)

where the adverse impact of disclosure would occur immediately, the alleged harm is immediate for purpose of interlocutory review; CLI-13-3, 77 NRC 51 (2013)

### APPLICANTS

absent information to the contrary, NRC may properly assume that an applicant or licensee will comply with concrete and enforceable conditions and requirements imposed by statutes, regulations, licenses, or permits issued by competent federal, state, or local governmental entities; LBP-13-4, 77 NRC 107 (2013)

### ASSUMPTION OF COMPLIANCE

absent information to the contrary, NRC may properly assume that an applicant or licensee will comply with concrete and enforceable conditions and requirements imposed by statutes, regulations, licenses, or permits issued by competent federal, state, or local governmental entities; LBP-13-4, 77 NRC 107 (2013)

if a federal or state environmental agency issues a permit to the operator of a nuclear power plant that imposes numerical limits on the amount of pollution that the plant may emit, then NRC's final environmental impact statement may reasonably assume that the company's emissions will comply with those numerical limits; LBP-13-4, 77 NRC 107 (2013)

### ATOMIC ENERGY ACT

any person whose interest may be affected may request a hearing in a proceeding granting, suspending, revoking, or amending any license; CLI-13-2, 77 NRC 39 (2013)

Congress has vested NRC with authority to issue subpoenas in conjunction with investigations that the NRC deems necessary to protect public health or to minimize danger to life or property in matters involving nuclear materials; CLI-13-5, 77 NRC 223 (2013)

if AEA § 189a is to serve its intended purpose, parties in interest must be afforded a meaningful opportunity to request a hearing before the Commission retroactively reinvents the terms of an extant license by voiding its implicit limitations on the licensee's conduct; LBP-13-7, 77 NRC 307 (2013)

in any proceeding for the amending of any license, the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding; LBP-13-7, 77 NRC 307 (2013)

license denial letter that contained apparent boilerplate that was incomplete and perforce misleading does not accord with concepts of fundamental fairness and might well counter hearing rights granted under the Act; LBP-13-3, 77 NRC 82 (2013)

NRC has authority to conduct any investigations it deems necessary and proper to the administration or enforcement of its authority, which includes any regulations or orders issued pursuant to the AEA; CLI-13-5, 77 NRC 223 (2013)

NRC is authorized to issue any necessary subpoenas; CLI-13-5, 77 NRC 223 (2013)

NRC is prohibited from issuing a license for a production and utilization facility to any corporation or other entity if the Commission knows or has reason to believe it is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government; CLI-13-4, 77 NRC 101 (2013)

NRC is prohibited from issuing a license to a nuclear power reactor if it would be inimical to the health or safety of the public; LBP-13-4, 77 NRC 107 (2013)

orders issued under 10 C.F.R. 2.202 alter the requirements of a license and therefore fall generally under the terms of AEA § 189a; CLI-13-2, 77 NRC 39 (2013)

reactor operating licenses must include technical specifications that include specific characteristics of the facility and such other information as the Commission may, by rule or regulation, deem necessary in order to enable it to find that the utilization of special nuclear material will provide adequate protection to the health and safety of the public; LBP-13-7, 77 NRC 307 (2013)

rule exemption requests are not entitled to a hearing under AEA § 189a; CLI-13-1, 77 NRC 1 (2013)

substance of the NRC action determines entitlement to a section 189a hearing, not the particular label that NRC chooses to assign to its action; LBP-13-7, 77 NRC 307 (2013)

to determine whether an ongoing CAL process constitutes a de facto license amendment proceeding, the board must determine whether the requested change in operating authority sought by licensee is strictly in accordance with the terms and technical specifications in its existing license; LBP-13-7, 77 NRC 307 (2013)

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### ATTORNEY CONDUCT

to the extent that petitioner's counsel is blameworthy, petitioner may be held accountable; LBP-13-2, 77 NRC 71 (2013)

### BENEFIT-COST ANALYSIS

if the adverse environmental effects of the proposed action are adequately identified and evaluated, the agency is not constrained by NEPA from deciding that other values outweigh the environmental cost; LBP-13-4, 77 NRC 107 (2013)

SAMA analysis is an analysis of a class of SAMA candidates using probabilistic risk assessment techniques to determine whether any of the SAMA candidates would be cost-beneficial; LBP-13-1, 77 NRC 57 (2013)

### BURDEN OF PROOF

although deliberative process privilege is a qualified privilege and the agency claiming the privilege bears the initial burden of demonstrating that it is applicable, once this demonstration is made, the moving party can only defeat the privilege by a demonstration of an overriding need for the material; LBP-13-5, 77 NRC 233 (2013)

because draft documents are not presumptively privileged, the Staff must provide specific information to justify withholding them from disclosure; LBP-13-5, 77 NRC 233 (2013)

cursory and conclusory assertions that merely paraphrase the standards applicable to the deliberative process privilege without explaining how they apply to any specific document in dispute will not suffice to carry the government's burden of proof in defending FOIA cases; LBP-13-5, 77 NRC 233 (2013)

party moving for sanctions has the burden of establishing by a preponderance of the evidence that petitioner violated the protective order; LBP-13-2, 77 NRC 71 (2013)

the government has the burden of proving that a requested document falls within one of FOIA's exemptions; LBP-13-5, 77 NRC 233 (2013)

without indicating any specific, policy-oriented communication or proffering any cogent reason for protecting it, the bare assertion that internal agency discussions will be "chilled" is nothing but a legal platitude asserted in the abstract; LBP-13-5, 77 NRC 233 (2013)

### CASE OR CONTROVERSY

absent compelling reasons, the Commission adheres to the case or controversy doctrine in its adjudicatory proceedings; LBP-13-7, 77 NRC 307 (2013)

justiciable controversy must involve parties who raise questions presented in an adversary context and in a form historically viewed as capable of resolution through the judicial process; LBP-13-7, 77 NRC 307 (2013)

when petitioner obtains the relief it is seeking before the admissibility of its contention is resolved, the admissibility *vel non* of the contention is no longer justiciable, because it no longer presents a live controversy involving a true clash of interests that is susceptible to meaningful adjudicative relief; LBP-13-7, 77 NRC 307 (2013)

### CERTIFICATE OF COMPLIANCE

given that legally binding monitoring and mitigation measures have been imposed via a certificate of compliance issued by the appropriate state and local agencies, board has reasonable assurance that these measures will be implemented and that these agencies will actively monitor and enforce appropriate compliance with these environmental monitoring and mitigation measures; LBP-13-4, 77 NRC 107 (2013)

### CERTIFICATION

where petitioner has successfully made a prima facie showing for rule waiver, the board shall, before ruling on the petition, certify the matter directly to the Commission, and the Commission shall determine whether to grant or deny the waiver request; LBP-13-1, 77 NRC 57 (2013)

### CLIMATE CHANGE

cumulative impacts of water withdrawals, climate change, and saltwater intrusion on wetlands are discussed; LBP-13-4, 77 NRC 107 (2013)

### COMBINED LICENSE APPLICATION

if and when applicants file a revision of their application, NRC Staff should renounce the application as to its foreign ownership aspect; CLI-13-4, 77 NRC 101 (2013)

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NRC's analysis, in its final environmental impact statement, of issues relating to dewatering associated with construction and operation of the proposed plants is adequate and satisfies the National Environmental Policy Act; LBP-13-4, 77 NRC 107 (2013)

### COMBINED LICENSE PROCEEDINGS

NRC must conduct a hearing on the uncontested environmental and safety aspects of the proposed plant; LBP-13-4, 77 NRC 107 (2013)

presiding officer must determine whether the license should be issued, denied, or appropriately conditioned to protect environmental values; LBP-13-4, 77 NRC 107 (2013)

### COMBINED LICENSES

any person except one excluded by section 50.38 may file an application for a combined license for a nuclear power facility; CLI-13-4, 77 NRC 101 (2013)

applications for water use permits are evaluated by local governmental agencies; LBP-13-4, 77 NRC 107 (2013)

issuance of a combined license is a major federal action significantly affecting the quality of the human environment and requires an environmental impact statement; LBP-13-4, 77 NRC 107 (2013)

NRC is prohibited from issuing a license to a nuclear power reactor applicant if it would be inimical to the health or safety of the public; LBP-13-4, 77 NRC 107 (2013)

proposed plant will impact at least 668 acres of wetlands and therefore its construction and operation will require a permit from U.S. Army Corps of Engineers; LBP-13-4, 77 NRC 107 (2013)

state water use permit is required for construction and operation of the nuclear units, associated facilities, and transmission lines and corridor; LBP-13-4, 77 NRC 107 (2013)

### COMPLIANCE

it is imperative that terms of a reactor operating license be clear and unambiguous and that licensee scrupulously adhere to those terms, because it is unlawful for any person within the United States to use any utilization facility except under and in accordance with a license issued by NRC; LBP-13-7, 77 NRC 307 (2013)

license denial letter that contained apparent boilerplate that was incomplete and perforce misleading does not accord with concepts of fundamental fairness and might well counter hearing rights granted under the Atomic Energy Act; LBP-13-3, 77 NRC 82 (2013)

### COMPUTER MODELING

appropriate inquiry under NEPA is not whether there are alternative models that NRC could have used, or whether the analysis could have been refined, or improved by gathering additional data, but whether the NRC's chosen methodology is reasonable; LBP-13-4, 77 NRC 107 (2013)

modeling of salt drift from cooling towers is discussed; LBP-13-4, 77 NRC 107 (2013)

regional groundwater flow modeling is discussed; LBP-13-4, 77 NRC 107 (2013)

### CONDUCT OF PARTIES

every participant in NRC adjudicative proceedings has the duty to fulfill the obligations imposed by and in accordance with applicable law, and when participant fails to meet its obligations, a licensing board should consider the imposition of sanctions against the offending party; LBP-13-2, 77 NRC 71 (2013)

fairness to all involved in NRC's adjudicatory procedures requires that every participant fulfill the obligations imposed by and in accordance with applicable law and Commission regulations; LBP-13-2, 77 NRC 71 (2013)

licensing boards may impose on contumacious parties or their representatives reprimands, censures, or suspensions from proceedings; LBP-13-2, 77 NRC 71 (2013)

### CONFIDENTIAL INFORMATION

boards can request that a document for which a deliberative process privilege is claimed be provided to it for *in camera* inspection; LBP-13-5, 77 NRC 233 (2013)

NRC Staff must supply the board with precise and certain reasons for maintaining the confidentiality of requested documents; LBP-13-5, 77 NRC 233 (2013)

privilege logs that contain only cursory statements are inadequate to permit a court to decide whether the privilege was properly claimed; LBP-13-5, 77 NRC 233 (2013)

requirements and exemptions under FOIA reflect a balancing of public disclosure with confidentiality, but this balancing does not affect the NRC's authority to obtain requested information; CLI-13-5, 77 NRC 223 (2013)

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under certain circumstances, a licensee or vendor might be required to disclose confidential ECP information (including the identity of a concerned individual) at the behest of a government agency (including the NRC), or in response to a subpoena; CLI-13-5, 77 NRC 223 (2013)

### CONFIDENTIALITY

disclosure to intervenors of the names of power plant employees who provided NRC with information during the course of its investigation would be inappropriate, even with a protective order in place; CLI-13-5, 77 NRC 223 (2013)

factors that boards should consider in balancing applicant's need for disclosure against the agency's interest in confidentiality are described; LBP-13-5, 77 NRC 233 (2013)

government may withhold from disclosure the identity of persons who furnish information of violations of law to officers charged with enforcement of the law; CLI-13-5, 77 NRC 223 (2013)

### CONFIRMATORY ACTION LETTER

analytic framework for assessing whether a CAL process constitutes a de facto license amendment proceeding is provided; LBP-13-7, 77 NRC 307 (2013)

process and method for closing out a CAL are described; LBP-13-7, 77 NRC 307 (2013)

to determine whether a CAL process constitutes a de facto license amendment proceeding, a licensing board must look beyond the CAL itself and consider the entire process, including the documents generated incident to that process; LBP-13-7, 77 NRC 307 (2013)

to determine whether an ongoing CAL process constitutes a de facto license amendment proceeding, the board must determine whether the requested change in operating authority sought by licensee is strictly in accordance with the terms and technical specifications in its existing license; LBP-13-7, 77 NRC 307 (2013)

when an order is warranted to address a specific issue, a CAL is used to confirm initial, agreed upon, short-term actions covering the interval period prior to the actual issuance of the order; LBP-13-7, 77 NRC 307 (2013)

### CONFIRMATORY ORDER

before any hearing is granted on an order issued pursuant to 10 C.F.R. 2.202, a threshold question, intertwined with both standing and contention admissibility issues, is whether the hearing requests are within the scope of the proceeding; CLI-13-2, 77 NRC 39 (2013)

interested stakeholders who stand to benefit from a confirmatory order's safety measures may intervene in a contested enforcement proceeding to protect its interest in ensuring that the order is upheld as issued; CLI-13-2, 77 NRC 39 (2013)

issue to be determined at hearing is whether the order should be sustained or denied, not whether the order should be enhanced; CLI-13-2, 77 NRC 39 (2013)

orders issued under 10 C.F.R. 2.202 alter the requirements of a license and therefore fall generally under the terms of Atomic Energy Act § 189a; CLI-13-2, 77 NRC 39 (2013)

petitioner may obtain a hearing on a section 2.202 order only if the measures to be taken under the order would, *in themselves*, harm the petitioner; CLI-13-2, 77 NRC 39 (2013)

terms of section 2.202 orders often have been negotiated with the affected licensees, who would have little incentive to negotiate if so doing would expose them to formal litigation over additional terms or requirements that third-party petitioners would like to see imposed; CLI-13-2, 77 NRC 39 (2013)

### CONSIDERATION OF ALTERNATIVES

although NEPA establishes a national policy in favor of protecting the human environment, NEPA does not require the agency to select the most environmentally benign alternative, but rather merely prohibits uninformed rather than unwise agency action; LBP-13-4, 77 NRC 107 (2013)

consideration of impacts with either a low probability of occurrence, or where the link between the agency action and the claimed impact is too attenuated to find the proposed federal action to be the proximate cause of that impact are excluded under the National Environmental Policy Act; LBP-13-4, 77 NRC 107 (2013)

National Environmental Policy Act does not call for examination of every conceivable aspect of federally licensed projects, but requires only a discussion of reasonably foreseeable impacts; LBP-13-4, 77 NRC 107 (2013)

National Environmental Policy Act should be construed in the light of reason if it is not to demand virtually infinite study and resources; LBP-13-4, 77 NRC 107 (2013)



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- to make an impact statement something more than an exercise in frivolous boilerplate, the concept of alternatives must be bounded by some notion of feasibility; LBP-13-4, 77 NRC 107 (2013)
- CONSTRUCTION OF MEANING**  
in assessing whether petitioner has demonstrated standing, boards are to construe the petition in favor of the petitioner; LBP-13-6, 77 NRC 253 (2013)
- CONSULTATION DUTY**  
agency official must consult with any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to historic properties that may be affected by an undertaking; LBP-13-6, 77 NRC 253 (2013)  
contention contesting how the consultation mandate is being carried out can be raised in the first instance only after the Staff's draft environmental impact statement; LBP-13-6, 77 NRC 253 (2013)  
tribes have a procedural right to be consulted regarding historic preservation matters; LBP-13-6, 77 NRC 253 (2013)
- CONTAINMENT**  
request that licensee replace passive autocatalytic recombiners in the containment with electrically powered thermal hydrogen recombiners is denied; DD-13-1, 77 NRC 347 (2013)
- CONTENTIONS**  
assertion that final environmental impact statement inadequately addresses, and inappropriately characterizes as small, the plant's dewatering-associated impacts to wetlands, floodplains, special aquatic sites, and other waters is litigated; LBP-13-4, 77 NRC 107 (2013)
- CONTENTIONS, ADMISSIBILITY**  
absent compelling reasons, the Commission adheres to the case or controversy doctrine in its adjudicatory proceedings; LBP-13-7, 77 NRC 307 (2013)  
adjudication is not the proper forum for challenging applicable statutory requirements or the basic structure of the agency's regulatory process; LBP-13-6, 77 NRC 253 (2013)  
any NEPA-based challenge to the efficacy of, or the Staff's reliance on, the state permitting process relative to the Staff's environmental review must await the Staff's initial environmental review document; LBP-13-6, 77 NRC 253 (2013)  
appeals of contention admissibility rulings are available only upon denial of a petition to intervene and/or request for hearing on the question of whether it should have been granted or upon the grant of a petition to intervene and/or request for hearing on the question of whether it should have been wholly denied; CLI-13-3, 77 NRC 51 (2013)  
as an exercise of its inherent supervisory authority over adjudications, the Commission directs that waste confidence contentions and any related contentions that may be filed in the near term be held in abeyance pending further order; LBP-13-1, 77 NRC 57 (2013)  
attaching material or documents as a basis for a contention, without setting forth an explanation of that information's significance, is inadequate to support the admission of the contention; LBP-13-6, 77 NRC 253 (2013)  
before any hearing is granted on an order issued pursuant to 10 C.F.R. 2.202, a threshold question, intertwined with both standing and contention admissibility issues, is whether the hearing requests are within the scope of the proceeding; CLI-13-2, 77 NRC 39 (2013)  
board merits determination is inappropriate at the contention admissibility stage; LBP-13-6, 77 NRC 253 (2013)  
boards may appropriately view petitioner's supporting information in a light favorable to petitioner, but failure to provide such information regarding a proffered contention requires that the contention be rejected; LBP-13-6, 77 NRC 253 (2013)  
challenges to rules are appropriately lodged through a request for rulemaking; CLI-13-1, 77 NRC 1 (2013)  
contention challenging the adequacy/propriety of a Staff determination to prepare an environmental assessment in lieu of a supplemental environmental impact statement would need to await the issuance of the draft EA; LBP-13-6, 77 NRC 253 (2013)  
contention contesting adequacy of hydrogeologic information provided in application regarding fluid migration is admissible; LBP-13-6, 77 NRC 253 (2013)

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contention contesting failure of applicant to evaluate groundwater impacts of in situ recovery is inadmissible for failure to present factual allegations and/or expert opinion to support the contention; LBP-13-6, 77 NRC 253 (2013)

contention contesting how the consultation mandate is being carried out can be raised in the first instance only after the Staff's draft environmental impact statement; LBP-13-6, 77 NRC 253 (2013)

contention that attacks a Commission rule, or which seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking, is inadmissible; LBP-13-6, 77 NRC 253 (2013)

contention that simply states the petitioner's views about what regulatory policy should be does not present a litigable issue; LBP-13-6, 77 NRC 253 (2013)

contentions must be within the scope of the proceeding as defined by the Commission in its initial hearing notice and order referring the proceeding to a licensing board; LBP-13-6, 77 NRC 253 (2013)

contentions must focus on the license application in question, challenging either specific portions of or alleged omissions from the application so as to establish that a genuine dispute exists with the applicant on a material issue of law or fact; LBP-13-6, 77 NRC 253 (2013)

contentions that advocate stricter requirements than agency rules impose or that otherwise seek to litigate a generic determination established by a Commission rulemaking are inadmissible; LBP-13-6, 77 NRC 253 (2013)

contentions that fail to directly controvert the application or that mistakenly assert that the application does not address a relevant issue will be dismissed; LBP-13-6, 77 NRC 253 (2013)

decisions on admissibility generally are not considered to be extraordinary for purposes of interlocutory appellate review, particularly where petitioner has been admitted as a party and has other contentions pending; CLI-13-3, 77 NRC 51 (2013)

failure to comply with any of the contention pleading requirements of 10 C.F.R. 2.309(f)(1) is grounds for dismissing a contention; LBP-13-6, 77 NRC 253 (2013)

if a board were to adjudicate either the admissibility of a moot contention or the standing of a petitioner who sought to adjudicate a moot contention, it would be issuing an advisory opinion in derogation of Commission precedent; LBP-13-7, 77 NRC 307 (2013)

if petitioner neglects to provide the requisite support for its contentions, it is not within a board's power to make assumptions or draw inferences that favor petitioner, nor may the board supply information that is lacking; LBP-13-6, 77 NRC 253 (2013)

individual licensing proceedings are not the appropriate forum for evaluating severe accident mitigation alternatives; LBP-13-1, 77 NRC 57 (2013)

intervenor need not make its case at the contention admission stage, but must indicate what facts or expert opinions provide the basis for its contention; LBP-13-6, 77 NRC 253 (2013)

intervention petitioner's burden is met if petitioner provides plausible factual allegations that satisfy each element of standing; LBP-13-6, 77 NRC 253 (2013)

issue to be determined at hearing is whether the confirmatory order should be sustained or denied, not whether the order should be enhanced; CLI-13-2, 77 NRC 39 (2013)

license applications, not Staff's review, are to be the focus of a licensing adjudication; LBP-13-6, 77 NRC 253 (2013)

neither mere speculation nor bare or conclusory assertions, even by an expert, alleging that a matter should be considered will suffice to allow the admission of a proffered contention; LBP-13-6, 77 NRC 253 (2013)

new or amended contentions not related to the question of foreign ownership that an interested person may wish to file during the pendency of the combined license application are subject to usual rules of practice, including rules governing reopening the record of a closed proceeding; CLI-13-4, 77 NRC 101 (2013)

NRC regulations may not be challenged in any NRC adjudicatory proceeding; LBP-13-1, 77 NRC 57 (2013)

petitioner argued against an enforcement order unless it were modified to clarify various points, including the costs of state and local law enforcement resources that would be needed to implement the order, but the board based its analysis on whether petitioner had shown that the requirements, as stated in the order, would make the facility less safe; CLI-13-2, 77 NRC 39 (2013)

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- petitioner must provide a sound basis for its contention in its petition or in an expert affidavit or other supporting information that specifically corroborates the contested issues framed by the contention; LBP-13-6, 77 NRC 253 (2013)
- petitioners' argument opposing an order that imposed additional security measures at a spent fuel storage facility, because it created a false sense of security, was rejected because petitioners did not explain how they would be better off without the measures in the order; CLI-13-2, 77 NRC 39 (2013)
- reach of a contention necessarily hinges upon its terms coupled with its stated bases; LBP-13-6, 77 NRC 253 (2013)
- requirements do not apply to hearing demands submitted under section 2.103(b)(2) and petitioner lacked actual and constructive notice of the contention admissibility requirements that NRC Staff asserts she was required to satisfy; LBP-13-3, 77 NRC 82 (2013)
- scope of a section 2.202 proceeding is limited to the narrow issues of whether the facts stated in the order are true and whether the remedy selected is supported by those facts; CLI-13-2, 77 NRC 39 (2013)
- should the Commission determine at a future time that case-specific waste confidence challenges are appropriate for consideration, normal procedural rules will apply; LBP-13-1, 77 NRC 57 (2013)
- simple reference to a large number of documents is not enough to put the parties on notice as to the basis for intervention, but rather, petitioner must clearly identify and summarize the facts being relied on in the specific portions of the documents cited; LBP-13-6, 77 NRC 253 (2013)
- that the corrective measures outlined in a confirmatory order do not improve petitioner's personal situation does not provide grounds to rescind the confirmatory order; CLI-13-2, 77 NRC 39 (2013)
- to define the scope of an admitted contention properly, the board should have specified which bases were admitted; LBP-13-6, 77 NRC 253 (2013)
- when petitioner obtains the relief it is seeking before the admissibility of its contention is resolved, the admissibility *vel non* of the contention is no longer justiciable, because it no longer presents a live controversy involving a true clash of interests that is susceptible to meaningful adjudicative relief; LBP-13-7, 77 NRC 307 (2013)
- where an admitted contention is pending before the board, appeals do not lie under section 2.311, but rather under section 2.341(f)(2), which governs petitions for interlocutory review, including board rulings on new contentions; CLI-13-3, 77 NRC 51 (2013)
- whether and to what extent measures a state sought were needed to make the facility safer was essentially irrelevant because those additional measures were outside the scope of the enforcement order; CLI-13-2, 77 NRC 39 (2013)
- COOLING TOWERS**
- bird collisions with cooling towers have not been found to be a problem at operating nuclear power plants and are not expected to be a problem during the license renewal term; LBP-13-1, 77 NRC 57 (2013)
- modeling of salt drift from cooling towers is discussed; LBP-13-4, 77 NRC 107 (2013)
- COST-BENEFIT ANALYSIS**
- See Benefit-Cost Analysis
- COUNCIL ON ENVIRONMENTAL QUALITY GUIDELINES**
- CEQ regulation requiring an environmental impact statement to consider reasonably foreseeable impacts rather than a worst-case analysis is entitled to substantial deference and NEPA does not require a worst-case analysis in an EIS; LBP-13-4, 77 NRC 107 (2013)
- numerous CEQ regulations require an agency to discuss possible mitigation measures, including 40 C.F.R. §§ 1508.25(b), 1502.14(f), 1502.16(h), and 1508.20; LBP-13-4, 77 NRC 107 (2013)
- requirement that an environmental impact statement contain a detailed discussion of possible mitigation measures flows both from the language of NEPA and, more expressly, from the Council on Environmental Quality's implementing regulations; LBP-13-4, 77 NRC 107 (2013)
- CULTURAL RESOURCES**
- agency official must consult with any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to historic properties that may be affected by an undertaking; LBP-13-6, 77 NRC 253 (2013)
- individual tribal member's assertion of an interest based on cultural resource concerns must show that there is a concrete or particularized injury to herself as an individual; LBP-13-6, 77 NRC 253 (2013)

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Native American tribe's statutorily recognized interest in tribal cultural resources that may still be extant on its recognized aboriginal lands provides a cognizable interest for the purpose of establishing its standing; LBP-13-6, 77 NRC 253 (2013)  
petitioner asserts standing based on use of proposed site to gather eagle feathers for ceremonial and religious uses; LBP-13-6, 77 NRC 253 (2013)  
tribal member who regularly visits tribal migratory route on national monument land to pursue cultural undertakings has standing under NHPA to raise concerns; LBP-13-6, 77 NRC 253 (2013)  
tribes have a procedural right to be consulted regarding historic preservation matters; LBP-13-6, 77 NRC 253 (2013)

### CUMULATIVE IMPACTS ANALYSIS

"cumulative impact" is the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions; LBP-13-4, 77 NRC 107 (2013)  
environmental impact statements must cover all cumulative environmental impacts even if they occur offsite (e.g., beyond the licensee's property line); LBP-13-4, 77 NRC 107 (2013)  
impacts of water withdrawals, climate change, and saltwater intrusion on wetlands are discussed; LBP-13-4, 77 NRC 107 (2013)

### DEADLINES

because an applicant denied an operator's license (or a byproduct, source, special materials, or facility license) would be entitled to demand a hearing, rather than merely request a hearing, no more than 20 days would be required to prepare a document that would satisfy the conditions precedent to obtaining the hearing; LBP-13-3, 77 NRC 82 (2013)  
claim and identification of privileged materials must occur within the time provided for disclosing withheld materials; LBP-13-6, 77 NRC 253 (2013)  
period allotted for the filing of challenges to enforcement orders that impose some sanction is 20 days; LBP-13-3, 77 NRC 82 (2013)

### DECOMMISSIONING

objective is to reduce residual radioactivity in structures, soils, groundwater, and other media at the site so that the concentration of each radionuclide that could contribute to residual radioactivity is indistinguishable from the background radiation concentration for that nuclide; CLI-13-1, 77 NRC 1 (2013)  
"unrestricted use" means that, from a radiological standpoint, no hazards exist at the site, the license can be terminated, and the site can be considered an unrestricted area; CLI-13-1, 77 NRC 1 (2013)

### DECOMMISSIONING FUNDING

"credit facility" carries various definitions; CLI-13-1, 77 NRC 1 (2013)  
exemption from the decommissioning financial assurance requirements is considered to be an extraordinary equitable remedy to be used only sparingly; CLI-13-1, 77 NRC 1 (2013)  
intangible assets may be used to meet specified criteria in the financial tests for self-guarantees; CLI-13-1, 77 NRC 1 (2013)  
"revolving credit" arrangement is one type of credit facility, and may be used repeatedly up to the limit specified after partial or total repayments have been made; CLI-13-1, 77 NRC 1 (2013)  
self-guaranteeing licensees must pass the financial test annually; CLI-13-1, 77 NRC 1 (2013)  
source materials licensees can seek an exemption from the decommissioning financial assurance requirements; CLI-13-1, 77 NRC 1 (2013)  
to qualify for the alternative method of self-funding for decommissioning, licensee must have, among other things, a bond rating of "A" or better, as issued by Standard and Poor's or Moody's; CLI-13-1, 77 NRC 1 (2013)  
with limited exceptions, source material licensees must demonstrate that they can pay for the decommissioning of their regulated facilities; CLI-13-1, 77 NRC 1 (2013)

### DECOMMISSIONING FUNDING PLANS

applicant must include a periodically adjusted cost estimate, specify the method for assuring that sufficient funds will be available when needed, and certify that the amount assured for decommissioning meets or exceeds estimated decommissioning costs; CLI-13-1, 77 NRC 1 (2013)  
bond-issuing licensees may provide a self-guarantee of funds for decommissioning costs based on a financial test set forth in Appendix C of Part 30; CLI-13-1, 77 NRC 1 (2013)

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nongovernment licensees must demonstrate financial assurance for decommissioning by prepayment, use of a surety method, insurance, or other guarantee method, or use of an external sinking fund; CLI-13-1, 77 NRC 1 (2013)

### DECOMMISSIONING PLANS

licensee must submit a plan when it decides to cease NRC-licensed activities at its facility; CLI-13-1, 77 NRC 1 (2013)

source materials licensees must submit a decommissioning funding plan far in advance of submitting the actual plans for decommissioning; CLI-13-1, 77 NRC 1 (2013)

### DECOMMISSIONING PROCEEDINGS

a public interest group lacked organizational standing when its business address did not lie within 50 miles of the facility; LBP-13-6, 77 NRC 253 (2013)

### DEFINITIONS

“active dewatering” refers to the mechanical pumping of water from an aquifer; LBP-13-4, 77 NRC 107 (2013)

“credit facility” carries various definitions; CLI-13-1, 77 NRC 1 (2013)

cumulative impact is the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions; LBP-13-4, 77 NRC 107 (2013)

“demand” and “request” are not synonyms and therefore cannot be given the same meaning and effect; LBP-13-3, 77 NRC 82 (2013)

“demand” for a hearing is understood to confer the right to a hearing; LBP-13-3, 77 NRC 82 (2013)

“design bases” means information that identifies the specific functions to be performed by a structure, system, or component of a facility, and the specific values or ranges of values chosen for controlling parameters as reference bounds for a design; LBP-13-7, 77 NRC 307 (2013)

direct effects are caused by the action and occur at the same time and place; LBP-13-4, 77 NRC 107 (2013)

“floodplain” is an area of normally dry or semi-dry land providing temporary natural storage areas for floodwater; LBP-13-4, 77 NRC 107 (2013)

“hydroperiod” is the “natural fluctuations of the water table, the surficial aquifer; LBP-13-4, 77 NRC 107 (2013)

indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable; LBP-13-4, 77 NRC 107 (2013)

“moderate” means environmental effects are sufficient to alter noticeably, but not destabilize, important attributes of the resource; LBP-13-4, 77 NRC 107 (2013)

one authorized to make a “request” is merely given permission to ask for something, not to demand it; LBP-13-3, 77 NRC 82 (2013)

“passive dewatering” refers to evaporative losses of surface water or groundwater resulting from alterations in land cover, site drainage design, and changes to subsurface flow properties; LBP-13-4, 77 NRC 107 (2013)

“relict sinkhole” is a sinkhole that has been infilled and plugged and that is indicated by a depressional wetland; LBP-13-4, 77 NRC 107 (2013)

“revolving credit” arrangement is one type of credit facility, and may be used repeatedly up to the limit specified after partial or total repayments have been made; CLI-13-1, 77 NRC 1 (2013)

SAMA analysis is an analysis of a class of SAMA candidates using probabilistic risk assessment techniques to determine whether any of the SAMA candidates would be cost-beneficial; LBP-13-1, 77 NRC 57 (2013)

senior reactor operator is any individual licensed under 10 C.F.R. Part 55 to manipulate the controls of a facility and to direct the licensed activities of licensed operators; LBP-13-3, 77 NRC 82 (2013)

“small” means environmental effects are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource; LBP-13-4, 77 NRC 107 (2013)

“special aquatic sites” are defined in accordance with guidelines issued by the U.S. Environmental Protection Agency and include six categories of special aquatic sites; LBP-13-4, 77 NRC 107 (2013)

“tests or experiments not described in the UFSAR” constitute any activity where any structure, system, or component is utilized or controlled in a manner that is either outside the reference bounds of the design

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bases as described in the UFSAR or inconsistent with the analyses or descriptions in the UFSAR; LBP-13-7, 77 NRC 307 (2013)

“unrestricted use” means that, from a radiological standpoint, no hazards exist at the site, the license can be terminated, and the site can be considered an unrestricted area; CLI-13-1, 77 NRC 1 (2013)

utilization facilities include commercial nuclear power reactors; LBP-13-7, 77 NRC 307 (2013)

“wetlands” is defined as those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions and generally include swamps, marshes, bogs, and similar areas; LBP-13-4, 77 NRC 107 (2013)

when an order is warranted to address a specific issue, a confirmatory action letter is used to confirm initial, agreed upon, short-term actions covering the interval period prior to the actual issuance of the order; LBP-13-7, 77 NRC 307 (2013)

**DELIBERATIVE PROCESS PRIVILEGE**

adequacy of the privilege log with respect to the sufficiency of the information contained therein is particularly important with respect to Subpart L proceedings because without sufficient information as to what allegedly makes the document deliberative, the challenger is forced to shoot in the dark and face a substantive answer by the document withholder, without the right to reply; LBP-13-5, 77 NRC 233 (2013)

agency waives the deliberative process privilege for a document when it discloses the same document or one containing equivalent text; LBP-13-5, 77 NRC 233 (2013)

although the privilege is a qualified one and the agency claiming the privilege bears the initial burden of demonstrating that it is applicable, once this demonstration is made, the moving party can only defeat the privilege by a demonstration of an overriding need for the material; LBP-13-5, 77 NRC 233 (2013)

among the categories of privileged documents are interagency or intra-agency memorandums or letters that would not be available by law to a party other than an agency in litigation with the Commission; LBP-13-5, 77 NRC 233 (2013)

because draft documents are not presumptively privileged, the Staff must provide specific information to justify withholding them from disclosure; LBP-13-5, 77 NRC 233 (2013)

board may employ case law interpreting FOIA Exemption 5 when determining whether the deliberative process privilege applies in an NRC proceeding; LBP-13-5, 77 NRC 233 (2013)

boards can request that a document for which a deliberative process privilege is claimed be provided to it for *in camera* inspection; LBP-13-5, 77 NRC 233 (2013)

courts disfavor government efforts to place a portion of privileged material at issue while self-servingly retaining the rest; LBP-13-5, 77 NRC 233 (2013)

courts have allowed the government to withhold memoranda containing advice, opinions, recommendations, and subjective analysis; LBP-13-5, 77 NRC 233 (2013)

cursorily and conclusory assertions that merely paraphrase the standards applicable to the deliberative process privilege without explaining how they apply to any specific document in dispute will not suffice to carry the government’s burden of proof in defending FOIA cases; LBP-13-5, 77 NRC 233 (2013)

deliberative process privilege is qualified, requiring the court to balance the interests of the parties for and against disclosures; LBP-13-5, 77 NRC 233 (2013)

documents are not protected in their entirety, and if the government can segregate and disclose nonprivileged factual information within a document, it must; LBP-13-5, 77 NRC 233 (2013)

even where the government identifies significant reasons for nondisclosure, the interest in accurate judicial factfinding is predominant, especially where no satisfactory alternative source of information exists; LBP-13-5, 77 NRC 233 (2013)

evidence is relevant if it has some tendency to make deliberative process privilege opponent’s allegations more or less likely; LBP-13-5, 77 NRC 233 (2013)

explanation of reasons for asserting deliberative process privilege need not reveal the contents of the documents, but it must identify, with respect to a specific document or type of document, why that document should be protected from discovery and what specific harm would result from its disclosure; LBP-13-5, 77 NRC 233 (2013)

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factual material that does not reveal the deliberative process is not protected by privilege, unless it is inextricably intertwined with the deliberative portions of the document or it could reveal the deliberative process being protected if it were disclosed; LBP-13-5, 77 NRC 233 (2013)

in a Subpart L proceeding, NRC Staff must disclose or provide documents that support Staff's review of the application or proposed action, together with a list of all otherwise-discoverable documents for which a claim of protected or privileged status is being made; LBP-13-5, 77 NRC 233 (2013)

NRC Staff must supply the board with precise and certain reasons for maintaining the confidentiality of requested documents; LBP-13-5, 77 NRC 233 (2013)

party invoking deliberative process privilege bears the burden of explaining with particularity how and why disclosure of the documents' substance would harm an identified deliberative function; LBP-13-5, 77 NRC 233 (2013)

person qualified to assert deliberative process privilege must be involved in the initial assertion of privilege; LBP-13-5, 77 NRC 233 (2013)

presiding officers may make a determination about the validity of a deliberative process privilege claim without reviewing a document *in camera* if the affidavit outlining the reasons for nondisclosure is sufficiently detailed; LBP-13-5, 77 NRC 233 (2013)

privilege applied under 10 C.F.R. 2.390(a)(5) to interagency or intra-agency memorandums or letters is similar to Exemption 5 under the Freedom of Information Act; LBP-13-5, 77 NRC 233 (2013)

privilege has been extended to draft documents, proposals, suggestions, instructions to work deletions and alterations into drafts, instructions to conduct an investigation, documents reflecting personal and advisory opinions, and rejections of recommendations; LBP-13-5, 77 NRC 233 (2013)

privilege logs that contain only cursory statements are inadequate to permit a court to decide whether the privilege was properly claimed; LBP-13-5, 77 NRC 233 (2013)

privilege may be defeated by a showing of evidentiary need by a plaintiff that outweighs the harm that disclosure of such information may cause to the defendant; LBP-13-5, 77 NRC 233 (2013)

privilege must be asserted by an individual who holds a sufficiently senior position such that he or she has control over the requested information and possesses a balanced perspective that enables him or her to discern the nature of the material at issue; LBP-13-5, 77 NRC 233 (2013)

privilege serves to protect creative debate and candid consideration of alternatives within an agency, to guard against public confusion that could result from the release of policy-oriented discussions that occur prior to policy being made, and to protect the integrity of the decisionmaking process; LBP-13-5, 77 NRC 233 (2013)

qualified persons, such as head of a department or division, having both expertise and an overview-type perspective concerning the balance between the agency's duty of disclosure versus its need to conduct frank internal debate must sign an affidavit asserting deliberative process privilege; LBP-13-5, 77 NRC 233 (2013)

role of the government in the litigation favors disclosure when the government is a party to the litigation and has been accused of unlawful conduct; LBP-13-5, 77 NRC 233 (2013)

senior reactor operator license applicant's motion to compel NRC Staff to produce documents that had been withheld under a claim of deliberative process privilege is granted; LBP-13-5, 77 NRC 233 (2013)

seriousness of the litigation supports disclosure of material for which deliberative process privilege is sought; LBP-13-5, 77 NRC 233 (2013)

strong competing interests must be weighed against the government's interest in nondisclosure and foremost is the interest of the litigants, and ultimately of society, in accurate judicial factfinding; LBP-13-5, 77 NRC 233 (2013)

the FOIA exemption for inter- or intra-agency materials incorporates the deliberative process privilege, which protects documents that are prepared to assist an agency, board, or official to arrive at a decision; LBP-13-5, 77 NRC 233 (2013)

to qualify for the privilege, documents must be generated as part of a definable decisionmaking process that results in a final agency decision and must reflect the flow of opinions, recommendations, or advice between policymakers in formulating some type of definitive and conclusive ruling; LBP-13-5, 77 NRC 233 (2013)

when government conduct is challenged, claims of privilege may be used to obtain a litigating advantage; LBP-13-5, 77 NRC 233 (2013)

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without indicating any specific, policy-oriented communication or proffering any cogent reason for protecting it, the bare assertion that internal agency discussions will be “chilled” is nothing but a legal platitude asserted in the abstract; LBP-13-5, 77 NRC 233 (2013)

### DEMAND FOR HEARING

applicant denied a senior reactor operator license has the right to demand a hearing, rather than being required to negotiate the contention admissibility requirements and a possible appeal in the event a hearing is granted; LBP-13-3, 77 NRC 82 (2013)

because an applicant denied an operator’s license (or a byproduct, source, special materials, or facility license) would be entitled to demand a hearing, rather than merely request a hearing, no more than 20 days would be required to prepare a document that would satisfy the conditions precedent to obtaining the hearing; LBP-13-3, 77 NRC 82 (2013)

contention admissibility requirements do not apply to hearing demands submitted under section 2.103(b)(2), and petitioner lacked actual and constructive notice of the contention admissibility requirements that NRC Staff asserts she was required to satisfy; LBP-13-3, 77 NRC 82 (2013)

“demand” for a hearing is understood to confer the right to a hearing; LBP-13-3, 77 NRC 82 (2013)

hearing demand under section 2.103(b)(2) has only to meet the prescribed filing deadline and specify the reasons why the demander deemed the denial of the sought operator’s license to have been unjustified; LBP-13-3, 77 NRC 82 (2013)

hearing on denial of application for a senior reactor operator license is granted; LBP-13-3, 77 NRC 82 (2013)

one demanding a hearing on a challenge to an enforcement order need not comply with the requirements of 10 C.F.R. 2.309(f)(1); LBP-13-3, 77 NRC 82 (2013)

period allotted for the filing of challenges to enforcement orders that impose some sanction is 20 days; LBP-13-3, 77 NRC 82 (2013)

usual rule of regulatory interpretation is that different language is intended to mean different things, and thus a demand for a hearing is not to be treated as a mere request for a hearing; LBP-13-3, 77 NRC 82 (2013)

### DENIAL OF LICENSE

applicant denied a senior reactor operator license has the right to demand a hearing, rather than being required to negotiate the contention admissibility requirements and a possible appeal in the event a hearing is granted; LBP-13-3, 77 NRC 82 (2013)

because an applicant denied an operator’s license (or a byproduct, source, special materials, or facility license) would be entitled to demand a hearing, rather than merely request a hearing, no more than 20 days would be required to prepare a document that would satisfy the conditions precedent to obtaining the hearing; LBP-13-3, 77 NRC 82 (2013)

contention admissibility requirements do not apply to hearing demands submitted under section 2.103(b)(2) and petitioner lacked actual and constructive notice of the contention admissibility requirements that NRC Staff asserts she was required to satisfy; LBP-13-3, 77 NRC 82 (2013)

demand for hearing on denial of application for a senior reactor operator license is granted; LBP-13-3, 77 NRC 82 (2013)

hearing demand under section 2.103(b)(2) has only to meet the prescribed filing deadline and specify the reasons why the demander deemed the denial of the sought operator’s license to have been unjustified; LBP-13-3, 77 NRC 82 (2013)

### DESIGN BASIS

“design bases” means information that identifies the specific functions to be performed by a structure, system, or component of a facility, and the specific values or ranges of values chosen for controlling parameters as reference bounds for a design; LBP-13-7, 77 NRC 307 (2013)

licensee must seek a license amendment before implementing a test or experiment that will result in a departure from a method of evaluation described in the updated final safety analysis report used in establishing the design basis or in the safety analysis; LBP-13-7, 77 NRC 307 (2013)

### DISCLOSURE

agencies are required to use alternative means for obtaining information to avoid unnecessary infringement of First Amendment associational rights; CLI-13-5, 77 NRC 223 (2013)



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agencies must make available certain records to members of the public upon specific request for those records except to the extent that the records (or portions of them) are exempt from public disclosure by one of the nine enumerated exemptions or are excluded from disclosure; CLI-13-5, 77 NRC 223 (2013)

agencies must make available for public inspection a broad range of information, including the agency's organization, general methodology, rules of procedure, substantive rules, final opinions, and statements of policy and interpretation that have been adopted by the agency; LBP-13-5, 77 NRC 233 (2013)

deliberative process privilege does not protect documents in their entirety and if the government can segregate and disclose nonprivileged factual information within a document, it must; LBP-13-5, 77 NRC 233 (2013)

disclosure to intervenors of the names of power plant employees who provided NRC with information during the course of its investigation would be inappropriate, even with a protective order in place; CLI-13-5, 77 NRC 223 (2013)

even where the government identifies significant reasons for nondisclosure, the interest in accurate judicial factfinding is predominant, especially where no satisfactory alternative source of information exists; LBP-13-5, 77 NRC 233 (2013)

factors that boards should consider in balancing applicant's need for disclosure against the agency's interest in confidentiality are described; LBP-13-5, 77 NRC 233 (2013)

government may withhold from disclosure the identity of persons who furnish information on violations of law to officers charged with enforcement of the law; CLI-13-5, 77 NRC 223 (2013)

in a Subpart L proceeding, NRC Staff must disclose or provide documents that support Staff's review of the application or proposed action, together with a list of all otherwise-discoverable documents for which a claim of protected or privileged status is being made; LBP-13-5, 77 NRC 233 (2013)

licensee's motion to quash a subpoena duces tecum because production of the requested file would compromise its employee concerns program by potentially subjecting information contained in the file to public disclosure as an official agency record under FOIA is denied; CLI-13-5, 77 NRC 223 (2013)

NRC considers whether Exemption 7 would prevent public disclosure of allegation and investigation information from release; CLI-13-5, 77 NRC 223 (2013)

NRC subpoena was upheld notwithstanding assertion of First Amendment freedom of association rights, where the subpoena was narrowly tailored to documents supporting specific allegations; CLI-13-5, 77 NRC 223 (2013)

review at the end of a case would be meaningless if the Commission could not later, on appeal from a final board decision, rectify an erroneous disclosure order; CLI-13-3, 77 NRC 51 (2013)

role of the government in the litigation favors disclosure when the government is a party to the litigation and has been accused of unlawful conduct; LBP-13-5, 77 NRC 233 (2013)

seriousness of the litigation supports disclosure of material for which deliberative process privilege is sought; LBP-13-5, 77 NRC 233 (2013)

under appropriate circumstances, First Amendment rights give way to the compelling government interest in nuclear safety; CLI-13-5, 77 NRC 223 (2013)

under certain circumstances, a licensee or vendor might be required to disclose confidential ECP information (including the identity of a concerned individual) at the behest of a government agency (including the NRC), or in response to a subpoena; CLI-13-5, 77 NRC 223 (2013)

when government conduct is challenged, claims of privilege may be used to obtain a litigating advantage; LBP-13-5, 77 NRC 233 (2013)

where the adverse impact of disclosure would occur immediately, the alleged harm is immediate for purpose of interlocutory review; CLI-13-3, 77 NRC 51 (2013)

**DISCOVERY AGAINST NRC STAFF**

although deliberative process privilege is a qualified privilege and the agency claiming the privilege bears the initial burden of demonstrating that it is applicable, once this demonstration is made, the moving party can only defeat the privilege by a demonstration of an overriding need for the material; LBP-13-5, 77 NRC 233 (2013)

board may employ case law interpreting FOIA Exemption 5 when determining whether the deliberative process privilege applies in an NRC proceeding; LBP-13-5, 77 NRC 233 (2013)

documents at issue are presumed to be public unless NRC Staff can demonstrate that they are protected by the deliberative process privilege; LBP-13-5, 77 NRC 233 (2013)

## SUBJECT INDEX

- factors that boards should consider in balancing applicant's need for disclosure against the agency's interest in confidentiality are described; LBP-13-5, 77 NRC 233 (2013)
- in a Subpart L proceeding, NRC Staff must disclose or provide documents that support Staff's review of the application or proposed action, together with a list of all otherwise-discoverable documents for which a claim of protected or privileged status is being made; LBP-13-5, 77 NRC 233 (2013)
- overriding need or special circumstances would support granting a motion to compel; LBP-13-5, 77 NRC 233 (2013)
- senior reactor operator license applicant's motion to compel NRC Staff to produce documents that had been withheld under a claim of deliberative process privilege is granted; LBP-13-5, 77 NRC 233 (2013)
- DRAFT ENVIRONMENTAL IMPACT STATEMENT**
- adequacy of DEIS that relied on applicant's mitigation measure that a state agency might not require the applicant to implement was challenged; LBP-13-4, 77 NRC 107 (2013)
- contention contesting how the consultation mandate is being carried out can be raised in the first instance only after the Staff's draft environmental impact statement; LBP-13-6, 77 NRC 253 (2013)
- NRC Staff will independently evaluate and be responsible for the reliability of all information used in the DEIS; LBP-13-4, 77 NRC 107 (2013)
- EMPLOYEE PROTECTION**
- disclosure to intervenors of the names of power plant employees who provided NRC with information during the course of its investigation would be inappropriate, even with a protective order in place; CLI-13-5, 77 NRC 223 (2013)
- licensee's motion to quash a subpoena duces tecum because production of the requested file would compromise its employee concerns program by potentially subjecting information contained in the file to public disclosure as an official agency record under FOIA is denied; CLI-13-5, 77 NRC 223 (2013)
- ENFORCEMENT**
- administrative subpoena duces tecum is judicially enforceable where the inquiry is within the authority of the agency, the demand for production is neither too indefinite nor unreasonably broad nor burdensome, and the information sought is reasonably relevant to the authorized inquiry; CLI-13-5, 77 NRC 223 (2013)
- ENFORCEMENT ORDERS**
- one demanding a hearing on a challenge to an enforcement order need not comply with the requirements of 10 C.F.R. 2.309(f)(1); LBP-13-3, 77 NRC 82 (2013)
- period allotted for the filing of challenges to enforcement orders that impose some sanction is 20 days; LBP-13-3, 77 NRC 82 (2013)
- reactors subject to the section 2.202 confirmatory orders would not have to shut down if the orders were not sustained; CLI-13-2, 77 NRC 39 (2013)
- where an enforcement order imposes measures to enhance safety, a petitioner cannot obtain a hearing to litigate whether additional safety measures should be imposed; CLI-13-2, 77 NRC 39 (2013)
- ENFORCEMENT PROCEEDINGS**
- before any hearing is granted on an order issued pursuant to 10 C.F.R. 2.202, a threshold question, intertwined with both standing and contention admissibility issues, is whether the hearing requests are within the scope of the proceeding; CLI-13-2, 77 NRC 39 (2013)
- enforcement proceedings are typically conducted pursuant to the procedures in Subpart G; LBP-13-3, 77 NRC 82 (2013)
- issue to be determined at hearing is whether the order should be sustained or denied, not whether the order should be enhanced; CLI-13-2, 77 NRC 39 (2013)
- petitioner argued against an enforcement order unless it were modified to clarify various points, including the costs of state and local law enforcement resources that would be needed to implement the order, but the board based its analysis on whether petitioner had shown that the requirements, as stated in the order, would make the facility less safe; CLI-13-2, 77 NRC 39 (2013)
- petitioner does not meet the redressability requirement for standing, because vacating the confirmatory orders would not ameliorate the injury of which Pilgrim Watch complains; CLI-13-2, 77 NRC 39 (2013)
- petitioner has standing when seeking to intervene to ensure that an enforcement order will be upheld; CLI-13-2, 77 NRC 39 (2013)

## SUBJECT INDEX

petitioners' argument opposing an order that imposed additional security measures at a spent fuel storage facility, because it created a false sense of security was rejected because petitioners did not explain how they would be better off without the measures in the order; CLI-13-2, 77 NRC 39 (2013)

scope of a section 2.202 proceeding is limited to the narrow issues of whether the facts stated in the order are true and whether the remedy selected is supported by those facts; CLI-13-2, 77 NRC 39 (2013)

that the corrective measures outlined in a confirmatory order do not improve petitioner's personal situation does not provide grounds to rescind the confirmatory order; CLI-13-2, 77 NRC 39 (2013)

whether and to what extent measures a state sought were needed to make the facility safer was essentially irrelevant because those additional measures were outside the scope of the enforcement order; CLI-13-2, 77 NRC 39 (2013)

### ENVIRONMENTAL ANALYSIS

NEPA does not require NRC to use the absolutely best scientific methodology available; LBP-13-4, 77 NRC 107 (2013)

to ensure that NEPA's broad national commitment to protecting and promoting environmental quality is infused in the actions of the federal government, the Act establishes certain action-forcing procedures on each federal agency; LBP-13-4, 77 NRC 107 (2013)

See also Cumulative Impacts Analysis

### ENVIRONMENTAL ASSESSMENT

an environmental assessment can be the basis of a finding under section 51.32 that the proposed agency action will not have a significant effect upon the environment such that a full-blown EIS (or supplemental EIS) is not required; LBP-13-6, 77 NRC 253 (2013)

contention challenging the adequacy/propriety of a Staff determination to prepare an EA in lieu of a supplemental EIS would need to await the issuance of the draft EA; LBP-13-6, 77 NRC 253 (2013)

### ENVIRONMENTAL EFFECTS

assertion that final environmental impact statement inadequately addresses, and inappropriately characterizes as small, the plant's dewatering-associated impacts to wetlands, floodplains, special aquatic sites, and other waters is litigated; LBP-13-4, 77 NRC 107 (2013)

cumulative impact is the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions; LBP-13-4, 77 NRC 107 (2013)

cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time; LBP-13-4, 77 NRC 107 (2013)

direct effects are caused by the action and occur at the same time and place; LBP-13-4, 77 NRC 107 (2013)

effects and impacts as used in 10 C.F.R. 51.14(b) are synonymous with terms in 40 C.F.R. 1508.8; LBP-13-4, 77 NRC 107 (2013)

if the adverse environmental effects of the proposed action are adequately identified and evaluated, the agency is not constrained by NEPA from deciding that other values outweigh the environmental cost; LBP-13-4, 77 NRC 107 (2013)

indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable; LBP-13-4, 77 NRC 107 (2013)

it is the continuing policy of the federal government to use all practicable means and measures to create and maintain conditions under which man and nature can exist in productive harmony; LBP-13-4, 77 NRC 107 (2013)

"large" means environmental effects are clearly noticeable and are sufficient to destabilize important attributes of the resource; LBP-13-4, 77 NRC 107 (2013)

"moderate" means environmental effects are sufficient to alter noticeably, but not destabilize, important attributes of the resource; LBP-13-4, 77 NRC 107 (2013)

NRC is clearly authorized to require licensees to protect the environment and to prevent them from causing adverse environmental impacts; LBP-13-4, 77 NRC 107 (2013)

proposed plant will impact at least 668 acres of wetlands and therefore its construction and operation will require a permit from U.S. Army Corps of Engineers; LBP-13-4, 77 NRC 107 (2013)

"small" means environmental effects are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource; LBP-13-4, 77 NRC 107 (2013)

## SUBJECT INDEX

### ENVIRONMENTAL IMPACT STATEMENT

- all cumulative environmental impacts even if they occur offsite (e.g., beyond the licensee's property line) must be addressed; LBP-13-4, 77 NRC 107 (2013)
- although NEPA establishes a national policy in favor of protecting the human environment, NEPA does not require the agency to select the most environmentally benign alternative, but rather merely prohibits uninformed rather than unwise agency action; LBP-13-4, 77 NRC 107 (2013)
- although NEPA mandates that an agency prepare an EIS and take a hard look at the environmental impacts of a proposed agency action, NEPA itself does not mandate particular results, but simply prescribes the necessary process; LBP-13-4, 77 NRC 107 (2013)
- an environmental assessment can be the basis of a finding under section 51.32 that the proposed agency action will not have a significant effect upon the environment such that a full-blown EIS (or supplemental EIS) is not required; LBP-13-6, 77 NRC 253 (2013)
- as long as the adverse effects of the proposed action are adequately identified and evaluated, the agency is not constrained by NEPA from deciding that other values outweigh the environmental costs; LBP-13-4, 77 NRC 107 (2013)
- consideration of impacts with either a low probability of occurrence, or where the link between the agency action and the claimed impact is too attenuated to find the proposed federal action to be the proximate cause of that impact are excluded under NEPA; LBP-13-4, 77 NRC 107 (2013)
- Council on Environmental Quality regulation requiring an environmental impact statement to consider reasonably foreseeable impacts rather than a worst-case analysis is entitled to substantial deference and NEPA does not require a worst-case analysis in an EIS; LBP-13-4, 77 NRC 107 (2013)
- cumulative impact of the proposed action must be addressed; LBP-13-4, 77 NRC 107 (2013)
- discussion of mitigation measures in an EIS is an important part of an agency's hard look at the environmental consequences of proposed federal action; LBP-13-4, 77 NRC 107 (2013)
- duty to prepare an EIS and to identify and consider every significant environmental impact is tempered by the rule of reason; LBP-13-4, 77 NRC 107 (2013)
- EISs are not intended to be research documents; LBP-13-4, 77 NRC 107 (2013)
- if the adverse environmental effects of the proposed action are adequately identified and evaluated, the agency is not constrained by NEPA from deciding that other values outweigh the environmental cost; LBP-13-4, 77 NRC 107 (2013)
- issuance of a combined license is a major federal action significantly affecting the quality of the human environment, and requiring an EIS; LBP-13-4, 77 NRC 107 (2013)
- it would be inconsistent with NEPA's reliance on procedural mechanisms, as opposed to substantive, result-based standards, to demand the presence in an EIS of a fully developed plan that will mitigate environmental harm before an agency can act; LBP-13-4, 77 NRC 107 (2013)
- mitigation must be discussed in sufficient detail to ensure that environmental consequences have been fairly evaluated; LBP-13-4, 77 NRC 107 (2013)
- NEPA does not call for examination of every conceivable aspect of federally licensed projects, but requires only a discussion of reasonably foreseeable impacts; LBP-13-4, 77 NRC 107 (2013)
- NEPA does not require NRC to use the absolutely best scientific methodology available; LBP-13-4, 77 NRC 107 (2013)
- NEPA does not require that a complete mitigation plan be actually formulated and adopted before the agency makes its decision; LBP-13-4, 77 NRC 107 (2013)
- NEPA generally does not mandate that identified mitigation measures be implemented; LBP-13-4, 77 NRC 107 (2013)
- NEPA is intended to ensure that environmental impacts will not be overlooked or underestimated only to be discovered after resources have been committed or the die otherwise cast; LBP-13-4, 77 NRC 107 (2013)
- NEPA only requires that the EIS address those environmental impacts that are reasonably foreseeable; LBP-13-4, 77 NRC 107 (2013)
- NEPA precludes an agency from avoiding NEPA's requirements by simply relying on another agency's conclusions about a federal action's impact on the environment; LBP-13-4, 77 NRC 107 (2013)
- NEPA requirement to prepare an EIS places upon an agency the obligation to consider every significant aspect of the environmental impact of a proposed action; LBP-13-4, 77 NRC 107 (2013)

## SUBJECT INDEX

- NEPA requires each EIS to include a detailed discussion of measures that might mitigate the adverse environmental consequences of the proposed action; LBP-13-4, 77 NRC 107 (2013)
- NEPA requires that the agency take a hard look at environmental consequences of each agency action; LBP-13-4, 77 NRC 107 (2013)
- NEPA should be construed in the light of reason if it is not to demand virtually infinite study and resource; LBP-13-4, 77 NRC 107 (2013)
- NEPA's rule of reason excludes consideration of remote and speculative impacts or worst-case scenarios; LBP-13-4, 77 NRC 107 (2013)
- NRC argument that leaks from spent fuel pools will not occur because the NRC is on duty was rejected; LBP-13-4, 77 NRC 107 (2013)
- NRC may not abdicate its duty under NEPA to other agencies to consider environmental impacts, even if those agencies have special expertise relating to environmental impacts; LBP-13-4, 77 NRC 107 (2013)
- NRC Staff is required to furnish only such information as appears reasonably necessary under the circumstances for evaluation of the project, rather than to be so all-encompassing in scope that the task of preparing it would become either fruitless or well nigh impossible; LBP-13-4, 77 NRC 107 (2013)
- NRC Staff need not perform a wholly independent analysis from scratch, but may rely on the scientific data and inferences drawn by another federal agency; LBP-13-4, 77 NRC 107 (2013)
- numerous Council on Environmental Quality regulations require an agency to discuss possible mitigation measures, including 40 C.F.R. §§ 1508.25(b), 1502.14(f), 1502.16(h), and 1508.20; LBP-13-4, 77 NRC 107 (2013)
- requirement that an EIS contain a detailed discussion of possible mitigation measures flows both from the language of NEPA and, more expressly, from the Council on Environmental Quality's implementing regulations; LBP-13-4, 77 NRC 107 (2013)
- to make an EIS something more than an exercise in frivolous boilerplate, the concept of alternatives must be bounded by some notion of feasibility; LBP-13-4, 77 NRC 107 (2013)
- to the fullest extent possible, all federal agencies shall include in every major federal action significantly affecting the quality of the human environment, a detailed statement by the responsible official on the environmental impact of the proposed action; LBP-13-4, 77 NRC 107 (2013)
- within the rule of reason, an EIS must address both the direct and indirect effects or impacts; LBP-13-4, 77 NRC 107 (2013)
- See also Draft Environmental Impact Statement; Final Environmental Impact Statement
- ENVIRONMENTAL ISSUES**
- license applications, not Staff's review, are to be the focus of a licensing adjudication; LBP-13-6, 77 NRC 253 (2013)
- ENVIRONMENTAL REPORT**
- NRC is required to independently assess the validity of the information that applicant submits in its ER; LBP-13-4, 77 NRC 107 (2013)
- operating license renewal applications must contain any new and significant information regarding the environmental impacts of license renewal of which the applicant is aware; LBP-13-1, 77 NRC 57 (2013)
- ENVIRONMENTAL REVIEW**
- although there will always be more data that could be gathered, agencies must have some discretion to draw the line and move forward with decisionmaking; LBP-13-4, 77 NRC 107 (2013)
- any NEPA-based challenge to the efficacy of, or the Staff's reliance on, the state permitting process relative to the Staff's environmental review must await the Staff's initial environmental review document; LBP-13-6, 77 NRC 253 (2013)
- duty to exercise independent judgment does not mean that NRC must reinvent every wheel or duplicate competent and professional environmental data and studies that have already been done on a proposed site; LBP-13-4, 77 NRC 107 (2013)
- in analyzing predictions of water availability in a report, NRC Staff consulted with the other government agencies to determine whether data from either of those agencies could be obtained to prepare a new water availability prediction; LBP-13-4, 77 NRC 107 (2013)
- NEPA allows agencies to select their own methodology as long as that methodology is reasonable; LBP-13-4, 77 NRC 107 (2013)

## SUBJECT INDEX

NRC is required to independently assess the validity of the information that applicant submits in its environmental report; LBP-13-4, 77 NRC 107 (2013)

NRC Staff may rely on the scientific data and inferences drawn by another government agency but need not slavishly defer to that agency's findings or its conclusions about water quality; LBP-13-4, 77 NRC 107 (2013)

### EQUIPMENT, SAFETY-RELATED

changes with respect to components (e.g., steam generators) are permitted without a license amendment under prescribed conditions that assure that the replacement components are sufficiently similar to the original so that safety requirements are maintained or improved; LBP-13-7, 77 NRC 307 (2013)

### ERROR

deferential clear error standard is applied in analyzing a board's findings of fact; CLI-13-1, 77 NRC 1 (2013)

### EVIDENCE

best evidence rule provides that an original or duplicate writing, recording, or photograph is required in order to prove its content unless an evidentiary rule or federal statute provides otherwise; CLI-13-5, 77 NRC 223 (2013)

evidence is relevant if it has some tendency to make deliberative process privilege opponent's allegations more or less likely; LBP-13-5, 77 NRC 233 (2013)

### EXCEPTIONS

sole ground for rule waiver or exception is that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation (or a provision of it) would not serve the purposes for which the rule or regulation was adopted; LBP-13-1, 77 NRC 57 (2013)

### EXEMPTIONS

agencies must make available certain records to members of the public upon specific request for those records except to the extent that the records (or portions of them) are exempt from public disclosure by one of the nine enumerated exemptions or are excluded from disclosure; CLI-13-5, 77 NRC 223 (2013)

because resolution of a rule exemption request directly affects licensability of the proposed facility, the exemption raises material questions directly connected to an agency licensing action and thus comes within the hearing rights of interested parties; CLI-13-1, 77 NRC 1 (2013)

board may employ case law interpreting FOIA Exemption 5 when determining whether the deliberative process privilege applies in an NRC proceeding; LBP-13-5, 77 NRC 233 (2013)

deliberative process privilege applied under 10 C.F.R. 2.390(a)(5) to interagency or intra-agency memorandums or letters is similar to Exemption 5 under the Freedom of Information Act; LBP-13-5, 77 NRC 233 (2013)

examples of the kinds of facts that must be weighed when determining whether to grant an exemption are given; CLI-13-1, 77 NRC 1 (2013)

exemption from the decommissioning financial assurance requirements is considered to be an extraordinary equitable remedy to be used only sparingly; CLI-13-1, 77 NRC 1 (2013)

FOIA's purpose is to encourage disclosure, and, to that end, its exemptions are to be interpreted narrowly; LBP-13-5, 77 NRC 233 (2013)

limited grounds for creation of exemptions are inherent in the administrative process, and agencies may use equitable discretion to afford case-by-case treatment, taking into account circumstances peculiar to individual parties in the application of a general rule or even in appropriate cases to grant dispensation from the rule's operation; CLI-13-1, 77 NRC 1 (2013)

nine categories of documents may be exempted from disclosure under the Freedom of Information Act; LBP-13-5, 77 NRC 233 (2013)

NRC considers whether Exemption 7 would prevent public disclosure of allegation and investigation information from release; CLI-13-5, 77 NRC 223 (2013)

NRC's statutory authority to adopt rules of general application entails a concomitant authority to provide exemption procedures in order to allow for special circumstances; CLI-13-1, 77 NRC 1 (2013)

request for exemption from a rule, by itself, does not give rise to an opportunity for hearing; CLI-13-1, 77 NRC 1 (2013)

## SUBJECT INDEX

requirements and exemptions under FOIA reflect a balancing of public disclosure with confidentiality, but this balancing does not affect the NRC's authority to obtain requested information; CLI-13-5, 77 NRC 223 (2013)

rule exemption decisions should take into account the equities of each situation; CLI-13-1, 77 NRC 1 (2013)

rule exemption requests that do not involve special circumstances must be denied as a matter of law; CLI-13-1, 77 NRC 1 (2013)

source materials licensees can seek an exemption from the decommissioning financial assurance requirements; CLI-13-1, 77 NRC 1 (2013)

the FOIA exemption for inter- or intra-agency materials incorporates the deliberative process privilege, which protects documents that are prepared to assist an agency, board, or official to arrive at a decision; LBP-13-5, 77 NRC 233 (2013)

the government has the burden of proving that a requested document falls within one of FOIA's exemptions; LBP-13-5, 77 NRC 233 (2013)

when licensee requests a rule exemption in a related license amendment application, hearing rights on the amendment application are considered to encompass the exemption request as well; CLI-13-1, 77 NRC 1 (2013)

See also Waiver of Rule

### FAIRNESS

fairness to all involved in NRC's adjudicatory procedures requires that every participant fulfill the obligations imposed by and in accordance with applicable law and Commission regulations; LBP-13-2, 77 NRC 71 (2013)

it is no less good morals and good law that the government should turn square corners in dealing with the people than that the people should turn square corners in dealing with their government; LBP-13-3, 77 NRC 82 (2013)

the Commission justifiably expects that all applicable provisions of the Rules of Practice will be observed in adjudicatory submissions, but it also expects the Staff to turn square corners with those with whom it deals, including applicants for SRO licenses; LBP-13-3, 77 NRC 82 (2013)

to say to appellants that the joke is on you, you shouldn't have trusted us, is hardly worthy of our great government; LBP-13-3, 77 NRC 82 (2013)

### FEDERAL REGISTER

boards may not rely on a *Federal Register* notice to put petitioner on constructive notice of a requirement that the board itself cannot discern in the regulations; LBP-13-3, 77 NRC 82 (2013)

even one lacking actual notice may be charged with constructive notice of regulations published in the *Federal Register*; LBP-13-3, 77 NRC 82 (2013)

publication of a regulation in the *Federal Register* constitutes notice to all persons residing in the United States; LBP-13-3, 77 NRC 82 (2013)

### FEDERAL RULES OF EVIDENCE

best evidence rule provides that an original or duplicate writing, recording, or photograph is required in order to prove its content unless an evidentiary rule or federal statute provides otherwise; CLI-13-5, 77 NRC 223 (2013)

### FEDERAL WATER POLLUTION CONTROL ACT

proposed plant will impact at least 668 acres of wetlands and therefore its construction and operation will require a permit from U.S. Army Corps of Engineers; LBP-13-4, 77 NRC 107 (2013)

### FINAL ENVIRONMENTAL IMPACT STATEMENT

adequacy of the FEIS regarding site geology and hydrology is discussed; LBP-13-4, 77 NRC 107 (2013)

all significant environmental impacts, whether direct, indirect, cumulative, onsite, or offsite, that are a reasonably foreseeable consequence of the proposed action must be reviewed and considered; LBP-13-4, 77 NRC 107 (2013)

appropriate inquiry under NEPA is not whether there are alternative models that NRC could have used, or whether the analysis could have been refined, or improved by gathering additional data, but whether the NRC's chosen methodology is reasonable; LBP-13-4, 77 NRC 107 (2013)

assertion that FEIS inadequately addresses, and inappropriately characterizes as small, the plant's dewatering-associated impacts to wetlands, floodplains, special aquatic sites, and other waters is litigated; LBP-13-4, 77 NRC 107 (2013)

## SUBJECT INDEX

if a federal or state environmental agency issues a permit to the operator of a nuclear power plant that imposes numerical limits on the amount of pollution that the plant may emit, then NRC's FEIS may reasonably assume that the company's emissions will comply with those numerical limits; LBP-13-4, 77 NRC 107 (2013)

legal adequacy of the FEIS is assessed under the rule of reason; LBP-13-4, 77 NRC 107 (2013)

NEPA does not require that the FEIS be a Ph.D. dissertation on specific topics; LBP-13-4, 77 NRC 107 (2013)

NRC's analysis, in its FEIS, of issues relating to dewatering associated with construction and operation of the proposed plants is adequate and satisfies the National Environmental Policy Act; LBP-13-4, 77 NRC 107 (2013)

### FINAL SAFETY ANALYSIS REPORT

licensee must seek a license amendment before implementing a test or experiment that will result in a departure from a method of evaluation described in the updated final safety analysis report used in establishing the design basis or in the safety analysis; LBP-13-7, 77 NRC 307 (2013)

licensees must periodically update their final safety analysis reports to reflect changes to the facility, make changes in the procedures as described in the UFSAR, and conduct tests or experiments not described in the UFSAR; LBP-13-7, 77 NRC 307 (2013)

standards are provided for a licensee to request a license amendment before it may make changes in the facility as described in the updated final safety analysis report; LBP-13-7, 77 NRC 307 (2013)

"tests or experiments not described in the UFSAR" constitute any activity where any structure, system, or component is utilized or controlled in a manner that is either outside the reference bounds of the design bases as described in the UFSAR or inconsistent with the analyses or descriptions in the UFSAR; LBP-13-7, 77 NRC 307 (2013)

updated final safety analysis reports can be modified without a license amendment as long as the modifications do not involve a change to the technical specifications or an unreviewed safety question; LBP-13-7, 77 NRC 307 (2013)

wear of steam generator tubes is of critical importance to evaluations performed in the final safety analysis report, because the tubes are part of the reactor coolant pressure boundary, and assurance of their integrity is required; LBP-13-7, 77 NRC 307 (2013)

### FINANCIAL ASSURANCE

bond-issuing licensees may provide a self-guarantee of funds for decommissioning costs based on a financial test set forth in Appendix C of Part 30; CLI-13-1, 77 NRC 1 (2013)

"credit facility" carries various definitions; CLI-13-1, 77 NRC 1 (2013)

exemption from the decommissioning financial assurance requirements is considered to be an extraordinary equitable remedy to be used only sparingly; CLI-13-1, 77 NRC 1 (2013)

intangible assets may be used to meet specified criteria in the financial tests for self-guarantees; CLI-13-1, 77 NRC 1 (2013)

nongovernment licensees must demonstrate financial assurance for decommissioning by prepayment, use of a surety method, insurance, or other guarantee method, or use of an external sinking fund; CLI-13-1, 77 NRC 1 (2013)

"revolving credit" arrangement is one type of credit facility, and may be used repeatedly up to the limit specified after partial or total repayments have been made; CLI-13-1, 77 NRC 1 (2013)

self-guaranteeing licensees must pass the financial test annually; CLI-13-1, 77 NRC 1 (2013)

source materials licensees can seek an exemption from the decommissioning financial assurance requirements; CLI-13-1, 77 NRC 1 (2013)

to qualify for the alternative method of self-funding for decommissioning, licensee must have, among other things, a bond rating of "A" or better, as issued by Standard and Poor's or Moody's; CLI-13-1, 77 NRC 1 (2013)

with limited exceptions, source material licensees must demonstrate that they can pay for the decommissioning of their regulated facilities; CLI-13-1, 77 NRC 1 (2013)

### FINDINGS OF FACT

deference to a board's factual determinations is particularly high when they are based in significant part on its assessment of expert testimony and credibility of the witnesses offering that testimony; CLI-13-1, 77 NRC 1 (2013)



## SUBJECT INDEX

deferential clear error standard is applied in analyzing a board's findings of fact; CLI-13-1, 77 NRC 1 (2013)

question before the Commission is not whether it would have made different factual findings than those of the board but whether the board's findings of fact are so lacking in record support as to be clearly erroneous; CLI-13-1, 77 NRC 1 (2013)

### FIRST AMENDMENT

agencies are required to use alternative means for obtaining information to avoid unnecessary infringement of First Amendment associational rights; CLI-13-5, 77 NRC 223 (2013)

NRC subpoena was upheld notwithstanding assertion of First Amendment freedom of association rights, where the subpoena was narrowly tailored to documents supporting specific allegations; CLI-13-5, 77 NRC 223 (2013)

under appropriate circumstances First Amendment rights give way to the compelling government interest in nuclear safety; CLI-13-5, 77 NRC 223 (2013)

### FLOODS

"floodplain" is an area of normally dry or semi-dry land providing temporary natural storage areas for floodwater; LBP-13-4, 77 NRC 107 (2013)

### FOREIGN OWNERSHIP

any person except one excluded by section 50.38 may file an application for a combined license for a nuclear power facility; CLI-13-4, 77 NRC 101 (2013)

if and when applicants file a revision of their application, NRC Staff should renounce the application as to its foreign ownership aspect; CLI-13-4, 77 NRC 101 (2013)

NRC is prohibited from issuing a license for a production and utilization facility to any corporation or other entity if the Commission knows or has reason to believe it is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government; CLI-13-4, 77 NRC 101 (2013)

NRC Staff is directed to review foreign ownership issues outside the adjudicatory context, to consider stakeholder input, and to recommend whether the Commission should consider modifications to agency guidance or practice; CLI-13-4, 77 NRC 101 (2013)

### FREEDOM OF INFORMATION ACT

agencies must make available certain records to members of the public upon specific request for those records except to the extent that the records (or portions of them) are exempt from public disclosure by one of the nine enumerated exemptions or are excluded from disclosure; CLI-13-5, 77 NRC 223 (2013)

agencies must make available for public inspection a broad range of information, including the agency's organization, general methodology, rules of procedure, substantive rules, final opinions, and statements of policy and interpretation that have been adopted by the agency; LBP-13-5, 77 NRC 233 (2013)

board may employ case law interpreting FOIA Exemption 5 when determining whether the deliberative process privilege applies in an NRC proceeding; LBP-13-5, 77 NRC 233 (2013)

deliberative process privilege applied under 10 C.F.R. 2.390(a)(5) to interagency or intra-agency memorandums or letters is similar to Exemption 5 under the Freedom of Information Act; LBP-13-5, 77 NRC 233 (2013)

FOIA's purpose is to encourage disclosure, and, to that end, its exemptions are to be interpreted narrowly; LBP-13-5, 77 NRC 233 (2013)

licensee's concerns about NRC's administration of FOIA cannot overcome the agency's duty to investigate alleged violations; CLI-13-5, 77 NRC 223 (2013)

licensee's motion to quash a subpoena duces tecum because production of the requested file would compromise its employee concerns program by potentially subjecting information contained in the file to public disclosure as an official agency record under FOIA is denied; CLI-13-5, 77 NRC 223 (2013)

nine categories of documents may be exempted from disclosure; LBP-13-5, 77 NRC 233 (2013)

NRC considers whether Exemption 7 would prevent public disclosure of allegation and investigation information from release; CLI-13-5, 77 NRC 223 (2013)

requirements and exemptions under FOIA reflect a balancing of public disclosure with confidentiality, but this balancing does not affect the NRC's authority to obtain requested information; CLI-13-5, 77 NRC 223 (2013)

the FOIA exemption for inter- or intra-agency materials incorporates the deliberative process privilege, which protects documents that are prepared to assist an agency, board, or official to arrive at a decision; LBP-13-5, 77 NRC 233 (2013)

## SUBJECT INDEX

- the government has the burden of proving that a requested document falls within one of FOIA's exemptions; LBP-13-5, 77 NRC 233 (2013)
- FUKUSHIMA ACCIDENT  
continued operation and continued licensing activities following the accident do not pose an imminent risk to public health and safety; CLI-13-2, 77 NRC 39 (2013)
- GENERIC ISSUES  
subsection (L) of 10 C.F.R. 51.53(c)(3)(ii) operates as the functional equivalent of a Category 1 issue, removing SAMAs from litigation in case-by-case license renewal adjudications; LBP-13-1, 77 NRC 57 (2013)
- GROUNDWATER  
regional groundwater flow modeling is discussed; LBP-13-4, 77 NRC 107 (2013)
- GROUNDWATER CONTAMINATION  
contention contesting failure of applicant to evaluate groundwater impacts of in situ recovery is inadmissible for failure to present factual allegations and/or expert opinion to support the contention; LBP-13-6, 77 NRC 253 (2013)  
organizational interest in protecting the natural resources of the Black Hills of South Dakota with a focus on groundwater contamination from uranium mining is insufficient to establish organizational standing; LBP-13-6, 77 NRC 253 (2013)
- HEALTH AND SAFETY  
continued operation and continued licensing activities following the Fukushima accident do not pose an imminent risk to public health and safety; CLI-13-2, 77 NRC 39 (2013)  
important health and safety issue referred to a licensing board by the Commission satisfies the importance factor of the multifactor sanction test; LBP-13-2, 77 NRC 71 (2013)  
NRC is prohibited from issuing a license to a nuclear power reactor if it would be inimical to the health or safety of the public; LBP-13-4, 77 NRC 107 (2013)
- HEARING REQUESTS  
denial of hearing request on enforcement order is appealable as of right; CLI-13-2, 77 NRC 39 (2013)  
one authorized to make a "request" is merely given permission to ask for something, not to demand it; LBP-13-3, 77 NRC 82 (2013)  
requests for hearing must provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact; LBP-13-3, 77 NRC 82 (2013)  
usual rule of regulatory interpretation is that different language is intended to mean different things, and thus a demand for a hearing is not to be treated as a mere request for a hearing; LBP-13-3, 77 NRC 82 (2013)
- HEARING RIGHTS  
any person whose interest may be affected may request a hearing in a proceeding granting, suspending, revoking, or amending any license; CLI-13-2, 77 NRC 39 (2013)  
applicant denied a senior reactor operator license has the right to demand a hearing, rather than being required to negotiate the contention admissibility requirements and a possible appeal in the event a hearing is granted; LBP-13-3, 77 NRC 82 (2013)  
automatic participation at a hearing may be denied only when the Commission is seeking to make a facility's operation safer; CLI-13-2, 77 NRC 39 (2013)  
because resolution of a rule exemption request directly affects licensability of the proposed facility, the exemption raises material questions directly connected to an agency licensing action and thus comes within the hearing rights of interested parties; CLI-13-1, 77 NRC 1 (2013)  
demand for a hearing is understood to confer the right to a hearing; LBP-13-3, 77 NRC 82 (2013)  
demand for a hearing on denial of application for a senior reactor operator license is granted; LBP-13-3, 77 NRC 82 (2013)  
if AEA § 189a is to serve its intended purpose, parties in interest must be afforded a meaningful opportunity to request a hearing before the Commission retroactively reinvents the terms of an extant license by voiding its implicit limitations on the licensee's conduct; LBP-13-7, 77 NRC 307 (2013)  
in any proceeding for the amending of any license, the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding; LBP-13-7, 77 NRC 307 (2013)

## SUBJECT INDEX

license denial letter that contained apparent boilerplate that was incomplete and perforce misleading does not accord with concepts of fundamental fairness and might well counter hearing rights granted under the Atomic Energy Act; LBP-13-3, 77 NRC 82 (2013)

orders issued under 10 C.F.R. 2.202 alter the requirements of a license and therefore fall generally under the terms of Atomic Energy Act § 189a; CLI-13-2, 77 NRC 39 (2013)

petitioner may obtain a hearing on a section 2.202 order only if the measures to be taken under the order would, in themselves, harm the petitioner; CLI-13-2, 77 NRC 39 (2013)

request for exemption from a rule, by itself, does not give rise to an opportunity for hearing; CLI-13-1, 77 NRC 1 (2013)

substance of the NRC action determines entitlement to a section 189a hearing, not the particular label that NRC chooses to assign to its action; LBP-13-7, 77 NRC 307 (2013)

terms of section 2.202 orders often have been negotiated with the affected licensee or licensees, who would have little incentive to negotiate if so doing would expose them to formal litigation over additional terms or requirements that third-party petitioners would like to see imposed; CLI-13-2, 77 NRC 39 (2013)

when licensee requests a rule exemption in a related license amendment application, hearing rights on the amendment application are considered to encompass the exemption request as well; CLI-13-1, 77 NRC 1 (2013)

where an enforcement order imposes measures to enhance safety, a petitioner cannot obtain a hearing to litigate whether additional safety measures should be imposed; CLI-13-2, 77 NRC 39 (2013)

**HYDROGEN CONTROL**

request that licensee replace passive autocatalytic recombiners in the containment electrically powered thermal hydrogen recombiners is denied; DD-13-1, 77 NRC 347 (2013)

**HYDROGEOLOGY**

adequacy of the final environmental impact statement regarding site geology and hydrology is discussed; LBP-13-4, 77 NRC 107 (2013)

contention contesting adequacy of hydrogeologic information provided in application regarding fluid migration is admissible; LBP-13-6, 77 NRC 253 (2013)

**IN CAMERA REVIEW**

boards can request that a document for which a deliberative process privilege is claimed be provided to it for *in camera* inspection; LBP-13-5, 77 NRC 233 (2013)

presiding officers may make a determination about the validity of a deliberative process privilege claim without reviewing a document *in camera* if the affidavit outlining the reasons for nondisclosure is sufficiently detailed; LBP-13-5, 77 NRC 233 (2013)

**IN SITU LEACH MINING**

any NEPA-based challenge to the efficacy of, or the Staff's reliance on, the state permitting process relative to the Staff's environmental review must await the Staff's initial environmental review document; LBP-13-6, 77 NRC 253 (2013)

contention contesting adequacy of hydrogeologic information provided in application regarding fluid migration is admissible; LBP-13-6, 77 NRC 253 (2013)

contention contesting failure of applicant to evaluate groundwater impacts of in situ recovery is inadmissible for failure to present factual allegations and/or expert opinion to support the contention; LBP-13-6, 77 NRC 253 (2013)

the EPA-approved state permitting authority for Class I injection wells is the regulatory entity from which applicant must seek and obtain the permit necessary to allow it to operate a deep injection well at the site; LBP-13-6, 77 NRC 253 (2013)

**INJURY IN FACT**

individual tribal member who does not reside on a tribal reservation where a facility is proposed to be located must show injury in fact relative to that member's activities on the reservation even when the reservation is asserted to be on aboriginal tribal lands; LBP-13-6, 77 NRC 253 (2013)

nonradiological impacts can be a basis for standing; LBP-13-6, 77 NRC 253 (2013)

organizational standing in an agency adjudicatory proceeding could arise based on an asserted injury to a tangible asset, such as a building or land owned or regularly utilized by an organization, that is located near a proposed licensing activity; LBP-13-6, 77 NRC 253 (2013)

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- organizational standing is footed in the capacity of an organization to show a discrete injury to its organizational interests; LBP-13-6, 77 NRC 253 (2013)
- petitioner need only show that a cognizable injury is associated with a proposed licensing action and that granting the relief sought will address that injury; LBP-13-6, 77 NRC 253 (2013)
- when a radiological health or safety impact is asserted to provide the basis for a petitioner's injury in fact, in lieu of the usual injury and causation showings, petitioner can attempt to establish its standing based on the proximity plus protocol by showing that the proposed licensing action involves a significant source of radiation, which has an obvious potential for offsite consequences; LBP-13-6, 77 NRC 253 (2013)
- whether petitioner could be affected by the licensing action must be determined on a case-by-case basis, taking into account the petitioner's distance from the source, the nature of the licensed activity, and the significance of the radioactive source; LBP-13-6, 77 NRC 253 (2013)
- INTERPRETATION**
- board may employ case law interpreting FOIA Exemption 5 when determining whether the deliberative process privilege applies in an NRC proceeding; LBP-13-5, 77 NRC 233 (2013)
- FOIA's purpose is to encourage disclosure, and, to that end, its exemptions are to be interpreted narrowly; LBP-13-5, 77 NRC 233 (2013)
- INTERVENTION**
- interested stakeholders who stand to benefit from a confirmatory order's safety measures may intervene in a contested enforcement proceeding to protect its interest in ensuring that the order is upheld as issued; CLI-13-2, 77 NRC 39 (2013)
- petitioner may obtain a hearing on a section 2.202 order only if the measures to be taken under the order would, in themselves, harm the petitioner; CLI-13-2, 77 NRC 39 (2013)
- See also Standing to Intervene
- INTERVENTION, DISCRETIONARY**
- individuals or groups may seek discretionary intervention if the requirements necessary to be afforded standing as of right cannot be established; LBP-13-6, 77 NRC 253 (2013)
- INTERVENTION PETITIONS**
- petitioner's name, address, and telephone contact information, nature of petitioner's right under the AEA to be made a party and interest in the proceeding, and possible effect of any decision or order that might be issued on the petitioner's interest must be included; LBP-13-6, 77 NRC 253 (2013)
- INTERVENTION RULINGS**
- boards may appropriately view petitioner's supporting information in a light favorable to petitioner, but failure to provide such information regarding a proffered contention requires that the contention be rejected; LBP-13-6, 77 NRC 253 (2013)
- if petitioner's factual claims in support of its standing are contested, untenable, conjectural, or conclusory, boards need not uncritically accept such assertions, but may weigh those informational claims and exercise its judgment about whether the standing element at issue has been satisfied; LBP-13-6, 77 NRC 253 (2013)
- in assessing whether petitioner has demonstrated standing, boards are to construe the petition in favor of the petitioner; LBP-13-6, 77 NRC 253 (2013)
- licensing board rulings will be addressed by the Commission after a licensing board has issued a final decision in a case, barring extraordinary circumstances; CLI-13-3, 77 NRC 51 (2013)
- to define scope of an admitted contention properly, the board should have specified which bases were admitted; LBP-13-6, 77 NRC 253 (2013)
- where petitioner has made no effort to establish that any proximity plus presumption should be applicable in determining standing relative to the challenged licensing action, boards must look to traditional standing precepts of injury and causation, as well as redressibility, to determine whether a sufficient factual and legal demonstration of standing has been made; LBP-13-6, 77 NRC 253 (2013)
- INVESTIGATION**
- Congress has vested NRC with authority to issue subpoenas in conjunction with investigations that the NRC deems necessary to protect public health or to minimize danger to life or property in matters involving nuclear materials; CLI-13-5, 77 NRC 223 (2013)
- licensee's concerns about NRC's administration of FOIA cannot overcome the agency's duty to investigate alleged violations; CLI-13-5, 77 NRC 223 (2013)

## SUBJECT INDEX

NRC has authority to conduct any investigations it deems necessary and proper to the administration or enforcement of its authority, which includes any regulations or orders issued pursuant to the Atomic Energy Act; CLI-13-5, 77 NRC 223 (2013)

### INVESTIGATIVE REPORTS

NRC considers whether Exemption 7 would prevent public disclosure of allegation and investigation information from release; CLI-13-5, 77 NRC 223 (2013)

### LEAKAGE

NRC argument that leaks from spent fuel pools will not occur because the NRC is on duty was rejected; LBP-13-4, 77 NRC 107 (2013)

### LICENSE AMENDMENT PROCEEDINGS

the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding; LBP-13-7, 77 NRC 307 (2013)

### LICENSE AMENDMENTS

NRC is empowered to issue an order amending any license as it deems necessary to effectuate the provisions of the Act to promote the common defense and security or to protect health or to minimize danger to life or property; LBP-13-7, 77 NRC 307 (2013)

NRC may at any time before expiration of a license, require further written statements from licensee to determine whether a license should be modified; LBP-13-7, 77 NRC 307 (2013)

### LICENSE APPLICATIONS

See Combined License Application; Materials License Amendment Applications

### LICENSE TRANSFER PROCEEDINGS

distance of 3 miles in a license transfer proceeding between facility and organization's offices does not qualify for organizational standing; LBP-13-6, 77 NRC 253 (2013)

### LICENSEE EMPLOYEES

under certain circumstances, a licensee or vendor might be required to disclose confidential ECP information (including the identity of a concerned individual) at the behest of a government agency (including the NRC), or in response to a subpoena; CLI-13-5, 77 NRC 223 (2013)

### LICENSES

by its nature a license is presumptively an exclusive (not an inclusive) regulatory device; LBP-13-7, 77 NRC 307 (2013)

regulated conduct that is neither delineated nor reasonably encompassed within delineated categories of authorized conduct presumptively remains unlicensed; LBP-13-7, 77 NRC 307 (2013)

### LICENSING BOARDS, AUTHORITY

authority empowering a licensing board to impose sanctions is found in 10 C.F.R. §§ 2.314(c) and 2.319; LBP-13-2, 77 NRC 71 (2013)

board merits determination is inappropriate at the contention admissibility stage; LBP-13-6, 77 NRC 253 (2013)

boards are not empowered to supervise or direct NRC Staff regulatory reviews; LBP-13-7, 77 NRC 307 (2013)

boards can request that a document for which a deliberative process privilege is claimed be provided to it for *in camera* inspection; LBP-13-5, 77 NRC 233 (2013)

boards have all the powers necessary to perform their duties, including powers to regulate the conduct of the participants and to issue orders necessary to carry out their duties and responsibilities; LBP-13-2, 77 NRC 71 (2013)

boards may not rely on a *Federal Register* notice to put petitioner on constructive notice of a requirement that the board itself cannot discern in the regulations; LBP-13-3, 77 NRC 82 (2013)

if petitioner's factual claims in support of its standing are contested, untenable, conjectural, or conclusory, boards need not uncritically accept such assertions, but may weigh those informational claims and exercise its judgment about whether the standing element at issue has been satisfied; LBP-13-6, 77 NRC 253 (2013)

role of the board when a rule waiver request is filed is limited to determining whether petitioner has made a *prima facie* showing that it has satisfied 10 C.F.R. 2.335(b), and if not, the board may not further consider the matter; LBP-13-1, 77 NRC 57 (2013)

## SUBJECT INDEX

where the licensing board independently analyzed the data in the record and made its own need-for-power projection based thereon, the NRC did not abdicate its NEPA responsibilities by placing heavy reliance on the judgment of local regulatory bodies; LBP-13-4, 77 NRC 107 (2013)

### LICENSING PROCEEDINGS

individual licensing proceedings are not the appropriate forum for evaluating SAMAs; LBP-13-1, 77 NRC 57 (2013)

reconsideration of the agency's guidance, as a general matter, should not be resolved in an application-specific proceeding; CLI-13-4, 77 NRC 101 (2013)

### LOCAL GOVERNMENTAL BODIES

applications for water use permits are evaluated by local governmental agencies; LBP-13-4, 77 NRC 107 (2013)

where state and local governmental bodies that have jurisdiction over the area in which adverse effects need to be addressed and since they have the authority to mitigate them, it would be incongruous to conclude that a federal agency has no power to act until the local agencies have reached a final conclusion on what mitigation measures they consider necessary; LBP-13-4, 77 NRC 107 (2013)

where the licensing board independently analyzed the data in the record and made its own need-for-power projection based thereon, the NRC did not abdicate its NEPA responsibilities by placing heavy reliance on the judgment of local regulatory bodies; LBP-13-4, 77 NRC 107 (2013)

### MANDATORY HEARINGS

NRC must conduct a hearing on the uncontested environmental and safety aspects of the proposed plant; LBP-13-4, 77 NRC 107 (2013)

### MATERIALITY

requests for hearing must provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact; LBP-13-3, 77 NRC 82 (2013)

### MATERIALS LICENSE AMENDMENT APPLICATIONS

because resolution of a rule exemption request directly affects licensability of the proposed facility, the exemption raises material questions directly connected to an agency licensing action and thus comes within the hearing rights of interested parties; CLI-13-1, 77 NRC 1 (2013)

when licensee requests a rule exemption in a related license amendment application, hearing rights on the amendment application are considered to encompass the exemption request as well; CLI-13-1, 77 NRC 1 (2013)

### MATERIALS LICENSE AMENDMENT PROCEEDINGS

whether petitioner could be affected by the licensing action must be determined on a case-by-case basis, taking into account the petitioner's distance from the source, the nature of the licensed activity, and the significance of the radioactive source; LBP-13-6, 77 NRC 253 (2013)

### MISCONDUCT

although petitioner's inadvertent publication of protected information was a serious offense that exposed movant to potential economic harm and undermined integrity of the adjudicative proceeding, the significance of petitioner's misconduct is alleviated to some degree by the immediate corrective action taken by petitioner; LBP-13-2, 77 NRC 71 (2013)

board denies a motion seeking sanctions against petitioner for violating the governing protective order and nondisclosure agreement, but imposes a document review requirement upon petitioner in light of its misconduct and to enhance future compliance with the proceeding's protective order; LBP-13-2, 77 NRC 71 (2013)

licensing boards may impose on contumacious parties or their representatives reprimands, censures, or suspensions from proceedings; LBP-13-2, 77 NRC 71 (2013)

### MONITORING

given that legally binding monitoring and mitigation measures have been imposed via a certificate of compliance issued by the appropriate state and local agencies, board has reasonable assurance that these measures will be implemented and that these agencies will actively monitor and enforce appropriate compliance with these environmental monitoring and mitigation measures; LBP-13-4, 77 NRC 107 (2013)

### MOOTNESS

absent compelling reasons, the Commission adheres to the case or controversy doctrine in its adjudicatory proceedings; LBP-13-7, 77 NRC 307 (2013)

## SUBJECT INDEX

hearing request was dismissed as moot where petitioner's claim was not susceptible to meaningful adjudicative relief; LBP-13-7, 77 NRC 307 (2013)

if a board were to adjudicate either the admissibility of a moot contention or the standing of a petitioner who sought to adjudicate a moot contention, it would be issuing an advisory opinion in derogation of Commission precedent; LBP-13-7, 77 NRC 307 (2013)

when petitioner obtains the relief it is seeking before the admissibility of its contention is resolved, the admissibility *vel non* of the contention is no longer justiciable, because it no longer presents a live controversy involving a true clash of interests that is susceptible to meaningful adjudicative relief; LBP-13-7, 77 NRC 307 (2013)

### MOTIONS TO COMPEL

overriding need or special circumstances would support granting a motion to compel; LBP-13-5, 77 NRC 233 (2013)

senior reactor operator license applicant's motion to compel NRC Staff to produce documents that had been withheld under a claim of deliberative process privilege is granted; LBP-13-5, 77 NRC 233 (2013)

### MOTIONS TO QUASH

licensee's motion to quash a subpoena duces tecum because production of the requested file would compromise its employee concerns program by potentially subjecting information contained in the file to public disclosure as an official agency record under FOIA is denied; CLI-13-5, 77 NRC 223 (2013)

NRC subpoenas have been quashed or limited when the subpoena was not closely drawn or NRC did not consider alternative means for obtaining the requested information to avoid unnecessary infringement of First Amendment associational rights; CLI-13-5, 77 NRC 223 (2013)

recipient of a subpoena issued by the NRC's Office of Investigations may move to quash the subpoena pursuant to 10 C.F.R. 2.702(f); CLI-13-5, 77 NRC 223 (2013)

### MOTIONS TO REOPEN

new or amended contentions not related to the question of foreign ownership that an interested person may wish to file during the pendency of the combined license application are subject to usual rules of practice, including rules governing reopening the record of a closed proceeding; CLI-13-4, 77 NRC 101 (2013)

### NATIONAL ENVIRONMENTAL POLICY ACT

agencies may select their own methodology as long as that methodology is reasonable; LBP-13-4, 77 NRC 107 (2013)

although NEPA establishes a national policy in favor of protecting the human environment, NEPA does not require the agency to select the most environmentally benign alternative, but rather merely prohibits uninformed rather than unwise agency action; LBP-13-4, 77 NRC 107 (2013)

although NEPA mandates that an agency prepare an environmental impact statement and take a hard look at the environmental impacts of a proposed agency action, NEPA itself does not mandate particular results, but simply prescribes the necessary process; LBP-13-4, 77 NRC 107 (2013)

although there will always be more data that could be gathered, agencies must have some discretion to draw the line and move forward with decisionmaking; LBP-13-4, 77 NRC 107 (2013)

appropriate inquiry under NEPA is not whether there are alternative models that NRC could have used, or whether the analysis could have been refined, or improved by gathering additional data, but whether the NRC's chosen methodology is reasonable; LBP-13-4, 77 NRC 107 (2013)

as long as the adverse effects of the proposed action are adequately identified and evaluated, the agency is not constrained by NEPA from deciding that other values outweigh the environmental costs; LBP-13-4, 77 NRC 107 (2013)

complete mitigation plan does not have to be actually formulated and adopted before the agency makes its decision; LBP-13-4, 77 NRC 107 (2013)

consideration of impacts with either a low probability of occurrence, or where the link between the agency action and the claimed impact is too attenuated to find the proposed federal action to be the proximate cause of that impact are excluded under NEPA; LBP-13-4, 77 NRC 107 (2013)

Council on Environmental Quality regulation requiring an environmental impact statement to consider reasonably foreseeable impacts rather than a worst-case analysis is entitled to substantial deference and NEPA does not require a worst-case analysis in an EIS; LBP-13-4, 77 NRC 107 (2013)

duty to prepare an environmental impact statement and to identify and consider every significant environmental impact is tempered by the rule of reason; LBP-13-4, 77 NRC 107 (2013)

## SUBJECT INDEX

environmental impact statement must only address those environmental impacts that are reasonably foreseeable; LBP-13-4, 77 NRC 107 (2013)

environmental impact statements are not intended to be research documents; LBP-13-4, 77 NRC 107 (2013)

environmental impact statements are required to furnish only such information as appears reasonably necessary under the circumstances for evaluation of the project, rather than to be so all-encompassing in scope that the task of preparing it would become either fruitless or well nigh impossible; LBP-13-4, 77 NRC 107 (2013)

environmental impact statements must address the cumulative impact of the proposed action; LBP-13-4, 77 NRC 107 (2013)

environmental impact statements must include a detailed discussion of measures that might mitigate the adverse environmental consequences of the proposed action; LBP-13-4, 77 NRC 107 (2013)

examination of every conceivable aspect of federally licensed projects is not required, but only a discussion of reasonably foreseeable impacts; LBP-13-4, 77 NRC 107 (2013)

final environmental impact statement is not required to be a Ph.D. dissertation on specific topics; LBP-13-4, 77 NRC 107 (2013)

if the adverse environmental effects of the proposed action are adequately identified and evaluated, the agency is not constrained by NEPA from deciding that other values outweigh the environmental cost; LBP-13-4, 77 NRC 107 (2013)

it would be inconsistent with NEPA's reliance on procedural mechanisms, as opposed to substantive, result-based standards, to demand the presence in an environmental impact statement of a fully developed plan that will mitigate environmental harm before an agency can act; LBP-13-4, 77 NRC 107 (2013)

NEPA generally does not mandate that identified mitigation measures be implemented; LBP-13-4, 77 NRC 107 (2013)

NEPA is intended to ensure that environmental impacts will not be overlooked or underestimated only to be discovered after resources have been committed or the die otherwise cast; LBP-13-4, 77 NRC 107 (2013)

NEPA should be construed in the light of reason if it is not to demand virtually infinite study and resources; LBP-13-4, 77 NRC 107 (2013)

NRC is not required to use the absolutely best scientific methodology available; LBP-13-4, 77 NRC 107 (2013)

NRC is precluded from avoiding the Act's requirements by simply relying on another agency's conclusions about a federal action's impact on the environment; LBP-13-4, 77 NRC 107 (2013)

NRC is required to consider severe accident mitigation alternatives; LBP-13-1, 77 NRC 57 (2013)

NRC may not abdicate its duty under NEPA to other agencies to consider environmental impacts, even if those agencies have special expertise relating to environmental impacts; LBP-13-4, 77 NRC 107 (2013)

NRC must take a hard look at environmental consequences of each agency action; LBP-13-4, 77 NRC 107 (2013)

NRC's analysis, in its final environmental impact statement, of issues relating to dewatering associated with construction and operation of the proposed plants is adequate and satisfies the National Environmental Policy Act; LBP-13-4, 77 NRC 107 (2013)

requirement that an environmental impact statement contain a detailed discussion of possible mitigation measures flows both from the language of the Act and, more expressly, from the Council on Environmental Quality's implementing regulations; LBP-13-4, 77 NRC 107 (2013)

requirement to prepare an environmental impact statement places upon an agency the obligation to consider every significant aspect of the environmental impact of a proposed action; LBP-13-4, 77 NRC 107 (2013)

rule of reason excludes consideration of remote and speculative impacts or worst-case scenarios; LBP-13-4, 77 NRC 107 (2013)

to ensure that the Act's broad national commitment to protecting and promoting environmental quality is infused in the actions of the federal government, NEPA establishes certain action-forcing procedures on each federal agency; LBP-13-4, 77 NRC 107 (2013)

to make an impact statement something more than an exercise in frivolous boilerplate, the concept of alternatives must be bounded by some notion of feasibility; LBP-13-4, 77 NRC 107 (2013)



## SUBJECT INDEX

to the fullest extent possible, all federal agencies shall include in every major federal action significantly affecting the quality of the human environment, a detailed statement by the responsible official on the environmental impact of the proposed action; LBP-13-4, 77 NRC 107 (2013)

within the rule of reason, an environmental impact statement must address both the direct and indirect effects or impacts; LBP-13-4, 77 NRC 107 (2013)

### NATIONAL HISTORIC PRESERVATION ACT

agency official must consult with any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to historic properties that may be affected by an undertaking; LBP-13-6, 77 NRC 253 (2013)

contention contesting how the consultation mandate is being carried out can be raised in the first instance only after the Staff's draft environmental impact statement; LBP-13-6, 77 NRC 253 (2013)

tribal member who regularly visits tribal migratory route on national monument land to pursue cultural undertakings has standing under NHPA to raise concerns; LBP-13-6, 77 NRC 253 (2013)

tribes have a procedural right to be consulted regarding historic preservation matters; LBP-13-6, 77 NRC 253 (2013)

### NATIVE AMERICAN RESERVATIONS

individual tribal member who does not reside on a tribal reservation where a facility is proposed to be located must show injury in fact relative to that member's activities on the reservation even when the reservation is asserted to be on aboriginal tribal lands; LBP-13-6, 77 NRC 253 (2013)

### NATIVE AMERICANS

agency official must consult with any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to historic properties that may be affected by an undertaking; LBP-13-6, 77 NRC 253 (2013)

argument that, in addition to the tribe, individual tribal representative has standing to sue under NHPA section 106 consultation provisions is rejected; LBP-13-6, 77 NRC 253 (2013)

as a sovereign body, Native American tribes maintain a strong interest in its members' welfare such that its organizational purpose is germane to the interests it seeks to represent in proceeding; LBP-13-6, 77 NRC 253 (2013)

contention contesting how the consultation mandate is being carried out can be raised in the first instance only after the Staff's draft environmental impact statement; LBP-13-6, 77 NRC 253 (2013)

individual tribal member who does not reside on a tribal reservation where a facility is proposed to be located must show injury in fact relative to that member's activities on the reservation even when the reservation is asserted to be on aboriginal tribal lands; LBP-13-6, 77 NRC 253 (2013)

individual tribal member's assertion of an interest based on cultural resource concerns must show that there is a concrete or particularized injury to herself as an individual; LBP-13-6, 77 NRC 253 (2013)

petitioner asserts standing based on use of proposed site to gather eagle feathers for ceremonial and religious uses; LBP-13-6, 77 NRC 253 (2013)

tribal member who regularly visits tribal migratory route on national monument land to pursue cultural undertakings has standing under NHPA to raise concerns; LBP-13-6, 77 NRC 253 (2013)

tribe's statutorily recognized interest in tribal cultural resources that may still be extant on its recognized aboriginal lands provides a cognizable interest for the purpose of establishing its standing; LBP-13-6, 77 NRC 253 (2013)

tribes have a procedural right to be consulted regarding historic preservation matters; LBP-13-6, 77 NRC 253 (2013)

when a governmental organization, including a federally recognized Native American tribe, is unable to establish standing because the facility or nuclear material in question does not fall within its jurisdictional boundaries, that entity nonetheless may be accorded standing if its boundaries come within a distance from the nuclear facility or material that otherwise would establish standing for an individual or nongovernmental organization, whether via a proximity presumption or otherwise; LBP-13-6, 77 NRC 253 (2013)

### NEED FOR POWER

where the licensing board independently analyzed the data in the record and made its own need-for-power projection based thereon, NRC did not abdicate its NEPA responsibilities by placing heavy reliance on the judgment of local regulatory bodies; LBP-13-4, 77 NRC 107 (2013)

## SUBJECT INDEX

### NONDISCLOSURE AGREEMENTS

board denies a motion seeking sanctions against petitioner for violating the governing protective order and nondisclosure agreement, but imposes a document review requirement on petitioner in light of its misconduct and to enhance future compliance with the proceeding's protective order; LBP-13-2, 77 NRC 71 (2013)

party moving for sanctions has the burden of establishing by a preponderance of the evidence that petitioner violated the protective order; LBP-13-2, 77 NRC 71 (2013)

### NOTICE

boards may not rely on a *Federal Register* notice to put petitioner on constructive notice of a requirement that the board itself cannot discern in the regulations; LBP-13-3, 77 NRC 82 (2013)

contention admissibility requirements do not apply to hearing demands submitted under section 2.103(b)(2) and petitioner lacked actual and constructive notice of the contention admissibility requirements that NRC Staff asserts she was required to satisfy; LBP-13-3, 77 NRC 82 (2013)

even one lacking actual notice may be charged with constructive notice of regulations published in the *Federal Register*; LBP-13-3, 77 NRC 82 (2013)

if and when applicants file a revision of their application, NRC Staff should renote the application as to its foreign ownership aspect; CLI-13-4, 77 NRC 101 (2013)

NRC cannot take advantage of applicant's ignorance of information the agency itself was obligated to provide; LBP-13-3, 77 NRC 82 (2013)

publication of a regulation in the *Federal Register* constitutes notice to all persons residing in the United States; LBP-13-3, 77 NRC 82 (2013)

### NRC GUIDANCE DOCUMENTS

reconsideration of the agency's guidance, as a general matter, should not be resolved in an application-specific proceeding; CLI-13-4, 77 NRC 101 (2013)

### NRC POLICY

piecemeal review of licensing board rulings during ongoing proceedings is disfavored; CLI-13-3, 77 NRC 51 (2013)

### NRC STAFF

actions by the NRC Staff constitute a de facto license amendment when they authorize a licensee to engage in activities beyond the scope of its original license; LBP-13-7, 77 NRC 307 (2013)

license denial letter that contained apparent boilerplate that was incomplete and perforce misleading does not accord with concepts of fundamental fairness and might well counter hearing rights granted under the Atomic Energy Act; LBP-13-3, 77 NRC 82 (2013)

NRC cannot take advantage of applicant's ignorance of information the agency itself was obligated to provide; LBP-13-3, 77 NRC 82 (2013)

the Commission justifiably expects that all applicable provisions of the Rules of Practice will be observed in adjudicatory submissions, but it also expects NRC Staff to turn square corners with those with whom it deals, including applicants for senior reactor operator licenses; LBP-13-3, 77 NRC 82 (2013)

See also Discovery Against NRC Staff

### NRC STAFF REVIEW

any NEPA-based challenge to the efficacy of, or the Staff's reliance on, the state permitting process relative to the Staff's environmental review must await the Staff's initial environmental review document; LBP-13-6, 77 NRC 253 (2013)

duty to exercise independent judgment does not mean that NRC must reinvent every wheel or duplicate competent and professional environmental data and studies that have already been done on a proposed site; LBP-13-4, 77 NRC 107 (2013)

if NRC lacks sufficient information to reach an informed decision, then the agency has a duty to collect further information and conduct further analysis; CLI-13-1, 77 NRC 1 (2013)

in analyzing predictions of water availability in a report, NRC Staff consulted with the other government agencies to determine whether data from either of those agencies could be obtained to prepare a new water availability prediction; LBP-13-4, 77 NRC 107 (2013)

license applications, not Staff's review, are to be the focus of a licensing adjudication; LBP-13-6, 77 NRC 253 (2013)

licensing boards are not empowered to supervise or direct NRC Staff regulatory reviews; LBP-13-7, 77 NRC 307 (2013)

## SUBJECT INDEX

- NEPA precludes an agency from avoiding the NEPA's requirements by simply relying on another agency's conclusions about a federal action's impact on the environment; LBP-13-4, 77 NRC 107 (2013)
- NRC is required to independently assess the validity of the information that applicant submits in its environmental report; LBP-13-4, 77 NRC 107 (2013)
- NRC may not abdicate its duty under NEPA to other agencies to consider environmental impacts, even if those agencies have special expertise relating to environmental impacts; LBP-13-4, 77 NRC 107 (2013)
- NRC Staff is directed to review foreign ownership issues outside the adjudicatory context, to consider stakeholder input, and to recommend whether the Commission should consider modifications to agency guidance or practice; CLI-13-4, 77 NRC 101 (2013)
- NRC Staff may rely on the scientific data and inferences drawn by another government agency but need not slavishly defer to that agency's findings or its conclusions about water quality; LBP-13-4, 77 NRC 107 (2013)
- NRC Staff need not perform a wholly independent analysis from scratch, but may rely on the scientific data and inferences drawn by another federal agency; LBP-13-4, 77 NRC 107 (2013)
- NRC Staff will independently evaluate and be responsible for the reliability of all information used in the draft environmental impact statement; LBP-13-4, 77 NRC 107 (2013)
- NRC's analysis, in its final environmental impact statement, of issues relating to dewatering associated with construction and operation of the proposed plants was adequate and satisfied the National Environmental Policy Act; LBP-13-4, 77 NRC 107 (2013)
- NUCLEAR POWER PLANTS**
- utilization facilities include commercial nuclear power reactors; LBP-13-7, 77 NRC 307 (2013)
- NUCLEAR REGULATORY COMMISSION, AUTHORITY**
- although the Commission has authority to undertake a de novo factual review, where a board's decision rests on a weighing of extensive fact-specific evidence presented by technical experts, the Commission generally will defer to the board's factual findings, unless there appears to be a clearly erroneous factual finding or related oversight; CLI-13-1, 77 NRC 1 (2013)
- as an exercise of its inherent supervisory authority over adjudications, the Commission directs that waste confidence contentions and any related contentions that may be filed in the near term be held in abeyance pending further order; LBP-13-1, 77 NRC 57 (2013)
- Congress has vested NRC with authority to issue subpoenas in conjunction with investigations that the NRC deems necessary to protect public health or to minimize danger to life or property in matters involving nuclear materials; CLI-13-5, 77 NRC 223 (2013)
- licensee's concerns about NRC's administration of FOIA cannot overcome the agency's duty to investigate alleged violations; CLI-13-5, 77 NRC 223 (2013)
- limited grounds for creation of exemptions are inherent in the administrative process, and agencies may use equitable discretion to afford case-by-case treatment, taking into account circumstances peculiar to individual parties in the application of a general rule or even in appropriate cases to grant dispensation from the rule's operation; CLI-13-1, 77 NRC 1 (2013)
- NRC has authority to conduct any investigations it deems necessary and proper to the administration or enforcement of its authority, which includes any regulations or orders issued pursuant to the Atomic Energy Act; CLI-13-5, 77 NRC 223 (2013)
- NRC has authority to determine, and prescribe by rule or regulation, what additional information should be included in technical specifications to ensure public health and safety and the common defense and security; LBP-13-7, 77 NRC 307 (2013)
- NRC is authorized to issue any necessary subpoenas; CLI-13-5, 77 NRC 223 (2013)
- NRC is clearly authorized to require licensees to protect the environment and to prevent them from causing adverse environmental impacts; LBP-13-4, 77 NRC 107 (2013)
- NRC is empowered to issue an order amending any license as it deems necessary to effectuate the provisions of the Act to promote the common defense and security or to protect health or to minimize danger to life or property; LBP-13-7, 77 NRC 307 (2013)
- NRC is prohibited from issuing a license for a production and utilization facility to any corporation or other entity if the Commission knows or has reason to believe it is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government; CLI-13-4, 77 NRC 101 (2013)

## SUBJECT INDEX

NRC may at any time before expiration of a license, require further written statements from licensee to determine whether a license should be modified; LBP-13-7, 77 NRC 307 (2013)

NRC's statutory authority to adopt rules of general application entails a concomitant authority to provide exemption procedures in order to allow for special circumstances; CLI-13-1, 77 NRC 1 (2013)

requirements and exemptions under FOIA reflect a balancing of public disclosure with confidentiality, but this balancing does not affect the NRC's authority to obtain requested information; CLI-13-5, 77 NRC 223 (2013)

### NUCLEAR REGULATORY COMMISSION, JURISDICTION

where state and local governmental bodies that have jurisdiction over the area in which adverse effects need to be addressed and since they have the authority to mitigate them, it would be incongruous to conclude that a federal agency has no power to act until the local agencies have reached a final conclusion on what mitigation measures they consider necessary; LBP-13-4, 77 NRC 107 (2013)

### OPERATING LICENSE AMENDMENT APPLICATIONS

because changes to technical specifications require a license amendment, technical specifications should be limited to those plant conditions most important to safety; LBP-13-7, 77 NRC 307 (2013)

licensee must request a license amendment if the proposed action requires that existing technical specifications be changed; LBP-13-7, 77 NRC 307 (2013)

standards are provided for a licensee to request a license amendment before it may make changes in the facility as described in the updated final safety analysis report; LBP-13-7, 77 NRC 307 (2013)

### OPERATING LICENSE AMENDMENTS

actions by the NRC Staff constitute a de facto license amendment when they authorize a licensee to engage in activities beyond the scope of its original license; LBP-13-7, 77 NRC 307 (2013)

analytic framework for assessing whether a confirmatory action letter process constitutes a de facto license amendment proceeding is provided; LBP-13-7, 77 NRC 307 (2013)

any operation of that might result in in-plane vibrations due to fluid elastic instability is inconsistent with the analyses or descriptions in the UFSAR is the type of test or experiment that triggers the obligation to seek a license amendment; LBP-13-7, 77 NRC 307 (2013)

because technical specifications are an integral part of an operating license, changes to technical specifications require a license amendment; LBP-13-7, 77 NRC 307 (2013)

changes with respect to components (i.e., steam generators) are permitted without a license amendment under prescribed conditions that assure that the replacement components are sufficiently similar to the original so that safety requirements are maintained or improved; LBP-13-7, 77 NRC 307 (2013)

conditions under which licensee must seek a license amendment are specified in 10 C.F.R. 50.59(c)(2); LBP-13-7, 77 NRC 307 (2013)

factors material to determining whether NRC actions constitute a de facto license amendment are described; LBP-13-7, 77 NRC 307 (2013)

if AEA § 189a is to serve its intended purpose, parties in interest must be afforded a meaningful opportunity to request a hearing before the Commission retroactively reinvents the terms of an extant license by voiding its implicit limitations on the licensee's conduct; LBP-13-7, 77 NRC 307 (2013)

if licensee is unable to operate a reactor in strict accordance with its license, it must seek authorization from the NRC for a license amendment; LBP-13-7, 77 NRC 307 (2013)

licensee must obtain a license amendment from the NRC if a change to its facility triggers the safety standards described in 10 C.F.R. 50.59; LBP-13-7, 77 NRC 307 (2013)

licensee must seek a license amendment before implementing a test or experiment that will result in a departure from a method of evaluation described in the updated final safety analysis report used in establishing the design basis or in the safety analysis; LBP-13-7, 77 NRC 307 (2013)

NRC's actions constitute de facto license amendment when they authorize licensee to engage in activities beyond the ambit of its original license; LBP-13-7, 77 NRC 307 (2013)

NRC's lifting of license suspension and authorizing restart under stipulated restrictions was not a license amendment because nothing in the record indicates that license amendments are necessary to permit the licensee to operate in accordance with the restrictions that have been imposed; LBP-13-7, 77 NRC 307 (2013)

there can be no actual license amendment until (and unless) it is issued by the NRC Staff; LBP-13-7, 77 NRC 307 (2013)

## SUBJECT INDEX

- to determine whether a CAL process constitutes a de facto license amendment proceeding, a licensing board must look beyond the confirmatory action letter itself and consider the entire process, including the documents generated incident to that process; LBP-13-7, 77 NRC 307 (2013)
- to determine whether an ongoing CAL process constitutes a de facto license amendment proceeding, the board must determine whether the requested change in operating authority sought by licensee is strictly in accordance with the terms and technical specifications in its existing license; LBP-13-7, 77 NRC 307 (2013)
- updated final safety analysis reports can be modified without a license amendment as long as the modifications do not involve a change to the technical specifications or an unreviewed safety question; LBP-13-7, 77 NRC 307 (2013)
- OPERATING LICENSE RENEWAL**
- contradiction between paragraphs (ii)(L) and (iv) of 10 C.F.R. 51.53(c)(3) is discussed; LBP-13-1, 77 NRC 57 (2013)
- environmental reports must contain any new and significant information regarding the environmental impacts of license renewal of which the applicant is aware; LBP-13-1, 77 NRC 57 (2013)
- if NRC Staff has not previously considered severe accident mitigation alternatives for applicant's plant in an environmental impact statement or related supplement or in an environmental assessment, SAMAs must be considered for license renewal; LBP-13-1, 77 NRC 57 (2013)
- possibility that new SAMA candidates may become available cannot be the basis for a successful petition to waive 10 C.F.R. 51.53(c)(3)(ii)(L), because the Commission knew that SAMA technology would change, but was confident that processes, other than the SAMA analysis process, would adequately address any such developments; LBP-13-1, 77 NRC 57 (2013)
- purpose of 10 C.F.R. 51.53(c)(3)(ii)(L) is to limit the analysis during relicensing to exclude consideration of SAMAs regarding plant operation that were previously considered; LBP-13-1, 77 NRC 57 (2013)
- OPERATING LICENSE RENEWAL PROCEEDINGS**
- bird collisions with cooling towers have not been found to be a problem at operating nuclear power plants and are not expected to be a problem during the license renewal term; LBP-13-1, 77 NRC 57 (2013)
- subsection (L) of 10 C.F.R. 51.53(c)(3)(ii) operates as the functional equivalent of a Category 1 issue, removing SAMAs from litigation in case-by-case license renewal adjudications; LBP-13-1, 77 NRC 57 (2013)
- OPERATING LICENSES**
- it is imperative that terms of a reactor operating license be clear and unambiguous and that licensee scrupulously adhere to those terms, because it is unlawful for any person within the United States to use any utilization facility except under and in accordance with a license issued by NRC; LBP-13-7, 77 NRC 307 (2013)
- licensees may not, under penalty of law, deviate from the terms of their reactor operating licenses; LBP-13-7, 77 NRC 307 (2013)
- reactor operating licenses must include technical specifications that include specific characteristics of the facility and such other information as the Commission may, by rule or regulation, deem necessary in order to enable it to find that the utilization of special nuclear material will provide adequate protection to the health and safety of the public; LBP-13-7, 77 NRC 307 (2013)
- the Commission has authority to determine, and prescribe by rule or regulation, what additional information should be included in technical specifications to ensure public health and safety and the common defense and security; LBP-13-7, 77 NRC 307 (2013)
- ORDERS**
- See Confirmatory Order; Enforcement Orders; Protective Orders
- PARTIES**
- to the extent that petitioner's counsel is blameworthy, petitioner may be held accountable; LBP-13-2, 77 NRC 71 (2013)
- See also Conduct of Parties
- PERMITS**
- any NEPA-based challenge to the efficacy of, or the Staff's reliance on, the state permitting process relative to the Staff's environmental review must await the Staff's initial environmental review document; LBP-13-6, 77 NRC 253 (2013)

## SUBJECT INDEX

applications for water use permits are evaluated by local governmental agencies; LBP-13-4, 77 NRC 107 (2013)

if a federal or state environmental agency issues a permit to the operator of a nuclear power plant that imposes numerical limits on the amount of pollution that the plant may emit, then NRC's final environmental impact statement may reasonably assume that the company's emissions will comply with those numerical limits; LBP-13-4, 77 NRC 107 (2013)

proposed plant will impact at least 668 acres of wetlands and therefore its construction and operation will require a permit from U.S. Army Corps of Engineers; LBP-13-4, 77 NRC 107 (2013)

state water use permit is required for construction and operation of the nuclear units, associated facilities, and transmission lines and corridor; LBP-13-4, 77 NRC 107 (2013)

the EPA-approved state permitting authority for Class I injection wells is the regulatory entity from which applicant must seek and obtain the permit necessary to allow it to operate a deep injection well at the site; LBP-13-6, 77 NRC 253 (2013)

### POLICY

party's policy arguments that are advanced during the adjudicatory process before a licensing board cannot trump directives issued by the Commission; LBP-13-7, 77 NRC 307 (2013)

See also NRC Policy

### PRECEDENTIAL EFFECT

unreviewed board rulings do not constitute precedent or binding law; LBP-13-7, 77 NRC 307 (2013)

### PRESIDING OFFICER, AUTHORITY

presiding officers may make a determination about the validity of a deliberative process privilege claim without reviewing a document *in camera* if the affidavit outlining the reasons for nondisclosure is sufficiently detailed; LBP-13-5, 77 NRC 233 (2013)

### PRIMA FACIE SHOWING

role of the board when a rule waiver request is filed is limited to determining whether petitioner has made a prima facie showing that it has satisfied 10 C.F.R. 2.335(b), and if not, the board may not further consider the matter; LBP-13-1, 77 NRC 57 (2013)

### PRIVILEGE LOG

adequacy of the privilege log with respect to the sufficiency of the information contained therein is particularly important with respect to Subpart L proceedings because without sufficient information as to what allegedly makes the document deliberative, the challenger is forced to shoot in the dark and face a substantive answer by the document withholder, without the right to reply; LBP-13-5, 77 NRC 233 (2013)

cursory statements are inadequate to permit a court to decide whether the privilege was properly claimed; LBP-13-5, 77 NRC 233 (2013)

NRC Staff is required to disclose or provide to the extent available a list of all otherwise-discoverable documents for which a claim of privilege or protected status is being made, together with sufficient information for assessing the claim of privilege or protected status of the documents; LBP-13-5, 77 NRC 233 (2013)

### PRIVILEGED INFORMATION

claim and identification of privileged materials must occur within the time provided for disclosing withheld materials; LBP-13-6, 77 NRC 253 (2013)

### PROBABILISTIC RISK ASSESSMENT

SAMA analysis is an analysis of a class of SAMA candidates using probabilistic risk assessment techniques to determine whether any of the SAMA candidates would be cost-beneficial; LBP-13-1, 77 NRC 57 (2013)

### PROTECTIVE ORDERS

although petitioner's inadvertent publication of protected information was a serious offense that exposed movant to potential economic harm and undermined integrity of the adjudicative proceeding, the significance of petitioner's misconduct is alleviated to some degree by the immediate corrective action taken by petitioner; LBP-13-2, 77 NRC 71 (2013)

board denies a motion seeking sanctions against petitioner for violating the governing protective order and nondisclosure agreement, but imposes a document review requirement upon petitioner in light of its misconduct and to enhance future compliance with the proceeding's protective order; LBP-13-2, 77 NRC 71 (2013)

## SUBJECT INDEX

disclosure to intervenors of the names of power plant employees who provided NRC with information during the course of its investigation would be inappropriate, even with a protective order in place; CLI-13-5, 77 NRC 223 (2013)

party moving for sanctions has the burden of establishing by a preponderance of the evidence that petitioner violated the protective order; LBP-13-2, 77 NRC 71 (2013)

when considering whether a disclosure of proprietary information was an isolated incident or part of a pattern of behavior, licensing boards may consider the circumstances underlying the disclosure, the corrective action taken, and petitioner's representation that no disclosure will occur in the future; LBP-13-2, 77 NRC 71 (2013)

### PROXIMITY PRESUMPTION

distance of 3 miles in a license transfer proceeding between facility and organization's offices does not qualify for organizational standing; LBP-13-6, 77 NRC 253 (2013)

when a governmental organization, including a federally recognized Native American tribe, is unable to establish standing because the facility or nuclear material in question does not fall within its jurisdictional boundaries, that entity nonetheless may be accorded standing if its boundaries come within a distance from the nuclear facility or material that otherwise would establish standing for an individual or nongovernmental organization, whether via a proximity presumption or otherwise; LBP-13-6, 77 NRC 253 (2013)

when a radiological health or safety impact is asserted to provide the basis for a petitioner's injury in fact, in lieu of the usual injury and causation showings, petitioner can attempt to establish its standing based on the proximity plus protocol by showing that the proposed licensing action involves a significant source of radiation, which has an obvious potential for offsite consequences; LBP-13-6, 77 NRC 253 (2013)

where petitioner has made no effort to establish that any proximity plus presumption should be applicable in determining standing relative to the challenged licensing action, boards must look to traditional standing precepts of injury and causation, as well as redressibility, to determine whether a sufficient factual and legal demonstration of standing has been made; LBP-13-6, 77 NRC 253 (2013)

whether petitioner could be affected by the licensing action must be determined on a case-by-case basis, taking into account the petitioner's distance from the source, the nature of the licensed activity, and the significance of the radioactive source; LBP-13-6, 77 NRC 253 (2013)

### QUALIFICATIONS

deliberative process privilege must be asserted by an individual who holds a sufficiently senior position such that he or she has control over the requested information and possesses a balanced perspective that enables him or her to discern the nature of the material at issue; LBP-13-5, 77 NRC 233 (2013)

person qualified to assert deliberative process privilege must be involved in the initial assertion of privilege; LBP-13-5, 77 NRC 233 (2013)

qualified persons, such as head of a department or division, having both expertise and an overview-type perspective concerning the balance between the agency's duty of disclosure versus its need to conduct frank internal debate must sign an affidavit asserting deliberative process privilege; LBP-13-5, 77 NRC 233 (2013)

### QUALIFIED PRIVILEGE

although deliberative process privilege is a qualified privilege and the agency claiming the privilege bears the initial burden of demonstrating that it is applicable, once this demonstration is made, the moving party can only defeat the privilege by a demonstration of an overriding need for the material; LBP-13-5, 77 NRC 233 (2013)

deliberative process privilege is qualified, requiring the court to balance the interests of the parties for and against disclosures; LBP-13-5, 77 NRC 233 (2013)

### RADIOACTIVE WASTE MANAGEMENT

should the Commission determine at a future time that case-specific waste confidence challenges are appropriate for consideration, normal procedural rules will apply; LBP-13-1, 77 NRC 57 (2013)

### RADIOLOGICAL CONTAMINATION

objective of decommissioning is to reduce residual radioactivity in structures, soils, groundwater, and other media at the site so that the concentration of each radionuclide that could contribute to residual radioactivity is indistinguishable from the background radiation concentration for that nuclide; CLI-13-1, 77 NRC 1 (2013)

## SUBJECT INDEX

- “unrestricted use” means that, from a radiological standpoint, no hazards exist at the site, the license can be terminated, and the site can be considered an unrestricted area; CLI-13-1, 77 NRC 1 (2013)
- REACTOR COOLING SYSTEMS**
- wear of steam generator tubes is of critical importance to evaluations performed in the final safety analysis report, because the tubes are part of the reactor coolant pressure boundary, and assurance of their integrity is required; LBP-13-7, 77 NRC 307 (2013)
- REACTOR OPERATOR EXAMINATIONS**
- applicant must pass both the written examination and the operating test and meet the other requirements specified in 10 C.F.R. Part 55; LBP-13-3, 77 NRC 82 (2013)
- applicant who passes both a written examination and operating test and meets the other requirements specified in 10 C.F.R. Part 55 will be eligible to receive senior reactor operator license; LBP-13-5, 77 NRC 233 (2013)
- senior reactor operator license applicant who has passed either the written examination or operating test and failed the other may request in a new application on Form NRC-398 to be excused from reexamination on the portions of the examination or test that applicant has passed; LBP-13-3, 77 NRC 82 (2013)
- REACTOR OPERATOR LICENSE PROCEEDING**
- in the interest of expediting the further proceedings, hearing on senior operator license denial will be conducted under the provisions of Subpart L of the Commission’s Rules of Practice; LBP-13-3, 77 NRC 82 (2013)
- proceedings for the grant, renewal, licensee-initiated amendment, or termination of licenses or permits subject to Part 55 may be conducted under the procedures of Subpart L; LBP-13-3, 77 NRC 82 (2013)
- section 2.309(f)(1) has no application to reactor operator licensee proceedings; LBP-13-3, 77 NRC 82 (2013)
- REACTOR OPERATOR LICENSING**
- applicant who passes both a written examination and operating test and meets the other requirements specified in 10 C.F.R. Part 55 will be eligible to receive senior reactor operator license; LBP-13-5, 77 NRC 233 (2013)
- REASONABLE ASSURANCE**
- given that legally binding monitoring and mitigation measures have been imposed via a certificate of compliance issued by the appropriate state and local agencies, board has reasonable assurance that these measures will be implemented and that these agencies will actively monitor and enforce appropriate compliance with these environmental monitoring and mitigation measures; LBP-13-4, 77 NRC 107 (2013)
- RECONSIDERATION**
- as a general matter, agency guidance should not be reconsidered in an application-specific proceeding; CLI-13-4, 77 NRC 101 (2013)
- REDRESSABILITY**
- petitioner does not meet the redressability requirement for standing, because vacating the confirmatory orders would not ameliorate the injury of which petitioner complains; CLI-13-2, 77 NRC 39 (2013)
- REFERRAL OF RULING**
- board denies petition for rule waiver but refers the decision to the Commission because the legal issue presented by the petition is novel and worthy of the Commission’s immediate attention; LBP-13-1, 77 NRC 57 (2013)
- where petitioner has successfully made a prima facie showing for rule waiver, the board shall, before ruling on the petition, certify the matter directly to the Commission, and the Commission shall determine whether to grant or deny the waiver request; LBP-13-1, 77 NRC 57 (2013)
- REGULATIONS**
- authority empowering a licensing board to impose sanctions is found in 10 C.F.R. 2.314(c) and 2.319; LBP-13-2, 77 NRC 71 (2013)
- contention that attacks a Commission rule, or which seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking, is inadmissible; LBP-13-6, 77 NRC 253 (2013)
- contentions that advocate stricter requirements than agency rules impose or that otherwise seek to litigate a generic determination established by a Commission rulemaking are inadmissible; LBP-13-6, 77 NRC 253 (2013)



## SUBJECT INDEX

limited grounds for creation of exemptions are inherent in the administrative process, and agencies may use equitable discretion to afford case-by-case treatment, taking into account circumstances peculiar to individual parties in the application of a general rule or even in appropriate cases to grant dispensation from the rule's operation; CLI-13-1, 77 NRC 1 (2013)

numerous Council on Environmental Quality regulations require an agency to discuss possible mitigation measures, including 40 C.F.R. §§ 1508.25(b), 1502.14(f), 1502.16(h), and 1508.20; LBP-13-4, 77 NRC 107 (2013)

petitioners may not challenge NRC regulations in any NRC adjudicatory proceeding; LBP-13-1, 77 NRC 57 (2013)

publication of a regulation in the *Federal Register* constitutes notice to all persons residing in the United States; LBP-13-3, 77 NRC 82 (2013)

See also Council on Environmental Quality Guidelines; Rules Of Practice

### REGULATIONS, INTERPRETATION

application of the precept that different language is intended to mean different things may be suspended if the purpose or regulatory history behind the language shows that no difference was intended; LBP-13-3, 77 NRC 82 (2013)

contention admissibility requirements do not apply to hearing demands submitted under section 2.103(b)(2) and petitioner lacked actual and constructive notice of the contention admissibility requirements that NRC Staff asserts she was required to satisfy; LBP-13-3, 77 NRC 82 (2013)

contradiction between paragraphs (ii)(L) and (iv) of 10 C.F.R. 51.53(c)(3) is discussed; LBP-13-1, 77 NRC 57 (2013)

"design bases" in 10 C.F.R. 50.59(c)(2)(vii) and (viii) means that information that identifies the specific functions to be performed by a structure, system, or component of a facility, and the specific values or ranges of values chosen for controlling parameters as reference bounds for a design; LBP-13-7, 77 NRC 307 (2013)

effects and impacts as used in 10 C.F.R. 51.14(b) are synonymous with terms in 40 C.F.R. 1508.8; LBP-13-4, 77 NRC 107 (2013)

one demanding a hearing on a challenge to an enforcement order need not comply with the requirements of 10 C.F.R. 2.309(f)(1); LBP-13-3, 77 NRC 82 (2013)

purpose of 10 C.F.R. 51.53(c)(3)(ii)(L) is to limit the analysis during relicensing to exclude consideration of SAMAs regarding plant operation that were previously considered; LBP-13-1, 77 NRC 57 (2013)

rules of interpretation applicable to statutes are equally germane in determining a regulation's meaning; LBP-13-3, 77 NRC 82 (2013)

section 2.309(f)(1) has no application to reactor operator licensee proceedings; LBP-13-3, 77 NRC 82 (2013)

subsection (L) of 10 C.F.R. 51.53(c)(3)(ii) operates as the functional equivalent of a Category 1 issue, removing SAMAs from litigation in case-by-case license renewal adjudications; LBP-13-1, 77 NRC 57 (2013)

usual rule of regulatory interpretation is that different language is intended to mean different things, and thus a demand for a hearing is not to be treated as a mere request for a hearing; LBP-13-3, 77 NRC 82 (2013)

### REGULATORY GUIDES

guidance documents, although not binding, describe an approach to compliance with NRC rules that is acceptable to the NRC, and thus can be informative for that reason; LBP-13-6, 77 NRC 253 (2013)

NUREGs are merely guidance documents and thus not legally binding; LBP-13-6, 77 NRC 253 (2013)

### REINSTATEMENT OF LICENSE

NRC's lifting of license suspension and authorizing restart under stipulated restrictions was not a license amendment because nothing in the record indicates that license amendments are necessary to permit the licensee to operate in accordance with the restrictions that have been imposed; LBP-13-7, 77 NRC 307 (2013)

### REQUEST FOR ACTION

members of the public may challenge an action taken under 10 C.F.R. 50.59 only by means of a petition under 10 C.F.R. 2.206; LBP-13-7, 77 NRC 307 (2013)

section 2.206 process provides stakeholders a forum to advance their concerns and to obtain full or partial relief, or written reasons why the requested relief is not warranted; CLI-13-2, 77 NRC 39 (2013)

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### REQUEST FOR ADDITIONAL INFORMATION

NRC may at any time before expiration of a license, require further written statements from licensee to determine whether a license should be modified; LBP-13-7, 77 NRC 307 (2013)

### RESTART

NRC's lifting of license suspension and authorizing restart under stipulated restrictions was not a license amendment because nothing in the record indicates that license amendments are necessary to permit the licensee to operate in accordance with the restrictions that have been imposed; LBP-13-7, 77 NRC 307 (2013)

### REVIEW

See Appellate Review; Environmental Review; NRC Staff Review; Standard of Review

### REVIEW, DISCRETIONARY

applicant satisfied the regulatory standards for discretionary review by identifying a substantial question as to whether the board decision reaches at least one necessary legal conclusion without governing precedent or addresses at least one substantial and important question of law, policy, or discretion; CLI-13-1, 77 NRC 1 (2013)

grant of discretionary review requires a showing that the board's findings are not even plausible in light of the record viewed in its entirety; CLI-13-1, 77 NRC 1 (2013)

interlocutory review is discretionary and will be granted only upon a showing that the issue for which review is sought threatens the party adversely affected by it with immediate and serious irreparable impact which, as a practical matter, could not be alleviated through a petition for review of the presiding officer's final decision or affects the basic structure of the proceeding in a pervasive or unusual manner; CLI-13-3, 77 NRC 51 (2013)

### RULE OF REASON

duty to prepare an environmental impact statement and to identify and consider every significant environmental impact is tempered by the rule of reason; LBP-13-4, 77 NRC 107 (2013)

legal adequacy of a final environmental impact statement is assessed under the rule of reason; LBP-13-4, 77 NRC 107 (2013)

NEPA excludes consideration of remote and speculative impacts or worst-case scenarios; LBP-13-4, 77 NRC 107 (2013)

NEPA only requires that the environmental impact statement address those environmental impacts that are reasonably foreseeable; LBP-13-4, 77 NRC 107 (2013)

NEPA should be construed in the light of reason if it is not to demand virtually infinite study and resources; LBP-13-4, 77 NRC 107 (2013)

to make an impact statement something more than an exercise in frivolous boilerplate, the concept of alternatives must be bounded by some notion of feasibility; LBP-13-4, 77 NRC 107 (2013)

within the rule of reason, an environmental impact statement must address both the direct and indirect effects or impacts; LBP-13-4, 77 NRC 107 (2013)

### RULEMAKING

challenges to rules are appropriately lodged through a request for rulemaking; CLI-13-1, 77 NRC 1 (2013)

### RULES

examples of the kinds of facts that must be weighed when determining whether to grant an exemption are given; CLI-13-1, 77 NRC 1 (2013)

request for exemption from a rule, by itself, does not give rise to an opportunity for hearing; CLI-13-1, 77 NRC 1 (2013)

rule exemption decisions should take into account the equities of each situation; CLI-13-1, 77 NRC 1 (2013)

### RULES OF PRACTICE

adjudication is not the proper forum for challenging applicable statutory requirements or the basic structure of the agency's regulatory process; LBP-13-6, 77 NRC 253 (2013)

appeals of contention admissibility rulings are available only upon denial of a petition to intervene and/or request for hearing on the question of whether it should have been granted or upon the grant of a petition to intervene and/or request for hearing on the question of whether it should have been wholly denied; CLI-13-3, 77 NRC 51 (2013)

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- applicant satisfied the regulatory standards for discretionary review by identifying a substantial question as to whether the board decision reaches at least one necessary legal conclusion without governing precedent or addresses at least one substantial and important question of law, policy, or discretion; CLI-13-1, 77 NRC 1 (2013)
- attaching material or documents as a basis for a contention, without setting forth an explanation of that information's significance, is inadequate to support the admission of the contention; LBP-13-6, 77 NRC 253 (2013)
- board denies petition for rule waiver but refers the decision to the Commission because the legal issue presented by the petition is novel and worthy of the Commission's immediate attention; LBP-13-1, 77 NRC 57 (2013)
- boards may appropriately view petitioner's supporting information in a light favorable to petitioner, but failure to provide such information regarding a proffered contention requires that the contention be rejected; LBP-13-6, 77 NRC 253 (2013)
- challenges to rules are appropriately lodged through a request for rulemaking; CLI-13-1, 77 NRC 1 (2013)
- contemporaneous judicial standing concepts are generally applied in NRC proceedings; LBP-13-6, 77 NRC 253 (2013)
- contention admissibility requirements do not apply to hearing demands submitted under section 2.103(b)(2) and petitioner lacked actual and constructive notice of the contention admissibility requirements that NRC Staff asserts she was required to satisfy; LBP-13-3, 77 NRC 82 (2013)
- contention that attacks a Commission rule, or which seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking, is inadmissible; LBP-13-6, 77 NRC 253 (2013)
- contention that simply states the petitioner's views about what regulatory policy should be does not present a litigable issue; LBP-13-6, 77 NRC 253 (2013)
- contentions must be within the scope of the proceeding as defined by the Commission in its initial hearing notice and order referring the proceeding to a licensing board; LBP-13-6, 77 NRC 253 (2013)
- contentions must focus on the license application in question, challenging either specific portions of or alleged omissions from the application so as to establish that a genuine dispute exists with the applicant on a material issue of law or fact; LBP-13-6, 77 NRC 253 (2013)
- contentions that fail to directly controvert the application or that mistakenly assert that the application does not address a relevant issue will be dismissed; LBP-13-6, 77 NRC 253 (2013)
- deliberative process privilege applied under 10 C.F.R. 2.390(a)(5) to interagency or intra-agency memorandums or letters is similar to Exemption 5 under the Freedom of Information Act; LBP-13-5, 77 NRC 233 (2013)
- entity seeking representational standing to intervene on behalf of its members must show that it has an individual member who can fulfill all the necessary standing elements and who has authorized the organization to represent his or her interests; LBP-13-6, 77 NRC 253 (2013)
- failure to comply with any of the contention pleading requirements of 10 C.F.R. 2.309(f)(1) is grounds for dismissing a contention; LBP-13-6, 77 NRC 253 (2013)
- hearing demand under section 2.103(b)(2) has only to meet the prescribed filing deadline and specify the reasons why the demander deemed the denial of the sought operator's license to have been unjustified; LBP-13-3, 77 NRC 82 (2013)
- if petitioner neglects to provide the requisite support for its contentions, it is not within a board's power to make assumptions or draw inferences that favor petitioner, nor may the board supply information that is lacking; LBP-13-6, 77 NRC 253 (2013)
- in assessing whether petitioner has demonstrated standing, boards are to construe the petition in favor of the petitioner; LBP-13-6, 77 NRC 253 (2013)
- in the interest of expediting the further proceedings, hearing on senior operator license denial will be conducted under the provisions of Subpart L of the Commission's Rules of Practice; LBP-13-3, 77 NRC 82 (2013)
- individuals or groups may seek discretionary intervention if the requirements necessary to be afforded standing as of right cannot be established; LBP-13-6, 77 NRC 253 (2013)
- interlocutory review is discretionary and will be granted only upon a showing that the issue for which review is sought threatens the party adversely affected by it with immediate and serious irreparable impact which, as a practical matter, could not be alleviated through a petition for review of the

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presiding officer's final decision or affects the basic structure of the proceeding in a pervasive or unusual manner; CLI-13-3, 77 NRC 51 (2013)

intervention petitioner's burden is met if petitioner provides plausible factual allegations that satisfy each element of standing; LBP-13-6, 77 NRC 253 (2013)

intervention petitions must include petitioner's name, address, and telephone contact information, nature of petitioner's right under the AEA to be made a party and interest in the proceeding, and possible effect of any decision or order that might be issued on the petitioner's interest; LBP-13-6, 77 NRC 253 (2013)

license denial letter that contained apparent boilerplate that was incomplete and perforce misleading does not accord with concepts of fundamental fairness and might well counter hearing rights granted under the AEA; LBP-13-3, 77 NRC 82 (2013)

neither mere speculation nor bare or conclusory assertions, even by an expert, alleging that a matter should be considered will suffice to allow the admission of a proffered contention; LBP-13-6, 77 NRC 253 (2013)

new or amended contentions not related to the question of foreign ownership that an interested person may wish to file during the pendency of the combined license application are subject to usual rules of practice, including rules governing reopening the record of a closed proceeding; CLI-13-4, 77 NRC 101 (2013)

one demanding a hearing on a challenge to an enforcement order need not comply with the requirements of 10 C.F.R. 2.309(f)(1); LBP-13-3, 77 NRC 82 (2013)

party's policy arguments that are advanced during the adjudicatory process before a licensing board cannot trump directives issued by the Commission; LBP-13-7, 77 NRC 307 (2013)

petitioner asserting organizational standing must establish a discrete institutional injury to the organization's interests, which must be based on something more than a general environmental or policy interest in the subject matter of the proceeding; LBP-13-6, 77 NRC 253 (2013)

petitioner bears the burden to provide facts sufficient to establish standing; LBP-13-6, 77 NRC 253 (2013)

petitioner is obliged to present factual allegations and/or expert opinion necessary to support its contention; LBP-13-6, 77 NRC 253 (2013)

petitioner who believes a regulation should not be applied in a particular proceeding may seek a waiver of that regulation; LBP-13-1, 77 NRC 57 (2013)

petitioners are not required to demonstrate that their complaint is unique to the facility in question or that their complaint reflects a significant safety issue; LBP-13-1, 77 NRC 57 (2013)

recipient of a subpoena issued by the NRC's Office of Investigations may move to quash the subpoena pursuant to 10 C.F.R. 2.702(f); CLI-13-5, 77 NRC 223 (2013)

representational standing granted in a different proceeding on the basis of the individual standing showing of a member cannot be the supporting basis for the organization's representational standing in another proceeding where that member does not provide the basis for standing; LBP-13-6, 77 NRC 253 (2013)

representational standing must be based on individual standing of at least one member; LBP-13-6, 77 NRC 253 (2013)

requests for hearing must provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact; LBP-13-3, 77 NRC 82 (2013)

section 2.309(f)(1) has no application to reactor operator licensee proceedings; LBP-13-3, 77 NRC 82 (2013)

should the Commission determine at a future time that case-specific waste confidence challenges are appropriate for consideration, normal procedural rules will apply; LBP-13-1, 77 NRC 57 (2013)

sole ground for rule waiver or exception is that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation (or a provision of it) would not serve the purposes for which the rule or regulation was adopted; LBP-13-1, 77 NRC 57 (2013)

standing requires petitioner to show a concrete and particularized harm, stemming from the challenged action, and redressable by a favorable decision; CLI-13-2, 77 NRC 39 (2013)

the Commission justifiably expects that all applicable provisions of the Rules of Practice will be observed in adjudicatory submissions, but it also expects the Staff to turn square corners with those with whom it deals, including applicants for SRO licenses; LBP-13-3, 77 NRC 82 (2013)

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to determine whether petitioner has demonstrated that application of a regulation would not serve the purposes for which it was adopted, a board must first determine the purpose of rule or regulation for which waiver is sought; LBP-13-1, 77 NRC 57 (2013)

where an admitted contention is pending before the board, appeals do not lie under section 2.311, but rather under section 2.341(f)(2), which governs petitions for interlocutory review, including board rulings on new contentions; CLI-13-3, 77 NRC 51 (2013)

### SAFETY-RELATED

because changes to technical specifications require a license amendment, technical specifications should be limited to those plant conditions most important to safety; LBP-13-7, 77 NRC 307 (2013)

### SANCTIONS

authority empowering a licensing board to impose sanctions is found in 10 C.F.R. 2.314(c) and 2.319; LBP-13-2, 77 NRC 71 (2013)

board denies a motion seeking sanctions against petitioner for violating the governing protective order and nondisclosure agreement, but imposes a document review requirement upon petitioner in light of its misconduct and to enhance future compliance with the proceeding's protective order; LBP-13-2, 77 NRC 71 (2013)

boards should attempt to tailor sanctions to mitigate the harm caused by the failure of a party to fulfill its obligations and bring about improved future compliance; LBP-13-2, 77 NRC 71 (2013)

every participant in NRC adjudicative proceedings has the duty to fulfill the obligations imposed by and in accordance with applicable law, and when participant fails to meet its obligations, a licensing board should consider the imposition of sanctions against the offending party; LBP-13-2, 77 NRC 71 (2013)

harm factor of sanction test has two components, requiring boards to consider the potential harm to the other parties and the potential harm to the orderly conduct of the proceeding; LBP-13-2, 77 NRC 71 (2013)

important health and safety issue referred to a licensing board by the Commission satisfies the importance factor of the multifactor sanction test; LBP-13-2, 77 NRC 71 (2013)

in selecting a sanction, boards should consider the relative importance of the unmet obligation, its potential for harm to other parties or the orderly conduct of the proceeding, whether its occurrence is an isolated incident or a part of a pattern of behavior, the importance of the safety or environmental concerns raised by the party, and all of the circumstances; LBP-13-2, 77 NRC 71 (2013)

licensing boards have all the powers necessary to perform their duties, including powers to regulate the conduct of the participants and to issue orders necessary to carry out their duties and responsibilities; LBP-13-2, 77 NRC 71 (2013)

licensing boards may impose on contumacious parties or their representatives reprimands, censures, or suspensions from proceedings; LBP-13-2, 77 NRC 71 (2013)

party moving for sanctions has the burden of establishing by a preponderance of the evidence that petitioner violated the protective order; LBP-13-2, 77 NRC 71 (2013)

period allotted for the filing of challenges to enforcement orders that impose some sanction is 20 days; LBP-13-3, 77 NRC 82 (2013)

when considering whether a disclosure of proprietary information was an isolated incident or part of a pattern of behavior, licensing boards may consider the circumstances underlying the disclosure, the corrective action taken, and petitioner's representation that no disclosure will occur in the future; LBP-13-2, 77 NRC 71 (2013)

### SECURITY

petitioners' argument opposing an order that imposed additional security measures at a spent fuel storage facility, because it created a false sense of security was rejected because petitioners did not explain how they would be better off without the measures in the order; CLI-13-2, 77 NRC 39 (2013)

### SENIOR REACTOR OPERATOR

SRO is any individual licensed under 10 C.F.R. Part 55 to manipulate the controls of a facility and to direct the licensed activities of licensed operators; LBP-13-3, 77 NRC 82 (2013)

### SENIOR REACTOR OPERATOR LICENSE

any license is limited to the facility for which it is issued; LBP-13-3, 77 NRC 82 (2013)

applicant denied an SRO license has the right to demand a hearing, rather than being required to negotiate the contention admissibility requirements and a possible appeal in the event a hearing is granted; LBP-13-3, 77 NRC 82 (2013)

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- applicant must pass both the written examination and the operating test and meet the other requirements specified in 10 C.F.R. Part 55; LBP-13-3, 77 NRC 82 (2013)
- applicant who has passed either the written examination or operating test and failed the other may request in a new application on Form NRC-398 to be excused from reexamination on the portions of the examination or test that the applicant has passed; LBP-13-3, 77 NRC 82 (2013)
- applicant who passes both a written examination and operating test and meets the other requirements specified in 10 C.F.R. Part 55 will be eligible to receive senior reactor operator license; LBP-13-5, 77 NRC 233 (2013)
- because an applicant denied an operator's license (or a byproduct, source, special materials, or facility license) would be entitled to demand a hearing, rather than merely request a hearing, no more than 20 days would be required to prepare a document that would satisfy the conditions precedent to obtaining the hearing; LBP-13-3, 77 NRC 82 (2013)
- contention admissibility requirements do not apply to hearing demands submitted under section 2.103(b)(2) and petitioner lacked actual and constructive notice of the contention admissibility requirements that NRC Staff asserts she was required to satisfy; LBP-13-3, 77 NRC 82 (2013)
- demand for hearing on denial of application for a senior reactor operator license is granted; LBP-13-3, 77 NRC 82 (2013)
- hearing demand under section 2.103(b)(2) has only to meet the prescribed filing deadline and specify the reasons why the demander deemed the denial of the sought operator's license to have been unjustified; LBP-13-3, 77 NRC 82 (2013)
- SEVERE ACCIDENT MITIGATION ALTERNATIVES**
- individual licensing proceedings are not the appropriate forum for evaluating SAMAs; LBP-13-1, 77 NRC 57 (2013)
- possibility that new SAMA candidates may become available cannot be the basis for a successful petition to waive 10 C.F.R. 51.53(c)(3)(ii)(L), because the Commission knew that SAMA technology would change, but was confident that processes, other than the SAMA analysis process, would adequately address any such developments; LBP-13-1, 77 NRC 57 (2013)
- subsection (L) of 10 C.F.R. 51.53(c)(3)(ii) operates as the functional equivalent of a Category 1 issue, removing SAMAs from litigation in case-by-case license renewal adjudications; LBP-13-1, 77 NRC 57 (2013)
- SEVERE ACCIDENT MITIGATION ALTERNATIVES ANALYSIS**
- bird collisions with cooling towers have not been found to be a problem at operating nuclear power plants and are not expected to be a problem during the license renewal term; LBP-13-1, 77 NRC 57 (2013)
- contradiction between paragraphs (ii)(L) and (iv) of 10 C.F.R. 51.53(c)(3) is discussed; LBP-13-1, 77 NRC 57 (2013)
- if NRC Staff has not previously considered severe accident mitigation alternatives for applicant's plant in an environmental impact statement or related supplement or in an environmental assessment, SAMAs must be considered for license renewal; LBP-13-1, 77 NRC 57 (2013)
- National Environmental Policy Act requires NRC to consider SAMAs; LBP-13-1, 77 NRC 57 (2013)
- purpose of 10 C.F.R. 51.53(c)(3)(ii)(L) is to limit the analysis during relicensing to exclude consideration of SAMAs regarding plant operation that were previously considered; LBP-13-1, 77 NRC 57 (2013)
- SAMA analysis is an analysis of a class of SAMA candidates using probabilistic risk assessment techniques to determine whether any of the SAMA candidates would be cost-beneficial; LBP-13-1, 77 NRC 57 (2013)
- SHUTDOWN**
- reactors subject to the section 2.202 confirmatory orders would not have to shut down if the orders were not sustained; CLI-13-2, 77 NRC 39 (2013)
- SITE CHARACTERIZATION**
- adequacy of the final environmental impact statement regarding site geology and hydrology is discussed; LBP-13-4, 77 NRC 107 (2013)
- SOURCE MATERIALS LICENSES**
- bond-issuing licensees may provide a self-guarantee of funds for decommissioning costs based on a financial test set forth in Appendix C of Part 30; CLI-13-1, 77 NRC 1 (2013)

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decommissioning funding plans must include a periodically adjusted cost estimate, specify the method for assuring that sufficient funds will be available when needed, and certify that the amount assured for decommissioning meets or exceeds estimated decommissioning costs; CLI-13-1, 77 NRC 1 (2013)  
exemption from the decommissioning financial assurance requirements is considered to be an extraordinary equitable remedy to be used only sparingly; CLI-13-1, 77 NRC 1 (2013)  
intangible assets may be used to meet specified criteria in the financial tests for self-guarantees; CLI-13-1, 77 NRC 1 (2013)

licensees can seek an exemption from the decommissioning financial assurance requirements; CLI-13-1, 77 NRC 1 (2013)

licensees must submit a decommissioning funding plan far in advance of submitting the actual plans for decommissioning; CLI-13-1, 77 NRC 1 (2013)

licensees must submit a decommissioning plan when it decides to cease NRC-licensed activities at its facility; CLI-13-1, 77 NRC 1 (2013)

nongovernment licensees must demonstrate financial assurance for decommissioning by prepayment, use of a surety method, insurance, or other guarantee method, or use of an external sinking fund; CLI-13-1, 77 NRC 1 (2013)

to qualify for the alternative method of self-funding for decommissioning, licensee must have, among other things, a bond rating of "A" or better, as issued by Standard and Poor's or Moody's; CLI-13-1, 77 NRC 1 (2013)

with limited exceptions, licensees must demonstrate that they can pay for the decommissioning of their regulated facilities; CLI-13-1, 77 NRC 1 (2013)

### SPECIAL CIRCUMSTANCES

rule exemption requests that do not involve special circumstances must be denied as a matter of law; CLI-13-1, 77 NRC 1 (2013)

sole ground for rule waiver or exception is that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation (or a provision of it) would not serve the purposes for which the rule or regulation was adopted; LBP-13-1, 77 NRC 57 (2013)

### SPENT FUEL POOLS

NRC argument that leaks from spent fuel pools will not occur because the NRC is on duty was rejected; LBP-13-4, 77 NRC 107 (2013)

### SPENT FUEL STORAGE

petitioners' argument opposing an order that imposed additional security measures at a spent fuel storage facility, because it created a false sense of security was rejected because petitioners did not explain how they would be better off without the measures in the order; CLI-13-2, 77 NRC 39 (2013)

### STANDARD OF PROOF

party moving for sanctions has the burden of establishing by a preponderance of the evidence that petitioner violated the protective order; LBP-13-2, 77 NRC 71 (2013)

### STANDARD OF REVIEW

abuse of discretion standard of review is applicable to discretionary Staff actions not subject to a hearing opportunity; CLI-13-1, 77 NRC 1 (2013)

although the Commission has authority to undertake a de novo factual review, where a board's decision rests on a weighing of extensive fact-specific evidence presented by technical experts, the Commission generally will defer to the board's factual findings, unless there appears to be a clearly erroneous factual finding or related oversight; CLI-13-1, 77 NRC 1 (2013)

applicant satisfied the regulatory standards for discretionary review by identifying a substantial question as to whether the board decision reaches at least one necessary legal conclusion without governing precedent or addresses at least one substantial and important question of law, policy, or discretion; CLI-13-1, 77 NRC 1 (2013)

deference to a board's factual determinations is particularly high when they are based in significant part on its assessment of expert testimony and credibility of the witnesses offering that testimony; CLI-13-1, 77 NRC 1 (2013)

deferential clear error standard is applied in analyzing a board's findings of fact; CLI-13-1, 77 NRC 1 (2013)

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grant of discretionary review requires a showing that the board's findings are not even plausible in light of the record viewed in its entirety; CLI-13-1, 77 NRC 1 (2013)

petitions to review interlocutory board orders typically are denied summarily, without engaging in extensive merits discussion; CLI-13-3, 77 NRC 51 (2013)

question before the Commission is not whether it would have made different factual findings than those of the board but whether the board's findings of fact are so lacking in record support as to be clearly erroneous; CLI-13-1, 77 NRC 1 (2013)

where issues in a case have been sharply contested, the Commission will explain its view of the case in some detail; CLI-13-1, 77 NRC 1 (2013)

### STANDING TO INTERVENE

argument that, in addition to the tribe, individual tribal representative has standing to sue under NHPA section 106 consultation provisions is rejected; LBP-13-6, 77 NRC 253 (2013)

before any hearing is granted on an order issued pursuant to 10 C.F.R. 2.202, a threshold question, intertwined with both standing and contention admissibility issues, is whether the hearing requests are within the scope of the proceeding; CLI-13-2, 77 NRC 39 (2013)

contemporaneous judicial standing concepts are generally applied in NRC proceedings; LBP-13-6, 77 NRC 253 (2013)

if petitioner's factual claims in support of its standing are contested, untenable, conjectural, or conclusory, boards need not uncritically accept such assertions, but may weigh those informational claims and exercise its judgment about whether the standing element at issue has been satisfied; LBP-13-6, 77 NRC 253 (2013)

in assessing whether petitioner has demonstrated standing, boards are to construe the petition in favor of the petitioner; LBP-13-6, 77 NRC 253 (2013)

individual tribal member who does not reside on a tribal reservation where a facility is proposed to be located must show injury in fact relative to that member's activities on the reservation even when the reservation is asserted to be on aboriginal tribal lands; LBP-13-6, 77 NRC 253 (2013)

individual tribal member's assertion of an interest based on cultural resource concerns must show that there is a concrete or particularized injury to herself as an individual; LBP-13-6, 77 NRC 253 (2013)

intervention petitioner's burden is met if petitioner provides plausible factual allegations that satisfy each element of standing; LBP-13-6, 77 NRC 253 (2013)

Native American tribe's statutorily recognized interest in tribal cultural resources that may still be extant on its recognized aboriginal lands provides a cognizable interest for the purpose of establishing its standing; LBP-13-6, 77 NRC 253 (2013)

nonradiological impacts can be a basis for standing; LBP-13-6, 77 NRC 253 (2013)

petitioner asserts standing based on use of proposed site to gather eagle feathers for ceremonial and religious uses; LBP-13-6, 77 NRC 253 (2013)

petitioner bears the burden to provide facts sufficient to establish standing; LBP-13-6, 77 NRC 253 (2013)

petitioner does not meet the redressability requirement for standing, because vacating the confirmatory orders would not ameliorate the injury of which Pilgrim Watch complains; CLI-13-2, 77 NRC 39 (2013)

petitioner has standing when seeking to intervene to ensure that an enforcement order will be upheld; CLI-13-2, 77 NRC 39 (2013)

petitioner must show a concrete and particularized harm, stemming from the challenged action, and redressable by a favorable decision; CLI-13-2, 77 NRC 39 (2013)

petitioner need only show that a cognizable injury is associated with a proposed licensing action and that granting the relief sought will address that injury; LBP-13-6, 77 NRC 253 (2013)

standing in each agency proceeding depends on the factual circumstances associated with that case; LBP-13-6, 77 NRC 253 (2013)

tribal member who regularly visits tribal migratory route on national monument land to pursue cultural undertakings has standing under NHPA to raise concerns; LBP-13-6, 77 NRC 253 (2013)

when a governmental organization, including a federally recognized Native American tribe, is unable to establish standing because the facility or nuclear material in question does not fall within its jurisdictional boundaries, that entity nonetheless may be accorded standing if its boundaries come within a distance from the nuclear facility or material that otherwise would establish standing for an individual



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- or nongovernmental organization, whether via a proximity presumption or otherwise; LBP-13-6, 77 NRC 253 (2013)
- when a radiological health or safety impact is asserted to provide the basis for a petitioner's injury in fact, in lieu of the usual injury and causation showings, petitioner can attempt to establish its standing based on the proximity plus protocol by showing that the proposed licensing action involves a significant source of radiation, which has an obvious potential for offsite consequences; LBP-13-6, 77 NRC 253 (2013)
- where petitioner has made no effort to establish that any proximity plus presumption should be applicable in determining standing relative to the challenged licensing action, boards must look to traditional standing precepts of injury and causation, as well as redressibility, to determine whether a sufficient factual and legal demonstration of standing has been made; LBP-13-6, 77 NRC 253 (2013)
- whether petitioner could be affected by the licensing action must be determined on a case-by-case basis, taking into account the petitioner's distance from the source, the nature of the licensed activity, and the significance of the radioactive source; LBP-13-6, 77 NRC 253 (2013)
- STANDING TO INTERVENE, ORGANIZATIONAL
- analysis of standing of other petitioning organizations was unnecessary when public interest organization had clear representational standing; LBP-13-6, 77 NRC 253 (2013)
- argument that, in addition to the tribe, individual tribal representative has standing to sue under NHPA section 106 consultation provisions is rejected; LBP-13-6, 77 NRC 253 (2013)
- as a sovereign body, Native American tribes maintain a strong interest in its members' welfare such that its organizational purpose is germane to the interests it seeks to represent in proceeding; LBP-13-6, 77 NRC 253 (2013)
- in a license transfer proceeding, 3-mile distance between facility and organization's offices does not qualify for organizational standing; LBP-13-6, 77 NRC 253 (2013)
- in a reactor decommissioning proceeding, a public interest group lacked organizational standing when its business address did not lie within 50 miles of the facility; LBP-13-6, 77 NRC 253 (2013)
- interest in protecting the natural resources of the Black Hills of South Dakota with a focus on groundwater contamination from uranium mining is insufficient to establish organizational standing; LBP-13-6, 77 NRC 253 (2013)
- interest that is cognizable for the purpose of establishing standing is one that is more than a mere interest in a problem, no matter how longstanding the interest and no matter how qualified the organization is in evaluating the problem; LBP-13-6, 77 NRC 253 (2013)
- petitioner asserting organizational standing must establish a discrete institutional injury to the organization's interests, which must be based on something more than a general environmental or policy interest in the subject matter of the proceeding; LBP-13-6, 77 NRC 253 (2013)
- standing in an agency adjudicatory proceeding could arise based on an asserted injury to a tangible asset, such as a building or land owned or regularly utilized by an organization, that is located near a proposed licensing activity; LBP-13-6, 77 NRC 253 (2013)
- standing in an agency adjudicatory proceeding could be based on an organizational interest that has well-recognized institutional underpinnings; LBP-13-6, 77 NRC 253 (2013)
- standing is footed in the capacity of an organization to show a discrete injury to its organizational interests; LBP-13-6, 77 NRC 253 (2013)
- STANDING TO INTERVENE, REPRESENTATIONAL
- analysis of standing of other petitioning organizations was unnecessary when public interest organization had clear representational standing; LBP-13-6, 77 NRC 253 (2013)
- entity seeking representational standing to intervene on behalf of its members must show that it has an individual member who can fulfill all the necessary standing elements and who has authorized the organization to represent his or her interests; LBP-13-6, 77 NRC 253 (2013)
- standing granted in a different proceeding on the basis of the individual showing of a member's standing cannot be the supporting basis for the organization's representational standing in another proceeding where that member does not provide the basis for standing; LBP-13-6, 77 NRC 253 (2013)
- standing must be based on individual standing of at least one member; LBP-13-6, 77 NRC 253 (2013)

## SUBJECT INDEX

### STATE REGULATORY REQUIREMENTS

- any NEPA-based challenge to the efficacy of, or the Staff's reliance on, the state permitting process relative to the Staff's environmental review must await the Staff's initial environmental review document; LBP-13-6, 77 NRC 253 (2013)
- state water use permit is required for construction and operation of the nuclear units, associated facilities, and transmission lines and corridor; LBP-13-4, 77 NRC 107 (2013)
- the EPA-approved state permitting authority for Class I injection wells is the regulatory entity from which applicant must seek and obtain the permit necessary to allow it to operate a deep injection well at the site; LBP-13-6, 77 NRC 253 (2013)
- where state and local governmental bodies that have jurisdiction over the area in which adverse effects need to be addressed and since they have the authority to mitigate them, it would be incongruous to conclude that a federal agency has no power to act until the local agencies have reached a final conclusion on what mitigation measures they consider necessary; LBP-13-4, 77 NRC 107 (2013)

### STATUTORY CONSTRUCTION

- application of the precept that different language is intended to mean different things may be suspended if the purpose or regulatory history behind the language shows that no difference was intended; LBP-13-3, 77 NRC 82 (2013)
- equivalent words have equivalent meaning when repeated in the same statute; LBP-13-3, 77 NRC 82 (2013)
- rules of interpretation applicable to statutes are equally germane in determining a regulation's meaning; LBP-13-3, 77 NRC 82 (2013)
- usual rule of regulatory interpretation is that different language is intended to mean different things, and thus a demand for a hearing is not to be treated as a mere request for a hearing; LBP-13-3, 77 NRC 82 (2013)

### STEAM GENERATOR TUBE DEGRADATION

- wear of steam generator tubes is of critical importance to evaluations performed in the final safety analysis report, because the tubes are part of the reactor coolant pressure boundary, and assurance of their integrity is required; LBP-13-7, 77 NRC 307 (2013)

### STEAM GENERATORS

- any operation of that might result in in-plane vibrations due to fluid elastic instability is inconsistent with the analyses or descriptions in the UFSAR is the type of test or experiment that triggers the obligation to seek a license amendment; LBP-13-7, 77 NRC 307 (2013)
- changes with respect to components (i.e., steam generators) are permitted without a license amendment under prescribed conditions that assure that the replacement components are sufficiently similar to the original so that safety requirements are maintained or improved; LBP-13-7, 77 NRC 307 (2013)

### SUBPART G PROCEDURES

- enforcement proceedings are typically conducted pursuant to the procedures in Subpart G; LBP-13-3, 77 NRC 82 (2013)

### SUBPART L PROCEDURES

- in the interest of expediting the further proceedings, hearing on senior operator license denial will be conducted under the provisions of Subpart L of the Commission's Rules of Practice; LBP-13-3, 77 NRC 82 (2013)
- proceedings for the grant, renewal, licensee-initiated amendment, or termination of licenses or permits subject to Part 55 may be conducted under the procedures of Subpart L; LBP-13-3, 77 NRC 82 (2013)

### SUBPART L PROCEEDINGS

- NRC Staff must disclose or provide documents that support Staff's review of the application or proposed action, together with a list of all otherwise-discoverable documents for which a claim of protected or privileged status is being made; LBP-13-5, 77 NRC 233 (2013)

### SUBPOENAS

- administrative subpoena duces tecum is judicially enforceable where the inquiry is within the authority of the agency, the demand for production is neither too indefinite nor unreasonably broad nor burdensome, and the information sought is reasonably relevant to the authorized inquiry; CLI-13-5, 77 NRC 223 (2013)
- agencies are required to use alternative means for obtaining information to avoid unnecessary infringement of First Amendment associational rights; CLI-13-5, 77 NRC 223 (2013)

## SUBJECT INDEX

Congress has vested NRC with authority to issue subpoenas in conjunction with investigations that the NRC deems necessary to protect public health or to minimize danger to life or property in matters involving nuclear materials; CLI-13-5, 77 NRC 223 (2013)

licensee's motion to quash a subpoena duces tecum because production of the requested file would compromise its employee concerns program by potentially subjecting information contained in the file to public disclosure as an official agency record under FOIA is denied; CLI-13-5, 77 NRC 223 (2013)

NRC is authorized to issue any necessary subpoenas; CLI-13-5, 77 NRC 223 (2013)

NRC subpoena was upheld notwithstanding assertion of First Amendment freedom of association rights, where the subpoena was narrowly tailored to documents supporting specific allegations; CLI-13-5, 77 NRC 223 (2013)

NRC subpoenas have been quashed or limited when the subpoena was not closely drawn or NRC did not consider alternative means for obtaining the requested information to avoid unnecessary infringement of First Amendment associational rights; CLI-13-5, 77 NRC 223 (2013)

recipient of a subpoena issued by the NRC's Office of Investigations may move to quash the subpoena pursuant to 10 C.F.R. 2.702(f); CLI-13-5, 77 NRC 223 (2013)

under appropriate circumstances First Amendment rights give way to the compelling government interest in nuclear safety; CLI-13-5, 77 NRC 223 (2013)

under certain circumstances, a licensee or vendor might be required to disclose confidential ECP information (including the identity of a concerned individual) at the behest of a government agency (including the NRC), or in response to a subpoena; CLI-13-5, 77 NRC 223 (2013)

### TECHNICAL SPECIFICATIONS

because changes to technical specifications require a license amendment, technical specifications should be limited to those plant conditions most important to safety; LBP-13-7, 77 NRC 307 (2013)

because technical specifications are an integral part of an operating license, changes to technical specifications require a license amendment; LBP-13-7, 77 NRC 307 (2013)

criteria to be used in determining what items must be included in technical specifications are identified; LBP-13-7, 77 NRC 307 (2013)

licensee must request a license amendment if the proposed action requires that existing technical specifications be changed; LBP-13-7, 77 NRC 307 (2013)

reactor operating licenses must include technical specifications that include specific characteristics of the facility and such other information as the Commission may, by rule or regulation, deem necessary in order to enable it to find that the utilization of special nuclear material will provide adequate protection to the health and safety of the public; LBP-13-7, 77 NRC 307 (2013)

the Commission has authority to determine, and prescribe by rule or regulation, what additional information should be included in technical specifications to ensure public health and safety and the common defense and security; LBP-13-7, 77 NRC 307 (2013)

updated final safety analysis reports can be modified without a license amendment as long as the modifications do not involve a change to the technical specifications or an unreviewed safety question; LBP-13-7, 77 NRC 307 (2013)

### TESTS

any operation of that might result in in-plane vibrations due to fluid elastic instability is inconsistent with the analyses or descriptions in the UFSAR is the type of test or experiment that triggers the obligation to seek a license amendment; LBP-13-7, 77 NRC 307 (2013)

licensee must seek a license amendment before implementing a test or experiment that will result in a departure from a method of evaluation described in the updated final safety analysis report used in establishing the design basis or in the safety analysis; LBP-13-7, 77 NRC 307 (2013)

licensees must periodically update their final safety analysis reports to reflect changes to the facility, make changes in the procedures as described in the UFSAR, and conduct tests or experiments not described in the UFSAR; LBP-13-7, 77 NRC 307 (2013)

"tests or experiments not described in the UFSAR" constitute any activity where any structure, system, or component is utilized or controlled in a manner that is either outside the reference bounds of the design bases as described in the UFSAR or inconsistent with the analyses or descriptions in the UFSAR; LBP-13-7, 77 NRC 307 (2013)

## SUBJECT INDEX

### UNCONTESTED ISSUES

NRC must conduct a hearing on the uncontested environmental and safety aspects of the proposed plant; LBP-13-4, 77 NRC 107 (2013)

### UNRESTRICTED RELEASE

from a radiological standpoint, no hazards exist at the site, the license can be terminated, and the site can be considered an unrestricted area; CLI-13-1, 77 NRC 1 (2013)

### URANIUM MINING AND MILLING

organizational interest in protecting natural resources with a focus on groundwater contamination from uranium mining is insufficient to establish organizational standing; LBP-13-6, 77 NRC 253 (2013)

### VIOLATIONS

although petitioner's inadvertent publication of protected information was a serious offense that exposed movant to potential economic harm and undermined integrity of the adjudicative proceeding, the significance of petitioner's misconduct is alleviated to some degree by the immediate corrective action taken by petitioner; LBP-13-2, 77 NRC 71 (2013)

board denies a motion seeking sanctions against petitioner for violating the governing protective order and non-disclosure agreement, but imposes a document review requirement upon petitioner in light of its misconduct and to enhance future compliance with the proceeding's protective order; LBP-13-2, 77 NRC 71 (2013)

party moving for sanctions has the burden of establishing by a preponderance of the evidence that petitioner violated the protective order; LBP-13-2, 77 NRC 71 (2013)

when considering whether a disclosure of proprietary information was an isolated incident or part of a pattern of behavior, licensing boards may consider the circumstances underlying the disclosure, the corrective action taken, and petitioner's representation that no disclosure will occur in the future; LBP-13-2, 77 NRC 71 (2013)

### WAIVER

agency waives the deliberative process privilege for a document when it discloses the same document or one containing equivalent text; LBP-13-5, 77 NRC 233 (2013)

### WAIVER OF RULE

all four parts of the test for rule waiver petitions must be met; LBP-13-1, 77 NRC 57 (2013)

board denies petition for rule waiver but refers the decision to the Commission because the legal issue presented by the petition is novel and worthy of the Commission's immediate attention; LBP-13-1, 77 NRC 57 (2013)

petitioner who believes a regulation should not be applied in a particular proceeding may seek a waiver of that regulation; LBP-13-1, 77 NRC 57 (2013)

petitioners are not required to demonstrate that their complaint is unique to the facility in question or that their complaint reflects a significant safety issue; LBP-13-1, 77 NRC 57 (2013)

possibility that new SAMA candidates may become available cannot be the basis for a successful petition to waive 10 C.F.R. 51.53(c)(3)(ii)(L), because the Commission knew that SAMA technology would change, but was confident that processes, other than the SAMA analysis process, would adequately address any such developments; LBP-13-1, 77 NRC 57 (2013)

role of the board when a rule waiver request is filed is limited to determining whether petitioner has made a prima facie showing that it has satisfied 10 C.F.R. 2.335(b), and if not, the board may not further consider the matter; LBP-13-1, 77 NRC 57 (2013)

sole ground for rule waiver or exception is that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation (or a provision of it) would not serve the purposes for which the rule or regulation was adopted; LBP-13-1, 77 NRC 57 (2013)

to determine whether a petitioner has demonstrated that application of a regulation would not serve the purposes for which it was adopted, a board must first determine the purpose of rule or regulation for which waiver is sought; LBP-13-1, 77 NRC 57 (2013)

where petitioner has successfully made a prima facie showing for rule waiver, the board shall, before ruling on the petition, certify the matter directly to the Commission, and the Commission shall determine whether to grant or deny the waiver request; LBP-13-1, 77 NRC 57 (2013)

## SUBJECT INDEX

### WASTE CONFIDENCE RULE

as an exercise of its inherent supervisory authority over adjudications, the Commission directs that Waste Confidence contentions and any related contentions that may be filed in the near term be held in abeyance pending further order; LBP-13-1, 77 NRC 57 (2013)  
pending resolution of issues with NRC's waste confidence rule, waste confidence contentions should be held in abeyance; LBP-13-4, 77 NRC 107 (2013)

### WATER POLLUTION

potential increases in nutrient concentration or eutrophication as a result of dewatering associated with construction and/or operation of the proposed plant are discussed; LBP-13-4, 77 NRC 107 (2013)

### WATER QUALITY

NRC Staff may rely on the scientific data and inferences drawn by another government agency but need not slavishly defer to that agency's findings or its conclusions about water quality; LBP-13-4, 77 NRC 107 (2013)

### WATER SUPPLY

in analyzing predictions of water availability in a report, NRC Staff consulted with the other government agencies to determine whether data from either of those agencies could be obtained to prepare a new water availability prediction; LBP-13-4, 77 NRC 107 (2013)

### WATER USE

applications for water use permits are evaluated by local governmental agencies; LBP-13-4, 77 NRC 107 (2013)

NRC's analysis, in its final environmental impact statement, of issues relating to dewatering associated with construction and operation of the proposed plants is adequate and satisfied the National Environmental Policy Act; LBP-13-4, 77 NRC 107 (2013)

potential for increase in frequency of destructive wildfires due to altered natural hydroperiods discussed; LBP-13-4, 77 NRC 107 (2013)

potential increases in nutrient concentration or eutrophication as a result of dewatering associated with construction and/or operation of the proposed plant are discussed; LBP-13-4, 77 NRC 107 (2013)

state water use permit is required for construction and operation of the nuclear units, associated facilities, and transmission lines and corridor; LBP-13-4, 77 NRC 107 (2013)

### WETLANDS

areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions and generally include swamps, marshes, bogs, and similar areas are designated as wetlands; LBP-13-4, 77 NRC 107 (2013)

assertion that final environmental impact statement inadequately addresses, and inappropriately characterizes as small, the plant's dewatering-associated impacts to wetlands, floodplains, special aquatic sites, and other waters is litigated; LBP-13-4, 77 NRC 107 (2013)

cumulative impacts of water withdrawals, climate change, and saltwater intrusion are discussed; LBP-13-4, 77 NRC 107 (2013)

ecological effects of seasonal fluctuations and hydroperiods are discussed; LBP-13-4, 77 NRC 107 (2013)

impact analysis of passive dewatering is discussed; LBP-13-4, 77 NRC 107 (2013)

NRC's analysis, in its final environmental impact statement, of issues relating to dewatering associated with construction and operation of the proposed plants is adequate and satisfied the National Environmental Policy Act; LBP-13-4, 77 NRC 107 (2013)

proposed plant will impact at least 668 acres of wetlands and therefore its construction and operation will require a permit from U.S. Army Corps of Engineers; LBP-13-4, 77 NRC 107 (2013)

"special aquatic sites" are defined in accordance with guidelines issued by the U.S. Environmental Protection Agency and include six categories of special aquatic sites; LBP-13-4, 77 NRC 107 (2013)

### WHISTLEBLOWERS

government may withhold from disclosure the identity of persons who furnish information of violations of law to officers charged with enforcement of the law; CLI-13-5, 77 NRC 223 (2013)

### WILDFIRES

potential for increase in frequency of destructive wildfires due to altered natural hydroperiods is discussed; LBP-13-4, 77 NRC 107 (2013)



## FACILITY INDEX

CALVERT CLIFFS NUCLEAR POWER PLANT, Unit 3; Docket No. 52-016-COL  
COMBINED LICENSE; March 11, 2013; MEMORANDUM AND ORDER; CLI-13-4, 77 NRC 101  
(2013)

INDIAN POINT, Unit 2; Docket No. 50-247  
REQUEST FOR ACTION; June 7, 2013; DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206;  
DD-13-1, 77 NRC 347 (2013)

LEVY COUNTY NUCLEAR POWER PLANT, Units 1 and 2; Docket Nos. 52-029-COL, 52-030-COL  
COMBINED LICENSE; March 26, 2013; PARTIAL INITIAL DECISION (Ruling on Contention 4A);  
LBP-13-4, 77 NRC 107 (2013)

LIMERICK GENERATING STATION, Units 1 and 2; Docket Nos. 50-352-LR, 50-353-LR  
LICENSE RENEWAL; February 6, 2013; ORDER (Denying Petition for Waiver of 10 C.F.R.  
§ 51.53(c)(3)(ii)(L) and Referring This Decision to the Commission); LBP-13-1, 77 NRC 57 (2013)

METROPOLIS WORKS URANIUM CONVERSION FACILITY; Docket No. 40-3392-MLA  
MATERIALS LICENSE AMENDMENT; January 9, 2013; MEMORANDUM AND ORDER; CLI-13-1,  
77 NRC 1 (2013)

SAN ONOFRE NUCLEAR GENERATING STATION, Units 2 and 3; Docket Nos. 50-361-CAL,  
50-362-CAL  
CONFIRMATORY ACTION LETTER; February 8, 2013; ORDER (Denying SCE's Motion for Sanctions  
Against Friends of the Earth for Violating the Protective Order, but Imposing an Enhanced  
Document-Review Requirement); LBP-13-2, 77 NRC 71 (2013)

CONFIRMATORY ACTION LETTER; May 13, 2013; MEMORANDUM AND ORDER (Resolving  
Issues Referred by the Commission in CLI-12-20); LBP-13-7, 77 NRC 307 (2013)

SEABROOK STATION, Unit 1; Docket No. 50-443-LR  
LICENSE RENEWAL; February 20, 2013; MEMORANDUM AND ORDER; CLI-13-3, 77 NRC 51  
(2013)