# UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

# ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Ronald M. Spritzer, Chairman Dr. Richard F. Cole Dr. Alice C. Mignerey

In the Matter of

VIRGINIA ELECTRIC and POWER COMPANY d/b/a DOMINION VIRGINIA POWER and OLD DOMINION ELECTRIC COOPERATIVE

(Combined License Application for North Anna Unit 3)

Docket No. 52-017-COL

ASLBP No. 08-863-01-COL

August 15, 2008

# MEMORANDUM AND ORDER

(Ruling on Petitioner's Standing and Contentions and NCUC's Request to Participate as a Non-Party Interested State)

Before the Licensing Board is a request by the Petitioner, Blue Ridge Environmental

Defense League (BREDL or Petitioner), and its Virginia-based chapter, People's Alliance for

Clean Energy (PACE),<sup>1</sup> for a hearing on the combined license (COL) Application for North Anna

Unit 3, which would be located at the North Anna Power Station in Louisa County, Virginia.<sup>2</sup>

Additionally, the North Carolina Utilities Commission (NCUC) has submitted a request to

participate as a non-party interested State under 10 C.F.R. § 2.315.<sup>3</sup> Both Virginia Electric and

Power Company d/b/a Dominion Virginia Power and Old Dominion Electric Cooperative

(Dominion or Applicant) and the Nuclear Regulatory Commission (NRC) Staff oppose the

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<sup>&</sup>lt;sup>1</sup> Petition for Intervention and Request for Hearing by [BREDL] (May 9, 2008) [hereinafter Pet.].

<sup>&</sup>lt;sup>2</sup> <u>See</u> Dominion Virginia Power; Notice of Hearing and Opportunity to Petition for Leave to Intervene on a Combined License for North Anna Unit 3, 73 Fed. Reg. 12,760 (Mar. 10, 2008).

<sup>&</sup>lt;sup>3</sup> Request of the [NCUC] for an Opportunity to Participate in Any Hearing and to be Added to the Official Service List (May 9, 2008) [hereinafter Request to Participate].

Petitioner's petition for intervention and request for hearing because they do not believe any of the Petitioner's eight contentions meet the standards for contention admissibility.<sup>4</sup>

In this decision, we address the Petitioner's standing to intervene, the NCUC's request to participate as a non-party interested State, and the admissibility of the Petitioner's eight proffered contentions. For the reasons set forth below, we find that the Petitioner has established its standing to intervene in this proceeding and that the NCUC may participate as a non-party interested State in this proceeding. We further find that one of the Petitioner's contentions (Contention One) is admissible in part, and the Petitioner has therefore met the necessary prerequisite for the Board to grant a hearing request.<sup>5</sup> We find the remaining contentions to be inadmissible. Therefore, further proceedings in this matter will be limited to BREDL's first contention.

## I. BACKGROUND

Prior to filing its COL Application, on September 25, 2003, the Applicant filed an Application with the NRC for an Early Site Permit (ESP) pursuant to 10 C.F.R. § 52.24. Under 10 C.F.R. § 52.21, an ESP is described as a "partial construction permit," whose issuance does not authorize an applicant to construct nuclear power reactors.<sup>6</sup> Instead, an ESP "focuses on the suitability of a proposed <u>site</u>, and is defined as a 'Commission approval . . . for a site or sites for one or more nuclear power facilities.<sup>377</sup> Thus, even when an ESP is granted, the Applicant is

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<sup>&</sup>lt;sup>4</sup> <u>See</u> Dominion's Answer Opposing Petition for Intervention and Request for Hearing by BREDL (June 3, 2008) [hereinafter Dom. Ans.]; NRC Staff Answer to "Petition for Intervention and Request for Hearing by [BREDL]" (June 3, 2008) [hereinafter Staff Ans.].

<sup>&</sup>lt;sup>5</sup> <u>See</u> 10 C.F.R. § 2.309(a), (f)(1).

<sup>&</sup>lt;sup>6</sup> <u>See Dominion Nuclear North Anna, LLC</u> (Early Site Permit for North Anna ESP Site), LBP-07-09, 65 NRC 539, 550 (2007).

<sup>&</sup>lt;sup>7</sup> <u>Id.</u> (quoting 10 C.F.R. § 52.3(b)).

required to submit a COL application to the NRC for its approval before construction may commence.

In its ESP Application, Dominion sought the NRC's approval to locate additional nuclear power reactors, which would generate up to a total of 9,000 megawatts thermal (MWt), at a site near the shore of Lake Anna in Louisa County, Virginia.<sup>8</sup> The Applicant's proposed ESP site was located within the North Anna Power Station site, where two existing nuclear power reactors have operated since 1980.<sup>9</sup>

On November 25, 2003, the NRC published a notice of hearing and opportunity to petition for leave to intervene for the Applicant's ESP Application.<sup>10</sup> BREDL, the Nuclear Information and Resource Service, and Public Citizen (collectively, ESP Intervenors) filed a timely request for hearing and petition to intervene.<sup>11</sup> The ESP Board concluded that the ESP Intervenors had standing and that two of the ESP Intervenors' nine contentions were admissible.<sup>12</sup> One of the two admitted contentions was subsequently settled,<sup>13</sup> leaving only

<sup>8</sup> <u>Id.</u> at 549.

<sup>9</sup> See id. (citing Rev. 9 to North Anna ESP Application at 1-1-1 (Sept. 2006)).

<sup>10</sup> 68 Fed. Reg. 67,489 (Dec. 2, 2003).

<sup>11</sup> Hearing Request and Petition to Intervene by [ESP Intervenors] (Jan. 2, 2004). On May 3, 2004, the ESP Intervenors submitted a supplemental petition renumbering their contentions pursuant to a request from the ESP Board. Contentions of [ESP Intervenors] Regarding Early Site Permit Application for Site of North Anna Nuclear Power Plant (May 3, 2004) [hereinafter ESP Petition].

<sup>12</sup> See Dominion Nuclear North Anna, LLC (Early Site Permit for North Anna ESP Site), LBP-04-18, 60 NRC 253, 270-72, 276 (2004). The ESP Board admitted Environmental Contentions (ECs) 3.3.2 and 3.3.4. See id. EC 3.3.2 dealt with the impacts of an approved site on striped bass in Lake Anna. See ESP Petition at 32-40. EC 3.3.4 dealt with the Staff's failure to provide adequate consideration of the no-action alternative in its Environmental Review (ER). See id. at 44-45. The ESP Board did not admit Site Safety Analysis Report (SSA) 2.1 and 2.2, and EC 3.1, 3.2.1, 3.2.2, 3.3.1, and 3.3.3. SSA 2.1 alleged that the ESP Application failed to provide an adequate analysis and evaluation of the major structures, systems, and components of the facility. See id. at 2-7. SSA 2.2 claimed that the SSA was inadequate because it did not evaluate the suitability of the site with regard to locating the reactor containment below grade-(continued...) Contention EC 3.3.2 for the ESP Board to review. On April 22, 2005, the Applicant moved for summary disposition of Contention EC 3.3.2,<sup>14</sup> and on June 16, 2005, the ESP Board granted the motion for summary disposition in part, and denied it in part.<sup>15</sup> Thereafter, the Applicant revised its ESP Application and environmental report<sup>16</sup> and filed a second motion for summary disposition, arguing once again that EC 3.3.2 should be dismissed.<sup>17</sup> The ESP Board granted the Applicant's second motion for summary disposition because it found that EC 3.3.2 was resolved by the Applicant's amendments to its Application.<sup>18</sup>

Once summary disposition was granted, the ESP adjudication became only an uncontested proceeding subject to the mandatory hearing requirements of Atomic Energy Act (AEA) § 189a(1)(A) and 10 C.F.R. § 52.21. In accordance with (1) the ESP's Notice of

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<sup>13</sup> Licensing Board Order (Approving Settlement and Dismissal of Contention EC 3.3.4) (Jan. 6, 2005) (unpublished).

<sup>14</sup> <u>See</u> [Applicant's] Motion for Summary Disposition Contention EC 3.3.2 – Impacts on Striped Bass in Lake Anna (Apr. 22, 2005).

<sup>15</sup> <u>See</u> Memorandum and Order (Granting in Part and Denying in Part Summary Disposition on Contention EC 3.3.2 – Impacts on Striped Bass in Lake Anna) (June 16, 2005) (unpublished).

<sup>16</sup> <u>See</u> Dominion's Second Motion for Summary Disposition Contention EC 3.3.2 – Impacts on Striped Bass in Lake Anna (Aug. 7, 2006) at 3.

<sup>17</sup> <u>See id.</u> at 4.

level. <u>See id.</u> at 18-23. EC 3.1 argued that the ER provided an inadequate discussion of severe accident impacts. <u>See id.</u> at 12-15. EC 3.2.1 asserted that the ER was deficient because it failed to discuss the environmental implications of the lack of options for permanent disposal of the irradiated fuel that would be generated by the proposed reactors. <u>See id.</u> at 15-20. EC 3.2.2 stated that even if the Waste Confidence Decision applied to the ESP proceeding, it should be reconsidered. <u>See id.</u> at 20-23. EC 3.3.1 claimed that the ER contained an inadequate discussion of the impacts of new reactors on the water quantity in Lake Anna and downstream. <u>See id.</u> at 26-32. Finally, EC 3.3.3 alleged that the ER did not contain a complete or adequate assessment of the potential impacts of the proposed expansion of the North Anna site on public and classified uses of Lake Anna. <u>See id.</u> at 41-44.

<sup>&</sup>lt;sup>18</sup> <u>See Dominion Nuclear North Anna, LLC</u> (Early Site Permit for North Anna ESP Site), LBP-06-24, 64 NRC 360, 365 (2006).

Hearing;<sup>19</sup> (2) NRC regulations, including 10 C.F.R. §§ 2.104(b) and 51.105(a)(1)-(3); and (3) <u>Exelon Generation Co., LLC</u> (Early Site Permit for Clinton ESP Site), CLI-05-17, 62 NRC 5 (2005), the mandatory hearing Board was required to answer six questions.<sup>20</sup> The Board reviewed material portions of the ESP record and asked the Staff and the Applicant to provide additional evidence so that it would be able to answer the six fundamental questions for uncontested ESP proceedings. Ultimately, the Board determined that the Staff's review of the ESP Application was adequate and that the ESP record was sufficient to support the AEA's safety-related findings necessary for issuance of the ESP.<sup>21</sup> On November 27, 2007, the NRC approved the Applicant's ESP pursuant to 10 C.F.R. § 2.340(f).<sup>22</sup>

On November 26, 2007, the Applicant filed a COL Application to construct and operate an Economic Simplified Boiling Water Reactor (ESBWR) at the North Anna Power Station, pursuant to Subpart C of 10 C.F.R. Part 52.<sup>23</sup> On March 10, 2008, the NRC published a notice of opportunity for hearing on the Application for the COL.<sup>24</sup> On May 9, 2008, the Petitioner timely filed a request for hearing<sup>25</sup> and the NCUC timely filed a request to participate as a non-party interested State.<sup>26</sup>

<sup>23</sup> <u>See</u> 73 Fed. Reg. at 12,760.

- <sup>25</sup> <u>See</u> Pet.
- <sup>26</sup> <u>See</u> Request to Participate.

<sup>&</sup>lt;sup>19</sup> <u>See</u> Dominion Nuclear North Anna, LLC; Notice of Hearing and Opportunity to Petition for Leave to Intervene; Early Site Permit for the North Anna ESP Site, 68 Fed. Reg. 67,489 (Dec. 2, 2003).

<sup>&</sup>lt;sup>20</sup> <u>See North Anna ESP Site</u>, LBP-07-09, 65 NRC at 640-41 App. A (listing the six questions the mandatory hearing Board was required to consider).

<sup>&</sup>lt;sup>21</sup> See id. at 629.

<sup>&</sup>lt;sup>22</sup> Notice of Issuance of Early Site Permit for Dominion Nuclear North Anna, LLC Located 40 Miles North-Northwest of the City of Richmond, VA, 72 Fed. Reg. 68,202 (Dec. 4, 2007).

<sup>&</sup>lt;sup>24</sup> See North Anna ESP Site, LBP-07-09, 65 NRC at 550.

#### II. STANDING

A petitioner's right to participate in a licensing proceeding stems from Section 189a of the AEA. That section provides a hearing "upon the request of any person whose interest may be affected by the proceeding."<sup>27</sup> The Commission regulations require a licensing board, in ruling on a request for a hearing, to determine whether the petitioner has an interest potentially affected by the proceeding by considering (1) the nature of the petitioner's right under the AEA or the National Environmental Policy Act of 1969 (NEPA) to be made a party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any decision or order that may be issued in the proceeding on the petitioner's interest.<sup>28</sup>

When assessing whether a petitioner has set forth a sufficient interest to intervene under 10 C.F.R. § 2.309(d), the NRC generally uses judicial concepts of standing.<sup>29</sup> Those require the petitioner to show that (1) he or she has personally suffered or will personally suffer a distinct and palpable harm that constitutes injury in fact; (2) the injury can fairly be traced to the challenged action; and (3) the injury is likely to be redressed by a favorable decision.<sup>30</sup> Additionally, the petitioner must meet the "prudential" standing requirement by showing that the asserted interest arguably falls within the zone of interests protected by the governing law.<sup>31</sup>

When an organization petitions to intervene in a proceeding, it must demonstrate either organizational or representational standing. To demonstrate organizational standing, the

<sup>30</sup> See Allen v. Wright, 468 U.S. 737, 751 (1984).

<sup>31</sup> See Fed. Election Comm'n v. Akins, 524 U.S. 11, 20 (1998).

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<sup>&</sup>lt;sup>27</sup> 42 U.S.C. § 2239(a)(1)(A).

<sup>&</sup>lt;sup>28</sup> 10 C.F.R. § 2.309(d)(1).

<sup>&</sup>lt;sup>29</sup> <u>See Entergy Nuclear Vermont Yankee, L.L.C., and Entergy Nuclear Operations, Inc.</u> (Vermont Yankee Nuclear Power Station), LBP-04-28, 60 NRC 548, 552 (2004).

petitioner must show "injury in fact" to the interests of the organization itself.<sup>32</sup> Representational standing requires a demonstration that one or more of its members would otherwise have standing to intervene on their own, and that the identified members have authorized the organization to request a hearing on their behalf.<sup>33</sup>

The Commission has recognized that a petitioner may have standing based entirely upon its geographical proximity to a particular proposed facility.<sup>34</sup> In proceedings involving nuclear power reactors, the Commission has adopted a proximity presumption, whereby standing to intervene without the need to plead injury, causation, and redressability is presumed if the petitioner lives within fifty miles of the nuclear power reactor.<sup>35</sup>

Neither the Applicant nor the NRC Staff challenges BREDL's standing.<sup>36</sup> We must, however, make our own determination whether BREDL has satisfied standing requirements.<sup>37</sup> BREDL's hearing request states that it is a "regional, community-based non-profit environmental organization working in Virginia [and other states] . . . [to promote] earth stewardship, environmental democracy, social justice, and community empowerment." <sup>38</sup> BREDL's chapter PACE was founded in 2004 "to advocate for safe, renewable energy" in Virginia.<sup>39</sup> To support its claim of representational standing, BREDL alleges that the issuance of a COL to Dominion

<sup>36</sup> <u>See</u> Dom. Ans. at 5; Staff Ans. at 18.

<sup>37</sup> <u>See</u> 10 C.F.R. § 2.309(d)(3).

<sup>38</sup> Pet. at 2.

<sup>39</sup> <u>Id.</u>

<sup>&</sup>lt;sup>32</sup> <u>See Shaw AREVA MOX Services</u> (Mixed Oxide Fuel Fabrication Facility), LBP-07-14, 66 NRC 169, 183 (2007).

<sup>&</sup>lt;sup>33</sup> See id.

<sup>&</sup>lt;sup>34</sup> <u>See Florida Power & Light Co.</u> (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329-30 (1989).

<sup>&</sup>lt;sup>35</sup> <u>See, e.g., id.</u> at 329 (stating that the presumption applies in proceedings for nuclear power plant "construction permits, operating licenses, or significant amendments thereto").

"would present a tangible and particular harm to the health and well-being of [its] members living within 50 miles of the site."<sup>40</sup> The hearing request includes the declarations of eight BREDL members who state that they live within fifty miles of the proposed North Anna Unit 3 reactor site.<sup>41</sup> The declarations also state that the members have authorized BREDL to represent their interests in this proceeding.42

Therefore, pursuant to the Commission's fifty-mile proximity presumption, we find that BREDL has standing to intervene in this proceeding. We also note that Mr. Louis S. Watson,

Jr., has been designated as BREDL's single representative. Nevertheless, we do not grant

PACE standing in its own right because the Declarants fail to mention any affiliation they may

have with PACE and do not authorize PACE to be their representative.<sup>43</sup>

With regard to NCUC's request to participate as a non-party interested State, we find

that NCUC may participate in that manner under 10 C.F.R. § 2.315(c), which directs that an

interested State that has not been admitted as a party under Section 2.309 be provided "a

reasonable opportunity to participate in a hearing."44

<sup>42</sup> See Declarations.

<sup>43</sup> This makes no difference to our resolution of the contentions, however, since all contentions were filed jointly on behalf of BREDL and PACE.

<sup>44</sup> The NRC Staff opposes NCUC's request to participate, see NRC Staff Answer to "Request of the [NCUC] for an Opportunity to Participate in any Hearing and to be Added to the Official Service List" (June 3, 2008); but Dominion does not, see Dominion's Answer to Request of [NCUC] to Participate in Hearing (June 3, 2008). The Staff argues that NCUC has not provided sufficient detail concerning its interest in this proceeding, noting that the North Anna site is approximately one hundred miles from North Carolina. But NCUC asks only to participate as an interested State, not a party, and therefore we need not decide whether it may be admitted

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<sup>&</sup>lt;sup>40</sup> Id. at 4-5.

<sup>&</sup>lt;sup>41</sup> See Pet., Decl. of Nathan Van Hooser (May 8, 2008); Pet., Decl. of Donal Day (May 8, 2008); Pet., Decl. of Jeffery A. Adams (May 7, 2008); Pet., Decl. of Barbara White (May 8, 2008); Pet., Decl. of Vanthi Nguyen (May 9, 2008); Pet., Decl. of John Cruikshank (May 8, 2008); Pet., Declaration of Jason Halbert (May 7, 2008); Pet., Decl. of Elena B. Day (May 8, 2008) [hereinafter collectively, Declarations].

## III. RULING ON THE ADMISSIBILITY OF BREDL'S CONTENTIONS

We have two tasks to perform in evaluating BREDL's contentions. First, because

Dominion's COL Application for Unit 3 references the ESP for the proposed North Anna Units 3

and 4, we must determine whether one or more of the contentions were resolved in the ESP

proceeding. Matters resolved in a proceeding on an ESP application are considered resolved in

a subsequent COL proceeding when the COL application references the ESP, subject to certain

exceptions.<sup>45</sup> Therefore, if an issue was resolved in the ESP proceeding and does not fall within

 $^{45}$  <u>See</u> 10 C.F.R. § 52.39(a)(2). The exceptions are in paragraphs (b), (c), and (d) of Section 52.39. The exceptions that are potentially relevant to this case are those listed in Subsection 52.39(c)(1):

In any proceeding for the issuance of a . . . combined license referencing an early site permit, contentions on the following matters may be litigated in the same manner as other issues material to the proceeding:

(i) The nuclear power reactor proposed to be built does not fit within one or more of the site characteristics or design parameters included in the early site permit;

(ii) One or more of the terms and conditions of the early site permit have not been met;

(iii) A variance requested under paragraph (d) of this section is unwarranted or should be modified;

(iv) New or additional information is provided in the [COL] application that substantially alters the bases for a previous NRC conclusion or constitutes a sufficient basis for the Commission to modify or impose new terms and conditions related to emergency preparedness; or

(v) Any significant environmental issue that was not resolved in the

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<sup>(...</sup>continued)

under 10 C.F.R. § 2.309(d)(2). NCUC provides sufficient information to make the lesser showing necessary under 10 C.F.R. § 2.315(c), and we will therefore allow NCUC to participate as a non-party. Although NCUC is a State agency rather than a State, other Licensing Boards have allowed state agencies to participate as non-party interested States. <u>See, e.g.</u>, <u>Connecticut Yankee Atomic Power Co.</u> (Haddam Neck Plant), LBP-03-18, 58 NRC 262, 264 (2003); <u>Pacific Gas & Elec. Co.</u> (Diablo Canyon Nuclear Power Plant, Units 1 and 2), 37 NRC 5, 37 (1993) (granting non-party interested State status to State utility commissions under 10 C.F.R. § 2.715(c), the predecessor to 10 C.F.R. § 2.315(c)).

any exception, we may not admit it in this COL proceeding. Second, for any contentions that were not resolved in the earlier ESP proceeding, we must determine whether they are admissible under the standards prescribed in 10 C.F.R. § 2.309(f)(1).

We analyze each of these requirements in general terms in the following two sections. We then apply the requirements of 10 C.F.R. § 2.309(f)(1) to BREDL's specific contentions.

## A. <u>The Test for Determining Whether Contentions Were Resolved in the ESP</u>

#### Proceeding

Under NRC regulations, "if the application for the . . . combined license references an early site permit, the Commission shall treat as resolved those matters resolved in the proceeding on the application for . . . the early site permit."<sup>46</sup> But Section 52.39(a)(2) does not define the type of action that is sufficient to resolve an issue in an ESP proceeding, state who must take the necessary action, or explain the circumstances under which the resolution must take place. Because the term "resolved" is not expressly defined in 10 C.F.R. § 52.39(a) or in any other relevant provision of Part 52, we may look to the ordinary meaning of the term.<sup>47</sup> The relevant definition of "resolve" is to reach a decision about or make an official determination concerning an issue.<sup>48</sup> The Commission's choice of this specific term implies that it intended to grant preclusive effect only when the appropriate agency official makes a determination

<sup>45</sup>(...continued)

10 C.F.R. § 52.39(c)(1).

46 10 C.F.R. § 52.39(a)(2).

early site permit proceeding, or any issue involving the impacts of construction and operation of the facility that was resolved in the early site permit proceeding for which significant new information has been identified.

<sup>&</sup>lt;sup>47</sup> <u>See Chapman v. United States</u>, 500 U.S. 453, 462 (1991).

<sup>&</sup>lt;sup>48</sup> Webster's Third International Dictionary 1933 (1976).

concerning the issue in dispute. The fact that an issue was mentioned in agency documents is insufficient to show that it was resolved.

The ordinary meaning, however, does not explain who must resolve the issue or the circumstances under which the resolution must take place. One possible reading is that a disputed issue has been resolved only when it was litigated and decided by a licensing board or by the Commission in the ESP proceeding. But there is a broader interpretation – that an issue has been resolved when it <u>could have been litigated</u> during the ESP proceeding, as well as when it actually was litigated. Under this second reading, if the issue was within the scope of the ESP proceeding as defined in the Notice of Opportunity for a Hearing, and thus could have been litigated during that proceeding may not raise the issue if the application references the ESP unless one of the exceptions listed in Section 52.39 applies.

The NRC Staff and Dominion favor a broad reading of the preclusive effect of Section 52.39(a)(2), arguing that actual litigation is not required for an issue to have been resolved in an ESP proceeding.<sup>49</sup> According to the Staff, the preclusive effect of Section 52.39 extends not only to issues resolved by a Licensing Board or the Commission, but also to issues the Staff was required to resolve, and did resolve, during the ESP proceeding, even if no one challenged the Staff's determinations. The Staff summarizes its position by stating that,

for a COL application that references an ESP, § 52.39 precludes consideration of all matters resolved in the ESP proceeding, including determinations on any subject necessary to form the basis for the NRC staff conclusions documented in the Staff safety evaluation report on the ESP application and the environmental impact statement prepared in connection with ESP application.<sup>50</sup>

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<sup>&</sup>lt;sup>49</sup> Staff Ans. at 16; Dom. Ans. at 6-7.

<sup>&</sup>lt;sup>50</sup> Staff. Ans. at 16.

BREDL has not directly addressed the meaning of Section 52.39(a)(2). However, we infer from its Reply that it believes it should be free to litigate in a COL proceeding any issue not actually litigated in the ESP proceeding.<sup>51</sup>

Because the term "resolved" as used in Section 52.39(a)(2) is not expressly defined and is capable of more than one plausible interpretation, we must determine what meaning would be most consistent with the regulatory scheme as a whole and best fulfill the Commission's intent in adopting Part 52. To do so, we examine both the text of, and the Commission's rationale for adopting, the ESP and COL provisions of Part 52.

In 1988, the Commission proposed the ESP and COL regulations as Subparts A and C of new 10 C.F.R. Part 52.<sup>52</sup> In proposing the new Part 52, the Commission stated that it wanted "to improve reactor safety and streamline the licensing process by encouraging standard designs and by permitting early resolution of environmental and safety issues related to the reactor site and design."<sup>53</sup> The Commission further explained that Subpart A, which governs ESPs, allows "a prospective applicant to obtain a permit for one or more pre-approved sites on which future nuclear power stations can be located."<sup>54</sup> Thus, an ESP may be sought even though an application for a construction permit or COL has not been filed.<sup>55</sup> An ESP is categorized as a "partial construction permit" under 10 C.F.R. § 52.1. As previously noted, an ESP does not authorize an applicant to construct a nuclear power reactor. Instead, an ESP focuses on the suitability of a proposed site, and is defined as a "Commission approval . . . for a <sup>51</sup> Reply of [BREDL] to [Dominion] and NRC Staff Answers to Our Petition for Intervention and Request for Hearing (June 11, 2008) [hereinafter BREDL Reply].

<sup>52</sup> Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Reactors, 53 Fed. Reg. 32,060 (Aug. 23, 1988).

<sup>53</sup> <u>Id.</u> at 32,062.

<sup>54</sup> Id.

<sup>55</sup> 10 C.F.R. § 52.15(a).

site or sites for one or more nuclear power facilities.<sup>56</sup> The holder of an ESP may not actually commence construction of any reactors on the ESP site without having applied for and received a separate construction permit or combined operating license from the NRC.<sup>57</sup> Thus, even if the ESP is granted, an additional application must be submitted and approved before construction of any new reactors can commence.<sup>58</sup>

Subpart C of Part 52 establishes procedures for the issuance of a combined construction permit and conditional operating license for a nuclear power plant.<sup>59</sup> This is "essentially a construction permit which also requires consideration and resolution of many of the issues currently considered at the operating license stage."<sup>60</sup> The general requirements for the contents of a COL application are set forth in 10 C.F.R. §§ 52.79 and 52.80. Notably, if a COL application references an ESP, the requirements for the COL application are significantly reduced. Section 52.79(b) governs the contents of a final safety analysis report submitted as part of a COL application that references an ESP. "The final safety analysis report need not contain information or analyses submitted to the Commission in connection with the early site

<sup>60</sup> 53 Fed. Reg. at 32,062.

<sup>&</sup>lt;sup>56</sup> <u>Id.</u> § 52.3(b).

<sup>&</sup>lt;sup>57</sup> <u>See id.</u> § 52.3.

<sup>&</sup>lt;sup>58</sup> <u>North Anna ESP Site</u>, LBP-07-09, 65 NRC at 550-51. However, if the applicant includes a satisfactory site redress plan, an ESP holder may conduct certain site preparation activities under a "limited work authorization" granted under 10 C.F.R. § 50.10(e). <u>See</u> 10 C.F.R. § 52.25.

<sup>&</sup>lt;sup>59</sup> Subpart B of Part 52, which concerns standard design certifications, is not directly relevant here, but it is also illustrative of the Commission's intent to streamline the licensing process. Subpart B "allow[s] a prospective applicant, vendor, or other interested party to obtain Commission approval of a design of a complete nuclear power plant or a major portion of such a plant." 53 Fed. Reg. at 32,062. Applicants for COLs or construction permits may then refer to the standard design in their applications, thus simplifying the application process significantly.

permit," but must either include or incorporate by reference the ESP safety analysis report.<sup>61</sup> The COL application must demonstrate that the design of the chosen reactor falls within the site characteristics and design parameters in the ESP, identify any necessary variances from the ESP, and "demonstrate that all terms and conditions that have been included in the early site permit, other than those imposed under § 50.36b, will be satisfied by the date of issuance of the combined license."<sup>62</sup> A safety contention arising from a matter resolved in an ESP proceeding is within the scope of a COL proceeding that references the ESP only if it concerns whether the site characteristics and design parameters specified in the ESP have been met (Section 52.39(c)(1)(i)), whether a term or condition in the ESP has been met (Section 52.39(c)(1)(ii)), whether a variance from the ESP requested by the COL applicant is unwarranted or should be modified (Section 52.39(c)(1)(iii)), or whether emergency planning matters resolved in the ESP should be revisited (Section 52.38(c)(1)(iv)).

The required content of the environmental report for a COL application is also significantly reduced if the COL application references an ESP. The environmental report at the COL stage "need not contain information or analyses submitted to the Commission in 'Applicant's Environmental Report–Early Site Permit Stage,' or resolved in the Commission's early site permit environmental impact statement."<sup>63</sup> Instead, the environmental report for the COL stage must, among other things: (1) demonstrate that the design of the chosen reactor falls "within the site characteristics and design parameters specified" in the ESP; (2) include information "to resolve any significant environmental issue that was not resolved in " the ESP

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<sup>&</sup>lt;sup>61</sup> 10 C.F.R. § 52.79(b)(1).

<sup>&</sup>lt;sup>62</sup> <u>Id.</u> § 52.79(b)(3).

<sup>&</sup>lt;sup>63</sup> <u>Id.</u> § 51.50(c)(1).

proceeding; and (3) provide "[a]ny new and significant information for issues related to the impacts of construction and operation of the facility that were resolved in" the ESP proceeding.<sup>64</sup>

The Commission expected that most safety and environmental issues related to the site would be resolved during the ESP proceeding.<sup>65</sup> An Environmental Impact Statement (EIS) must be prepared during an ESP or certified design proceeding.<sup>66</sup> The Commission explained that, because of this requirement, "only an environmental assessment need be prepared in connection with the application for a combined license" that references an ESP or certified standard design.<sup>67</sup> An environmental assessment is generally a shorter, less detailed document than an EIS.<sup>68</sup> The Commission also stated that the environmental review conducted during such a COL proceeding "must focus on the suitability of the site for the design and any other significant environmental issue <u>not considered in any previous proceeding on the site or the design</u>.<sup>69</sup> Thus, the environmental analysis conducted at the COL stage is limited to those issues not taken into account in the EIS prepared for an ESP or certified design. However, an environmental issue that was not resolved in the ESP proceeding, or if it involves the impacts of construction and operation of the facility and significant new information has been identified.<sup>70</sup>

<sup>69</sup> 53 Fed. Reg. at 32,066 (emphasis added).

<sup>70</sup> 10 C.F.R. § 52.39(c)(1)(v).

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<sup>&</sup>lt;sup>64</sup> <u>Id.</u> § 51.50(c)(1)(iii).

<sup>65</sup> See 53 Fed. Reg. at 32,066.

<sup>&</sup>lt;sup>66</sup> 10 C.F.R. § 52.18.

<sup>&</sup>lt;sup>67</sup> 53 Fed. Reg. at 32,066.

<sup>&</sup>lt;sup>68</sup> <u>See</u> <u>Sierra Nevada Forest Protection Campaign v. Weingardt</u>, 376 F.Supp.2d 984, 990 (E.D. Cal. 2005).

Taking into account both the relevant language of the regulations and the Commission's evident intent in promulgating those provisions, we agree with the Staff that a matter need not be actually litigated in order to be "resolved" in an ESP proceeding. If the matter was decided by the Staff in the ESP proceeding, concerns an issue that the Staff was required to resolve at that stage, and could have been litigated in the ESP proceeding, the matter is deemed "resolved" by the ESP proceeding even if the issue was not actually litigated. In reaching this conclusion, we note that 10 C.F.R. § 51.50(c)(1), quoted above, provides that the environmental report (ER) for the COL stage need not contain information or analyses concerning matters that were "resolved" in the EIS for the ESP. The EIS is prepared by the NRC Staff and is based, at least in part, on information in the ER. Thus, an issue can be "resolved" within the meaning of Section 51.50(c)(1) even though there might have been no litigation concerning that issue, if the NRC Staff adequately addressed the matter in an EIS. The term "resolved" should be given the same meaning in Section 52.39(a)(2), given that both provisions concern the relationship between ESP and COL proceedings.<sup>71</sup>

Such a reading also gives meaningful effect to the Commission's intent to encourage early resolution of environmental and safety issues related to the reactor site. If Section 52.39(a)(2) only applies to issues actually litigated during an ESP proceeding, a participant in an ESP proceeding could pick and choose the issues it would raise, thereby frustrating the goal of the Part 52 regulations to resolve environmental and safety issues related to the reactor site at the ESP stage.

Finally, because NRC case law already limited the authority of licensing boards to revisit issues that had been litigated in earlier proceedings, we cannot plausibly construe the

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<sup>&</sup>lt;sup>71</sup> <u>See Nat'l Aeronautics and Space Admin. v. Fed. Labor Relations Auth.</u>, 527 U.S. 229, 235 (1999) (A statutory phrase "should ordinarily retain the same meaning wherever used in the same statute.").

Commission's intent in promulgating Section 52.39(a)(2) as limited to achieving only that result. In general, the rule of collateral estoppel bars parties from relitigating issues actually and necessarily decided in prior litigation between the same parties.<sup>72</sup> The Commission decided in 1974 that the doctrine of collateral estoppel should be applied in appropriate circumstances in NRC proceedings.<sup>73</sup> Thus, collateral estoppel was already established in the NRC's case law well before the Part 52 regulations were proposed in 1988. If we were to construe Section 52.39(a)(2) as limited to mandating that licensing boards not revisit issues previously litigated and decided in earlier ESP proceedings, it would do no more than restate or modify a rule of law that was already well established in NRC case law. The Commission's statements of intent accompanying the proposed Part 52 show that its intent was not limited to restating or modifying a rule of law that licensing boards already applied.

We hasten to add, however, that in order for an issue to have been resolved during an ESP proceeding, the issue must have been examined and decided by the Staff, not just referred to without reaching a conclusion. Moreover, the issue must be one that was necessary for the Staff to resolve under the regulations governing ESPs (10 C.F.R. Part 52, Subpart A). Mere excursions by the Staff into issues that need not be resolved at the ESP stage are not sufficient to justify precluding parties from litigating those issues in a COL proceeding. Otherwise, a party could be precluded from litigating an issue it had no reason to believe would be resolved in an ESP proceeding.

In addition, the NRC must have provided adequate notice to potential litigants, through the <u>Federal Register</u> notice that provides the public with the opportunity for a hearing, of the

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<sup>&</sup>lt;sup>72</sup> <u>See generally</u> Charles Alan Wright, Arthur R. Miller & Edward H. Cooper, 18 <u>Federal Practice</u> <u>& Procedure</u> §§ 4416, 4419 (2d ed. 2002).

<sup>&</sup>lt;sup>73</sup> <u>Alabama Power Co.</u> (Joseph M. Farley Nuclear Plant, Units 1 and 2), ALAB-182, 7 AEC 210 (1974); <u>see also Duke Power Co.</u> (Catawba Nuclear Station, Units 1 and 2), LBP-82-107A, 16 NRC 1791, 1808 (1982).

issues that were within the scope of the ESP proceeding, and thus might properly be raised in a request for a hearing in that proceeding. As the Staff notes, "long-standing Commission precedent establishes that contentions may only be admitted in an NRC licensing proceeding if they fall within the scope of issues set forth in the <u>Federal Register</u> notice of hearing and comply with the requirements of" applicable regulations and case law.<sup>74</sup> Given that the <u>Federal Register</u> notice defines the scope of the issues that may properly be raised in a request for a hearing, it also defines the scope of the issues that could reasonably be deemed resolved during an ESP proceeding. Before a participant may be precluded from litigating an issue because it failed to raise the issue in an earlier proceeding, it must have had reasonable notice that such an opportunity existed. If we reached the contrary result, we would run the risk of indirectly depriving "persons whose interest may be affected by the proceeding" of the right to a hearing provided in AEA Section 189a.<sup>75</sup>

Therefore, we will treat BREDL's contentions as resolved during the ESP proceeding for the North Anna site if (1) the subject of the contention was actually litigated and decided during the ESP proceeding; or (2) the subject of the contention, although not actually litigated, was decided by the Staff, was necessary for the Staff to resolve in the ESP proceeding, and was within the scope of that proceeding as defined in the <u>Federal Register</u> notice of opportunity for a hearing. We must treat any contention resolved during the ESP proceeding as resolved in this COL proceeding unless one of the exceptions listed in Section 52.39 applies.

#### B. <u>Standards Governing Contention Admissibility</u>

For any contentions not resolved in the ESP proceeding or to which an exception applies, we must determine whether they are admissible in this COL proceeding. Section 2.309(f)(1) of the Commission's regulations sets out the requirements that must be

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<sup>&</sup>lt;sup>74</sup> Staff Ans. at 10-11 (citations omitted).

<sup>&</sup>lt;sup>75</sup> 42 U.S.C. § 2239(a)(1)(A).

met if a contention is to be admitted. An admissible contention must: (i) provide a specific statement of the legal or factual issue sought to be raised; (ii) provide a brief explanation of the basis for the contention; (iii) demonstrate that the issue raised is within the scope of the proceeding; (iv) demonstrate that the issue raised is material to the findings the NRC must make to support the action that is involved in the proceeding; (v) provide a concise statement of the alleged facts or expert opinions, including references to specific sources and documents, that support the petitioner's position and upon which the petitioner intends to rely at the hearing; and (vi) provide sufficient information to show that a genuine dispute exists in regard to a material issue of law or fact, including references to specific portions of the application that the petitioner disputes, or, in the case when the application is alleged to be deficient, the identification of such deficiencies and supporting reasons for this belief.<sup>76</sup>

The purpose of the contention rule is to "focus litigation on concrete issues and result in a clearer and more focused record for decision."<sup>77</sup> The Commission has stated that it "should not have to expend resources to support the hearing process unless there is an issue that is appropriate for, and susceptible to, resolution in an NRC hearing."<sup>78</sup> The Commission has emphasized that the rules on contention admissibility are "strict by design."<sup>79</sup> Further, contentions challenging applicable statutory requirements or Commission regulations are not

<sup>78</sup> 69 Fed. Reg. at 2202.

<sup>79</sup> <u>Dominion Nuclear Connecticut, Inc.</u> (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001), <u>pet. for reconsideration denied</u>, CLI-02-1, 55 NRC 1 (2002).

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<sup>&</sup>lt;sup>76</sup> 10 C.F.R. § 2.309(f)(1)(i)-(vi).

 <sup>&</sup>lt;sup>77</sup> Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004); <u>see also</u>
<u>Vermont Yankee Nuclear Power Corp. v. NRDC</u>, 435 U.S. 519, 553-54 (1978); <u>BPI v. AEC</u>, 502
F.2d 424, 428 (D.C. Cir. 1974); <u>Philadelphia Elec. Co.</u> (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20 (1974).

admissible in agency adjudications.<sup>80</sup> Failure to comply with any of these requirements is grounds for not admitting a contention.<sup>81</sup>

# C. <u>Analysis of BREDL's Contentions</u>

1. <u>Contention One</u>. BREDL alleges that Dominion's COL Application fails to address the fact that, "[a]s of June 30, 2008, no facility in the United States will be licensed and able to accept for disposal, Class B, C or Greater-Than-C radioactive waste from the North Anna nuclear power reactors, including the proposed Unit 3.<sup>82</sup> BREDL argues that Dominion should therefore have included in the Application a plan to manage the low-level radioactive waste (LLRW) generated by the new reactor on site, given that the Barnwell facility in South Carolina that had until recently been receiving LLRW from the existing North Anna reactors no longer accepts LLRW from Virginia and various other States.<sup>83</sup> BREDL states that Dominion has failed to explain adequately in the COL Application "how NRC regulations for the disposal of so-called 'low-level' radioactive waste will be met in the absence of a disposal facility (dump). This issue

<sup>82</sup> Pet. at 5. A United States Government Accountability Office Report provides some background concerning the present situation, about which there is no dispute. U.S. Government Accountability Office, LOW LEVEL RADIOACTIVE WASTE Status of Disposal Availability in the United States and Other Countries, GAO 08-813T (May 20, 2008) [GAO Report]. The GAO Report explains that a LLRW disposal facility located in Barnwell, South Carolina, currently receives about 99 percent of the nation's Class B and C waste. However, after June 30, 2008, the Barnwell facility will be closed to generators of LLRW except ones located in States that are part of the Atlantic Compact (South Carolina, Connecticut, and New Jersey). LLRW generators in Virginia therefore are no longer able to send their Class B and C waste to the Barnwell facility. The GAO Report also explains that unless an off-site disposal facility becomes available, Greater-than-Class-C waste, if any, will also have to be managed onsite since DOE has not yet developed a disposal facility for that type of waste.

<sup>83</sup> Pet. at 5. We shall refer to this event as the "partial closure" of the Barnwell facility.

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<sup>&</sup>lt;sup>80</sup> 10 C.F.R. § 2.335(a).

<sup>&</sup>lt;sup>81</sup> 69 Fed. Reg. at 2221; <u>Private Fuel Storage, L.L.C.</u> (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 325 (1999); <u>Arizona Pub. Serv. Co.</u> (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155 (1991).

must be addressed in order for the [NRC] to grant an operating license with credibility."<sup>84</sup> BREDL also alleges that Dominion's ER for the COL Application fails to explain "the ongoing onsite management and potential environmental impact at the reactor site of keeping so-called 'low-level' waste from operations on the site of generation."<sup>85</sup> In substance, Contention One alleges that Dominion's Final Safety Analysis Report (FSAR) should have explained Dominion's plan for complying with NRC regulations governing the management of LLRW in the absence of an off-site disposal facility, and that Dominion's COL ER should have examined the environmental consequences of retaining LLRW at the North Anna site.<sup>86</sup> The first argument is a safety contention, and the second an environmental contention.

## a. <u>Analysis of Contention One under 10 C.F.R. § 2.309(f)(1)</u>

The first requirement we must consider is whether the contention provides a specific statement of the legal or factual issue to be raised.<sup>87</sup> Contention One is a "contention of omission, <u>i.e.</u>, one that claims, in the words of 10 C.F.R. § 2.309(f)(1)(vi), 'the application fails to contain information on a relevant matter as required by law . . . and the supporting reasons for the petitioner's belief.'"<sup>88</sup> In <u>Pa'ina Hawaii, LLC</u>, the Board found that a contention satisfied the requirement to provide a specific statement of the legal or factual issue sought to be raised by

<sup>84</sup> Id.

<sup>85</sup> <u>Id.</u> at 6.

<sup>87</sup> 10 C.F.R. § 2.309(f)(1)(i).

<sup>&</sup>lt;sup>86</sup> Although BREDL refers to "Class B, C or Greater-Than-C radioactive waste," Pet. at 5, we will focus upon Class B and Class C waste because the disposal of Greater-Than-Class-C waste is the responsibility of the federal government. 42 U.S.C. § 2021c(b)(1)(D). Thus, the disposal of Greater-Than-C radioactive waste is not directly affected by the partial closure of the Barnwell facility. Additionally, BREDL does not argue that Dominion lacks an off-site disposal facility for Class A waste.

<sup>&</sup>lt;sup>88</sup> <u>Pa'ina Hawaii, LLC</u> (Material License Application), LBP 06-12, 63 NRC 403, 413 (2006), <u>pet.</u> <u>for reconsideration denied</u>, CLI-06-25, 64 NRC 128 (2006) (dismissing applicant's appeal as untimely).

alleging that the application failed to describe the emergency procedures for a prolonged loss of electricity.<sup>89</sup> The requirement is met here as well because BREDL has adequately described the information it contends should have been included in the COL Application.

BREDL has also provided a brief explanation of the basis of Contention One, thereby satisfying 10 C.F.R. § 2.309(f)(1)(ii). BREDL has noted that at present there is no off-site disposal facility for the Class B and C waste that will be generated by the operation of proposed Unit 3. It has adequately identified, either directly or by quoting statements it attributes to the COL Application, the NRC regulations that govern Dominion's storage of LLRW.<sup>90</sup> Among the provisions cited are 10 C.F.R. Part 20 and 10 C.F.R. Part 50, Appendix I. And BREDL emphasizes that, although Dominion claims it will comply with the NRC regulations, it fails to explain how it will do so in the absence of an off-site disposal facility.<sup>91</sup> In <u>Pa'ina Hawaii, LLC</u>, the Board found that the petitioner had adequately explained the basis of its contention by identifying the regulation that allegedly required the applicant to describe its emergency procedures for a prolonged loss of electricity.<sup>92</sup> Here also, the petitioner has adequately explained the basis of its belief that the Application omits information necessary to satisfy the governing NRC regulations.

Contention One is within the scope of this proceeding, as required by Section 2.309(f)(1)(iii). The scope of the proceeding is defined by the Commission in its

<sup>91</sup> <u>Id.</u> at 5-7.

<sup>&</sup>lt;sup>89</sup> <u>Id.</u>

<sup>&</sup>lt;sup>90</sup> Pet. at 6-7. As we explain <u>infra</u> pp. 30-32, BREDL has attributed to the North Anna COL Application statements that are actually from another application, but the effect of that error is minimal because the North Anna Application contains similar statements.

<sup>&</sup>lt;sup>92</sup> <u>See Pa'ina</u>, LBP 06-12, 63 NRC at 414.

initial hearing notice and order referring the proceeding to the Licensing Board.<sup>93</sup> Any contention that falls outside the specified scope of the proceeding is inadmissible.<sup>94</sup> The Notice of Hearing and Opportunity to Petition for Leave to Intervene for this proceeding<sup>95</sup> explained that the Licensing Board would consider Dominion's Application under Part 52 for a COL for North Anna Unit 3. Contention One challenges the legal sufficiency of that Application and is therefore within the scope of the proceeding.<sup>96</sup>

To satisfy Section 2.309(f)(1)(iv), the petitioner must demonstrate that a contention asserts an issue of law or fact that is "material to the findings the NRC must make to support the action that is involved in the proceeding,"<sup>97</sup> that is to say, the subject matter of the contention must impact the grant or denial of a pending license application.<sup>98</sup> "Materiality" requires the petitioner to show why the alleged error or omission is of possible significance to the result of the proceeding.<sup>99</sup> This means that there must be some significant link between the claimed deficiency and the agency's ultimate determination whether the license applicant will adequately protect the health and safety of the public and the environment.<sup>100</sup>

<sup>95</sup> 73 Fed. Reg. 12,760 (Mar. 10, 2008).

<sup>96</sup> <u>See Pa'ina</u>, LBP 06-12, 63 NRC at 414.

97 10 C.F.R. § 2.309(f)(1)(iv).

<sup>99</sup> PFS, LBP-98-07, 47 NRC at 179.

<sup>100</sup> <u>Id.</u> at 180.

<sup>&</sup>lt;sup>93</sup> <u>Duke Power Co.</u> (Catawba Nuclear Station, Units 1 and 2), ALAB-825, 22 NRC 785, 790-91 (1985).

<sup>&</sup>lt;sup>94</sup> <u>See Portland Gen. Elec. Co.</u> (Trojan Nuclear Plant), ALAB-534, 9 NRC 287, 289-90 n.6 (1979).

<sup>&</sup>lt;sup>98</sup> <u>Private Fuel Storage, L.L.C.</u> (Independent Spent Fuel Storage Installation), LBP-98-07, 47 NRC 142, 179-80 (1998), <u>aff'd as to other matters</u>, CLI-98-13, 48 NRC 26 (1998).

Dominion's plan for LLRW storage at the North Anna site is "material to the findings the NRC must make to support the action that is involved in the proceeding."<sup>101</sup> The NRC Staff states that, as part of its COL Application, Dominion has requested

a license under 10 C.F.R. Part 30, which would authorize [Dominion] to possess and store the low-level radioactive waste that is the subject of proposed Contention 1 if the Application is ultimately granted. Application, Part 1, at 1. The material would be stored in accordance with the requirements of 10 C.F.R. Part 20. <u>See, e.g.</u>, 10 C.F.R. §§ 20.1801, 1802.<sup>102</sup>

Thus, the COL Application seeks NRC authorization for the possession and storage of LLRW in compliance with the standards for protection against radiation in 10 C.F.R. Part 20. If Dominion is unable to find a replacement for the Barnwell facility, Class B and C waste from Unit 3 will have to be stored at the site, and Dominion's plan for providing extended on-site storage will be material to the determinations the NRC Staff must make under Parts 20 and 30. We understand the Staff to have acknowledged as much.<sup>103</sup> Similarly, the COL regulations require the application to address, among other things, "[t]he kinds and quantities of radioactive materials expected to be produced in the operation and the means for controlling and limiting radioactive effluents and radiation exposures within the limits set forth in part 20 of this chapter.<sup>\*104</sup> Thus, the Applicant's plan for managing the radioactive waste that the proposed reactor will generate in compliance with the limits in Part 20 is also material under Part 52.

<sup>&</sup>lt;sup>101</sup> 10 C.F.R. § 2.309(f)(1)(iv).

<sup>&</sup>lt;sup>102</sup> Staff Ans. at 22.

<sup>&</sup>lt;sup>103</sup> <u>See id.;</u> Tr. at 51-53.

<sup>&</sup>lt;sup>104</sup> 10 C.F.R. § 52.79(a)(3). The information need not be submitted again if it was previously provided to the Commission in connection with an ESP and certain other conditions are satisfied, <u>id.</u> § 52.79(b)(1), but the important point is that the information must be supplied to the NRC.

Contention One is also material to compliance with NEPA and the NRC's regulations implementing NEPA.<sup>105</sup> In particular, the environmental report prepared for a COL application must address, among other things, the environmental costs of "management of low-level wastes and high-level wastes related to uranium fuel cycle activities." <sup>106</sup> The analysis must be based on Table S-3, entitled "Table of Uranium Fuel Cycle Environmental Data," but the Table "may be supplemented by a discussion of the environmental significance of the data set forth in the table as weighed in the analysis for the proposed facility."<sup>107</sup> Also, "Table S-3 does not include health effects from the effluents described in the Table," and that issue, as well as others specifically noted, "may be the subject of litigation in the individual licensing proceedings."<sup>108</sup> The NRC's Generic Environmental Impact Statement for License Renewal of Nuclear Plants explains that "[t]he environmental impacts of on-site LLW management activities, including interim storage, result principally from exposure to radioactivity. Workers receive external doses from exposure to radiation while handling and packaging the waste materials and from periodic inspections of the packaged materials and any other handling operations required during interim storage."<sup>109</sup> Thus, the increased need for interim storage of LLRW because of the closure of the Barnwell facility implicates the health of plant employees, an issue that Table S-3 does not resolve. Because the environmental consequences of long-term interim storage of LLRW is a material

<sup>107</sup> Id.

<sup>&</sup>lt;sup>105</sup> See 10 C.F.R. Part 51.

<sup>&</sup>lt;sup>106</sup> 10 C.F.R. § 51.51(a).

<sup>&</sup>lt;sup>108</sup> <u>Id.</u> § 51.51(b), n.1 to Table S-3.

<sup>&</sup>lt;sup>109</sup> NUREG-1437, <u>Generic Environmental Impact Statement for License Renewal of Nuclear</u> <u>Plants</u>, § 6.4.3.2 (May 1996). As discussed <u>infra</u> p. 34, this document was cited and relied upon by the NRC Staff in the Final Environmental Impact Statement [FEIS] for the North Anna ESP, and we may therefore consider it here.

issue under NEPA and Table S-3 does not resolve all such consequences, Contention One is material to compliance with NEPA and the NRC's implementing regulations.

We disagree, however, with BREDL's theory that, because of the lack of an off-site disposal facility, Dominion might have to comply with the regulations in 10 C.F.R. Part 61, which concern licensing requirements for land disposal of radioactive waste.<sup>110</sup> BREDL assumes that, if Dominion cannot find an off-site disposal facility for the LLRW generated by its existing reactors and proposed Unit 3, Dominion might eventually need a permit under Part 61 for the extended on-site storage of LLRW. In BREDL's view, long-term storage on site is equivalent to disposal. We doubt that this theory is correct. A Part 61 permit for the land disposal of radioactive waste is required for those who "receive from others, possess and dispose of wastes containing or contaminated with source, byproduct or special nuclear material."<sup>111</sup> Thus, the Part 61 regulations apply to disposal of LLRW, not to storage, and the possibility that storage may last longer than originally planned would not necessarily constitute disposal. In any event, Dominion is not seeking an authorization for a LLRW disposal facility in this proceeding. Even assuming arguendo that Dominion might someday require a permit under Part 61 for a disposal facility, that issue is too speculative at present and is therefore not "material to the findings the NRC must make to support the action that is involved in" the present proceeding.<sup>112</sup> Nevertheless, even though BREDL cannot rely upon the Part 61 regulations, we find for the reasons previously stated that Contention One is material to the findings the NRC must make under other regulations that do apply to Dominion's Application.

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<sup>&</sup>lt;sup>110</sup> Pet. at 6.

<sup>&</sup>lt;sup>111</sup> 10 C.F.R. § 61.10.

<sup>&</sup>lt;sup>112</sup> <u>Id.</u> § 2.309(f)(1)(iv).

Section 2.309(f)(1)(v) requires the petitioner to provide a concise statement of the facts that support its position and upon which the petitioner intends to rely at the hearing. Dominion argues that BREDL has failed to provide "any facts, expert opinion, or references to documents indicating that onsite storage of waste (if necessary) would pose any significant safety or security risk," and that in the absence of such support Contention One must fail.<sup>113</sup> However, "the pleading requirements of 10 C.F.R. § 2.309(f)(1)(v), calling for a recitation of facts or expert opinion supporting the issue raised, are inapplicable to a contention of omission beyond identifying the regulatively required missing information."<sup>114</sup> Thus, for a contention of omission, the petitioner's burden is only to show the facts necessary to establish that the application omits information that should have been included. The facts relied on need not show that the facility cannot be safely operated, but rather that the application is incomplete. If the Applicant cures the omission, the contention will become moot.<sup>115</sup> Then, BREDL must timely file a new or amended contention if it intends to challenge the sufficiency of the new information supplied by the Applicant.<sup>116</sup> It is at that point that BREDL will have to show that Dominion's plan for extended on-site storage of Class B and C waste would pose a significant safety or security risk. To require BREDL to make that showing now would require it to challenge the adequacy of a plan that Dominion has not yet provided. We will not impose such an unreasonable burden.

BREDL has met its burden to show that the COL Application omits information necessary for the NRC to authorize on-site management of LLRW absent a replacement for the Barnwell facility. Neither Dominion nor the Staff disputes that Dominion no longer has an off-

<sup>116</sup> Id.

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<sup>&</sup>lt;sup>113</sup> Dom. Ans. at 16.

<sup>&</sup>lt;sup>114</sup> <u>Pa'ina</u>, LBP-06-12, 63 NRC at 414.

<sup>&</sup>lt;sup>115</sup> <u>Duke Energy Corp.</u> (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 383 (2002).

site disposal facility for Class B or C waste from the North Anna nuclear power reactors. The LLRW previously disposed of at the Barnwell facility will have to be managed on site if an alternative disposal facility is not available. But the Application fails to explain how Dominion will manage LLRW at the North Anna Power Station in the absence of an off-site land disposal facility.<sup>117</sup> For the reasons previously stated, that information is material to the license requested in the COL Application. BREDL does not allege, and is not required to show, that Dominion is incapable of providing long-term storage for LLRW at the North Anna site in compliance with NRC regulations. It is sufficient that BREDL has shown that the present Application omits the information necessary to demonstrate that capability.<sup>118</sup> Accordingly, Contention One has sufficient factual support, as required by 10 C.F.R. § 2.309(f)(1)(v).

In addition, Dominion's FSAR itself supports BREDL's position that the COL Application

should be supplemented to explain how Dominion will manage Class B and C waste without an

off-site disposal facility. Section 11.4 of the North Anna FSAR, entitled "Solid Waste

Management System," incorporates Section 11.4 of the Design Control Document (DCD), which

also describes the Solid Waste Management System. Section 11.4.1 of the DCD states:

On-site storage space for a six-month volume of packaged waste is provided in the radwaste building. Depending on the availability and accessibility of adequate waste repositories in the future, NUREG-0800, Standard Review Plan 11.4 and BTP – ETSB11-3 (Reference 11.4-1) Solid Waste Management System, DRAFT

<sup>&</sup>lt;sup>117</sup> <u>See infra</u> pp. 30-32.

<sup>&</sup>lt;sup>118</sup> Dominion notes that, in a recent press release, the NRC expressed confidence that "nuclear power plants . . . have the space, expertise and experience needed to store radioactive wastes for extended periods." Dom. Ans. at 16-17 (quoting NRC News Release 08-103, "NRC Updates Guidance to Licensees for Extended Storage of Low-Level Radioactive Waste" (May 29, 2008)). Nothing in this ruling is intended to express any disagreement with that statement, nor have we determined that Dominion will be unable to manage the Class B and C waste it generates in compliance with NRC regulations absent a land disposal facility. All that we decide is that the COL Application fails to explain how Dominion will achieve compliance in the absence of a land disposal facility, and that such information should be included in the Application given the uncertainty that Dominion will find a replacement land disposal facility by the time Unit 3 begins operation.

Rev. 3 – April 1996, Appendix 11.4-A, Design Guidance for Temporary Storage of Low Level Radioactive Waste provide guidance for construction and management of a temporary storage facility including up to five years waste storage. This temporary storage facility and an associated overall site waste management plan is intended to allow the station to operate while methods for further waste minimization and volume reduction are considered, such as the design and construction of additional volume reduction facilities, as necessary, and then the processing of the wastes that may have been stored during the construction of those facilities. Additionally, the five-year duration is to allow time for the regional state compacts to create additional low-level waste disposal sites. The inclusion of a temporary storage facility and an overall site management plan per NUREG-0800 Standard Review Plan 11.4 and BTP – ETSB 11-3 (Reference 11.4-1), Draft Rev. 3 - April 1996, Appendix 11.4-A, may be required (COL 11.4-4-A).<sup>119</sup>

The DCD thus acknowledges the substance of Contention One – that absent an off-site

LLRW land disposal facility, Dominion may need to construct additional waste storage capacity, develop an overall site waste management plan, or both. But Dominion has not explained in the COL Application the specific actions it will take if it lacks a land disposal facility for its Class B and C waste when Unit 3 begins operations. Nor has Dominion attempted to demonstrate in the Application that, absent access to a land disposal site, it can comply with NRC regulations using only its existing facilities, Instead, apart from the paragraph quoted above, the Application assumes the continued availability of a land disposal facility.<sup>120</sup>

Under Section 2.309(f)(1)(vi), when an application is alleged to be deficient, the petitioner must identify the deficiencies and provide supporting reasons for its position that such information is required. Any contention that meets these requirements "necessarily presents a genuine dispute with the Applicant on a material issue in compliance with 10 C.F.R. § 2.309(f)(1)(vi)."<sup>121</sup> BREDL has adequately identified the deficiencies that form the basis of

<sup>121</sup> <u>Pa'ina</u>, LBP 06-12, 63 NRC at 414.

<sup>&</sup>lt;sup>119</sup> GE-Hitachi Nuclear Energy, <u>ESBWR Standard Plant Design – Revision 4 to Design Control</u> <u>Document – Tier 1 and Tier 2</u>, 11.4-2 (Sept. 28, 2007) (emphasis added). Dominion has cited Table 11.4-1 of the DCD (Dom. Ans. at 17), so we may appropriately consider related information contained in the same part of the document.

<sup>&</sup>lt;sup>120</sup> <u>See infra</u> note 128.

Contention One. BREDL states that Dominion's COL ER "provides nothing in terms of the ongoing on-site management and potential environmental impact at the reactor site of keeping so-called 'low-level' waste from operations on the site of generation."<sup>122</sup> BREDL also states that "[t]he fact that there is not currently a site licensed to take the full range of wastes that North Anna 3 will generate if operated is not mentioned" in the FSAR, that the Applicant fails to explain how it will fulfill its plan to comply with applicable regulations in the absence of a licensed disposal site, and that "[a]bsent any known disposal means, the applicant should at least analyze the impacts of all the possible alternatives for its [LLRW] disposal."<sup>123</sup> For the same reasons explained above concerning BREDL's compliance with Sections 2.309(f)(1)(iv) and (v), BREDL has satisfactorily explained why further information is required concerning Dominion's plans for on-site management of Class B and C waste. BREDL has therefore established a genuine dispute with the Applicant on a material issue.

It is true, as Dominion points out, that in attempting to support Contention One, BREDL has mistakenly quoted language that is not actually in the North Anna COL Application, but is in the COL Application submitted by the Tennessee Valley Authority for new reactors at the Bellefonte site near Scottsboro, Alabama.<sup>124</sup> BREDL is also a participant in the Bellefonte proceeding, and it evidently confused the two applications. Petitioners such as BREDL that are not represented by counsel will be held to less rigid standards for pleading, although a totally deficient petition will not be admitted.<sup>125</sup> BREDL's mistake does not render the petition totally

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<sup>&</sup>lt;sup>122</sup> Pet. at 6.

<sup>&</sup>lt;sup>123</sup> <u>Id.</u> at 7.

<sup>&</sup>lt;sup>124</sup> Dom. Ans. at 14.

<sup>&</sup>lt;sup>125</sup> <u>Shieldalloy Metallurgical Corp.</u> (Cambridge, Ohio Facility), CLI-99-12, 49 NRC 347, 354 (1999); <u>Pub. Serv. Elec. & Gas Co.</u> (Salem Nuclear Generating Station, Units 1 and 2), ALAB-136, 6 AEC 487 (1973).

deficient. If BREDL were disputing the accuracy of statements in the North Anna COL Application, we would need to know the precise statements BREDL is contesting. But for a contention of omission, it is sufficient for the petitioner to provide an "identification of each failure and the supporting reasons for the petitioner's belief."<sup>126</sup> BREDL has described the information it contends should have been included in the North Anna COL Application and the reasons for its belief.

In addition, BREDL's error is of minimal importance because Section 3.5 of the North Anna ER contains a statement identical to the language BREDL quoted from Section 3.5 of the Bellefonte COL Application.<sup>127</sup> And the corresponding section of the North Anna FSAR contains text with the same material omission as the language BREDL mistakenly quoted from the Bellefonte FSAR.<sup>128</sup> BREDL's point, that the North Anna FSAR relies on an off-site land disposal facility and fails to explain how LLRW will be managed in the absence of such a facility, is valid even though it quoted the wrong FSAR. Given the similar language in the North Anna and Bellefonte documents and the fact that BREDL clearly identified the deficiency that is the

# <sup>126</sup> 10 C.F.R. § 2.309(f)(1)(vi).

<sup>&</sup>lt;sup>127</sup> Section 3.5 of the North Anna COL ER refers to Section 3.5 of the ESP ER, which states in relevant part that "[r]adioactive waste management systems would be designed to minimize releases from reactor operations to values as low as reasonably achievable (ALARA). These systems would be designed and maintained to meet the requirements of 10 CFR 20 and 10 CFR 50, Appendix I." This is equivalent to the language BREDL quotes at page 6 of the Petition from the Bellefonte COL ER.

<sup>&</sup>lt;sup>128</sup> BREDL's Petition at 7 quotes Section 11.4.5 of the Bellefonte FSAR, which states that the purpose of the process control program for radioactive waste management is "to provide the necessary controls such that the final waste product meets applicable federal regulations . . ., state regulations, and disposal site waste form requirements for burial at a low level waste . . . disposal site that is licensed in accordance with 10 CFR Part 61." Section 11.4 of the North Anna FSAR incorporates the same section of the DCD, which states in relevant part that the Solid Waste Management System "is designed to package the wet and dry types of radioactive solid waste for off-site shipment and disposal, in accordance with the requirements of applicable NRC and DOT regulations." DCD at 11.4-1. Thus, both statements assume that radioactive waste will be shipped off-site for disposal.

basis of Contention One, we will not dismiss BREDL's contention because it mistakenly quoted the wrong documents. BREDL has met the requirement to identify the specific deficiency in the Application and the reasons for its belief.

We therefore conclude that Contention One satisfies the requirements of Section 2.309(f)(1). Dominion and the NRC Staff do not contend that Contention One, construed as a safety contention, was resolved in the ESP proceeding. Dominion and the Staff do argue that we may not consider Contention One insofar as it relates to environmental matters because the environmental consequences of the closure of the Barnwell facility were resolved by the Staff in the FEIS.<sup>129</sup> We therefore turn to that issue.

## b. Analysis of Contention One under 10 C.F.R. § 52.39

Dominion and the NRC Staff argue that, in the FEIS prepared for the North Anna ESP, the Staff examined and decided that the environmental impact of the partial closure of the Barnwell facility on the North Anna site would be insignificant. Accordingly, they contend that BREDL may not challenge the COL ER based on its alleged failure to revisit that issue.<sup>130</sup> The Staff's determination in the FEIS, the Staff and Dominion argue, is sufficient to invoke the preclusive effect of 10 C.F.R. § 52.39(a)(2) and prevent us from admitting Contention One as an environmental contention. To resolve this question, we must consider whether the Staff in fact considered and resolved the environmental impact of the partial closure of the Barnwell facility in the FEIS, whether it was required to do so, and whether BREDL could have litigated its disagreement with the Staff's determination in the ESP proceeding.<sup>131</sup> If we give affirmative answers to each of those questions, then the issue was resolved in the ESP proceeding, and

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<sup>&</sup>lt;sup>129</sup> Staff Ans. at 18; Dom. Ans. at 15-16.

<sup>&</sup>lt;sup>130</sup> Dom. Ans. at 15; Staff Ans. at 19.

<sup>&</sup>lt;sup>131</sup> <u>See supra</u> p. 18.

we may not consider Contention One to the extent it challenges the COL ER for failing to address it. As the Commission stated in approving the ESP for the North Anna facility, "in the environmental context, the contents of the FEIS bounds the reach of both issue preclusion and Staff inquiry into new and significant information in a future . . . COL proceeding referencing an ESP granted for the North Anna ESP site."<sup>132</sup>

Dominion had not selected a final reactor design when it submitted the ESP Application, but was considering seven different designs.<sup>133</sup> The applicant need not have selected a particular reactor design at the ESP stage or applied for a construction permit or COL, but it must include in the application "[t]he specific number, type, and thermal power level of the facilities, or range of possible facilities, for which the site may be used."<sup>134</sup> This provides a basis upon which the Staff may evaluate the environmental consequences of reactor construction and operation, and that is what the NRC Staff did in the FEIS for the North Anna ESP. Because there was no final design, the FEIS was based upon a "plant parameter envelope (PPE), which is a set of values of plant design parameters that an ESP applicant expects will bound the design characteristics of the reactor or reactors that might be built at a selected site."<sup>135</sup> The FEIS used the PPE to evaluate the environmental impacts of both reactor construction and reactor operation.<sup>136</sup> Similarly, "[t]he PPE concept was used to provide an upper bound on liquid

<sup>&</sup>lt;sup>132</sup> <u>Dominion Nuclear North Anna, LLC</u> (Early Site Permit for North Anna ESP Site), CLI-07-27, 66 NRC 215, 259 (2007).

<sup>&</sup>lt;sup>133</sup> North Anna ESP Site, LBP-07-09, 65 NRC at 550.

<sup>&</sup>lt;sup>134</sup> 10 C.F.R. § 52.17(a)(1)(i).

<sup>&</sup>lt;sup>135</sup> NUREG-1811, <u>Environmental Impact Statement for an Early Site Permit (ESP) at the North</u> <u>Anna ESP Site: Final Report</u>, at xxiii-xxiv (Dec. 2007) [hereinafter FEIS].

<sup>&</sup>lt;sup>136</sup> <u>Id.</u> at 4-1 to 4-51, 5-1 to 5-70.

radioactive effluents, gaseous radioactive effluents, and solid radioactive waste releases.<sup>3137</sup> The FEIS devoted twenty pages to "Fuel Cycle Impacts and Solid Waste Management.<sup>3138</sup>

The main text of the Draft Environmental Impact Statement (DEIS) examined radioactive waste management but did not directly address the effect of the closure of the Barnwell facility on the North Anna site. However, public comments on the DEIS argued that, because Virginia sources of LLRW would lose access to the Barnwell facility in 2008, the Staff was required to examine the environmental impact of that change. These comments and the Staff's response are included in an appendix to the FEIS.<sup>139</sup> The Staff referred to the NRC's <u>Generic</u> <u>Environmental Impact Statement for License Renewal of Nuclear Plants</u>, noting that it can be used as an information source for other licensing purposes.<sup>140</sup> The Generic Environmental Impact Statement acknowledged that "[I]ong-term storage of [LLRW] at reactor sites has become necessary because of the slow pace of development of new off-site disposal facilities," but concluded that in general the environmental impact of long-term interim storage of LLRW generated by nuclear power plants with renewed licenses would be small.<sup>141</sup> The Staff also noted in its response to the public comments that "[e]xtended storage is . . . covered by the existing regulatory framework."<sup>142</sup> The Staff therefore determined that no changes would be made to the main text of the FEIS as a result of the comments concerning the partial closure of

<sup>140</sup> Id. at 3-237.

142 FEIS at 3-237.

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<sup>&</sup>lt;sup>137</sup> <u>Id.</u> at 3-13.

<sup>&</sup>lt;sup>138</sup> <u>Id.</u> at 6-1 to 6-20.

<sup>&</sup>lt;sup>139</sup> <u>Id.</u> at 3-236 to 3-237.

<sup>&</sup>lt;sup>141</sup> NUREG-1437, <u>Generic Environmental Impact Statement for License Renewal of Nuclear</u> <u>Plants</u>, §§ 6.4.4.5, 6.4.4.6 (May 1996).

the Barnwell facility.<sup>143</sup> Thus, the Staff considered the impact of long-term storage of LLRW on the North Anna site, concluded that it would not be significant, and on that basis determined that it did not need to further address that issue in the FEIS.

Because the Staff resolved the issue, we must determine whether it was required to do so in the ESP proceeding. BREDL acknowledges that "the FEIS did contain a discussion of the environmental impacts of waste disposal," but it asserts that "the discussion was academic because there was no actual proposal to generate waste."<sup>144</sup> BREDL states that it was not required to litigate the issue raised by Contention One during the ESP proceeding because at the time there was not a "proposal for major federal action that would have led to the generation of radioactive waste or other significant radiological impacts. The only proposal before the NRC was for the issuance of an ESP that would allow [Dominion] to prepare the North Anna site and conduct 'preliminary construction activities."<sup>145</sup> BREDL would therefore have us conclude that it may litigate Contention One in this proceeding because the discussion of radioactive waste management in the FEIS was merely "academic."<sup>146</sup>

BREDL underestimates the environmental issues that the NRC Staff must consider in the ESP proceeding. An ESP authorizes "approval of a site for one or more nuclear power facilities."<sup>147</sup> Thus, Dominion's request was for the approval of the North Anna site for the construction and operation of additional nuclear power facilities, even though further permitting is necessary for the actual construction and operation of those facilities. The ER submitted with

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<sup>&</sup>lt;sup>143</sup> <u>Id.</u>

<sup>&</sup>lt;sup>144</sup> BREDL Reply at 3.

<sup>&</sup>lt;sup>145</sup> <u>Id.</u> (citing FEIS at 1-8).

<sup>&</sup>lt;sup>146</sup> <u>Id.</u> at 3.

<sup>&</sup>lt;sup>147</sup> 10 C.F.R. § 52.12.

the ESP application "may address one or more of the environmental effects of construction and operation of a reactor, or reactors, which have design characteristics that fall within the site characteristics and design parameters of the early site permit application," and it "<u>must address</u> all environmental effects of construction and operation necessary to determine whether there is any obviously superior alternative to the site proposed."<sup>148</sup> In Chapter 5 of the ER for its ESP Application, Dominion discussed various environmental consequences of reactor operation at the site, including the radiological impacts of normal operation, environmental impacts of waste, and uranium fuel cycle impacts. Dominion specifically assessed the environmental impacts of solid LLRW from operations and from decontamination and decommissioning.<sup>149</sup>

The DEIS prepared at the ESP stage "must . . . include an evaluation of the environmental effects of construction and operation of a reactor, or reactors, which have design characteristics that fall within the site characteristics and design parameters for the early site permit application . . . <u>to the extent addressed in the early site permit environmental report</u>."<sup>150</sup> Because the ESP addressed the environmental consequences of radioactive waste management at the North Anna site, the Staff was required to address those consequences in the DEIS. And when the NRC Staff received comments criticizing the failure of the DEIS to take into account the impact of the partial closure of the Barnwell facility, the NRC Staff was required to respond to those comments in the FEIS, as it in fact did.<sup>151</sup> The Staff's resolution of the issue in the FEIS was therefore not merely academic. On the contrary, it was mandated by the regulations governing the preparation of the DEIS and the FEIS.

<sup>151</sup> <u>Id.</u> § 51.91(a)(1).

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<sup>&</sup>lt;sup>148</sup> <u>Id.</u> § 51.50(b)(2) (emphasis added).

<sup>&</sup>lt;sup>149</sup> ESP ER at 3-5-172 to 3-5-173 (Revision 9).

<sup>&</sup>lt;sup>150</sup> 10 C.F.R. § 51.75(b) (emphasis added).

The last question we must answer is whether BREDL had the opportunity to challenge the Staff's determination in the ESP proceeding. It clearly did. The "Notice of Hearing and Opportunity to Petition for Leave to Intervene" for the ESP proceeding made clear that petitioners could challenge the adequacy of the NRC's NEPA compliance.<sup>152</sup> The notice explained that the NRC Staff would prepare an FEIS, and that the Presiding Officer in the proceeding would, among other things,

(1) Determine whether the requirements of Section 102(2) (A), (C), and (E) of NEPA and subpart A of 10 CFR part 51 have been complied with in the proceeding; (2) independently consider the final balance among the conflicting factors contained in the record of the proceeding with a view to determining the appropriate action to be taken; and (3) determine, after considering reasonable alternatives, whether the ESP should be issued, denied, or appropriately conditioned to protect environmental values.<sup>153</sup>

If BREDL believed that the Staff erred when it concluded in the appendix to the FEIS that the partial closure of the Barnwell disposal facility would not have a significant effect, it could have filed an appropriate contention to that effect in the ESP proceeding. Given that the Staff examined and decided whether the partial closure of Barnwell would have a significant environmental impact at the Barnwell site, that the Staff was required to examine and decide this issue, and that BREDL had the opportunity to challenge the Staff's conclusion in the ESP proceeding, the issue has been resolved within the meaning of Section 52.39(a)(2).

BREDL has not shown that any of the exceptions in Section 52.39 applies. It merely points out that Dominion has now applied for a COL in which it actually proposes to build and operate a new nuclear power plant that will generate radioactive waste.<sup>154</sup> As we have explained, Dominion's plan to operate additional reactors at the North Anna site is not new

<sup>&</sup>lt;sup>152</sup> 68 Fed. Reg. 67,489 (Dec. 2, 2003).

<sup>&</sup>lt;sup>153</sup> <u>Id.</u> at 67,489.

<sup>&</sup>lt;sup>154</sup> BREDL Reply at 3.

information, the Staff examined the environmental consequences of the radioactive waste that will be generated by the new reactors in the DEIS and FEIS, and the claim that the partial closure of the Barnwell facility will have a significant environmental impact at the site was rejected by the NRC Staff. Because the FEIS resolved the environmental issue BREDL wants to litigate in this proceeding, its challenge to the COL ER is not properly before us.

We therefore admit Contention One as a safety contention based on the omission of necessary information from the FSAR. We will not admit it as an environmental contention because it was resolved in the ESP proceeding.<sup>155</sup>

2. <u>Contention Two</u>. BREDL's second contention is that "Unit 3 Would be Built on Top of a Seismic Fault."<sup>156</sup> Dominion argues that we may not consider this contention because it was resolved in the ESP proceeding.<sup>157</sup> Dominion emphasizes that the NRC Staff and the Licensing Board for the ESP proceeding have already determined that the fault to which BREDL refers is not seismically active, and therefore BREDL's claim that Unit 3 will be built in "an active earthquake zone" is simply an attempt to revisit an issue previously resolved.<sup>158</sup> Dominion argues that its request for a variance for vibratory ground motion at the North Anna site (NAPS VAR 2.0-4), quoted at length on page 8 of the Petition, is not relevant to the question of whether

<sup>156</sup> Pet. at 7.

<sup>157</sup> Dom. Ans. at 19.

<sup>158</sup> <u>Id.</u> at 19-22.

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<sup>&</sup>lt;sup>155</sup> Contention One presents an issue that is common to numerous nuclear reactors. An equivalent contention has been filed in the Bellefonte proceeding, and similar contentions may be filed in connection with other license applications for new reactors. The Commission might want to consider in a rulemaking questions related to the management of LLRW that are likely to arise in multiple cases, such as whether facilities for the land disposal of Class B and C waste are likely to become available before the reactors that are the subject of currently pending license applications are expected to begin operation.

a seismic fault exists at the site.<sup>159</sup> "Thus, BREDL provides no basis to reopen the exhaustive characterization of the fault in the ESP proceeding."<sup>160</sup>

We agree that the seismic fault issue raised in this proposed contention was extensively evaluated and resolved in the ESP proceeding and that BREDL has failed to provide any basis to reopen the issue in this COL proceeding. The NRC Staff's Final Safety Evaluation Report (FSER) dedicated over 100 pages to the subject of "Geology, Seismology, and Geotechnical Engineering."<sup>161</sup> "[T]he staff examined the geology in the area of the ESP Site and concluded that 'no capable tectonic faults exist in the plant site area (5 mi) that have the potential to cause near-surface displacement' and further that 'no capable tectonic sources have been identified in the [Central Virginia Seismic Zone]."<sup>162</sup> The seismic fault issue was also extensively examined during the mandatory hearing conducted by the Licensing Board for the ESP proceeding.<sup>163</sup> The Licensing Board, like the NRC Staff, concluded that the faults found at the North Anna site did not meet the requirements to be classified as "capable."<sup>164</sup> According to Dr. Lettis, a Dominion witness at the ESP mandatory hearing, the fault referred to in BREDL's proposed contention has not been active in the last 200 million years.<sup>165</sup>

<sup>160</sup> <u>Id.</u> at 23.

<sup>162</sup> North Anna ESP Site, LBP-07-09, 65 NRC at 595-96 (quoting FSER at 2-168).

<sup>163</sup> <u>Id.</u> at 594-98.

<sup>164</sup> The requirements for a fault to be classified as "capable" are contained in Reg. Guide 1.165, "Identification and Characterization of Seismic Sources and Determination of Safe Shutdown Earthquake Ground Motion" (Mar. 1997). FSER at 2-178; <u>see also Dominion Nuclear North</u> <u>Anna LLC</u>, LBP-07-09, 65 NRC at 596 n.84.

<sup>165</sup> <u>North Anna ESP Site</u>, LBP-07-09, 65 NRC at 597.

<sup>&</sup>lt;sup>159</sup> <u>Id.</u> at 22-23.

<sup>&</sup>lt;sup>161</sup> NUREG-1835, <u>Safety Evaluation Report for an Early Site Permit (ESP) at the North Anna</u> <u>ESP Site</u>, at 2-140 to 2-251 (Sept. 2005) [hereinafter FSER].

As we have explained, Commission regulations bar the litigation of matters resolved in ESP proceedings.<sup>166</sup> BREDL has not shown that any of the exceptions in Section 52.39(b), (c), or (d) apply. Dominion's request for a variance for vibratory ground motion is not related to the fault(s) described in the Petitioner's proposed contention. The request for a variance was the result of additional information collected after the ESP spectra for Unit 3 were prepared. The ESP spectra were based on a competent material elevation of 76.2 m (250 ft). Information collected for the COL Application showed the actual elevation of the top of competent material (rock) was 83.3 m (273 ft). Dominion's request for a variance was to use the Safe-Shutdown Earthquake horizontal and vertical spectra for the 273 ft elevation, which is the appropriate elevation for competent material under Unit 3. FSAR Tables 2.0-202 and 2.0-203 show the spectral acceleration values over a range of frequency and the Unit 3 values are generally lower than the ESP values except at the lower frequencies where they vary at the third or fourth decimal place, which is not a significant difference. Therefore, further litigation of the geologic fault issue is foreclosed by Section 52.39(a)(2).

Contention Two also includes a general attack on Dominion's credibility.<sup>167</sup> BREDL claims that in 1967 evidence of seismic faults was found at the North Anna site.<sup>168</sup> BREDL further asserts that Virginia Electric and Power Company (VEPCO), Dominion's corporate parent, concealed this fact during proceedings that eventually led to the issuance of construction permits for North Anna Units 1 and 2, the reactors currently in operation at the site.<sup>169</sup> BREDL requests that we

<sup>167</sup> Pet. at 8-10.

<sup>168</sup> <u>Id.</u> at 8.

<sup>169</sup> <u>Id.</u> at 8-10.

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<sup>&</sup>lt;sup>166</sup> 10 C.F.R. § 52.39.

include and consider all documents in the case filed by North Anna Environmental Coalition during their extensive litigation of this matter and all documents in the NRC's records regarding the construction permits for North Anna Units 1 and 2. The proposed construction of a third reactor in close proximity to two existing nuclear reactors in an active earthquake zone must not be permitted.<sup>170</sup>

To provide the basis of an admissible contention, allegations of management improprieties or lack of integrity must be of more than historical interest. They must relate directly to the currently proposed licensing action.<sup>171</sup> We must therefore determine whether BREDL has established a sufficient relationship between the past misconduct it alleges and the present COL Application.

In March 1969, VEPCO requested construction permits for Units 1 and 2 at the North Anna Power Station.<sup>172</sup> Those permits were issued in February 1971, and VEPCO subsequently sought construction permits for Units 3 and 4. In August 1973, the NRC advised the Licensing Board that a geologic fault had been discovered at the North Anna site. The Licensing Board convened a proceeding to determine whether the fault required halting construction of Units 1 and 2 or the denial of construction permits for Units 3 and 4. On June 27, 1974, the Licensing Board concluded that the fault was not capable and without safety significance to any of the North Anna reactors.<sup>173</sup> The Appeal Board subsequently affirmed the Licensing Board's determination that the fault at the site had "been inactive for at least 500,000 years, and perhaps for as long as 200 million years."<sup>174</sup> That ruling was upheld by the United

<sup>173</sup> <u>Id.</u> at 481-82.

<sup>&</sup>lt;sup>170</sup> <u>Id.</u> at 10-11.

<sup>&</sup>lt;sup>171</sup> <u>Dominion Nuclear Connecticut, Inc.</u>, CLI-01-24, 54 NRC at 365; <u>Georgia Inst. of Tech.</u> (Georgia Tech Research Reactor), CLI-95-12, 42 NRC 111, 120 (1995).

<sup>&</sup>lt;sup>172</sup> <u>Virginia Elec. & Power Co.</u> (North Anna Power Station, Units 1 and 2), CLI-76-22, 4 NRC 480 (1976).

<sup>&</sup>lt;sup>174</sup> <u>Virginia Elec. & Power Co.</u> (North Anna Power Station, Units 1, 2, 3, and 4), ALAB-256, 1 NRC 10, 17 (1975).

States Court of Appeals for the District of Columbia Circuit.<sup>175</sup> Accordingly, construction continued on Units 1 and 2 and construction permits were issued for Units 3 and 4, although VEPCO did not actually construct the latter two units.<sup>176</sup>

The NRC conducted a separate proceeding concerning allegations that VEPCO supplied false information and made material omissions concerning the fault at the North Anna site. That case did "not concern the safety of the North Anna site, but rather whether VEPCO fulfilled its obligation in providing information about that site."<sup>177</sup> After proceedings before the Licensing Board and the Appeal Board, the Commission upheld some of the allegations that VEPCO made material false statements and omissions concerning the fault. The Commission imposed a \$32,000 fine on VEPCO, but it did not revoke VEPCO's license or reopen the safety proceeding.<sup>178</sup>

BREDL fails to connect those events to any issue relevant to this proceeding. Long after the conclusion of the original licensing proceedings concerning North Anna Units 1-4, the Licensing Board in the ESP proceeding revisited the seismic fault issue and concluded once more that it was not seismically active. BREDL has failed to establish any relationship between VEPCO's misconduct many years ago and the findings in the ESP proceeding, nor has it identified any connection between that misconduct and any other issue in the present COL proceeding.

Therefore, we will not admit Contention Two.

3. <u>Contention Three</u>. BREDL's third contention is that the Unit 3 cooling system will

<sup>177</sup> Id.

<sup>178</sup> <u>Id.</u> at 491-92.

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<sup>&</sup>lt;sup>175</sup> North Anna Envtl. Coal. v. NRC, 533 F.2d 655 (D.C. Cir. 1976).

<sup>&</sup>lt;sup>176</sup> <u>Virginia Elec. & Power Co.</u>, CLI-76-22, 4 NRC at 482.

not meet the requirements of Section 316 of the Clean Water Act (CWA),<sup>179</sup> and that the water supply will not be sufficient for plant cooling systems.<sup>180</sup> BREDL further states that the Commission must determine whether Unit 3 will "operate in compliance with federal, state, and local water regulations" during the expected 40-year operating life of Unit 3.<sup>181</sup>

BREDL's request that we evaluate whether Unit 3 will comply with CWA or state and local permitting requirements is outside the scope of this proceeding. In <u>Hydro Resources</u> the Commission made clear that licensing boards should not admit contentions alleging that the applicant must obtain permits from other agencies:

Whether non-NRC permits are required is the responsibility of bodies that issue such permits, such as the Federal Environmental Protection Agency, . . . or state and local authorities. To find otherwise would result in duplicate regulation as both the NRC and the permitting authority would be resolving the same question, i.e., whether a permit is required. Such a regulatory scheme runs the risk of Commission interference or oversight in areas outside of its domain. Nothing in our statute or rules contemplates such a role for the Commission.<sup>182</sup>

The Commission also explained that an applicant could not rely upon an NRC license to avoid obtaining all other applicable federal, state, or local permits.<sup>183</sup>

Hydro Resources is controlling here, where BREDL asks the Board to decide not only

that non-NRC permits will be required for Unit 3, but also whether Dominion will be able to

obtain permits from and comply with regulatory requirements imposed by other agencies. If

BREDL is concerned that Dominion might not comply with the CWA or state or local

<sup>179</sup> 33 U.S.C. § 1326 (providing for regulation of thermal discharges).

<sup>180</sup> Pet. at 11.

<sup>181</sup> <u>Id.</u> at 13.

<sup>182</sup> <u>Hydro Resources, Inc.</u> (292 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-98-16, 48 NRC 119, 120 (1998).

<sup>183</sup> <u>Id.</u> at 121.

requirements, it may communicate such concerns to the agencies that enforce those requirements. To ask that the NRC decide such questions would create precisely the duplicate regulation and interference or oversight in areas outside the NRC's domain that the Commission warned against in <u>Hydro Resources</u>. Because the proposed contention pertains to matters outside the NRC's jurisdiction, it is not within the scope of this proceeding.<sup>184</sup>

BREDL also alleges that the available water supply will not be sufficient for safe reactor operation.<sup>185</sup> Dominion argues that this issue was fully evaluated and resolved in the ESP proceeding, and BREDL has not identified any significant new information that would allow the issue to be revisited.<sup>186</sup> Dominion also states that "the assertions in Contention Three are simply vague rhetoric unsupported by any expert opinion, references, or other sources demonstrating any genuine material dispute."<sup>187</sup>

We agree that this issue was resolved in the ESP proceeding. The source of cooling water for both existing reactors at the site is Lake Anna, which was created as a source of cooling water for the North Anna Power Station. The cooling system for Unit 3 will be a closed cycle, combination dry and wet cooling tower system, with make-up water supplied from Lake Anna. The FEIS prepared for the North Anna ESP proceeding evaluated the hydrological and water-use effects of the operation of North Anna Unit 3 on Lake Anna.<sup>188</sup> In the FEIS, the NRC Staff concluded that operation of Unit 3 would have only small hydrological effects on Lake Anna, and that the water-use impacts would also be small except under drought conditions,

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<sup>&</sup>lt;sup>184</sup> 10 C.F.R. § 2.309(f)(1)(iii).

<sup>&</sup>lt;sup>185</sup> Pet. at 11.

<sup>&</sup>lt;sup>186</sup> <u>See</u> Dom. Ans. at 25.

<sup>&</sup>lt;sup>187</sup> <u>Id.</u> at 30.

<sup>&</sup>lt;sup>188</sup> FEIS at 5-4 to 5-13.

when the impact would be moderate.<sup>189</sup> The same issues were considered in detail by the Licensing Board for the ESP proceeding.<sup>190</sup>

BREDL now seeks to reargue the substance of the issues already resolved by both the NRC Staff and the Licensing Board for the ESP proceeding: whether the water resources of Lake Anna are adequate to provide cooling water for Unit 3 without severe hydrological or water-use impacts. BREDL has failed to point to any significant new evidence that would authorize us to reopen this issue. Accordingly, we may not admit Contention 3.<sup>191</sup>

We also note that BREDL has not provided any technical support for its claim that the water supply will not be sufficient for plant cooling purposes. Accordingly, we could not admit this contention even if it had not been resolved in the ESP proceeding.<sup>192</sup>

We therefore do not admit Contention Three.

4. <u>Contention Four</u>. BREDL states that "Unit 3 will not meet national emission

<sup>192</sup> 10 C.F.R. § 2.309(f)(1)(v).

<sup>&</sup>lt;sup>189</sup> <u>Id.</u> at 5-9, 5-11.

<sup>&</sup>lt;sup>190</sup> North Anna ESP Site, LBP-07-09, 65 NRC at 564-69.

<sup>&</sup>lt;sup>191</sup> 10 C.F.R. § 52.39. BREDL states in support of Contention Three that "Virginia has continually granted variances to Dominion under Section 316 of the CWA which allow excessive amounts of thermal pollution to be discharged into waters of the United States." Pet. at 11. Dominion argues that BREDL is collaterally estopped from raising thermal impacts to Lake Anna or other waters as a contention because it litigated this issue in the ESP proceeding. <u>See North Anna ESP Site</u>, LBP-06-24, 64 NRC at 360 (granting summary disposition in favor of Dominion because all parties – including BREDL – agreed that thermal impacts of the proposed wet/dry cooling tower system for Unit 3 would be negligible). We do not read Contention Three as an attempt to revisit the issue of thermal impacts to receiving waters. We interpret BREDL's reference to CWA variances for thermal pollution as an attempt to support the contention that the cooling system for Unit 3 will not meet CWA requirements. However, to the extent Contention Three might be interpreted to allege that the cooling system will cause adverse thermal impacts to Lake Anna or other waters, we agree that the issue was previously resolved and therefore may not be raised in this proceeding.

standards for radionuclides to the atmosphere."<sup>193</sup> As best we can determine from the oneparagraph argument offered in support of this contention, BREDL claims that Unit 3 will not comply with national emission standards for radionuclides promulgated pursuant to Section 112 of the Clean Air Act (CAA).<sup>194</sup> Section 112(c)(2) provides that the Environmental Protection Agency (EPA) Administrator is responsible for establishing national emissions standards for hazardous air pollutants, which are to be based upon EPA's determination of the maximum achievable control technology.

The difficulty with Contention Four, as BREDL acknowledges, is that there is no national emission standard for radionuclides in effect.<sup>195</sup> There is thus no national emission standard with which Dominion could comply. BREDL does not dispute any of the dose calculations presented in Dominion's COL Application, nor does it dispute that those calculated doses comply with all relevant NRC regulations. BREDL suggests, however, that the NRC is required to develop a national emission standard for radionuclides under CAA Section 112 because EPA has no standard in force. Section 112 imposes no such duty upon the NRC. On the contrary, CAA Section 112(d)(9) provides:

[n]o standard for radionuclide emissions from any category or subcategory of facilities licensed by the [NRC] . . . is required to be promulgated under this section if the Administrator determines, by rule, and after consultation with the [NRC], that the regulatory program established by the [NRC] pursuant to the Atomic Energy Act for such category or subcategory provides an ample margin of safety to protect the public health.<sup>196</sup>

Pursuant to this provision, the EPA Administrator found that "the NRC regulatory program for

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<sup>&</sup>lt;sup>193</sup> Pet. at 13.

<sup>&</sup>lt;sup>194</sup> 42 U.S.C. § 7412.

<sup>&</sup>lt;sup>195</sup> Pet. at 14.

<sup>&</sup>lt;sup>196</sup> 42 U.S.C. § 7412(d)(9).

licensed commercial nuclear power reactors provides an ample margin of safety to protect public health" and rescinded the National Emissions Standards for Hazardous Air Pollutants from nuclear power reactors licensed by the NRC.<sup>197</sup> Thus, the EPA Administrator determined that the NRC's existing regulatory program is adequate to protect public health.

Furthermore, any claim that the Commission is required to promulgate a more stringent standard for radionuclides would in substance be a challenge to the sufficiency of the NRC's radiation protection standards, which is barred in an adjudicatory proceeding.<sup>198</sup> The prohibition applies not only to a direct challenge to the validity of a regulation, but also to a claim that the NRC should promulgate requirements that are more stringent than those already included in its regulations.<sup>199</sup>

Accordingly, we do not admit Contention Four.

5. <u>Contention Five</u>. Contention Five states that "[t]he assumption and assertion that uranium fuel is a reliable source of energy is not supported in the combined operating license application."<sup>200</sup> BREDL cites several statements in Dominion's ER concerning the power generation benefits it expects Unit 3 to provide.<sup>201</sup> BREDL points out that the asserted benefits assume a reliable supply of uranium fuel for the new reactor. According to BREDL, worldwide uranium consumption currently exceeds worldwide uranium production, and therefore the ER is deficient because it ignores this deficit in claiming that Unit 3 will provide power generation

<sup>201</sup> <u>Id.</u> at 16.

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<sup>&</sup>lt;sup>197</sup> <u>See</u> National Emission Standards for Radionuclide Emissions From Facilities Licensed by the [NRC] and Federal Facilities not Covered by Subpart H, 60 Fed. Reg. 46,206, 46,210 (Sept. 5, 1995).

<sup>&</sup>lt;sup>198</sup> 10 C.F.R. § 2.335.

 <sup>&</sup>lt;sup>199</sup> <u>Florida Power & Light Co.</u> (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6,
53 NRC 138, 150-51 (2001).

<sup>&</sup>lt;sup>200</sup> Pet. at 14.

benefits to Dominion's service area.

Dominion and the NRC Staff argue that Contention Five is not material to any finding the

NRC must make. We disagree because the contention is relevant to the findings the NRC must

make under NEPA. The Commission's NEPA regulations provide:

[I]n a proceeding for the issuance of a combined license for a nuclear power reactor under part 52 of this chapter, the presiding officer will:

(1) Determine whether the requirements of section 102(2)(A), (C), and (E) of NEPA and the regulations in this subpart have been met;

(2) Independently consider the final balance among conflicting factors contained in the record of the proceeding with a view to determining the appropriate action to be taken; [and]

(3) Determine, after weighing the environmental, economic, technical, and other possible benefits against environmental and other costs, and considering reasonable alternatives, whether the combined license should be issued, denied, or appropriately conditioned to protect environmental values.<sup>202</sup>

Thus, the regulations mandate balancing the economic and other benefits of the

proposed new reactor against the environmental and other costs that the project may cause.

The specific statements in the ER that BREDL challenges concern the anticipated power

generation benefits of the proposed new Unit 3.<sup>203</sup> For example, BREDL challenges Dominion's

claim that "[t]he primary benefit of the proposed Unit 3 is the provision of baseload capacity

necessary to meet the needs of customers in the region served by [Dominion] . . . and to

maintain a reliable, stable supply of electricity within the Dominion Zone."<sup>204</sup> BREDL argues that

these and other benefits asserted by Dominion depend upon a steady supply of uranium fuel,

but that the imbalance between the supply and demand for uranium fuel makes such a supply

uncertain.<sup>205</sup> Because the power generation benefits Dominion asserts Unit 3 will provide are

<sup>204</sup> Id.

<sup>205</sup> <u>Id.</u>

<sup>&</sup>lt;sup>202</sup> 10 C.F.R. § 51.107(a)(1)-(3).

<sup>&</sup>lt;sup>203</sup> Pet. at 16.

relevant to the findings required by 10 C.F.R. § 51.107(a)(1)-(3), and because Contention Five questions the likelihood that those benefits will be realized, the contention is potentially "material to the findings the NRC must make to support the action that is involved in" the present COL proceeding under Part 52.<sup>206</sup>

Nevertheless, we decline to admit Contention Five because the Petitioner has failed to provide expert opinion, documents, or other sources to support its position that worldwide uranium supplies will be inadequate to permit the anticipated power production from North Anna Unit 3 during the license term. Therefore, BREDL has failed to satisfy the "support" requirement of 10 C.F.R. § 2.309(f)(1)(v), and we accordingly do not admit Contention Five.

Although BREDL cites several electronic documents that it claims support its position, materials cited by a petitioner as the basis for a contention are subject to scrutiny by the licensing board to determine whether, on their face, they actually support the facts alleged.<sup>207</sup> Here, the electronic documents BREDL relies upon do not support its allegation that future uranium fuel supplies will be inadequate to permit reactor operation during its period of license. In fact, one such document, published by the World Nuclear Association and entitled "Supply of Uranium," contradicts BREDL's factual argument.<sup>208</sup> It explains that "[m]easured resources of uranium, the amount known to be recoverable from orebodies, are . . . relative to costs and

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<sup>&</sup>lt;sup>206</sup> 10 C.F.R. § 2.309(f)(1)(iv). In the North Anna ESP proceeding, the Licensing Board considered the factors listed in 10 C.F.R. § 51.105(a)(1)-(3), which parallel those enumerated in 10 C.F.R. § 51.107(a)(1)-(3). North Anna ESP Site, LBP-07-09, 65 NRC at 602-16. In ruling that Contention Five is potentially material to the factors the NRC must consider in this COL proceeding, we do not decide, and need not decide, the extent to which determinations previously made in the North Anna ESP proceeding govern the evaluation of the factors listed in 10 C.F.R. § 51.107(a)(1)-(3). We decide only that Contention Five is potentially relevant to those factors, to the extent they have not already been resolved in the ESP proceeding.

<sup>&</sup>lt;sup>207</sup> See North Anna ESP Site, LBP-04-18, 60 NRC at 265. We may examine both the statements in the document that support the petitioner's assertions and those that do not. See <u>Yankee Atomic Elec. Co.</u> (Yankee Nuclear Power Station), LBP-96-2, 43 NRC 61, 90 n.30, rev'd in part on other grounds, CLI-96-7, 43 NRC 235 (1996).

<sup>&</sup>lt;sup>208</sup> <u>See http://www.world-nuclear.org/info/inf75.html.</u>

prices," and "[c]hanges in costs and prices, or further exploration, may alter measured resource figures markedly."<sup>209</sup> In other words, as prices rise or production costs decline, exploration and production are likely to increase. "Thus, any predictions of the future availability of any mineral, including uranium, which are based on current cost and price data and current geological knowledge are likely to be extremely conservative. . . . Our knowledge of geology is such that we can be confident that identified resources of metal minerals are a small fraction of what is there."<sup>210</sup>

Even with this very conservative limitation on the knowledge of available mineral resources, BREDL's document reports that "the world's present measured resources of uranium [5.5 million tons] in the cost category somewhat below present spot prices and used only in conventional reactors, are enough to last for over 80 years." The document further states that:

There was very little uranium exploration between 1985 and 2005, so the significant increase in exploration effort that we are now seeing could readily double the known economic resources. In the two years 2005-06 the world's known uranium resources . . . increased 15%.... On the basis of analogies with other minerals, a doubling of price from present levels could be expected to create about a tenfold increase in measured resources, over time, due both to increased exploration and the reclassification of resources regarding what is economically recoverable.<sup>211</sup>

We have also reviewed another webpage cited by BREDL, and again can find no support for its contention.<sup>212</sup> On the contrary, the webpage reports that mine production of uranium is already being substantially increased following the recovery in uranium prices since about 2003, with the addition of new mines in Canada and Australia and expected large increases in production. The petitioner does not have to prove its contention at the admissibility

<sup>209</sup> <u>Id.</u>

<sup>210</sup> Id.

<sup>211</sup> <u>Id.</u>

<sup>212</sup> <u>See http://www.world-nuclear.org/info/inf23.html.</u>

stage.<sup>213</sup> But BREDL has not cited any document that, read as a whole, supports its theory that uranium supplies will be insufficient to support the operation of North Anna Unit 3 during its licensed period.

As to BREDL's allegation that Dominion failed to address the adequacy of uranium fuel supply in its Application,<sup>214</sup> Dominion correctly points out that it supplied information concerning uranium fuel supplies in the ESP proceeding and this was incorporated by reference in the Application.<sup>215</sup> Section 10.2 of the ESP ER states:

Studies performed by U.S. Government agencies, such as the National Defense Stockpile Impact Committee of the Bureau of Industry and Security ..., and entities such as the World Nuclear Association . . . , have concluded that there are easily accessible, rich deposits of uranium throughout the world and that existing stocks of highly enriched uranium (HEU) in the U.S. and Russia – formerly for military usage – could be converted to fuel for nuclear power plants. Also, the reduction in use of uranium by the newer reactors when compared to the existing reactors would serve to extend the current 50-year supply of uranium available to the nuclear power industry. Therefore, the uranium that would be used to generate power by the new units at the ESP site, while irretrievable, would not be a large or moderate impact with respect to the longterm availability of uranium worldwide.<sup>216</sup>

Similarly, the FEIS concludes that "[t]he availability of uranium ore and existing stockpiles of

highly enriched uranium in the United States and Russia that could be processed into fuel is

sufficient."<sup>217</sup> This information is referenced in Section 10.2 of the ER for the COL

Application.<sup>218</sup> BREDL provides no significant information to generate a genuine factual dispute

<sup>213</sup> <u>Private Fuel Storage L.L.C.</u> (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 139 (2004).

<sup>214</sup> Pet. at 15.

<sup>215</sup> Dom. Ans. at 35-36.

<sup>216</sup> Dominion Nuclear North Anna, LLC North Anna Early Site Permit Application Revision 9 to the North Anna ESP Application, Pt. 3, Environmental Report, Ch. 3 at 3-10-20 (Sept. 30, 2006) (internal references omitted).

<sup>217</sup> FEIS at 10-10.

<sup>218</sup> North Anna 3 Combined License Application, Pt. 3, Applicant's Environmental Report – Combined License Stage at 10-7 (Nov. 2007).

with Dominion concerning this issue.

Accordingly, we do not admit Contention Five.<sup>219</sup>

6. <u>Contention Six</u>. Contention Six alleges that the NRC fails to "execute" Constitutional Due Process and Equal Protection.<sup>220</sup> BREDL makes no claim that Unit 3 will not comply with the NRC's radiation protection regulations. Instead, BREDL claims that the NRC's regulations are insufficient to satisfy constitutional requirements.<sup>221</sup> BREDL argues that the radiation protection standards in the NRC's rules are unconstitutional because they allegedly do not take into account higher risks for children and women, and because they are allegedly less stringent than other federal regulations.<sup>222</sup> The contention is inadmissible because it challenges the NRC's regulations. We are expressly precluded from hearing such a challenge by 10 C.F.R. § 2.335.

7. <u>Contentions Seven and Eight</u>. Contentions Seven and Eight are closely related. Contention Seven alleges that "[t]he Environmental Report for the Dominion COLA is deficient because it fails to discuss the environmental implications of the lack of options for permanent disposal of the irradiated (<u>i.e.</u>, 'spent') fuel that will be generated by the proposed reactors if built and operated."<sup>223</sup> BREDL states that "[w]hile [Dominion] may have intended to rely on the NRC's Waste Confidence decision, issued in 1984 and most recently amended in 1999, that decision is inapplicable because it applies only to plants which are currently operating, not new plants."<sup>224</sup> According to BREDL, the Commission has given "no indication that it has confidence

<sup>223</sup> <u>Id.</u> at 21.

<sup>224</sup> <u>Id.</u> at 22.

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<sup>&</sup>lt;sup>219</sup> <u>See</u> 10 C.F.R. § 2.309(f)(1)(v), (vi).

<sup>&</sup>lt;sup>220</sup> Pet. at 17.

<sup>&</sup>lt;sup>221</sup> <u>Id.</u> at 18.

<sup>&</sup>lt;sup>222</sup> <u>See id.</u> at 17-19.

that repository space can be found for spent fuel and other high-level radioactive waste from new reactors licensed after December 1999," and therefore BREDL argues the ER for the COL was required to address that issue.<sup>225</sup>

Contention Eight is essentially a fallback position for Contention Seven. BREDL alleges that, even if the Waste Confidence Rule applies to new reactors, the Commission should reconsider it "in light of significant and pertinent unexpected events that raise substantial doubt about its continuing validity, <u>i.e.</u>, the increased threat of terrorist attacks against U.S. facilities."<sup>226</sup>

Neither contention will be admitted because each is an impermissible attempt to relitigate issues resolved in the North Anna ESP proceeding. BREDL and other petitioners proffered virtually identical contentions in the ESP proceeding, both of which were not admitted by the Licensing Board.<sup>227</sup> The earlier version of Contention Seven, identified as Environmental Contention 3.2.1 in the ESP proceeding, was not admitted by the Licensing Board because "[t]he matters the Petitioners seek to raise have been generically addressed by the Commission through the Waste Confidence Rule."<sup>228</sup> The Board also noted that "when the Commission amended this rule in 1990, it clearly contemplated and intended to include waste produced by a new generation of reactors."<sup>229</sup> The earlier version of Contention Eight, Environmental Contention 3.2.2, was not admitted because "[a]bsent a showing of 'special circumstances' under 10 C.F.R. § 2.335(b), which the Petitioners have not made, this matter must be

<sup>226</sup> <u>Id.</u> at 27.

<sup>227</sup> North Anna ESP Site, LBP-04-18, 60 NRC at 269.

<sup>228</sup> <u>Id.</u>

<sup>229</sup> <u>Id.</u>

<sup>&</sup>lt;sup>225</sup> <u>Id.</u> at 23.

addressed through Commission rulemaking."230

BREDL did not appeal the 2004 contention ruling in the ESP proceeding, and it provides no explanation why it should now be entitled to raise the same issues again. As previously explained, we are prohibited by 10 C.F.R. § 52.39 from revisiting matters resolved in an earlier ESP proceeding. BREDL has not identified an exception to that general rule that would apply here and allow us to revisit contentions that were not admitted in the ESP proceeding. Moreover, even absent Section 52.39, we are precluded by collateral estoppel from allowing BREDL to relitigate issues that were decided against it in its earlier administrative litigation with Dominion.<sup>231</sup> Finally, even if we were not barred from considering Contentions Seven and Eight by the earlier litigation, we would not admit them for the same reasons given by the Licensing Board in the ESP proceeding, which we believe to be clearly correct.

Accordingly, we will not admit either Contention Seven or Contention Eight.

#### **IV. CONCLUSION**

BREDL has standing to participate in this proceeding, and Contention One is admissible in part. Because BREDL has established one admissible contention, its Petition to Intervene and Request for Hearing will be granted. BREDL's other contentions are not admissible because they fail to satisfy the contention admissibility factors.

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<sup>&</sup>lt;sup>230</sup> <u>Id.</u> at 270.

<sup>&</sup>lt;sup>231</sup> See Duke Power Co., LBP-82-107A, 16 NRC at 1808.

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### V. ORDER

For the foregoing reasons, it is this 15th day of August 2008, ORDERED that:

1. BREDL's Petition to Intervene and Request for a Hearing is GRANTED, and PACE's request to intervene is DENIED.

2. BREDL Contention One is ADMITTED for litigation in this Proceeding.

3. BREDL Contentions Two, Three, Four, Five, Six, Seven, and Eight are DISMISSED.

4. NCUC's Request for an Opportunity to Participate in any Hearing is GRANTED.

5. In accordance with the provisions of 10 C.F.R. § 2.311, any appeal to the Commission

from this Memorandum and Order must be taken within ten (10) days after it is served.

THE ATOMIC SAFETY AND LICENSING BOARD

/**RA**/

Ronald M. Spritzer, Chairman ADMINISTRATIVE JUDGE

/**RA**/

Dr. Richard F. Cole ADMINISTRATIVE JUDGE

/**RA**/

Dr. Alice C. Mignerey ADMINISTRATIVE JUDGE

Rockville, Maryland August 15, 2008

#### UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

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In the Matter of

Virginia Electric and Power Company d/b/a Dominion Virginia Power (DVP or Dominion) and Old Dominion Electric Cooperative (ODEC)

Docket No. 52-017-COL

(North Anna Nuclear Power Station, Unit 3)

## CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing LB MEMORANDUM AND ORDER (RULING ON PETITIONER'S STANDING AND CONTENTIONS AND NCUC'S REQUEST TO PARTICIPATE AS A NON-PARTY INTERESTED STATE) (LBP-08-15) have been served upon the following persons by Electronic Information Exchange.

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U.S. Nuclear Regulatory Commission Office of the General Counsel Mail Stop - O-15 D21 Washington, DC 20555-0001 Kathryn L. Winsberg, Esq. Renee V. Holmes, Esq. Joseph Gillman Sara E. Brock, Esq. E-mail: <u>Kathryn.winsberg@nrc.gov</u>; <u>renee.holmes@nrc.gov</u>; jsg1@nrc.gov; sara.brock@nrc.gov DOCKET NO. 52-017-COL LB MEMORANDUM AND ORDER (RULING ON PETITIONER'S STANDING AND CONTENTIONS AND NCUC'S REQUEST TO PARTICIPATE AS A NON-PARTY INTERESTED STATE) (LBP-08-15)

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[Original signed by R. L. Giitter] Office of the Secretary of the Commission

Dated at Rockville, Maryland this 15<sup>th</sup> day of August 2008