### UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

## ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Michael M. Gibson, Chairman Dr. Michael F. Kennedy Dr. Sue H. Abreu

In the Matter of

EXELON GENERATION COMPANY, LLC

(Peach Bottom Atomic Power Station, Units 2 and 3) Docket Nos. 50-277-SLR & 50-278-SLR

ASLBP No. 19-960-01-SLR-BD01

June 20, 2019

## MEMORANDUM AND ORDER

(Denying Beyond Nuclear's Petition to Intervene)

Before this Licensing Board is Beyond Nuclear, Inc.'s (Beyond Nuclear) November 19,

2018 request for hearing and petition for leave to intervene, challenging the subsequent license

renewal application of Exelon Generation Company, LLC (Exelon) for Peach Bottom Atomic

Power Station, Units 2 and 3. The Board concludes that Beyond Nuclear has standing to

intervene in this proceeding. However, because Beyond Nuclear has not proffered an

admissible contention, the Board denies its petition.

# I. BACKGROUND

On July 10, 2018, Exelon submitted<sup>1</sup> its license renewal application<sup>2</sup> to renew for an

additional twenty years its operating licenses for Units 2 and 3 of the Peach Bottom Atomic

<sup>&</sup>lt;sup>1</sup> <u>See</u> Letter from Michael P. Gallagher, Vice President of License Renewal and Decommissioning, Exelon to NRC Document Control Desk (July 10, 2018) (ADAMS Accession No. ML18193A697).

<sup>&</sup>lt;sup>2</sup> Subsequent License Renewal Application, Peach Bottom Atomic Power Station Units 2 and 3 (July 2018) (ADAMS Accession No. ML18193A773).

Power Station, located in York, Pennsylvania. The current operating licenses for Units 2 and 3 expire at midnight on August 8, 2033, and July 2, 2034, respectively.<sup>3</sup> Since both operating licenses have already been renewed once, this is a subsequent license renewal proceeding.<sup>4</sup>

After receiving Exelon's application, a notice was published in the <u>Federal Register</u> affording interested members of the public an opportunity to request a hearing and petition to intervene by November 5, 2018 (which was later extended to November 19, 2018).<sup>5</sup>

On November 19, 2018, Beyond Nuclear timely filed a request for hearing and petition

for leave to intervene, proffering two contentions.<sup>6</sup> The NRC Staff and Exelon timely filed their

respective answers on December 14, 2018,<sup>7</sup> and Beyond Nuclear timely filed its reply to those

answers on December 21, 2018.8

On March 27, 2019, this Board heard oral argument from counsel for Beyond Nuclear,

the NRC Staff, and Exelon regarding Beyond Nuclear's petition.9

Thereafter, on May 1, 2019, Beyond Nuclear moved to amend its hearing request.<sup>10</sup>

<sup>6</sup> Beyond Nuclear, Inc.'s Hearing Request and Petition to Intervene (Nov. 19, 2018) ("Petition").

<sup>7</sup> NRC Staff Answer to Beyond Nuclear, Inc.'s Hearing Request and Petition to Intervene (Dec. 14, 2018) ("NRC Staff Answer"); Exelon's Answer Opposing Beyond Nuclear Inc.'s Hearing Request and Petition to Intervene (Dec. 14, 2018) ("Exelon Answer").

<sup>8</sup> Beyond Nuclear's Reply to Exelon's and NRC Staff's Oppositions to Hearing Request and Petition to Intervene (Dec. 21, 2018) ("Beyond Nuclear Reply").

<sup>9</sup> Tr. at 1–218.

<sup>&</sup>lt;sup>3</sup> <u>Id.</u> at 1-1.

<sup>&</sup>lt;sup>4</sup> To date, only two other subsequent license renewal applications have been submitted to the NRC: Florida Power & Light Company, Turkey Point Nuclear Plant Units 3 & 4 Subsequent License Renewal Application (rev. 1 Apr. 2018), and Dominion Energy Virginia, Surry Power Station Units 1 & 2 Subsequent License Renewal Application (Oct. 2018). We review the regulatory requirements and agency guidance documents for subsequent license renewal applications <u>infra</u>.

<sup>&</sup>lt;sup>5</sup> Exelon Generation Company, LLC: Peach Bottom Atomic Power Station, Units 2 & 3, 83 Fed. Reg. 45,285, 45,285 (Sept. 6, 2018); Order of the Secretary (Extending the Hearing Request Deadline) at 2 (Nov. 1, 2018).

<sup>&</sup>lt;sup>10</sup> Beyond Nuclear, Inc.'s Amended Hearing Request and Petition to Intervene (May 1, 2019) ("Amended Petition").

Pursuant to the Board's May 3, 2019 scheduling order,<sup>11</sup> the NRC Staff and Exelon timely filed their respective answers opposing Beyond Nuclear's motion to amend on May 17, 2019.<sup>12</sup> Beyond Nuclear timely replied to the Exelon and NRC Staff responses on May 22, 2019.<sup>13</sup>

## II. STANDING

# A. Legal Standard

To participate in an NRC licensing proceeding, a petitioner must establish standing to intervene.<sup>14</sup> A petition to intervene must state (1) the name, address, and telephone number of the petitioner; (2) the nature of the petitioner's right under either the Atomic Energy Act or the National Environmental Policy Act (NEPA) to be made a party to the proceeding; (3) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (4) the possible effect of any decision or order that may be issued in the proceeding on the petitioner's interest.<sup>15</sup> While a petitioner bears the burden of establishing standing, licensing boards are to "evaluate a petitioner's standing . . . constru[ing] the petition in favor of the petitioner."<sup>16</sup>

# 1. Representational Standing

When an organization (such as Beyond Nuclear) seeks to intervene on behalf of its

members, it may establish standing by showing that (1) one or more of its members would

<sup>&</sup>lt;sup>11</sup> Licensing Board Notice and Order (Scheduling Briefing on Beyond Nuclear's Motion to Amend Its Petition and the Board's Issuance of Order on Standing and Contention Admissibility) (May 3, 2019) (unpublished).

<sup>&</sup>lt;sup>12</sup> NRC Staff Answer to Beyond Nuclear Inc.'s Amended Hearing Request and Petition to Intervene (May 17, 2019) ("NRC Staff Answer to Amended Hearing Request"); Exelon's Opposition to Beyond Nuclear, Inc.'s Amended Hearing Request and Petition to Intervene (May 17, 2019) ("Exelon Answer to Amended Hearing Request").

<sup>&</sup>lt;sup>13</sup> Beyond Nuclear, Inc.'s Reply to Exelon's and NRC Staff's Oppositions to Amended Hearing Request and Petition to Intervene (May 22, 2019).

<sup>&</sup>lt;sup>14</sup> <u>See</u> 10 C.F.R. § 2.309(a).

<sup>&</sup>lt;sup>15</sup> <u>Id.</u> § 2.309(d)(1).

<sup>&</sup>lt;sup>16</sup> <u>Ga. Inst. of Tech.</u> (Ga. Tech Research Reactor, Atlanta, Ga.), CLI-95-12, 42 NRC 111, 115 (1995) (citing <u>Kelley v. Selin</u>, 42 F.3d 1501, 1508 (6th Cir. 1995)).

individually meet the above articulated standing requirements; (2) the interest represented by the organization is germane to the organization's purpose; (3) neither the asserted claim nor the requested relief requires the organization's member to participate in the lawsuit; and (4) the member has authorized the organization to represent his or her interest.<sup>17</sup>

#### 2. Individual Standing and the 50-Mile Proximity Presumption

To determine whether a petitioner satisfies standing requirements, the Commission has traditionally applied contemporaneous judicial concepts of standing, requiring a showing of "concrete and particularized injury that is fairly traceable to the challenged action and is likely to be redressed by a favorable decision."<sup>18</sup> In certain "situations involving . . . obvious potential for offsite consequences"—including power reactor licensing, power reactor license renewal, and at least some power reactor license amendment proceedings—the Commission has routinely granted standing to petitioners who reside within a certain distance of the power reactor at issue under the "proximity presumption," effectively dispensing with a petitioner's need to make an affirmative showing of injury, causation, and redressability.<sup>19</sup>

Licensing boards routinely have applied the 50-mile proximity presumption in power reactor license renewal proceedings, reasoning that renewal "allows operation of a reactor over

<sup>&</sup>lt;sup>17</sup> <u>See Private Fuel Storage, L.L.C.</u> (Indep. Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 323 (1999) (citing <u>Hunt v. Wash. State Apple Advert. Comm'n</u>, 432 U.S. 333, 343 (1977)).

<sup>&</sup>lt;sup>18</sup> <u>Cleveland Elec. Illuminating Co.</u> (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 92 (1993) (citing <u>Lujan v. Defs. of Wildlife</u>, 504 U.S. 555, 561 (1992)); <u>see also Yankee Atomic Elec. Co.</u> (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 195 (1998); <u>Ga. Tech Research Reactor</u>, CLI-95-12, 42 NRC at 115.

<sup>&</sup>lt;sup>19</sup> <u>Fla. Power & Light Co.</u> (St. Lucie Nuclear Power Plant, Units 1 & 2), CLI-89-21, 30 NRC 325, 329–30 (1989); <u>see also PPL Bell Bend, LLC</u> (Bell Bend Nuclear Power Plant), CLI-10-7, 71 NRC 133, 138–39 (2010); <u>Calvert Cliffs 3 Nuclear Project, LLC</u> (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 915–16 (2009).

an additional period of time during which the reactor could be subject to the same equipment failures and personnel errors as during operations over the original period of the license.<sup>20</sup> Ultimately, the 50-mile proximity presumption "is simply a shortcut for determining standing in certain cases.<sup>21</sup> The Commission implicitly endorsed this approach when it cited with approval a licensing board's application of the proximity presumption in a reactor license renewal proceeding.<sup>22</sup> Applying this shortcut to reactor license renewal proceedings not only satisfies contemporaneous judicial concepts of standing, but also provides clarity for litigants and licensing boards, thereby promoting efficiency in the adjudicatory process.<sup>23</sup> We therefore conclude that the 50-mile proximity presumption should apply to this proceeding.<sup>24</sup>

### B. <u>Analysis</u>

Neither Exelon nor the NRC Staff challenge the standing of Beyond Nuclear to participate in this proceeding. Nevertheless, this Board is charged with independently determining the standing of Beyond Nuclear.<sup>25</sup>

Beyond Nuclear states that it is "a nonprofit, nonpartisan membership organization that aims to educate and activate the public about the connections between nuclear power and nuclear weapons and the need to abolish both to protect public health and safety, prevent

<sup>25</sup> 10 C.F.R. § 2.309(d)(2).

 <sup>&</sup>lt;sup>20</sup> <u>Exelon Generation Co.</u> (Limerick Generating Station, Units 1 & 2), LBP-12-8, 75 NRC 539, 547 (2012) (citing <u>Duke Energy Corp.</u> (Oconee Nuclear Station, Units 1, 2, & 3), LBP-98-33, 48 NRC 381, 385 n.1 (1998)), rev'd in part on other grounds, CLI-12-19, 76 NRC 377 (2012).

<sup>&</sup>lt;sup>21</sup> Calvert Cliffs, CLI-09-20, 70 NRC at 917.

<sup>&</sup>lt;sup>22</sup> <u>See id.</u> at 915 n.15 (citing <u>Fla. Power & Light Co.</u> (Turkey Point Nuclear Generating Plant, Units 3 & 4), LBP-01-6, 53 NRC 138, 150, <u>aff'd on other grounds</u>, CLI-01-17, 54 NRC 3 (2001)).

 <sup>&</sup>lt;sup>23</sup> See, e.g., Fla. Power & Light Co. (Turkey Point Nuclear Generating Units 3 & 4), LBP-19-3,
89 NRC \_\_\_\_, \_\_\_ (slip op. at 7) (Mar. 7, 2019); Entergy Operations, Inc. (River Bend Station, Unit 1), LBP-18-1, 87 NRC 1, 7 n.4 (2018).

<sup>&</sup>lt;sup>24</sup> The same conclusion was recently reached in a recent subsequent license renewal proceeding. <u>Turkey Point</u>, LBP-19-3, 89 NRC at \_\_\_ (slip op. at 7).

environmental harms, and safeguard our future.<sup>"26</sup> The environmental interests Beyond Nuclear seeks to protect in this proceeding are thus germane to its organizational purpose. Further, Beyond Nuclear provides declarations from three of its members, all of whom (1) live within 50 miles of Peach Bottom and therefore have standing in their own right pursuant to the proximity presumption; and (2) have authorized Beyond Nuclear to represent their interests in this proceeding, thus rendering it unnecessary for them to participate as individuals.<sup>27</sup> Therefore, we find that Beyond Nuclear satisfies the requirements for representational standing.

### III. CONTENTION ADMISSIBILITY

### A. Legal Standard

#### 1. Contention Admissibility Factors

For a hearing to be granted, a petitioner not only must establish its standing to intervene,

but also must proffer at least one admissible contention.<sup>28</sup> An admissible contention must be

timely<sup>29</sup> and must satisfy the requirements of 10 C.F.R. § 2.309(f)(1), which states in relevant

part that a petition must:

(i) Provide a specific statement of the issue of law or fact to be raised or controverted . . . ;

(ii) Provide a brief explanation of the basis for the contention;

(iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;

(iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;

<sup>&</sup>lt;sup>26</sup> Petition at 2.

<sup>&</sup>lt;sup>27</sup> Petition, attach. 1, Decl. of Ernest Eric Guyll ¶¶ 2, 4 (Oct. 20, 2018); <u>id.</u>, attach. 2, Decl. of John S. Adams ¶¶ 2, 4 (Oct. 29, 2018); <u>id.</u>, attach. 3, Decl. of Virginia Topkis ¶¶ 2, 4 (Nov. 9, 2018).

<sup>&</sup>lt;sup>28</sup> <u>See</u> 10 C.F.R. § 2.309(a).

<sup>&</sup>lt;sup>29</sup> <u>See id.</u> § 2.309(b)(3)(i) (requiring filing of a petition to intervene within the "time specified in any . . . notice of proposed action").

(v) Provide a concise statement of the alleged facts or expert opinions which support the . . . petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the . . . petitioner intends to rely to support its position on the issue; [and]

(vi) . . . [P]rovide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must include references to specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief.<sup>30</sup>

A petitioner's failure to comply with any of these section 2.309(f)(1) requirements

renders a contention inadmissible.31

## 2. <u>Safety Review Requirements for License Renewal Applications</u>

When the NRC issues an initial operating license, it makes a "comprehensive

determination that the design, construction, and proposed operation of the facility satisfie[s] the

Commission's requirements and provide[s] reasonable assurance of adequate protection to the

public health and safety and common defense and security."32 Along with its operating license,

each nuclear power plant has a "current licensing basis," defined as an "evolving set of

requirements and commitments" applicable to the plant that are effective through the plant's

license term.33

Because the Commission deems it inappropriate or unnecessary "to throw open the full

gamut of provisions in a plant's current licensing basis" for re-analysis during license renewal,

<sup>&</sup>lt;sup>30</sup> <u>Id.</u> § 2.309(f)(1).

<sup>&</sup>lt;sup>31</sup> See <u>Private Fuel Storage, L.L.C.</u> (Indep. Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 325 (1999) (citing <u>Ariz. Pub. Serv. Co.</u> (Palo Verde Nuclear Generating Station, Units 1, 2, & 3), CLI-91-12, 34 NRC 149, 155–56 (1991)).

<sup>&</sup>lt;sup>32</sup> Final Rule, Nuclear Power Plant License Renewal, 56 Fed. Reg. 64,943, 64,947 (1991).

<sup>&</sup>lt;sup>33</sup> Final Rule, Nuclear Power Plant License Renewal; Revisions, 60 Fed. Reg. 22,461, 22,473 (1995). For a definition of "current licensing basis," see 10 C.F.R. § 54.3(a).

the scope of safety issues that may be considered in this proceeding is limited.<sup>34</sup> A license renewal safety review therefore restricts its focus to the plant's systems, structures, and components (SSCs) "for which current [regulatory] activities and requirements may not be sufficient to manage the effects of aging in the period of extended operation."<sup>35</sup> Accordingly, the requirements governing renewal of operating licenses for nuclear power plants, which are found in 10 C.F.R. Part 54, center on the "detrimental effects of aging." Those provisions also require all power reactor license renewal applicants to demonstrate how their programs and procedures will manage the effects of aging on power reactor SSCs.<sup>36</sup> Section 54.21 sets out the technical information requirements for power reactor license renewal applications, including subsequent license renewal applications. License renewal applications must "identify and list [SSCs] subject to aging management review,"<sup>37</sup> and must "demonstrate that the effects of aging will be adequately managed so that the intended function(s) will be maintained consistent with the [current licensing basis] for the period of extended operation," i.e., the license renewal term.<sup>38</sup> Relevant to the issues in this proceeding, the Commission may issue a renewed license if it concludes that the licensee's management of aging effects on the plant's identified SSCs will provide "reasonable assurance that the activities authorized by the renewed license will continue to be conducted in accordance with the [current licensing basis]."39

For an applicant pursuing a subsequent license renewal, the NRC Staff's safety review under Part 54 is guided by the Standard Review Plan for Subsequent License Renewal

<sup>36</sup> <u>Turkey Point</u>, CLI-01-17, 54 NRC at 7–8.

- <sup>38</sup> <u>Id.</u> § 54.21(a)(3).
- <sup>39</sup> <u>Id.</u> § 54.29(a).

- 8 -

<sup>&</sup>lt;sup>34</sup> <u>Fla. Power & Light Co.</u> (Turkey Point Nuclear Generating Plant, Units 3 & 4), CLI-01-17, 54 NRC 3, 9–10 (2001).

<sup>&</sup>lt;sup>35</sup> 60 Fed. Reg. at 22,469.

<sup>37 10</sup> C.F.R. § 54.21(a)(1).

Applications (SRP-SLR)<sup>40</sup> and the Generic Aging Lessons Learned for Subsequent License Renewal Report (GALL-SLR).<sup>41</sup> While the NRC does not require subsequent license renewal applicants to use or reference these documents in their applications, both the SRP-SLR and the GALL-SLR include elements the NRC Staff considers acceptable for managing the aging effects on power reactor SSCs through the licensee's aging management programs (AMPs).<sup>42</sup>

## 3. Environmental Review Requirements for License Renewal Applications

The National Environmental Policy Act (NEPA) requires federal agencies to prepare an environmental impact statement (EIS) for proposed major federal actions "significantly affecting the quality of the human environment,"<sup>43</sup> including a detailed discussion of "the environmental impact of the proposed action," "any adverse environmental effects which cannot be avoided should the proposal be implemented," and "alternatives to the proposed action."<sup>44</sup> Although NEPA requires the agency to take a "hard look" at environmental consequences of major federal actions, it "seeks to guarantee process, not specific outcomes."<sup>45</sup>

<sup>42</sup> 1 GALL-SLR at xxv.

<sup>&</sup>lt;sup>40</sup> Office of Nuclear Reactor Regulation (NRR), Standard Review Plan for Review of Subsequent License Renewal Applications for Nuclear Power Plants, NUREG-2192, at iii (July 2017) (ADAMS Accession No. ML17188A158).

<sup>&</sup>lt;sup>41</sup> 1 NRR, Generic Aging Lessons Learned for Subsequent License Renewal Report, NUREG-2191, at iii (Vol. 1 July 2017) (ADAMS Accession No. ML17187A031); 2 NRR, Generic Aging Lessons Learned for Subsequent License Renewal Report, NUREG-2191, Vol. 2 at iii (ADAMS Accession No. ML17187A204). Unless specified, Volume 1 and Volume 2 of the Generic Aging Lessons Learned for Subsequent License Renewal Report will be referred to collectively as the GALL-SLR <u>infra</u>.

<sup>&</sup>lt;sup>43</sup> 42 U.S.C. § 4332(2)(C) (emphasis added). However, the NRC is not required to prepare an EIS under NEPA when the contemplated major Federal action before the agency is not "<u>significantly</u> affecting the quality of the human environment." <u>Id.</u> In those instances "an environmental assessment, with its accompanying finding of no significant impact, constitutes an agency's evaluation of the environmental effects of a proposed action." <u>Pac. Gas. & Elec.</u> <u>Co.</u> (Diablo Canyon Power Plant Indep. Spent Fuel Storage Installation), CLI-08-26, 68 NRC 509, 514 (2008); <u>see also</u> 10 C.F.R. § 51.14.

<sup>&</sup>lt;sup>44</sup> 42 U.S.C. § 4332(2)(C)(i)–(iii).

<sup>&</sup>lt;sup>45</sup> <u>Massachusetts v. NRC</u>, 708 F.3d 63, 67 (1st Cir. 2013) (quoting <u>Town of Winthrop v. FAA</u>, 535 F.3d 1, 4 (1st Cir. 2008)).

The NRC's NEPA-implementing regulations are found in 10 C.F.R. Part 51.<sup>46</sup> Pursuant to these regulations, the renewal of a license to operate a nuclear power reactor constitutes a "major Federal action" triggering the NRC's obligation under NEPA to prepare an EIS.<sup>47</sup> Although preparing an EIS that complies with NEPA is ultimately the NRC's responsibility, the process actually begins with the license renewal applicant.<sup>48</sup> Pursuant to 10 C.F.R. §§ 51.45 and 51.53(c)(1), license renewal applicants must submit an environmental report (ER), the purpose of which is "to aid the Commission in complying with section 102(2) of NEPA."<sup>49</sup> The NRC Staff, in turn, reviews the applicant's ER and "draw[s] upon [it] to produce a draft supplemental EIS"<sup>50</sup> that addresses plant-specific issues not covered by the agency's generic environmental impact statement on NEPA issues associated with plant license renewals.<sup>51</sup>

Finally, "although environmental contentions are, in essence, challenges to the Staff's compliance with NEPA, those contentions must be raised, if possible, in response to the applicant's environmental report."<sup>52</sup> Petitioners who choose to wait to proffer environmental contentions challenging the NRC Staff's later-issued environmental document "do so at their peril" because if there is no material difference between the applicant's ER and the NRC Staff's environmental document, a contention raised at that point would be rendered "impermissibly late."<sup>53</sup>

<sup>53</sup> Id.

<sup>&</sup>lt;sup>46</sup> <u>See</u> 10 C.F.R. § 51.10.

<sup>&</sup>lt;sup>47</sup> <u>See id.</u> § 51.20(a), (b)(2).

<sup>&</sup>lt;sup>48</sup> See Massachusetts v. United States, 522 F.3d 115, 120 (1st Cir. 2008).

<sup>&</sup>lt;sup>49</sup> 10 C.F.R. § 51.14; <u>see also id.</u> § 51.45(c) ("The [ER] should contain sufficient data to aid the Commission in its development of an independent analysis [in the EIS].").

<sup>&</sup>lt;sup>50</sup> <u>Massachusetts</u>, 522 F.3d at 120.

<sup>&</sup>lt;sup>51</sup> <u>See</u> 1 NRR, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, NUREG-1437 (rev. 1 June 2013) (ADAMS Accession No. ML13106A241) ("2013 GEIS").

<sup>&</sup>lt;sup>52</sup> DTE Elec. Co. (Fermi Nuclear Power Plant, Unit 3), CLI-15-1, 81 NRC 1, 7 (2015).

### 4. New and Amended Contentions

A petitioner who moves to file new or amended contentions after the deadline for submitting a petition to intervene and request for hearing must meet the "good cause" standard under 10 C.F.R. § 2.309(c)(1). "Good cause" exists if the petitioner demonstrates that (1) the information upon which the new or amended contention is based was not previously available; (2) the information upon which the contention is based is materially different from information previously available; and (3) the contention has been submitted in a timely fashion (generally deemed to be within 30 days) based on the availability of the subsequent information.<sup>54</sup> "Materially different" in this context concerns the "type or degree of difference between the new information and previously available information.<sup>55</sup>

- B. <u>Analysis</u>
- 1. Amended Contention

As stated <u>supra</u>, the deadline for filing a petition to intervene and request for hearing in this proceeding was November 19, 2018. On May 1, 2019, Beyond Nuclear moved to amend its hearing request. Beyond Nuclear did not seek to amend its contentions, but rather to "amend the basis statements for Contentions 1 and 2 to include reference" to a revised Pacific Northwest National Laboratory report (Ramuhalli Revision 1)<sup>56</sup> because Beyond Nuclear's expert, Mr. Lochbaum, had relied on a 2017 draft version of that report (Ramuhalli 2017) to

- 11 -

<sup>&</sup>lt;sup>54</sup> <u>See</u> 10 C.F.R. § 2.309(c)(1); <u>see also Shaw AREVA MOX Servs.</u> (Mixed Oxide Fuel Fabrication Facility), LBP-08-11, 67 NRC 460, 493 (2008) (observing that many licensing boards have found 30 days from a triggering event for proffering a new or amended contention to be timely).

<sup>&</sup>lt;sup>55</sup> <u>Fla. Power & Light Co.</u> (Turkey Point Units 6 & 7), LBP-17-6, 86 NRC 37, 48, <u>aff'd</u>, CLI-17-12, 86 NRC 215 (2017).

<sup>&</sup>lt;sup>56</sup> Amended Petition at 6 (referring to P. Ramuhalli et al., Pacific Northwest National Laboratory, Criteria and Planning Guidance for Ex-Plant Harvesting to Support Subsequent License Renewal (rev. 1 Mar. 2019) (ADAMS Accession No. ML19081A006)).

support its initial petition.<sup>57</sup> Beyond Nuclear argues that its motion to amend meets the threeprong good cause standard, because (1) Ramuhalli Revision 1 "did not become available until ... April 2" and therefore qualifies as new information;<sup>58</sup> (2) "the characterization of the significance of [the evaluated] facts and actions needed to address those facts has materially changed" between Ramuhalli 2017 and Ramuhalli Revision 1;<sup>59</sup> and (3) the motion was timely filed within thirty days of Ramuhalli Revision 1's availability.<sup>60</sup> The NRC Staff and Exelon oppose the motion.<sup>61</sup>

We agree with Beyond Nuclear that it has met the good cause standard. That Ramuhalli Revision 1 first became available on April 2, 2019 is undisputed. We agree as well that the language within Ramuhalli Revision 1 regarding component harvesting, material degradation, and the overall conclusions did change substantially enough that Ramuhalli 2017 is materially different from Ramuhalli Revision 1.<sup>62</sup> Finally, Beyond Nuclear's motion was filed in a timely manner, i.e., twenty-nine days after Ramuhalli Revision 1 became available. We accordingly grant Beyond Nuclear's motion to amend. Beyond Nuclear's contentions are therefore deemed to include references both to Ramuhalli Revision 1 and to Ramuhalli 2017 in support of its

<sup>58</sup> Id. at 8.

<sup>59</sup> Id.

<sup>60</sup> <u>Id.</u> at 9.

<sup>&</sup>lt;sup>57</sup> Petition, attach. 4, David Lochbaum, Proposed Subsequent License Renewal of Peach Bottom Units 2 and 3: Exelon's Aging Management Programs Fail to Provide Adequate Measures for Consideration of Operating Experience Throughout the Period of Extended Operation at 48 (Nov. 16, 2018) ("Lochbaum Report") (citing P. Ramuhalli et al., Pacific Northwest National Laboratory, Criteria and Planning Guidance for Ex-Plant Harvesting to Support Subsequent License Renewal (Dec. 2017)).

<sup>&</sup>lt;sup>61</sup> <u>See</u> NRC Staff Answer to Amended Hearing Request at 2; Exelon Answer to Amended Hearing Request at 1.

<sup>&</sup>lt;sup>62</sup> Amended Petition at 4–6. For example, while Ramuhalli 2017's summary concludes that addressing materials degradation at nuclear plants after extended operation "will likely require" a combination of laboratory studies and research on harvested materials from operating and decommissioned plants, Ramuhalli Rev. 1's summary concludes that studies on materials harvested at plants merely "can provide confirmation" of the effectiveness of aging management programs. <u>Compare</u> Ramuhalli 2017 at v, <u>with</u> Ramuhalli Rev. 1 at ii.

contentions. Although we grant Beyond Nuclear's motion to amend its basis statements to include references to both Ramuhalli 2017 and Ramuhalli Rev. 1, we nevertheless conclude that the contentions advanced here are deficient because they fail to meet the Commission's six-factor admissibility standard as set forth above.

### 2. <u>Contention Admissibility</u>

a. Contention 1

Exelon's subsequent license renewal application fails to comply with NRC safety regulation 10 C.F.R. § 54.21(a)(3), nor does it meet the NRC's standards for renewal of an operating license in 10 C.F.R. §§ 54.29(a)(1) and 54.31(a)(1), because its aging management programs for the subsequent license renewal term do not address any of the following issues:

- (a) The degree to which Exelon's aging management programs depend on external operating experience,
- (b) How Exelon will determine what amount of operating experience information is sufficient, and
- (c) How operating experience will be augmented if it is deemed insufficient.

Exelon's license for Peach Bottom Units 2 and 3 should not be renewed until these actions have been taken. <sup>63</sup>

As support for this contention, Beyond Nuclear provides the report by David A.

Lochbaum (Lochbaum Report).<sup>64</sup> Mr. Lochbaum is an expert on nuclear power safety issues.<sup>65</sup>

His report opines that there is a "vital role [to be] played by operating experience in shaping, and

re-shaping, aging management programs."<sup>66</sup> Mr. Lochbaum further claims that even though

Exelon's subsequent license renewal application considered operating experience, the

application "does not explain how Exelon can continue to obtain and evaluate external operating

experience if it becomes less and less available" as a result of other facility shutdowns before or

<sup>&</sup>lt;sup>63</sup> Petition at 4. In its reply, Beyond Nuclear acknowledges that its citation to 10 C.F.R. § 54.31(a)(1) was in error. Beyond Nuclear Reply at 2 n.2.

<sup>&</sup>lt;sup>64</sup> Petition, attach. 4, Decl. of David A. Lochbaum.

<sup>&</sup>lt;sup>65</sup> <u>Id.</u> at ¶ 1, 2.

<sup>&</sup>lt;sup>66</sup> Lochbaum Report at 3.

during the subsequent renewal term.<sup>67</sup> Mr. Lochbaum insists that Exelon's application "must explicitly discuss the sources of operating experience for the various aging management program[s] and the 'critical mass' of that information needed to maintain their effectiveness."<sup>68</sup>

The NRC Staff argues that Contention 1 constitutes an impermissible challenge to the agency's regulations, i.e., the sufficiency of the Part 54 aging management requirements.<sup>69</sup> The NRC Staff asserts that Contention 1's supporting Lochbaum Report "repeatedly misstates requirements and conflates guidance documents with regulations."<sup>70</sup> Additionally, the NRC Staff points out that Beyond Nuclear incorporates the Lochbaum Report by reference but does not explain how the Report supports its claims, as required by 10 C.F.R. § 2.309(f)(1)(v).<sup>71</sup> Both the NRC Staff and Exelon oppose Contention 1 on the ground that Beyond Nuclear fails to demonstrate a genuine dispute with Exelon's application on a material issue of law or fact. In particular, Exelon argues that Beyond Nuclear fails to identify any aging management programs in its subsequent license renewal application that are inadequate, as required by 10 C.F.R. § 2.309(f)(1)(vi).<sup>72</sup> Further, the NRC Staff maintains that Beyond Nuclear fails to specify which reactor safety margins may be jeopardized by an alleged decline in operating experience.<sup>73</sup>

The Board concludes that this contention does not exhibit a genuine dispute with Exelon's application on a material issue of law or fact. Contention 1 relies on the general premise that because "the number of operating plants, operating reactors, is decreasing, and is

- 14 -

<sup>&</sup>lt;sup>67</sup> <u>Id.</u> at 30. At oral argument, Beyond Nuclear conceded that there is actually no decrease in the total volume of operational experience from nuclear power plants, but rather a potential decrease in the rate of accumulation of such experience. Tr. at 18.

<sup>&</sup>lt;sup>68</sup> Lochbaum Report at 33.

<sup>&</sup>lt;sup>69</sup> NRC Staff Answer at 35.

<sup>&</sup>lt;sup>70</sup> <u>Id.</u> at 33.

<sup>&</sup>lt;sup>71</sup> <u>Id.</u> at 38, 41–42.

<sup>&</sup>lt;sup>72</sup> Exelon Answer at 14.

<sup>&</sup>lt;sup>73</sup> NRC Staff Answer at 38.

likely to decrease through the subsequent license renewal term of Peach Bottom,"<sup>74</sup> Exelon's application is inadequate and therefore its application must be revised to account for a possible future reduction in the rate of accumulation of domestic nuclear operating experience. However, nowhere does Beyond Nuclear identify any specific deficiencies in the Peach Bottom aging management programs described in Exelon's application, much less point to any specific inadequacies anywhere else in the application.

Moreover, Beyond Nuclear's claim concerning the possibility of reduced operating experience is much too general and vague to create a genuine dispute with Exelon's application for two reasons. First, the Lochbaum Report fails to explain why an alleged reduction in the rate of accumulation of domestic nuclear operating experience will adversely affect the Peach Bottom AMPs. When asked at oral argument to cite where in its pleadings Beyond Nuclear identified this specific flaw in Exelon's application, Beyond Nuclear was unable to do so.<sup>75</sup> Beyond Nuclear stated that were a hearing granted, "the subject would be do we have a problem and what is the extent of the problem," and "if there is a problem, what do we do about it[.]"<sup>76</sup> Beyond Nuclear's approach here is not in accordance with agency precedent. Although there may have been a time when licensing boards would admit contentions based on "little more than speculation" and petitioners would try to "unearth" contentions through "cross-examination," the Commission has made clear that evidentiary hearings now are only afforded to those who "proffer at least some minimal factual and legal foundation in support of their contentions."<sup>77</sup> Because Beyond Nuclear has provided no link between its concern about a possible reduction in the accumulation of operating experience and the adequacy of the AMPs

- 15 -

<sup>&</sup>lt;sup>74</sup> Tr. at 37–38.

<sup>&</sup>lt;sup>75</sup> Tr. at 113–14.

<sup>&</sup>lt;sup>76</sup> Tr. at 140–41.

<sup>&</sup>lt;sup>77</sup> <u>Duke Energy Co.</u> (Oconee Nuclear Station, Units 1, 2, & 3), CLI-99-11, 49 NRC 328, 334 (1999).

at Peach Bottom, Contention 1 falls short of being admissible for hearing. Therefore, we find no genuine dispute with Exelon's application, as required under 10 C.F.R. § 2.309(f)(1)(vi).

Second, the Lochbaum Report fails to explain at what point the "critical mass" threshold would be reached so that Exelon could no longer acquire the operating experience necessary for the effective management of aging equipment at Peach Bottom. In fact, the Lochbaum Report seems to acknowledge that this specific data point is enigmatic: "<u>At some point</u>, Operating Experience <u>may</u> become insufficient to maintain effective aging management programs."<sup>78</sup> Moreover, when afforded an opportunity at oral argument to explain the basis for this alleged "critical mass," Beyond Nuclear merely provided a conclusory statement supporting the timing of this contention, i.e., that because the possible reduction in the accumulation of operating experience is "reasonably . . . capable of being anticipated[,] . . . now is the time to address it."<sup>79</sup> Ultimately, however, when a contention is proffered, it must be based on fact or an expert opinion, not on speculation or conjecture. Because Contention 1 lacks sufficient support, the contention is also inadmissible for failing to meet the requirements in 10 C.F.R. § 2.309(f)(1)(v).

Contention 1 is not admitted.

b. Contention 2

Beyond Nuclear's Contention 2 concerns Exelon's management of the aging effects of Peach Bottom's reactor operating equipment. While very similar to Contention 1, Contention 2 focuses, not on safety concerns under Part 54, but rather on three potential environmental effects of possible design-basis accidents under Part 51. Beyond Nuclear's main concerns in

<sup>&</sup>lt;sup>78</sup> Lochbaum Report at 20 (emphasis added); <u>id.</u> at 32 ("Permanent closures of nuclear power reactors will reduce the amount of operating experience to a point that [AMPs] <u>may be significantly impaired.</u>" (emphasis added)). The Lochbaum Report also refers to the issues asserted by Beyond Nuclear in Contention 1 as a "potential problem," rather than an established one. <u>Id.</u>

<sup>&</sup>lt;sup>79</sup> Tr. at 141.

Contention 2 are: (1) the alleged omission by Exelon of accident risks posed by operating aging reactor equipment; (2) Exelon's alleged failure to include and evaluate certain literature in its application; and (3) the alleged significance of declining operating experience. We designate these environmentally-based challenges as Contentions 2A, 2B, and 2C, and address them accordingly.

### i. Contention 2A: Accident Risks Posed By Operating Aging Reactor Equipment

Exelon's Environmental Report for Peach Bottom Units 2 and 3 violates the National Environmental Policy Act ("NEPA") and NRC implementing regulation 10 C.F.R. § 51.53(c)(2) by failing to address the accident risks posed by operating aging reactor equipment during a second license renewal term. Exelon incorrectly claims that the risk of operating Peach Bottom with aging equipment is a "Category 1" issue and therefore exempt from consideration under 10 C.F.R. § 51.53(c)(3) and 10 C.F.R. Part 50, Appendix A. Environmental Report at 4-12 (citing Category 1 designation of "design-basis accidents"). In taking this position, Exelon disregards the plain language of § 51.53(c)(3), which states that the regulation applies only to "initial" operating license renewal applications. Exelon's application is governed by 10 C.F.R. § 51.53(c)(2), which contains no such exemption.<sup>80</sup>

Beyond Nuclear essentially argues that Exelon's environmental report fails to include

design-basis accident risk analysis, as required by NEPA and 10 C.F.R. § 51.53(c)(2).81 In

proffering this contention of omission, Beyond Nuclear also argues that Exelon, as a

subsequent license renewal applicant, may not rely upon the generic environmental analyses

for license renewal contained in Part 51, Appendix B to Subpart A (Table B-1) because of the

plain language of 10 C.F.R. § 51.53(c)(3).82 At the outset, Beyond Nuclear argues that

10 C.F.R. § 51.53(c)(3) does not apply to Exelon's application (or, for that matter, to any other

subsequent license renewal application) on the ground that the regulation only applies to initial

<sup>82</sup> Id. at 7.

<sup>&</sup>lt;sup>80</sup> Petition at 6–7.

<sup>&</sup>lt;sup>81</sup> <u>Id.</u>

license renewals.<sup>83</sup> Beyond Nuclear further asserts that Exelon, as a subsequent license renewal applicant, is barred from relying on the analyses contained in the 2013 GEIS.<sup>84</sup>

In opposition, Exelon maintains that its application may incorporate by reference<sup>85</sup> the 2013 Generic Environmental Impact Statement for License Renewal of Nuclear Plants (2013 GEIS)<sup>86</sup> and the results of the 2013 GEIS analyses codified in Table B-1 as permitted by section 51.53(a).<sup>87</sup> From this, Exelon asserts that 10 C.F.R. § 2.335 prohibits the Board from admitting Contention 2 because Contention 2 amounts to an impermissible challenge to the NRC's codified Table B-1 generic analyses.<sup>88</sup> The NRC Staff agrees with Exelon's assessment, arguing that Exelon "is not required to include an analysis of the impacts of [subsequent license renewal] operation at Peach Bottom for Category 1 issues because they have been determined to be similar for all plants and are not required to be evaluated in a plant-specific analysis."<sup>89</sup>

We recognize that the issue of the applicability of 10 C.F.R. § 51.53(c)(3) to subsequent

license renewal applications has been raised in another subsequent license renewal proceeding

and is currently pending before the Commission.<sup>90</sup> However, for the purposes of analyzing the

<sup>&</sup>lt;sup>83</sup> Petition at 11. Beyond Nuclear's argument is based on the regulation's introduction, which states that it is "[f]or applicants seeking an initial renewed license." 10 C.F.R. § 51.53(c)(3).

<sup>&</sup>lt;sup>84</sup> Petition at 11 ("[N]o environmental impact statement ("EIS") exists that addresses the issue" of "the environmental risks of design-basis accidents . . . for twenty years beyond the initial license term.").

<sup>&</sup>lt;sup>85</sup> Exelon Answer at 29–30 (citing Exelon, Applicant's Environmental Report – Operating License Renewal Stage – Subsequent License Renewal, The Second License Renewal, Peach Bottom Atomic Power Station, [Units 2 & 3] (July 2018), at 4-69 to -70 (ADAMS Accession No. ML18201A219) ("ER")).

<sup>&</sup>lt;sup>86</sup> 2013 GEIS at S-17 to -18.

<sup>&</sup>lt;sup>87</sup> Exelon Answer at 29–30 (citing 10 C.F.R. Part 51, subpt. A, app. B ("Table B-1")); <u>id.</u> at 31.

<sup>&</sup>lt;sup>88</sup> <u>Id.</u> at 30.

<sup>&</sup>lt;sup>89</sup> NRC Staff Answer at 56 (citing <u>Turkey Point</u>, CLI-01-17, 54 NRC at 11).

<sup>&</sup>lt;sup>90</sup> <u>See Turkey Point</u>, LBP-19-3, 89 NRC at \_\_\_ (slip op. at 25 n.46) (referring to the Commission its ruling that 10 C.F.R. § 51.53(c)(3) applies to the preparation of environmental reports in subsequent license renewal proceedings).

sufficiency of Beyond Nuclear's proffered contentions here, we need not make a determination on that issue at this juncture. We therefore proceed with analyzing the admissibility of Beyond Nuclear's contentions without deciding whether or not section 51.53(c)(3) applies to subsequent license renewal proceedings.

With respect to Beyond Nuclear's claim that Exelon's environmental report fails to address accident risks posed by aging reactor equipment through the subsequent renewal term, we first observe that the plain language of section 51.53(a) expressly permits any postconstruction applicant's environmental report to "incorporate by reference . . . any information contained in a final environmental document previously prepared by the NRC staff that relates to the production or utilization facility or site."<sup>91</sup> This regulation approves the incorporation by reference of "NRC staff-prepared final generic environmental impact statements."<sup>92</sup> Here, such generic treatment would thus include both the 2013 GEIS and the promulgated analysis results from Table B-1—<u>regardless</u> of whether the provisions of section 51.53(c)(3) apply to Exelon. So, even were we to hold that section 51.53(c)(3) did not apply to Exelon as a subsequent license renewal applicant, it would still be permitted to incorporate the 2013 GEIS analyses into its environmental report.<sup>93</sup> Accordingly, we conclude that Exelon is permitted to incorporate by reference by reference the 2013 GEIS into its environmental report.

We also reject Beyond Nuclear's assertion that Exelon "fail[s] to address the accident risks posed by operating aging reactor equipment" for the subsequent license renewal term.<sup>94</sup> Exelon's application incorporates by reference "Issue 65, Design-basis accidents"<sup>95</sup> and the

<sup>&</sup>lt;sup>91</sup> 10 C.F.R. § 51.53(a).

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

<sup>&</sup>lt;sup>93</sup> To challenge any such incorporated analyses in a licensing proceeding, a petitioner would have to obtain a waiver under 10 C.F.R. § 2.335(b).

<sup>&</sup>lt;sup>94</sup> Petition at 6–7.

<sup>&</sup>lt;sup>95</sup> ER at 4-69.

associated conclusions from the 2013 GEIS.<sup>96</sup> Aside from its general argument that subsequent license renewal applicants cannot rely on the 2013 GEIS because it fails to "expand the temporal scope of the environmental analysis" to subsequent license renewals,<sup>97</sup> Beyond Nuclear is unable to explain why section 51.53(a) does not permit Exelon to utilize the 2013 GEIS analysis in its application.<sup>98</sup> Nor does Beyond Nuclear's expert opinion, the Lochbaum Report, support Beyond Nuclear's position that the NRC Staff's analysis in the 2013 GEIS is deficient or that the 2013 GEIS cannot apply to subsequent license renewal applications. Simply put, there is insufficient factual support for Beyond Nuclear's claim here.

Therefore, because Exelon did incorporate by reference the 2013 GEIS analyses and the Table B-1 results concerning design-basis accidents in its environmental report (as permitted by section 51.53(a)),<sup>99</sup> we find there was no omission, and thus there is no genuine dispute as required under 10 C.F.R. § 2.309(f)(1)(vi). And because Contention 2A lacks any "alleged facts or expert opinions," as required by section 2.309(f)(1)(v), for Beyond Nuclear's argument concerning Exelon's use of the 2013 GEIS, this aspect of the contention also fails.

### ii. Contention 2B: Failure to Review and Evaluate Literature and SECY Memorandum

Exelon also violates NEPA by failing to review and evaluate the existing body of literature regarding reactor aging phenomena and their effects beyond 60 years. <u>Pacific Gas & Electric Co</u>. (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-11-11, 74 NRC 427, 443 (2011) (where the Environmental Report had conceded the relevance of seismic risk, holding admissible the question of whether an additional technical study should be considered). Here, there can be no question that the accident risk posed by operating Peach Bottom for an additional twenty years is a relevant environmental consideration. But Exelon does not address the significant body of studies raising concerns about how much is still unknown about the effects of aging on reactor safety equipment. <u>See</u> Lochbaum Expert Report, Section 4 and technical studies listed therein. Relevant studies include, for instance, the Expanded Materials

<sup>&</sup>lt;sup>96</sup> 2013 GEIS at S-17; <u>see also</u> Table B-1 ("The NRC staff has concluded that the environmental impacts of design-basis accidents are of small significance for all plants.").

<sup>&</sup>lt;sup>97</sup> Petition at 12.

<sup>&</sup>lt;sup>98</sup> Exelon stated this defense in its answer, Exelon Answer at 30–31, and Beyond Nuclear appeared not to dispute this in its reply to the NRC Staff and Exelon.

<sup>&</sup>lt;sup>99</sup> ER at 4-69.

Degradation Assessment (EMDA), a five-volume report prepared by the NRC and the U.S. Department of Energy ("DOE"), NUREG/CR-7153, ORNL/TM-2013/532, Oct. 2014) ("EMDA Report"). Other examples of relevant studies of aging reactor equipment are listed in Section 10 of the attached Lochbaum Expert Report.

Exelon's Environmental Report should also address the environmental implications of reactor aging issues identified by the NRC Staff in SECY-14-0016, Memorandum from Mark A. Satorius, NRC Executive Director of Operations, to Ongoing Staff Activities to Assess Regulatory NRC Commissioners, re: Considerations for Power Reactor Subsequent License Renewal (Jan. 31, 2014) (ADAMS Accession No. ML14050A306). These issues, characterized by the Staff as "the most significant technical issues challenging [reactor] operation beyond 60 years," include reactor pressure vessel embrittlement; irradiation-assisted stress corrosion cracking of reactor internals, concrete structures and containment degradation; and electrical cable gualification and condition assessment. Id., Enclosure 1 at 2-3. As stated by senior NRC management, "it is the industry's responsibility to resolve these and other issues to provide the technical bases to ensure safe operation beyond 60 years." Id. at 3. Beyond Nuclear is aware of no determination that these issues have been resolved since publication of SECY-14-0016. The Environmental Report should address the degree to which a lack of information regarding the effects of aging on reactor systems and components affects the environmental risk posed by extended operation. See 40 C.F.R. § 1502.22, which provides "guidance" to the NRC (74 NRC at 444) that "when an agency is evaluating reasonably foreseeable significant adverse effects on the human environment in an environmental impact statement and there is incomplete or unavailable information, the agency shall always make clear that such information is lacking.100

Here, Beyond Nuclear argues that Exelon's environmental report violates NEPA for

failing to take into account a body of literature concerning aging reactor phenomena that might

occur beyond the first sixty years of operation.<sup>101</sup> Such literature includes the U.S. Department

of Energy's and the NRC's co-authored "Expanded Materials Degradation Assessment"

(EMDA)<sup>102</sup> as well as other literature listed in the Lochbaum Report's "references" section.<sup>103</sup>

Additionally, Beyond Nuclear contends that Exelon should address the aging management

<sup>&</sup>lt;sup>100</sup> Petition at 7–8.

<sup>&</sup>lt;sup>101</sup> <u>Id.</u> at 7.

<sup>&</sup>lt;sup>102</sup> See generally 1–5 U.S. Dep't of Energy & NRC, Expanded Materials Degradation Assessment, NUREG/CR-7153, ORNL/TM-2013/532 (Oct. 2014) (ADAMS Accession Nos. ML14279A321, ML14279A331, ML14279A349, ML14279A430, ML14279A461).

<sup>&</sup>lt;sup>103</sup> Lochbaum Report at 44–48.

issues that were raised by the NRC Staff in a 2014 memorandum to the Commission (SECY-14-0016).<sup>104</sup>

Exelon and the NRC Staff both dispute Beyond Nuclear's argument, asserting among other things that the Lochbaum Report fails to provide a basis to show a genuine dispute with Exelon's application.<sup>105</sup> The Board agrees. We conclude that Beyond Nuclear has not specified any legal basis (nor can we find one) that requires Exelon's environmental report to address the EMDA, the issues raised in SECY-14-0016,<sup>106</sup> or the Lochbaum Report's list of references.

Further, Beyond Nuclear does not identify the specific documents referenced in the

Lochbaum Report that Exelon should have "review[ed] and evaluate[d]," much less does it offer

any evidence that NEPA mandates such a document review and evaluation in Exelon's

environmental report. Therefore, the Board concludes that this aspect of Contention 2 is

inadmissible under 10 C.F.R. § 2.309(f)(1)(iv) for failing to raise an issue material to the findings

the NRC must make.<sup>107</sup>

# iii. Contention 2C: Significance of Declining External Operating Experience

Finally, the environmental report should address the significance of the declining amount of external operating experience available to Exelon to assist and increase its understanding of age-related environmental risks during the subsequent license renewal term. <u>See</u> Lochbaum Expert Report, which is attached and incorporated by reference herein.<sup>108</sup>

<sup>107</sup> Because Beyond Nuclear failed to show any legal requirement for Exelon's subsequent license renewal application to analyze Mr. Lochbaum's cited body of literature, Contention 2 also is not admitted because it fails to show a genuine dispute exists with the application on a material issue of law or fact. 10 C.F.R. 2.309(f)(1)(vi).

<sup>108</sup> Petition at 8.

<sup>&</sup>lt;sup>104</sup> Petition at 7–8.

<sup>&</sup>lt;sup>105</sup> Exelon Answer at 38; NRC Answer at 58–59.

<sup>&</sup>lt;sup>106</sup> The Board also notes that Beyond Nuclear undercuts its argument that Exelon needs to address SECY-14-0016 in its environmental report with its assertion that "NRC internal memoranda do not substitute for NEPA Compliance or notice-and-comment rulemaking." Beyond Nuclear Reply at 29.

In support of this portion of Contention 2, which is the environmental analog of Contention 1, Beyond Nuclear argues that "the body of external operating experience . . . is now in decline because of the increased rate of shutdown of operating reactors."<sup>109</sup> Beyond Nuclear again relies on the Lochbaum Report, and seeks to require Exelon to "discuss how Exelon plans to make up for the reduced amount of external operating experience in achieving an adequate understanding of the behavior [of] the aging equipment in the Peach Bottom reactors."<sup>110</sup>

The NRC Staff argues that this aspect of Contention 2 is "premised on speculative and incorrect assertions"<sup>111</sup> because "it is obvious that the body of external operating experience that exists today could not decline. As long as other nuclear power plants, whether here or abroad, continue to operate that body will continue to grow."<sup>112</sup> Likewise, Exelon points out that "Beyond Nuclear has provided no information indicating that . . . the vague and speculative concern regarding the sufficiency of future operating experience would result in any significant increase in the consequences of design basis accidents (or the probability-weighted consequences of severe accidents)."<sup>113</sup>

The Board agrees. Because Beyond Nuclear fails to establish a genuine dispute with Exelon's application, as required under 10 C.F.R. § 2.309(f)(1)(vi), Contention 2C is not admitted.<sup>114</sup>

<sup>&</sup>lt;sup>109</sup> <u>Id.</u> at 14. As previously mentioned, at oral argument, Beyond Nuclear conceded that there is actually no decrease in the total volume of operational experience from nuclear power plants, but rather a potential decrease in the rate of accumulation of such experience. Tr. at 18.

<sup>&</sup>lt;sup>110</sup> Id.

<sup>&</sup>lt;sup>111</sup> NRC Staff Answer at 57.

<sup>&</sup>lt;sup>112</sup> <u>Id.</u> at 58.

<sup>&</sup>lt;sup>113</sup> Exelon Answer at 38.

<sup>&</sup>lt;sup>114</sup> And as this aspect of Contention 2 is the environmental parallel of Contention 1, this aspect of Contention 2 is not admitted for the same pleading deficiencies we found in Contention 1. 10 C.F.R. § 2.309(f)(1)(v).

#### IV. CONCLUSION

The Board concludes that Contention 1 is inadmissible for failing to meet the requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi).

The Board concludes that Contention 2 is inadmissible for failing to meet the requirements of 10 C.F.R. § 2.309(f)(1)(iv), (v), and (vi).

### V. ORDER

The Board <u>grants</u> Beyond Nuclear's May 1, 2019 motion to amend its petition, but <u>denies</u> its request for a hearing and petition for leave to intervene because the Board concludes that Contentions 1 and 2 are inadmissible. This proceeding is therefore <u>terminated</u>.

An appeal of this Memorandum and Order may be filed within twenty-five (25) days of service of this decision by filing a notice of appeal and an accompanying supporting brief under 10 C.F.R. § 2.311(b). Any party opposing an appeal may file a brief in opposition to the appeal within twenty-five (25) days after service of the appeal. All briefs must conform to the requirements of 10 C.F.R. § 2.341(c)(3).

It is so ORDERED.

### THE ATOMIC SAFETY AND LICENSING BOARD

/RA/

Michael M. Gibson, Chairman ADMINISTRATIVE JUDGE

### /**RA**/

Dr. Michael F. Kennedy ADMINISTRATIVE JUDGE

#### /RA/

Dr. Sue H. Abreu ADMINISTRATIVE JUDGE

Rockville, Maryland June 20, 2019

### UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

)

)

In the Matter of

EXELON GENERATION COMPANY, LLC

Docket Nos. 50-277 and 50-278-SLR

(Peach Bottom Atomic Power Station Units 2 and 3)

## CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing **MEMORANDUM AND ORDER (Denying Beyond Nuclear's Petition to Intervene) (LBP-19-05)** have been served upon the following persons by Electronic Information Exchange.

U.S. Nuclear Regulatory Commission Office of Commission Appellate Adjudication Mail Stop: O-16B33 Washington, DC 20555-0001 E-mail: <u>ocaamail@nrc.gov</u>

U.S. Nuclear Regulatory Commission Atomic Safety and Licensing Board Panel Mail Stop: T-3F23 Washington, DC 20555-0001

Michael M. Gibson, Chair Administrative Judge

Dr. Michael F. Kennedy Administrative Judge

Dr. Sue H. Abreu Administrative Judge

Joseph McManus, Law Clerk Taylor Mayhall, Law Clerk Molly Mattison, Law Clerk

E-mail: <u>michael.gibson@nrc.gov</u> <u>michael.kennedy@nrc.gov</u> <u>sue.abreu@nrc.gov</u> <u>joseph.mcmanus@nrc.gov</u> <u>taylor.mayhall@nrc.gov</u> <u>molly.mattison@nrc.gov</u> U.S. Nuclear Regulatory Commission Office of the Secretary of the Commission Mail Stop: O-16B33 Washington, DC 20555-0001 E-mail: <u>hearingdocket@nrc.gov</u>

U.S. Nuclear Regulatory Commission Office of the General Counsel Mail Stop - O-14A44 Washington, DC 20555-0001 Tison Campbell, Esq. Kayla Gamin, Esq. Brian Harris, Esq. David Roth, Esq. Jennifer Scro, Esq. Rebecca Susko, Esq. Mitzi Young, Esq. Krupskaya Castellon, Paralegal E-mail: tison.campbell@nrc.gov kayla.gamin@nrc.gov brian.harris@nrc.gov david.roth@nrc.gov jennifer.scro@nrc.gov rebecca.susko@nrc.gov mitzi.young@nrc.gov krupskaya.castellon@nrc.gov

Exelon Generation Company, LLC

Donald Ferraro, Esq. Assistant General Counsel 200 Exelon Way, Suite 305 Kennett Square, PA 19348 E-mail: <u>donald.ferraro@exeloncorp.com</u> Peach Bottom, Units 2 & 3, Docket Nos. 50-277 & 50-278-SLR MEMORANDUM AND ORDER (Denying Beyond Nuclear's Petition to Intervene) (LBP-19-05)

Counsel for Beyond Nuclear

Diane Curran, Esq. Harmon, Curran, Spielberg and Eisenberg 1725 DeSales Street NW, Suite 500 Washington, DC 20036 E-mail: <u>dcurran@harmoncurran.com</u> Counsel for Exelon

Pillsbury Winthrop Shaw Pittman LLP David Lewis, Esq. Anne Leidich, Esq. 1200 17<sup>th</sup> St. NW Washington, DC 20036-3006 E-mail: <u>david.lewis@pillsburylaw.com</u> <u>anne.leidich@pillsburylaw.com</u>

[Original signed by Herald M. Speiser ] Office of the Secretary of the Commission

Dated at Rockville, Maryland, this 20<sup>th</sup> day of June, 2019