## UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Gregory B. Jaczko, Chairman Dale E. Klein Kristine L. Svinicki

In the Matter of

PROGRESS ENERGY FLORIDA, INC

(Combined License Application, Levy County Nuclear Power Plant, Units 1 and 2) Docket Nos. 52-029-COL, 52-030-COL

## CLI-10-02

### MEMORANDUM AND ORDER

The applicant in this combined license proceeding, Progress Energy Florida, Inc.

(Progress), has appealed the Atomic Safety and Licensing Board's order granting a hearing to

three organizational petitioners.<sup>1</sup> For the reasons set forth below, we affirm the Board's decision

to grant a hearing, and affirm in part, and reverse in part, its decision to admit three contentions.

### I. BACKGROUND

Progress is pursuing licenses to build a new 2000-megawatt facility in Levy County,

Florida, consisting of two units of the Westinghouse AP1000 design. Three organizations, the

Green Party of Florida, the Nuclear Information and Resource Service, and the Ecology Party of

Florida (jointly, Petitioners), filed a timely joint petition to intervene in the proceeding.<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> See LBP-09-10, 70 NRC \_\_ (July 8, 2009) (slip op.); Notice of Correction (July 10, 2009) (unpublished).

<sup>&</sup>lt;sup>2</sup> Petition to Intervene and Request for Hearing by the Green Party of Florida, the Ecology Party of Florida, and Nuclear Information and Resource Service (Feb. 6, 2009) (Petition).

Petitioners proposed eleven contentions, including a Contention 4 (Hydroecology) that consisted of sixteen subparts. The Board's decision admitted for hearing only certain subparts of proposed Contention 4, and portions of Contentions 7 and 8 (concerning storage and disposal of low-level radioactive waste (LLRW)).

Progress does not contest Petitioners' standing, but argues on appeal that none of the contentions should have been admitted by the Board.<sup>3</sup> Although the Staff opposed all contentions before the Board, it filed no response to the Progress Appeal.

## II. DISCUSSION

The Commission defers to Board rulings on contention admissibility in the absence of

clear error or abuse of discretion.<sup>4</sup> The Board's decision here was thorough and clear, and, with

the exception of one matter related to Contentions 7 and 8 - the Board's consideration of

Greater-than-Class-C (GTCC) waste - we decline to disturb the challenged contention

admissibility rulings.

## A. Contention 4 (Hydroecology)

Contention 4 consisted of sixteen subparts, designated sections 4A through 4O,<sup>5</sup> entitled

"Omissions, misrepresentations, and failures of proposed Levy Nuclear Plant (LNP)

<sup>&</sup>lt;sup>3</sup> Applicant's Notice of Appeal from LBP-09-10 (July 20, 2009) (Progress Appeal).

<sup>&</sup>lt;sup>4</sup> Crow Butte Resources, Inc. (License Renewal for In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 336 (May 18, 2009)(slip op. at 4) (citing, *inter alia*, *Dominion Nuclear Connecticut, Inc.* (Millstone Power Station, Unit No. 3), CLI-08-17, 68 NRC 231, 234 (2008)); *Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-09-8, 69 NRC\_ (May 18, 2009)(slip op. at 7); *AmerGen Energy Co.*, *LLC* (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 121 (2006).

<sup>&</sup>lt;sup>5</sup> See Petition at 67. The initial petition contained two subparts designated "4N." The Board designated the second 4N as subpart "4P," which it subsequently rejected. LBP-09-10, 70 NRC \_\_ (slip op. at 52).

environmental report (ER) to address adverse direct, indirect, and cumulative environmental impacts." The contention claimed generally that Progress' Environmental Report had underestimated effects of the project on the surrounding wetlands and its inhabitants. In support of Contention 4, Petitioners offered a 23-page affidavit by a hydroecologist, Dr. Sydney Bacchus, Ph.D.<sup>6</sup>

Progress argued before the Board, as it does on appeal, that the sixteen subparts of Contention 4 were actually sixteen separate contentions that must be considered independently to determine admissibility. Rejecting Progress' argument, the Board found that Contentions 4A-O were intended to be read together and stated that it would not independently apply the six admissibility factors in discussing each subpart.<sup>7</sup> Instead, the Board made general findings for several admissibility factors. It found that, overall, Contention 4: "provides a specific statement of the issue of law or fact to be raised or controverted;"<sup>8</sup> provides "a brief explanation of the basis" of the claim (10 C.F.R. § 51.45);<sup>9</sup> and that the general topic of Contention 4 is within the

LBP-09-10, 70 NRC \_\_ (slip op. at 48).

<sup>&</sup>lt;sup>6</sup> See Expert Declaration by Dr. Sydney T. Bacchus in Support of Petitioners' Standing to Intervene in this Proceeding (Feb. 6, 2009) (Bacchus Declaration) (appended to Petition). With respect to Dr. Bacchus' expertise, the Board observed:

Dr. Sidney [*sic*] Bacchus, who (as noted above) has a PhD in hydroecology and has studied and written concerning the hydroecology of Northern Florida, where the LNP project is proposed to be located, has the knowledge, experience, and education to make her declaration of assistance to this Board in understanding these issues. And while she is not an expert on all subjects, and not a geologist, the Board believes that her considered opinions regarding the connection of the Northern Florida wetlands (such as the LNP site) to the underlying Floridan aquifer via relict sinkholes, are helpful to our understanding of the environmental impacts of the LNP project and are admissible.

<sup>&</sup>lt;sup>7</sup> LBP-09-10, 70 NRC \_\_ (slip op. at 28).

<sup>&</sup>lt;sup>8</sup> *Id.* at \_\_\_ (slip op. at 47)(citing 10 C.F.R. § 2.309(f)(1)(i)).

<sup>&</sup>lt;sup>9</sup> *Id.* (citing 10 C.F.R. § 2.309(f)(1)(ii)).

scope of, and material to, the proceeding.<sup>10</sup> The Board found that Contention 4 makes a single claim that our regulations require that "the ER cover all significant environmental impacts associated with the proposed project, and (allegedly) the Progress ER fails to meet this legal requirement because it does not adequately address the indirect and cumulative environmental impacts associated with certain specified aspects of the LNP project."<sup>11</sup>

The Board then turned its analysis to each subpart, finding that some were adequately supported, while others were not.<sup>12</sup> First, it observed that subpart 4A provided an overview of the entire contention.<sup>13</sup> It found admissible sections claiming adverse effects from dewatering (a portion of subpart 4D, and subparts 4E, 4F, and 4G), increased nutrient concentrations due to an asserted increased prevalence of wildfires resulting from dewatering (subpart 4H), salt drift and salt deposition (claims associated with the impacts of seawater used for cooling on the freshwater wetlands and other waters in the area of the project site) (subpart 4I), and resulting failure to adequately identify the zone of environmental impacts (subparts 4L, 4M, and 4N) (which the Board termed the "consequential" subparts).<sup>14</sup> The Board summarized the elements of Contention 4 that it had found admissible, as follows:

<u>CONTENTION 4:</u> Progress Energy Florida's (PEF's) Environmental Report fails to comply with 10 C.F.R. Part 51 because it fails to adequately address, and inappropriately characterizes as SMALL, certain direct, indirect, and cumulative impacts, onsite and offsite, of constructing and operating the proposed LNP facility:

<sup>&</sup>lt;sup>10</sup> *Id.* (citing 10 C.F.R. §§ 2.309(f)(1)(iii), (iv)). The Board observed that some subparts of Contention 4 "may not satisfy the scope or materiality requirements of the regulation, certainly other subparts do." *Id.* As discussed here, the Board went on to consider each subpart of the contention individually with respect to these factors.

<sup>&</sup>lt;sup>11</sup> *Id.* at \_\_\_ (slip op. at 47-48).

<sup>&</sup>lt;sup>12</sup> *Id.* at \_\_\_ (slip op. at 48).

<sup>&</sup>lt;sup>13</sup> *Id.* at \_\_\_ (slip op. at 22, 49).

<sup>&</sup>lt;sup>14</sup> *Id.* at \_\_\_ (slip op. at 49-53).

A. Impacts to wetlands, floodplains, special aquatic sites, and other waters, associated with dewatering, specifically:

1. Impacts resulting from active and passive dewatering;

2. Impacts resulting from the connection of the site to the underlying Floridan aquifer system;

3. Impacts on Outstanding Florida Waters such as the Withlacoochee and Waccasassa Rivers;

4. Impacts on water quality and the aquatic environment due to alterations and increases in nutrient concentrations caused by the removal of water; and

5. Impacts on water quality and the aquatic environment due to increased nutrients resulting from destructive wildfires resulting from dewatering.

B. Impacts to wetlands, floodplains, special aquatic sites, and other waters, associated with salt drift and salt deposition resulting from cooling towers (that use salt water) being situated in an inland, freshwater wetland area of the LNP site.

C. As a result of the omissions and inadequacies described above, the Environmental Report also failed to adequately identify, and inappropriately characterizes as SMALL, the proposed project's zone of:

- 1. Environmental impacts,
- 2. Impact on Federally listed species,
- 3. Irreversible and irretrievable environmental impacts, and
- 4. Appropriate mitigation measures.<sup>15</sup>

On appeal, Progress cites six reasons why, in its view, the Board erred in admitting these

portions of Contention 4.<sup>16</sup> We address each argument in turn.

### 1. Basis for Admitting Contention 4

Progress argues that the Board failed to "identify the bases" for admitting Contention 4 in

conflict with our recent holding in Crow Butte Resources, Inc. (North Trend Expansion Area).<sup>17</sup>

But Progress misunderstands our holding in Crow Butte.

As an initial matter, the circumstances surrounding the Crow Butte decision are not on

point with this case. The Crow Butte Board had been presented with a muddled pro se petition,

<sup>&</sup>lt;sup>15</sup> LBP-09-10, Attachment A, 70 NRC \_\_\_ (slip op. at 109).

<sup>&</sup>lt;sup>16</sup> See Progress Appeal at 6-17.

<sup>&</sup>lt;sup>17</sup> CLI-09-12, 69 NRC (June 25, 2009) (slip op.).

which included several diffuse claims generally relating to potential groundwater contamination. The *Crow Butte* Board reformulated the groundwater claims into two separate contentions, encompassing safety and environmental issues. The *Crow Butte* Board acknowledged that "not all issues would fall under the contentions" as it had reframed them, but it failed to specify which claims or bases were admitted or to which contention each claim applied.<sup>18</sup> We found no fault with the *Crow Butte* Board's decision to reformulate the contentions into separate NEPA and safety claims. Rather we found fault with the Board's failure to identify clearly which of the diffuse and, in some cases, unsupported claims were admitted for hearing.<sup>19</sup> At bottom, in *Crow Butte*, the parties were left without a clear roadmap as to which elements of several broadly worded claims were, in fact, admissible.<sup>20</sup>

That is simply not the case here. As we observed in *Crow Butte*, a licensing board may reformulate contentions to "eliminate extraneous issues or to consolidate issues for a more efficient proceeding."<sup>21</sup> That is just what the Board achieved with its consideration of Contention 4 in this proceeding. The Board has identified the specific issues admitted for hearing, and has provided well-organized and sound reasons for its determinations. First, it discussed each

<sup>19</sup> *Crow Butte*, CLI-09-12, 69 NRC at \_\_\_ (slip op. at 23).

<sup>20</sup> *Id*.

<sup>&</sup>lt;sup>18</sup> See Crow Butte Resources, Inc. (North Trend Expansion Area), LBP-08-6, 67 NRC 241, 321 (2008).

<sup>&</sup>lt;sup>21</sup> Id. (slip op. at 22) (citing Shaw Areva MOX Services (Mixed Oxide Fuel Fabrication Facility), LBP-08-11, 67 NRC 460, 482 (2008)(emphasis omitted). (See id. at 481-83 for a discussion of Board's legal authority to reformulate contentions). See also AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), LBP-06-22, 64 NRC 229, 237, 240-44 (2006); Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), LBP-06-23, 64 NRC 257, 341 (2006); Exelon Generation Co., LLC (Early Site Permit for the Clinton ESP Site), LBP-04-17, 60 NRC 229, 245, 252 (2004), review denied, CLI-04-31, 60 NRC 461 (2004); Dominion Nuclear North Anna, LLC (Early Site Permit for North Anna ESP Site), LBP-04-18, 60 NRC 253, 271, 276 (2004)).

contention individually. Where a contention proposed multiple subparts, the Board considered each individual subpart. Second, the Board expressly restated all admitted contentions in Attachment A to its decision. Thus, the Board left no doubt as to which matters were and were not admitted for hearing. Our *Crow Butte* decision, therefore, is inapposite.

On appeal, Progress takes issue with the Board's discussion of the *legal* basis for Contention 4 – the National Environmental Policy Act (NEPA) and our related regulations at 10 C.F.R. Part 51 – and with the Board's reformulation of the contention consistent with that analysis.<sup>22</sup> Petitioners' original Contention 4 generally cited NEPA as its basis for the contention.<sup>23</sup> In considering Contention 4, the Board pointed out that, strictly speaking, NEPA imposes requirements on the agency, while Part 51 imposes requirements on both a license applicant and the agency. Specifically, 10 C.F.R. § 51.45 requires an applicant to file an ER that contains "a description of the proposed action, a statement of its purposes, a description of the environment affected" and a discussion of the project's environmental impact "in proportion to their significance" and alternatives to the proposal – all information that the Staff will use in preparing its environmental impact statement.<sup>24</sup> The Board observed that because NEPA, by its terms, places obligations upon the federal agency, not the applicant, it is correct to say that an application violates § 51.45, not "NEPA."<sup>25</sup> Consistent with this reasoning, in reformulating the admissible portions of Contention 4, the Board referred to "Part 51" rather than to NEPA. Progress argues that this reformulation is in error because the Petition cited "NEPA" rather than

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<sup>&</sup>lt;sup>22</sup> LBP-09-10, 70 NRC \_\_\_ (slip op. at 26).

<sup>&</sup>lt;sup>23</sup> See Petition at 32.

<sup>&</sup>lt;sup>24</sup> 10 C.F.R. § 51.45(b). See 10 C.F.R. § 51.50(c) (specifically addressing environmental reports prepared as part of COL applications).

<sup>&</sup>lt;sup>25</sup> LBP-09-10, 70 NRC \_\_ (slip op. at 26).

"Part 51," as the basis for the contention,<sup>26</sup> and because Part 51 compliance is not an issue within the scope of the hearing.<sup>27</sup>

We find no reversible error. The Board's observations concerning Part 51 are correct, and clarify the basis that was presented by Petitioners. 10 C.F.R. Part 51 implements NEPA Section 102(2), consistent with NRC's domestic licensing and related regulatory authority. The agency may comply with NEPA without requiring that the applicant submit an environmental report, but NEPA and Council on Environmental Quality (CEQ) regulations permit agencies to request information from an applicant for a license or permit that will require a NEPA analysis.<sup>28</sup> In order to facilitate our compliance with NEPA, we require a combined license applicant to submit a complete environmental report with its application,<sup>29</sup> which is essentially the applicant's proposal for the draft environmental impact statement. Ordinarily (and in the case of Contention 4), contentions that seek compliance with NEPA must be based on that environmental report.<sup>30</sup>

The Board, therefore, was correct when it observed that it is not NEPA, but our

regulations in 10 C.F.R. Part 51, that require that an applicant submit an ER. However, we do

<sup>29</sup> See 10 C.F.R. §§ 51.50(c); 51.45.

<sup>&</sup>lt;sup>26</sup> Petitioners cited to 10 C.F.R § 51.45 in their reply brief. See Response of the Green Party of Florida, the Ecology Party of Florida, and Nuclear Information and Resource Service to Answers to Our Petition to Intervene from NRC Staff Attorneys and Progress Energy Florida Attorneys (Mar. 17, 2009), at 13, 16, 19, 23 and 30.

<sup>&</sup>lt;sup>27</sup> Progress Appeal at 7 & n.8.

<sup>&</sup>lt;sup>28</sup> See 40 C.F.R. § 1506.5(a). The NRC takes into account CEQ regulations (with certain exceptions not relevant here). See 10 C.F.R. § 51.10(a).

<sup>&</sup>lt;sup>30</sup> 10 C.F.R. § 2.309(f)(2); *see Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1049-50 (1983)("While all environmental contentions may, in a general sense, ultimately be challenges to the NRC's compliance with NEPA, factual disputes of particular issues can be raised before the DES [Draft Environmental Impact Statement] is prepared. As a practical matter, much of the information in an Applicant's ER is used in the DES. . . . [T]he Commission expects that the filing of an environmental concern based on the ER will not be deferred because the staff may provide a different analysis in its DES.").

not find that the Board erred as a matter of law by citing 10 C.F.R. Part 51 as a basis for Contention 4. Our rules require that, to the extent an environmental issue is raised in the applicant's ER, a petitioner must file contentions on that document.<sup>31</sup> Although the ultimate burden with respect to NEPA lies with the NRC Staff, our policy with respect to the identification of issues for hearing has long been that such issues must be raised as early as possible.<sup>32</sup> In our view, the Board's clarifying restatement is no basis for rejecting the substance of the claims in Contention 4, or for reversal.

#### 2. Reformulation

Progress next complains that the Board erred in reformulating Contention 4, arguing that subparts 4A through 4O are, in fact, "separate" contentions that would not, if read individually, constitute admissible contentions. Progress claims that by reading the "separate" contentions together, the Board "implicitly finds that individually those Contentions were inadmissible."<sup>33</sup> Progress seems to argue, in fact, that because the Petition failed to reiterate how each "subpart" of Contention 4 would meet the section 2.309(f)(1) contention admissibility factors, no part of the contention is admissible.

Progress has not shown that the Board committed any error, much less reversible error, in its treatment of Contention 4. The Petition presented eleven numbered contentions, several of which had subparts designated by letter.<sup>34</sup> At oral argument, Petitioners confirmed that the

<sup>&</sup>lt;sup>31</sup> See Final Rule, Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,172 (Aug. 11, 1989).

<sup>&</sup>lt;sup>32</sup> See Catawba, CLI-83-19, 17 NRC at 1050.

<sup>&</sup>lt;sup>33</sup> Progress Appeal at 10.

 $<sup>^{34}</sup>$  See Petition at 32-72.

contention was intended to be read as a whole.<sup>35</sup> Further, it is apparent that the Board examined each issue raised in the contention to see if it met all contention admissibility requirements. In particular, for each subpart that was rejected, the Board stated which admissibility factor was *not* shown. For example, the Board found that the claims relating to environmental effects from offsite mining (subparts 4B, 4C, and 4D) were not adequately supported with an explanation why the claimed effects would be significant.<sup>36</sup> Similarly, the Board rejected subpart 4J (climate change impacts from clearing land to build the facility) because Petitioners did not support their claim that the number of trees that would be destroyed could have a potentially significant effect on global warming.<sup>37</sup> In a different vein, the Board rejected subpart 4P (inconsistencies with 40 C.F.R. Part 230),<sup>38</sup> as outside the scope of the proceeding.<sup>39</sup> Thus, it is clear that the Board considered the admissibility factors with respect to each subpart of Contention 4.

In addition, where a single contention has many subparts, the arguments for each of the § 2.309(f) factors logically may apply to more than one subpart. The Board was not required to "read" each section of the contention in a vacuum, nor was it required to discuss each subpart as if its own preceding findings had not been set forth. While our contention pleading standards

<sup>35</sup> Tr. 45-46.

<sup>36</sup> LBP-09-10, 70 NRC \_\_\_ (slip op. at 49).

<sup>37</sup> *Id.* (slip op. at 51).

<sup>&</sup>lt;sup>38</sup> As noted *supra*, Subpart P was designated in the initial Petition as the second Contention 4N. Petition at 67.

<sup>&</sup>lt;sup>39</sup> Subpart 4P claimed that the proposed project would violate federal regulations governing the issuance of a permit for disposal of dredged or fill material – regulations administered by the Army Corps of Engineers, not the NRC. The Board determined that, while the ER must address environmental effects of the proposed project – including effects outside this agency's jurisdiction to regulate – a contention whether the project will meet another agency's regulations is not admissible in our licensing proceedings. LBP-09-10, 70 NRC \_\_\_\_ (slip op. at 52).

are strict, they are not so strict as to prohibit multi-part contentions, or to require the Board to abandon a common-sense approach to consideration of the contention.

Progress's brief on appeal relies heavily on *Crow Butte*<sup>40</sup> for the principle that a Board may not supply the missing pieces of a contention that fails to meet our admissibility standards.<sup>41</sup> But we do not find that the Board, simply by reading the parts of the contention together, supplied information that was not provided by Petitioners. On the contrary, it culled from proposed Contention 4 claims that it found to be inadmissible. As we observe above, the Board may properly reformulate contentions in this manner.<sup>42</sup> We therefore find that the Board's action was consistent with relevant case law.

### 3. Contention 4 as a "Contention of Omission"

Progress argues generally that "Contentions 4.A through 4.0" were all pled as several contentions of "omission," but that the Board disregarded the plain language of the Petition and improperly recast them as one "contention of inadequacy."<sup>43</sup> Progress argues that Petitioners claimed that the application omitted necessary information – when, in fact, the application did contain the relevant discussions. But instead of finding the contentions inadmissible, Progress argues, the Board reframed the contentions as challenges to the sufficiency, or adequacy, of the ER's discussion. Progress is raising form over substance.<sup>44</sup>

<sup>&</sup>lt;sup>40</sup> CLI-09-12, 69 NRC \_\_\_ (slip op. at 22).

<sup>&</sup>lt;sup>41</sup> Progress Appeal at 10.

<sup>&</sup>lt;sup>42</sup> See note 21, supra.

<sup>&</sup>lt;sup>43</sup> See Progress Appeal at 11-13.

<sup>&</sup>lt;sup>44</sup> The distinction between "contentions of omission" and "contentions of inadequacy" does not appear in our contention pleading regulations. Rather it is a useful concept from agency caselaw. *See Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 382-83 (2002). In *Catawba/McGuire*, we held that where a contention complained of an ER's failure to address a particular study, the (continued ...)

The plain language of the proposed contention does not speak solely in terms of omissions from the application. Petitioners' introduction to Contention 4 stated that the contention would address "omissions, mischaracterizations, and failures of the environmental report to address direct, indirect, and cumulative effects."<sup>45</sup> "Contention 4A" asserted that the

ER's discussion of hydroecological effects, overall, mischaracterized the effects as "small."

The Board addressed Progress' "contention of omission" argument in its decision:

We reject the suggestion that, because C4 [Contention 4] uses the phrase 'failed to address,' C4 can only be seen as a contention of omission, and any reference to the relevant topic in the ER automatically results in the denial of C4. It is obvious that Petitioners know that the ER addressed, in some sense, some of the C4 topics. ... In context, it is clear that these *pro se* Petitioners are arguing that the ER is inadequate .... So long as C4 provides some explanation as to how or why Petitioners assert that the discussion in the ER is inadequate, there is the basis for a reasoned response by [Progress], and an issue that is specific and fairly litigable.<sup>46</sup>

The Board viewed the Petition as a whole to determine that, despite using words such as "failed

to address" or "omitted," various subparts of Contention 4 were actually attacks on the

adequacy of the ER's discussion.<sup>47</sup> For example, with respect to subpart 4D, the Board

subsequent inclusion of the study in the DEIS would moot the contention. The contention must then be modified as a contention attacking the adequacy of the now-included analysis, or dismissed as moot.

<sup>45</sup> Petition at 58.

<sup>46</sup> LBP-09-10, 70 NRC \_\_\_ (slip op. at 47 n.37).

<sup>47</sup> See, e.g., LBP-09-10, 70 NRC \_\_\_\_\_ (slip op. at 29) (concerning subpart 4B), (slip op. at 30) (concerning subpart 4D). Specifically, subpart 4D (effects of dewatering) challenges ER Table 3.3-2 (description of operating reactor's consumptive water use); subpart 4F (effects on Outstanding Florida Waters) challenges Table 4.6-1 (Summary of Measures and Controls to Limit Adverse Impacts During Construction); subpart 4I (salt drift) challenges ER Figure 4.1-4 and section 10.2.1.2 (Hydrological and Water Use). The "consequential" subparts – so called by the Board – acknowledged that the ER discussed each of the claimed consequences but challenged the conclusions that the resulting impacts would be "small." Only a few claims argue that a narrow category of specific information was wholly omitted from the ER: subpart 4E (ER fails to disclose that region is characterized by sinkholes that connect wetlands to Floridan aquifer); subpart 4G (dewatering will cause alterations to nutrient concentrations in the (continued ...)

observed that the Petition stated that the ER "failed to address" cumulative impacts of onsite mining, excavation, and dewatering. But the Board correctly reasoned that this is not truly a contention of omission because "Petitioners immediately cite several portions of the ER that address these subjects ... and then explain, with Dr. Bacchus' support, why they believe these ER discussions are inadequate."<sup>48</sup> Progress' argument on this point is unavailing.

Although Contention 4 may have used terms such as "failed to address" in some sections, its overall argument is that the specific omissions led the ER to erroneously conclude that impacts would be "small."<sup>49</sup> We find no error in the Board's conclusion that Contention 4 presents claims of *inadequacy*, rather than omission.

### 4. Contention 4 as "Impermissibly Vague"

Progress argues that Contention 4 as reformulated by the Board is impermissibly vague "because it fails to identify what resource is implicated by the alleged 'LARGE' impacts to be litigated."<sup>50</sup> Progress claims it is "unclear how the parties would litigate the characterization of impacts," because "defining the resource is an *ad hoc* decision based on what makes sense in context."<sup>51</sup> Progress claims that because the contention, as admitted, did not identify the

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

surrounding wetlands); and subpart 4H (dewatering will cause wildfires). ER Chapter 2 characterizes the site. See ER section 2.6.1.4 (discussing geologic structures, including sinkholes). Impacts of dewatering during construction are discussed in ER sections 4.2.1.4, 4.2.1.5, and 4.2.2.1; the contention challenges asserted inadequacies in these discussions.

<sup>&</sup>lt;sup>48</sup> *Id.* (slip op. at 30) (citations to Petition omitted).

<sup>&</sup>lt;sup>49</sup> See Petition at 58.

<sup>&</sup>lt;sup>50</sup> Progress Appeal at 13.

resource impacted, the Board should have rejected it rather than deferring until after further briefing the determination of what the limits of the affected "resource" are.<sup>52</sup>

Progress' claim stems from the Board's remark that Part 51 does not define the term "resource" in describing how an impact should be characterized as small, moderate or large.<sup>53</sup> The Board observed that whether an impact is seen as "large" or "small" depends on how the affected resource is defined.<sup>54</sup> Progress argues that the Board's remark – which in fact goes to the merits of the contention – somehow shows that Petitioners failed to support the contention by identifying the affected resource. We reject Progress' argument that Contention 4 is impermissibly vague for failing to identify the affected "resource." Progress has taken the Board's observation out of context.

The Petition claimed impacts to the "vicinity" (a 6-mile radius) and in the "region" (a 50mile radius) of the proposed project.<sup>55</sup> The Petition, as well as the supporting declaration of Dr. Bacchus, also identifies the surface and ground waters that Petitioners claim will be affected by the proposed project.<sup>56</sup> Therefore, Petitioners clearly identified the resources *they claim* will suffer "large" impacts. For its part, the Board addressed the affected resources in restating the contention as admitted. Contention 4, as restated by the Board in Attachment A, specifically identifies the aquifer system underlying the project area, the Withlacoochee and Waccasassa

<sup>52</sup> Id.

<sup>&</sup>lt;sup>53</sup> See Progress Appeal at 14 (citing LBP-09-10, 70 NRC \_\_\_ (slip op. at 46)).

<sup>&</sup>lt;sup>54</sup> LBP-09-10 (slip op. at 46). That is to say, an impact on the onsite wetlands might be large, but the overall impact on the Atlantic Ocean small.

<sup>&</sup>lt;sup>55</sup> See Petition at 33.

<sup>&</sup>lt;sup>56</sup> See, e.g., Petition at 45-46 (waters claimed to be affected by proposed project), 52-55 (lands claimed to be affected by "cooling tower salt drift"); Bacchus Declaration at 9-10 (waters), 14 (lands).

rivers, and the freshwater wetlands in the area of the project site as the affected aquatic resources.<sup>57</sup> It remains for further evidentiary proceedings to determine whether the claimed impacts are reasonably foreseeable and appropriately characterized. The Board's observation, in our view, means no more than that, and Progress has articulated no Board error or abuse of discretion on this point.

#### 5. Claims Regarding "Consequences"

In reformulating Contention 4, the Board characterized three parts of the contention – specifically, subparts 4L, 4M, and 4N – as "consequence" claims. It grouped these subparts into section C of the reformulated contention.<sup>58</sup> Section 4C, as admitted, argues that, "[a]s a result of the omissions and inadequacies described above, the Environmental Report also failed to adequately identify, and inappropriately characterizes as SMALL," the proposed project's environmental impact, including impacts on threatened and endangered species, irretrievable commitments of resources, and the appropriate mitigation impacts.<sup>59</sup> Progress argues that the Board did not "rigorously apply" the contention factors to subparts 4L, 4M, and 4N, and therefore that they should not have been admitted.

As discussed above, Progress would require a strained and overly formalistic reading of Contention 4. It is evident to us (as it was to the Board) that each of these three subparts is logically connected to, and, indeed, part and parcel of, the balance of admitted Contention 4. The contention argues that, because of certain identified asserted inadequacies to the environmental impacts assessment, the discussion of certain consequences of the project is

<sup>&</sup>lt;sup>57</sup> See text of admitted Contention 4, *supra* n.15, and accompanying text.

<sup>&</sup>lt;sup>58</sup> See LBP-09-10, 70 NRC \_\_ (slip op. at 51-52). See also Tr. 45-46.

<sup>&</sup>lt;sup>59</sup> LBP-09-10, Attachment A (slip op. at 109).

inadequate. That this claim is raised in several subparts and not as a single assertion, is not material. The Board did not err in considering the contention as a whole.

## 6. Treatment of Bacchus Declaration

Progress argues that the Board erred in relying on the declaration of Dr. Bacchus because the declaration "contains nothing more than bald, unsubstantiated assertions."<sup>60</sup> Progress contends that Dr. Bacchus does not explain her "conclusory statements" that the construction and operation of the plant will cause widespread dewatering and salt drift.<sup>61</sup>

Progress cites our holding in *USEC*<sup>62</sup> for the proposition that a Board need not accept the unexplained conclusions of an expert. In *USEC*, the support offered for the contention consisted of brief quotes from the petitioners' correspondence with a physicist, which the Board found to be "bare conclusory remarks with respect to which [the petitioner] offer[ed] no explanation or analysis."<sup>63</sup> Notably, the petitioner offered no expert affidavit in support of its hearing request. We affirmed the Board's decision to reject the contention, noting a number of problems associated with the purported expert support.<sup>64</sup> In *USEC*, we held that the Board need not accept an expert's bare conclusions that an application is "'deficient,' 'inadequate' or 'wrong'" as support for a contention.<sup>65</sup>

<sup>65</sup> Id.

<sup>&</sup>lt;sup>60</sup> Progress Appeal at 17.

<sup>&</sup>lt;sup>61</sup> *Id*.

<sup>&</sup>lt;sup>62</sup> USEC, Inc. (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 472 (2006).

<sup>63</sup> USEC, Inc. (American Centrifuge Plant), LBP-05-28, 62 NRC 585, 613 (2005).

<sup>&</sup>lt;sup>64</sup> For example, it was unclear from the expert's remarks whether he had been provided the entire relevant environmental report. CLI-06-10, 63 NRC at 472 n.127. We further observed that the putative expert's remarks were "difficult to comprehend," and that it was "not apparent that even [the petitioner] understands [the expert's] statements." *Id.* at 472.

Here, Petitioners offered more than the expert's conclusion that the environmental impacts from dewatering and salt drift would be "large." Dr. Bacchus' declaration explained her reasons for concluding that the proposed project would have harmful effects on aquatic resources, and cited or attached supporting documents.<sup>66</sup> This is sufficient for the purpose of our contention admissibility standards; whether those reasons are proven correct is a matter for resolution on the merits.

Progress also claims that the Board erred in referring to Dr. Bacchus as an "expert," arguing that this constitutes an improper "merits" ruing.<sup>67</sup> We disagree. At the contention admissibility stage, a Board may consider a proferred expert's qualifications in evaluating whether a contention is adequately supported. Dr. Bacchus' declaration summarizes her education, research focus, and publications. She holds a Ph.D. in hydroecology, which she describes as a multidisciplinary field combining physical and life sciences, from the University of Georgia.<sup>68</sup> Her declaration cites various publications relating to the effects she claims could result from the proposed project.<sup>69</sup> It is apparent that she holds at least a minimal amount of knowledge to allow her to make a declaration for the purposes of determining contention admissibility. This initial assessment is not dispositive of the expert status of the witness or the Board's reliance on testimony provided by the witness. As the case progresses on the admitted

<sup>&</sup>lt;sup>66</sup> See Petition, Exh. K, "List of Bacchus Exhibits and References" (ADAMS accession number ML090400137).

<sup>&</sup>lt;sup>67</sup> Progress Appeal at 18.

<sup>&</sup>lt;sup>68</sup> Bacchus Declaration at 1.

<sup>&</sup>lt;sup>69</sup> See, e.g., Bacchus Declaration at 5, citing to Bacchus, "Nonmechanical Dewatering of the Regional Floridan Aquifer System," Geological Society of America (2006); Declaration at 8, citing Bacchus, S.T., "Uncalculated Impacts of Unsustainable Aquifer Yield Including Evidence of Subsurface Interbasin Flow," Journal of American Water Resources Association, 36(3):457-481.

portions of Contention 4, we expect that the Board will consider Dr. Bacchus' qualifications in further depth, and accord her opinion appropriate weight.

## B. Contentions 7 and 8 (Long-Term Storage of Low Level Radioactive Waste)

Contentions 7 and 8 concern the lack of a disposal facility for LLRW that would be generated by operations at the proposed Levy County facility. Due to the closing of the land disposal facility at Barnwell, South Carolina to states outside the Atlantic Compact, there currently is no licensed disposal facility in the United States that will accept LLRW from a nuclear power plant located in Florida.<sup>70</sup> As a result, the proposed facility likely would have to store such waste onsite, or in an offsite storage location that is not a land disposal facility, for the foreseeable future.

Proposed Contentions 7 and 8 charge that the ER and Final Safety Analysis Report

(FSAR) neglect to account for long-term storage of LLRW. Proposed Contention 7

encompasses the environmental aspects, and Contention 8 the safety aspects, of the asserted

failure of the application to discuss long-term, LLRW storage. As originally submitted, the

contentions stated as follows:

Contention 7:

[Progress'] application to build and operate Levy County Nuclear Station Units 1 & 2 violates the National Environmental Policy Act by failing to address the environmental impacts of the waste that it will generate in the absence of licensed disposal facilities or capability to isolate the radioactive waste from the environment. [Progress'] environmental report does not address environmental, environmental justice, health, safety, security or economic consequences that will result from lack of permanent disposal for the radioactive wastes generated.<sup>71</sup>

Contention 8:

<sup>71</sup> See Petition at 87.

<sup>&</sup>lt;sup>70</sup> As of July, 2008, the Barnwell facility only accepts such waste from facilities in South Carolina, New Jersey, and Connecticut.

A substantial omission in [Progress'] COL application to build and operate Levy county Nuclear Station Units 1 & 2 is the failure to address the absence of access to a licensed disposal [facility] or capability to isolate the radioactive waste from the environment. [Progress'] FSAR does not address an alternative plan or the safety, radiological and health, security or economic consequences that will result from lack of permanent disposal for the radioactive wastes generated.<sup>72</sup>

In support of these contentions, Petitioners cited portions of the application dealing with LLRW,<sup>73</sup> which state that LLRW will be packed in shipping containers to await transportation to a disposal facility. According to Petitioners, neither the "ER nor the FSAR indicated that the intent is to store Class B, C and Greater than C wastes for 60 years nor is there indication that the facilities could accommodate physically or otherwise such an accumulation."<sup>74</sup> Petitioners also disputed assertions in the application that the proposed "systems are capable of meeting the design objectives of 10 C.F.R. 20 and 10 C.F.R. 50, Appendix I,"<sup>75</sup> which set standards for protecting the public and workers against radiation and for meeting the "As Low As Reasonably Achievable (ALARA)" criterion. Petitioners acknowledged that Contention 7 raised "a challenge to the generic assumptions and conclusions in Table S-3," but stated that they were only raising that challenge to protect their interests in a parallel rulemaking petition.<sup>76</sup> Petitioners further argued that long-term onsite storage could turn into *de facto* disposal, and that therefore

<sup>75</sup> *Id.* at 89, 92.

<sup>76</sup> *Id.* at 87 n.30.

<sup>&</sup>lt;sup>72</sup> *Id.* at 93-94.

<sup>&</sup>lt;sup>73</sup> Although the contentions use the term "radioactive wastes generated," it is clear from the discussion following that Petitioners intended Contentions 7 and 8 to refer only to Class B, C, and GTCC waste. See Petition at 87-97. Petitioners also offered a similar contention concerning spent nuclear fuel, but this was rejected by the Board as an improper challenge to the Waste Confidence Rule. See LBP-09-10, 70 NRC (slip op. at 61-68).

<sup>&</sup>lt;sup>74</sup> Petition at 88.

Progress should be required to obtain a license for a LLRW disposal facility under 10 C.F.R. Part 61.<sup>77</sup>

Oral argument in this case was held shortly after we ruled in the Bellefonte COL matter,

reversing that Board's decision to admit two similar – although not identical – contentions.<sup>78</sup> At

oral argument, Petitioners backed away from the claim that the proposed facility should be

required to obtain a license under 10 C.F.R. Part 61.79 Also at that time, Progress

acknowledged that the dose calculations for the radwaste building (where the storage would

take place) are based on the building's maximum storage capacity - or approximately two

years' waste stream.80

The Board found the contentions "generally inadmissible" consistent with the Bellefonte

decision. It specifically ruled out any challenge to Table S-3,<sup>81</sup> and claims relating to Part 61.<sup>82</sup>

The Board admitted narrowed versions of the contentions, as follows:

<u>CONTENTION 7</u>: [Progress'] application is inadequate because the Environmental Report assumes that the class B, C, and greater than C low-level radioactive waste (LLW) generated by proposed Levy Units 1 and 2 will be promptly (e.g., within two years) shipped offsite and fails to address the

<sup>79</sup> Tr. 310-11.

<sup>80</sup> Tr. 329-30.

<sup>81</sup> See 10 C.F.R. § 51.51, "Table S-3 – Table of Uranium Fuel Cycle Environmental Data."

<sup>82</sup> LBP-09-10, 70 NRC \_\_\_ (slip op. at 73).

<sup>&</sup>lt;sup>77</sup> *Id.* at 91.

<sup>&</sup>lt;sup>78</sup> Tennessee Valley Authority (Bellefonte Nuclear Power Plant, Units 3 and 4), CLI-09-3, 69 NRC 68 (2009). In *Bellefonte*, we reversed the admission of two contentions concerning LLRW. Among other things, we rejected the two bases proffered for those contentions, finding that a challenge to LLRW storage may not rely on 10 C.F.R. Part 61, which pertains to land disposal facilities. Further, a LLRW contention may not challenge Table S-3, codified at 10 C.F.R. § 51.51, consistent with our policy that regulations may not be the subject of collateral attack in an adjudication. See 10 C.F.R. § 2.335(a), (b).

environmental impacts in the event that [Progress] will need to manage such LLW on the Levy site for a more extended period of time.

<u>CONTENTION 8:</u> [Progress'] application is inadequate because the Safety Analysis Report assumes that the class B, C, and greater than C low-level radioactive waste (LLW) generated by proposed Levy Units 1 and 2 will be promptly (e.g., within two years) shipped offsite and fails to address compliance with Part 20 and Part 50 Appendix I (ALARA) in the event that [Progress] will need to manage such LLW on the Levy site for a more extended period of time.<sup>83</sup>

The Board emphasized that these contentions encompass only the long-term storage,

and not the permanent disposal, of LLRW.84

# 1. The Board Did Not Err in its Application of Commission Precedent

Progress initially argues that the proposed Contentions 7 and 8 are necessarily inadmissible because they are virtually identical to those admitted by the Board in *Bellefonte* and subsequently rejected by the Commission after *sua sponte* review. But this overbroad argument is not persuasive.<sup>85</sup> The validity of a contention depends on the support provided in the petition and by the contents of the application that is subject to challenge. We recognized this in *Bellefonte* when we stated: "we do not rule out that, in a future COL proceeding, a petitioner could proffer an application-specific contention suitable for litigation on the subject of onsite storage of low-level radioactive waste."<sup>86</sup> In short, *Bellefonte* does not necessarily demand rejection of proposed environmental or safety contentions raising the effects of potential long-term onsite storage of LLRW. In fact, the Board applied *Bellefonte* correctly when it eliminated the challenges to Table S-3 and the claim regarding Part 61 licensing.

<sup>86</sup> CLI-09-3, 69 NRC at 77 n.42.

<sup>&</sup>lt;sup>83</sup> *Id.* (slip op. at 75).

<sup>&</sup>lt;sup>84</sup> Id.

<sup>&</sup>lt;sup>85</sup> Indeed, we recently rejected a similar argument in *Calvert Cliffs Nuclear Project, LLC* (Combined License Application for Calvert Cliffs, Unit 3), CLI-09-20, 70 NRC (Oct. 13, 2009) (slip op. at 15-16).

Although we had not yet ruled on the admissibility of similar LLRW contentions in the *Vogtle* COL and *Calvert Cliffs* COL proceedings<sup>87</sup> at the time of the Board's decision here, the Board's ruling comports with those decisions. In *Vogtle*, we affirmed the Board's decision to admit a safety-related contention on the potential impact of the lack of disposal options for LLRW at a proposed facility in Georgia. In *Calvert Cliffs*, we approved the Board's similar decision to admit, as narrowed, a well-pled environmental contention concerning the effects of long-term on-site management of LLRW.<sup>88</sup> The applicable provision, 10 C.F.R. § 52.79(a)(3), requires an applicant to describe the "kinds and quantities of radioactive materials expected to be produced" in facility operations, and the "means for controlling and limiting radioactive effluents" to comply with Part 20 limits: "In short, the rule pertains to how the COL applicant intends, through its design operational organization and procedures, to comply with relevant substantive radiation protection requirements in Part 20."<sup>89</sup>

#### 2. The Board Did Not Provide New Bases for Contentions 7 and 8

Progress next argues that the Board formulated its own bases to support Contentions 7 and 8.<sup>90</sup> With respect to Contention 7, Progress points to a citation in the Board's ruling to 10 C.F.R. §§ 51.45(b)(1), (2), (5) – provisions discussing broadly the considerations to be discussed in an ER.<sup>91</sup> Progress further claims that the Board improperly invoked 10 C.F.R.

<sup>90</sup> Progress Appeal at 18-30.

<sup>91</sup> *Id.* at 24-25.

<sup>&</sup>lt;sup>87</sup> See Southern Nuclear Operating Co. (Vogtle Electric Generating Plant, Units 3 and 4), CLI-09-16, 70 NRC \_\_\_\_ (July 31, 2009) (slip op.); *Calvert Cliffs*, CLI-09-20, 70 NRC \_\_\_\_.

<sup>&</sup>lt;sup>88</sup> CLI-09-20, 70 NRC \_\_\_ (slip op. at 15-17).

<sup>&</sup>lt;sup>89</sup> LBP-09-16, 70 NRC \_\_\_ (slip op. at 5-6).

§ 52.79(a)(3) as support for the admission of Contention 8.<sup>92</sup> Progress claims that because these provisions were not cited in the Petition, it did not have a "fair opportunity to present argument."<sup>93</sup>

We find no reversible error. First, the Board briefly addressed these provisions as part of a lengthy discussion of the two contentions.<sup>94</sup> The Board rested its decision in significant part on the broader claims found in the Petition, Petitioners' reply, and at oral argument, not on the few provisions cited toward the end of its ruling. Second, 10 C.F.R. Part 51 contains our regulations implementing NEPA, and section 51.45(b) sets out the broad requirements of an environmental report.<sup>95</sup> While the Petition did not cite these regulations, it did refer to NEPA. As discussed above with respect to Contention 4, the Board's reference to Part 51 served simply to clarify the argument presented by Petitioners.

Further, Progress cannot reasonably argue that it did not have fair notice, for example, that Contention 7 includes a claim that the environmental impacts of LLRW storage were inadequately discussed.<sup>96</sup> In addition, Progress' representative specifically discussed 10 C.F.R.

<sup>94</sup> LBP-09-10, 70 NRC\_ (slip op. at 76), see generally id., 70 NRC (slip op. at 66-78).

<sup>95</sup> 10 C.F.R. § 51.45(b)(1) requires that the ER discuss "the impact of the proposed action on the environment."

<sup>96</sup> At oral argument, Petitioners' representative explained that at the heart of their claim is the ER's failure to acknowledge the lack of offsite disposal:

CHAIRMAN KARLIN: [D]oes their ER, they say it deals with the onsite storage. How is it defective or insufficient?

MS. OLSON: It deals with it in anticipation of shipping it offsite for disposal. ... This one doesn't talk about any timeline, except that it's going to be packaged and sent off. And because it doesn't give detail, we don't find that that's an adequate plan for being able to (continued ...)

<sup>&</sup>lt;sup>92</sup> Id.

<sup>&</sup>lt;sup>93</sup> Progress Appeal at 25.

§ 52.79(a)(3) at oral argument, so Progress had a "fair opportunity to present argument" on the applicability that regulation.<sup>97</sup> The Board's recitation of these specific section numbers appears, in our view, to be merely a clarification rather than the addition of new grounds for the contentions.

#### 3. Contentions 7 and 8 are Admissible as Narrowed by the Board

Progress argues that the Board effectively "created a new regulatory requirement" that Progress' ER must "confront the plausible problem of longer term management of [LLRW] onsite"<sup>98</sup> We disagree; the regulatory basis for the contentions is already grounded in our regulations. As discussed above, we have held that from a safety standpoint, the LLRW storage information required by 10 C.F.R. § 52.79(a)(3) is tied to the COL applicant's particular plans for compliance through design, operational organization, and procedures.<sup>99</sup> With respect to the Staff's environmental review, the EIS must discuss the reasonably foreseeable environmental impacts of the proposed project.<sup>100</sup> Absent a licensed LLRW disposal facility that will accept waste from the Levy County facility, it is reasonably foreseeable that LLRW generated by normal operations will be stored at the site for a longer term than is currently envisioned in Progress' COL application.<sup>101</sup>

assert that they could handle 40 or 60 years' worth of so-called low level waste that's been generated.

See Tr. 314-15.

<sup>97</sup> See Tr. 330-32.

<sup>98</sup> Progress Appeal at 25 (citing LBP-09-10, 70 NRC \_\_ (slip op. at 75)).

<sup>99</sup> See Vogtle, CLI-09-16, 70 NRC \_\_\_ (slip op. at 5-6).

<sup>100</sup> NEPA §102, 42 U.S.C. § 4332. See Sierra Club v. Marsh, 976 F.2d 763 (1st Cir. 1992).

<sup>101</sup> Although Progress' counsel acknowledged at oral argument that the application currently provides plans for a radwaste building to accommodate approximately two years' accumulation, (continued ...)

Progress further argues that in reformulating Contention 8, the Board effectively created a new regulatory requirement that the applicant perform safety calculations for a source term greater than a two year period of accumulation.<sup>102</sup> But as the Board explained in its decision, the safety regulations at 10 C.F.R. § 52.79(a)(3) require the COL application to describe the kinds and quantities of radioactive materials that will be produced in operating the plant and to describe the "means for controlling and limiting the radioactive effluents and radiation exposures within the limits set forth" in 10 C.F.R. Part 20.<sup>103</sup> In our view, the Board reasonably interpreted that existing provision to find that Progress must address, in its COL application, how it intends to handle an accumulation of LLRW.

## 4. Inclusion of "Greater than Class C" (GTCC) Waste in of Contentions 7 and 8

The Board's ruling on Contentions 7 and 8 expressly includes the issue of storage of

GTCC waste.<sup>104</sup> On this point, we agree with Progress that the Board erred in failing to exclude

this is not apparent from the ER itself. See Tr. 330-31. The application states that the solid waste management system will have "sufficient temporary storage," as provided by the design control document:

The solid waste management system ... provides temporary onsite storage for wastes prior to processing and for the packed wastes. ... The system has sufficient temporary waste accumulation capacity based on maximum waste generation rates so that maintenance, repair, or replacement of the solid waste management system equipment does not impact power generation.

Levy Nuclear Plant, Units 1 and 2, COL Application Part 3, Environmental Report, at 3-49. According to the AP1000 Design Control Document, "[t]he packaged waste storage room provides storage for more than two years at the expected rate of generation and more than a year at the maximum rate of generation." *Westinghouse, AP1000 Design Control Document* (Rev. 16) Chapter 11, at 11.4-6 (2007).

<sup>102</sup> See Progress Appeal at 27.

<sup>103</sup> See LBP-09-10, 70 NRC \_\_\_ (slip op. at 76).

 $^{104}$  See LBP-09-10, 70 NRC \_\_ (slip op. at 68 n.54) (citing Declaration of Diane D'Arrigo ¶ 5 (Feb. 5, 2009), attached to Petition ("In addition, there is no disposal site for Greater-than-C radioactive wastes which would be generated by the Levy Nuclear Power 1 and 2 reactors if (continued ...)

GTCC waste from the contentions.

GTCC waste<sup>105</sup> is the responsibility of the federal government.<sup>106</sup> GTCC waste is not (and was not) shipped to the Barnwell facility; rather, it is stored onsite with a licensee's spent nuclear fuel. Given that Contentions 7 and 8 are grounded in the partial closure of the Barnwell facility, we find that Petitioners have not adequately supported their challenge, insofar as it would include GTCC waste. The Petition repeatedly refers to "Class B, C and Greater-than-C" wastes in support of Contentions 7 and 8.<sup>107</sup> However, the proposed contentions do not explain why the partial closure of Barnwell or the capacity limits of the radwaste storage building would affect either the handling of GTCC waste or the amount present. This portion of Contentions 7 and 8 is, as Progress argues, unsupported.

The Board briefly mentioned, but did not respond to, Progress' argument that GTCC

waste is the responsibility of the government and not affected by the partial closure of

they operate.").

<sup>105</sup> As recently stated by the U.S. Court of Appeals for the Federal Circuit by way of definition:

GTCC waste is one of the radioactive byproducts of nuclear power generation. See 10 C.F.R. § 61.55(a)(2). Nuclear power generation creates GTCC when the metal components of a reactor, including the inside of the core shroud surrounding the nuclear core, control rods, and support plates that hold the reactor together, absorb neutrons during operation and become irradiated. Utilities must dispose of GTCC waste before they can decommission reactor sites.

Yankee Atomic Elec. Co. v. United States, 536 F.3d 1268, 1277 (Fed. Cir. 2008).

<sup>106</sup> Low-Level Radioactive Waste Policy Amendments Act of 1985, 42 U.S.C. § 2021c(b)(1)(D). See Yankee Atomic, 536 F.3d at 1278-79. In Yankee Atomic, the Federal Circuit affirmed the finding (in the context of ongoing litigation over DOE's liability under the Standard Contract) of the Court of Federal Claims that "the conclusions reached with respect to recoverability of [spent nuclear fuel] storage expenses are equally applicable to GTCC waste, which is stored on-site in the same manner as [spent nuclear fuel]." Yankee Atomic Elec. Co. v. United States, 73 Fed. Cl. 249, 315 (2006).

<sup>107</sup> See Petition at 87-93, 95, 97.

Barnwell.<sup>108</sup> We observe that other licensing boards that have considered this issue, particularly the *North Anna*<sup>109</sup> and *Calvert Cliffs*<sup>110</sup> Boards, have excluded the consideration of storage of GTCC waste from the scope of admitted LLRW contentions. Although licensing board rulings are not precedential,<sup>111</sup> we agree with the reasoning set forth by both of those Boards, and likewise find that the GTCC waste issue is outside the scope of this adjudicatory proceeding. We therefore *reverse* the Board's decision to include the impacts of GTCC waste in Contentions 7 and 8, as admitted.

<sup>&</sup>lt;sup>108</sup> LBP-09-10, 70 NRC \_\_\_ (slip op. at 69-70).

<sup>&</sup>lt;sup>109</sup> *Virginia Electric and Power Co.* (Combined License Application for North Anna Unit 3), LBP-08-15, 68 NRC 294, 313 n.86 (2008)(observing that the partial closure of the Barnwell facility does not affect the disposal of GTCC waste, because GTCC waste disposal is the responsibility of the federal government).

<sup>&</sup>lt;sup>110</sup> Calvert Cliffs 3 Nuclear Project, LLC (Combined License Application for Calvert Cliffs, Unit 3), LBP-09-4, 69 NRC 170, 220-21 (2009) (again observing that the disposal of GTCC waste is the responsibility of the federal government, and that the petitioners did not provide a factual foundation to show that the United States will fail in its responsibility to provide for the disposal of GTCC waste).

<sup>&</sup>lt;sup>111</sup> See Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-05-22, 62 NRC 542, 544 (2005); Yankee Atomic Electric Co. (Yankee Nuclear Power Station), CLI-99-24, 50 NRC 219, 222 (1999).

#### III. CONCLUSION

For the foregoing reasons, we *affirm* the Board's ruling admitting Contention 4, as reformulated. Further, we *affirm in part, and reverse in part*, the Board's decision to admit Contentions 7 and 8.

IT IS SO ORDERED.

For the Commission

(NRC Seal)

/RA/

Annette L. Vietti-Cook Secretary of the Commission

Dated at Rockville, Maryland this <u>7<sup>th</sup></u> day of January, 2010.