## UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

## **BEFORE THE ATOMIC SAFETY AND LICENSING BOARD**

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In the Matter of:

ENTERGY NUCLEAR OPERATIONS, INC.

(Palisades Nuclear Plant)

Docket No. 50-255-LA

January 12, 2015

## ENTERGY'S ANSWER OPPOSING PETITION TO INTERVENE AND REQUEST FOR HEARING

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## I. <u>INTRODUCTION</u>

Pursuant to 10 C.F.R. § 2.309(i), Entergy Nuclear Operations, Inc. ("Entergy") submits

this answer opposing the petition to intervene and request for hearing filed on December 1, 2014

("Original Petition"),<sup>1</sup> and amended on December 8, 2014 ("Amended Petition"),<sup>2</sup> by Beyond

Nuclear, Don't Waste Michigan, Michigan Safe Energy Future - Shoreline Chapter, and the

Nuclear Energy Information Service ("NEIS") (collectively, "Petitioners").

On September 30, 2014, the U.S. Nuclear Regulatory Commission ("NRC" or

"Commission") published in the Federal Register a notice of an opportunity to request a hearing

("Notice")<sup>3</sup> on Entergy's July 29, 2014, license amendment request ("LAR")<sup>4</sup> for Palisades

Petition to Intervene and for a Public Adjudication Hearing of Entergy License Amendment Request for Authorization to Implement 10 CFR §50.61a, "Alternate Fracture Toughness Requirements for Protection Against Pressurized Thermal Shock Events" (Dec. 1, 2014).

<sup>&</sup>lt;sup>2</sup> Amended Petition to Intervene and for a Public Adjudication Hearing of Entergy License Amendment Request for Authorization to Implement 10 CFR §50.61a, "Alternate Fracture Toughness Requirements for Protection Against Pressurized Thermal Shock Events" (Dec. 8, 2014). Unless otherwise noted, all subsequent references to the "Petition" in this Answer are to the Amended Petition.

<sup>&</sup>lt;sup>3</sup> Biweekly Notice; Applications and Amendments to Facility Operating Licenses and Combined Licenses Involving No Significant Hazards Considerations, 79 Fed. Reg. 58,812, 58,814-15 (Sept. 30, 2014) ("Notice").

<sup>&</sup>lt;sup>4</sup> PNP 2014-049, Letter from A. Vitale to NRC Document Control Desk, License Amendment Request to Implement 10 CFR 50.61a, "Alternate Fracture Toughness Requirements for Protection Against Pressurized Thermal Shock Events" (July 29, 2014) ("LAR"), *available at* ADAMS Accession No. ML14211A520.

Nuclear Plant ("Palisades"). The LAR seeks NRC approval to implement the alternate fracture toughness requirements for the Palisades reactor pressure vessel ("RPV") pursuant to 10 C.F.R. § 50.61a. The Petition and its single Proposed Contention seek to challenge that LAR. To be granted a hearing in this proceeding, the Petitioners must demonstrate standing and submit at least one admissible contention.<sup>5</sup> As explained below, the Atomic Safety and Licensing Board ("Board") should deny the Petition because it meets neither of these requirements.

The thrust of Petitioners' contention is that use of Section 50.61a could cause failure of the RPV.<sup>6</sup> Petitioners instead advocate for the "physical sampling analysis under § 50.61" rather than the probabilistic risk assessment authorized under 10 C.F.R. § 50.61a.<sup>7</sup> The Petitioners' claims, therefore, are fundamentally a collateral attack on the Commission's regulations in 10 C.F.R. § 50.61a and are inadmissible pursuant to 10 C.F.R. §§ 2.335 and 2.309(f)(1)(iii).

In addition, Petitioners' various bases for the Proposed Contention are inadmissible for multiple reasons. The bases lack necessary support because they misinterpret or mischaracterize the technical analysis submitted in support of the LAR, or are outside the scope of this proceeding because they attack Palisades' current licensing basis ("CLB") or attack analyses that are part of a different license amendment request. Petitioners' claims are, therefore, also inadmissible pursuant to 10 C.F.R. §§ 2.309(f)(1)(ii), (iii), (iv), (v), and (vi).

Petitioners, moreover, have not met their burden to show standing in this license amendment proceeding pursuant to 10 C.F.R. § 2.309(d).

For all these reasons, the Petition should be denied in its entirety.

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

<sup>&</sup>lt;sup>6</sup> Petition at 5.

<sup>&</sup>lt;sup>7</sup> *Id.* at 15.

#### II. <u>PROCEDURAL HISTORY</u>

In 2013, the NRC Staff approved Palisades' most recent neutron fluence evaluation which concluded that the pressurized thermal shock ("PTS") screening threshold under 10 C.F.R. § 50.61 would not be reached at Palisades until August 2017.<sup>8</sup> As further explained below, this means that because the screening threshold has not yet been reached, the NRC currently has reasonable assurance that the Palisades RPV will not experience fracture during a PTS event.<sup>9</sup>

Entergy timely filed its LAR to implement the alternate RPV fracture toughness requirements pursuant to 10 C.F.R. § 50.61a at Palisades on July 29, 2014.<sup>10</sup> Entergy retained Westinghouse to perform the required technical evaluation, documented in WCAP-17628-NP, Rev. 1, which is attached to the LAR.<sup>11</sup> As explained in the LAR, "[t]he evaluation concludes that the [Palisades RPV] meets the alternate PTS rule acceptance criteria."<sup>12</sup> The NRC accepted it for docketing, and published the Notice on September 30, 2014.<sup>13</sup> The Notice included the NRC Staff's proposed No Significant Hazards Consideration determination and provided

<sup>&</sup>lt;sup>8</sup> Letter from M. Chawla, Office of Nuclear Reactor Regulation, to A. Vitale, Entergy Nuclear Operations, Inc., Palisades Nuclear Plant – Updated Reactor Vessel Fluence Evaluation Supporting a Revised Pressurized Thermal Shock Screening Criteria Limit (TAC No. MF2326) (Dec. 18, 2013), *available at* ADAMS Accession No. ML13346A136. *See also* LAR at 2. In doing so, the Staff concluded that there is reasonable assurance of the safe operation of the Palisades RPV through August 2017. *Id.*, Enclosure at 3-4. Importantly, the Staff did not conclude that operation of Palisades would be unsafe after that date, or that Palisades would exceed PTS screening limits during its licensed operating life. *See* J. Geissner, Summary of the March 19, 2013, Public Meeting Webinar Regarding Palisades Nuclear Plant, Enclosure 2 at 2-3 (Apr. 18, 2013) ("Meeting Summary"), *available at* ADAMS Accession No. ML13108A336.

<sup>&</sup>lt;sup>9</sup> See Alternate Fracture Toughness Requirements for Protection Against Pressurized Thermal Shock Events, 75 Fed. Reg. 13, 22 (Jan. 4, 2010) ("2010 PTS Rule").

<sup>&</sup>lt;sup>10</sup> LAR at 1.

<sup>&</sup>lt;sup>11</sup> LAR, Enclosure, WCAP-17628-NP, Revision 1, Palisades, Alternate Pressurized Thermal Shock (PTS) Rule Evaluation, (June 2014) ("WCAP-17628-NP, Rev. 1"), *available at* ADAMS Accession No. ML14211A525.

<sup>&</sup>lt;sup>12</sup> LAR at 3.

<sup>&</sup>lt;sup>13</sup> Notice, 79 Fed. Reg. at 58,812.

interested parties 60 days (*i.e.*, until Monday, December 1, 2014) to request a hearing related to the LAR.<sup>14</sup>

The Original Petition, dated December 1, 2014,<sup>15</sup> includes one Proposed Contention,

which states:

The licensing framework that the NRC is applying to allow Palisades to continue to operate until August 2017 includes both non-conservative analytical changes and mathematically dubious comparisons to allegedly similar "sister" reactor vessels. Palisades' neutron embrittlement dilemma continues to worsen as the plant ages, and Palisades has repeatedly requested life extensions which have ignored and deferred worsening embrittlement characteristics of the RPV for decades. Presently, Entergy plans to deviate from the regulatory requirements of 10 C.F.R. § 50.61 to §50.61a (Alternate Fracture Toughness Requirements). This new amendment request introduces further non-conservative analytical assumptions into the troubled forty-three (43) year operational history of Palisades. Entergy's License Amendment Request (LAR) contains an equivalent margins evaluation, which is an untried methodological approach to measure neutron bombardment-induced reactor vessel embrittlement. Allowing Palisades to continue operations under such relaxed measurement conditions exposes the public to increased danger and is not acceptable. The license amendment to switch to 10 C.F.R. § 50.61a must be denied.<sup>16</sup>

In support, Petitioners filed a "Declaration of Arnold Gundersen," dated December 1,

2014 ("Gundersen Declaration"), a "Declaration of Pierman, Kamps, and Keegan Concerning

Coupon Availability for PTS Testing," dated December 1, 2014 ("Coupon Declaration"),

<sup>&</sup>lt;sup>14</sup> *Id.* 

<sup>&</sup>lt;sup>15</sup> Petition at 1. The Petition suffers from two threshold deficiencies. First, the Original Petition did not include a certificate of service. The Rules of Practice require all documents offered for filing to be accompanied by a certificate of service. See 10 C.F.R. §§ 2.302(c), 2.305(c)(4). Second, Petitioners' counsel has not filed a Notice of Appearance, contrary to 10 C.F.R. § 2.314(b). Petitioners bear the burden of demonstrating that they have authorized their representative appearing in the proceeding. See Ga. Power Co. (Vogtle Elec. Generating Plant, Units 1 & 2), LBP-90-29, 32 NRC 89, 92 (1990). An attorney's Notice of Appearance can meet this requirement, see N. States Power Co. (Prairie Island Nuclear Generating Plant, Units 1 & 2), LBP-08-26, 68 NRC 905, 913 (2008), but no attorney has submitted a Notice of Appearance on behalf of the Petitioners.

<sup>&</sup>lt;sup>16</sup> Petition at 11-12.

declarations of standing and representation authorization from each of the four Petitioners,<sup>17</sup> and an "Exhibit A," titled "Roll Backs from 1976 to 2011." On December 10, 2014, Petitioners filed an Amended Petition.<sup>18</sup>

On December 19, 2014, the Board issued an order setting a deadline of January 12, 2015, for this Answer.<sup>19</sup> Therefore, this Answer is timely filed.

## III. <u>TECHNICAL BACKGROUND</u>

## A. Development of 10 C.F.R. § 50.61a

During plant operation, RPVs are exposed to neutron radiation, particularly in the

"beltline" region of the RPV, adjacent to the reactor core.<sup>20</sup> The NRC has issued a variety of

regulatory requirements to address the potential embrittlement of RPVs caused by neutron

radiation. These requirements include General Design Criteria 31 in 10 C.F.R. Part 50,

Appendix A; the Fracture Toughness Requirements in Part 50, Appendix G; the Reactor Vessel

<sup>17</sup> Petition at first eight unnumbered pages following p. 22 (Declaration of Authorized Officer of Beyond Nuclear in Support of Petition to Intervene in Docket No. 50-255 (Dec. 1, 2014) ("BN Declaration"); Amended Declaration of Bette Pierman in Support of Petition to Request a Public Hearing and Leave to Intervene in Opposition to Operating License Amendment for Palisades Nuclear Plant (Dec. 9, 2014) ("Amended Pierman Declaration"); Declaration of Authorized Officer of Don't Waste Michigan in Support of Petition to Intervene in Docket No. 50-255 (Dec. 1, 2014) ("DWM Declaration"); Declaration of Alice Hirt in Support of Petition to Request a Public Hearing and Leave to Intervene in Opposition to Operating License Amendment for Palisades Nuclear Plant (Dec. 1, 2014) ("Hirt Declaration"); Declaration of Authorized Officer of Michigan Safe Energy Future in Support of Petition to Intervene in Docket No. 50-255 (Dec. 1, 2014) ("MSEF Declaration"); Declaration of Maynard Kaufman in Support of Petition to Request a Public Hearing and Leave to Intervene in Opposition to Operating License Amendment for Palisades Nuclear Plant (Dec. 1, 2014) ("Kaufman Declaration"): Declaration of Authorized Officer of Nuclear Energy Information Service in Support of Petition to Intervene in Docket No. 50-255 (Dec. 1, 2014) ("NEIS Declaration"); Declaration of Gail Snyder in Support of Petition to Request a Public Hearing and Leave to Intervene in Opposition to Operating License Amendment for Palisades Nuclear Plant (Dec. 1, 2014) ("Snyder Declaration")).

Petitioners asserted that "[t]he sole modification between the originally-filed December 1, 2014 Petition and this version is correction of the initial Federal Register reference as it appeared on page 1 of the December 1 filing to reflect Vol. 79 instead of Vol. 78." Amended Petition at 1 n.1. But the Amended Petition also contained minor modifications to other portions of the Petition and a revised standing declaration for Bette Pierman.

<sup>&</sup>lt;sup>19</sup> Licensing Board Order (Granting Unopposed Extension of Time) (Dec. 19, 2014) (unpublished).

See NUREG-1806, Technical Basis for Revision of the Pressurized Thermal Shock (PTS) Screening Limit in the PTS Rule (10 CFR 50.61), Vol. 1 at v (Aug. 2007) ("NUREG-1806"), available at ADAMS Accession No. ML072830076.

Material Surveillance Program Requirements in Part 50, Appendix G; and the requirements for protection against PTS events (*i.e.*, rapid cooling of the internal RPV surface followed by repressurization) in 10 C.F.R. §§ 50.61 and 50.61a.<sup>21</sup>

The NRC issued 10 C.F.R. § 50.61, "Fracture Toughness Requirements for Protection against Pressurized Thermal Shock (PTS) Events" in 1985 to address the potential for PTS ("1985 PTS Rule").<sup>22</sup> The 1985 PTS Rule requires a reference temperature accounting for end-of-life neutron fluence to be calculated for each RPV beltline material and then compared to fixed screening criteria (270 °F for plates, forgings, and axial weld materials, and 300 °F for circumferential weld materials).<sup>23</sup> Over the ensuing decades, advancements in scientific and engineering technologies have resulted in a better understanding and knowledge of reactor materials behavior, including the ability to better evaluate PTS events to estimate loads on RPV walls.<sup>24</sup> As a result, the NRC determined that the screening criteria in the 1985 PTS Rule were "unnecessarily conservative and may impose an unnecessary burden on some licensees."<sup>25</sup>

In 1999, the NRC's Office of Nuclear Regulatory Research began to develop a technical basis to support a revision of the 1985 PTS Rule.<sup>26</sup> The NRC Staff published its technical basis in 2007 in NUREG-1806, concluding that its findings could support "significant relaxation, or perhaps elimination, of . . . 10 CFR 50.61 . . . *without affecting safety*," because the "earlier

<sup>&</sup>lt;sup>21</sup> See Regulatory Guide 1.190, Calculation and Dosimetry Methods for Determining Pressure Vessel Neutron Fluence at 1 (Mar. 2001) ("Reg. Guide 1.190") (providing a general description of the various NRC regulations addressing potential RPV embrittlement), available at ADAMS Accession No. ML010890301.

<sup>&</sup>lt;sup>22</sup> Analysis of Potential Pressurized Thermal Shock Events, 50 Fed. Reg. 29,937 (July 23, 1985).

<sup>&</sup>lt;sup>23</sup> 10 C.F.R. § 50.61(b).

<sup>&</sup>lt;sup>24</sup> See NUREG-1806, Vol. 1 at v.

<sup>&</sup>lt;sup>25</sup> 2010 PTS Rule at 13.

<sup>&</sup>lt;sup>26</sup> NUREG-1806, Vol. 1 at v; 2010 PTS Rule, 75 Fed. Reg. at 13.

analyses, performed some 20 years ago as part of the development of the [1985] PTS rule, were overly conservative, based on the tools available at the time."<sup>27</sup>

Relying on NUREG-1806, the NRC promulgated an "alternate" set of fracture toughness requirements to protect against PTS events.<sup>28</sup> The NRC developed the rule through a joint effort with Department of Energy national laboratories, universities, and industry over the course of approximately ten years.<sup>29</sup> The rulemaking process included numerous opportunities for public involvement and multiple expert technical reviews, including review by the Advisory Committee for Reactor Safeguards ("ACRS") and an independent panel of experts.<sup>30</sup> The NRC published the new alternate requirements as a final rule in 2010, codified at 10 C.F.R. § 50.61a ("2010 PTS Rule").<sup>31</sup>

Most significantly, in the 2010 PTS Rule, the NRC "concluded that the risk of throughwall cracking due to a PTS event is much lower than previously estimated," so "the screening criteria in [the 1985 PTS Rule] are unnecessarily conservative and may impose unnecessary burden on . . . licensees."<sup>32</sup> The 2010 PTS Rule allows licensees to request approval to implement the alternate requirements through a license amendment.<sup>33</sup>

<sup>&</sup>lt;sup>27</sup> NUREG-1806, Vol. 1 at v (emphasis added).

See 2010 PTS Rule, 75 Fed. Reg. at 13-14; NUREG-1806, Vol. 1 at xx (noting, "[i]t is now widely recognized that the state of knowledge and data limitations in the early 1980s necessitated conservative treatment of several key parameters and models used in the probabilistic calculations that provided the technical basis for the current PTS Rule.").

<sup>&</sup>lt;sup>29</sup> See Slides from NRC Public Webinar, Basis for NRC Requirements on Pressurized Thermal Shock at 13 (Mar. 19, 2013), available at ADAMS Accession No. ML13077A156.

<sup>&</sup>lt;sup>30</sup> *See id.* 

<sup>&</sup>lt;sup>31</sup> See 2010 PTS Rule, 75 Fed. Reg. at 13.

<sup>&</sup>lt;sup>32</sup> *Id.* at 13-14.

<sup>&</sup>lt;sup>33</sup> See id.; 10 C.F.R. § 50.61a(c).

Notably, the NRC analyzed data from three operating plants to develop the technical basis for the 2010 PTS Rule—and one of those plants was Palisades.<sup>34</sup> Thus, although the 2010 PTS Rule is applicable to the existing fleet of PWRs,<sup>35</sup> it was developed, in part, through evaluation of the specific characteristics of the Palisades RPV.

#### B. <u>Section 50.61a Approval Process</u>

Licensees seeking to implement the 2010 PTS Rule must request approval from the NRC at least three years before the facility is expected to reach the screening threshold under the 1985 PTS Rule.<sup>36</sup> Requests to implement Section 50.61a must include a technical analysis projecting the value of " $RT_{MAX-X}$ "<sup>37</sup> for each reactor vessel beltline material for the end-of-license ("EOL") fluence of the material (*i.e.*, the reference transition temperature, considering the maximum neutron fluence the RPV material will experience over its operating life).<sup>38</sup> The analysis must then compare the calculated  $RT_{MAX-X}$  values to the PTS screening criteria specified in the 2010 PTS Rule.<sup>39</sup> The licensee must also evaluate the results from *plant-specific or integrated* reactor vessel surveillance programs,<sup>40</sup> and provide an examination and assessment of any flaws in the

<sup>&</sup>lt;sup>34</sup> See, e.g., NUREG-1806, Vol. 1 at 3-3 (noting that the study "performed detailed calculations for three operating PWRs (Oconee 1, Beaver Valley 1, and Palisades)"); NUREG-1806, Technical Basis for Revision of the Pressurized Thermal Shock (PTS) Screening Limit in the PTS Rule (10 CFR 50.61), Vol. 2 at 8-1 (Aug. 2007) (noting the use of "calculations for Oconee Unit 1, Beaver Valley 1, and Palisades), *available at* ADAMS Accession No. ML072830081; NUREG-1874, Recommended Screening Limits for Pressurized Thermal Shock (PTS) at 1, fig. 1.1 (Mar. 2010) (showing analyses from Palisades, Beaver Valley, and Oconee used as inputs into the report), *available at* http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1874/sr1874.pdf.

<sup>&</sup>lt;sup>35</sup> 10 C.F.R. § 50.61a(b); *see* 2010 PTS Rule, 75 Fed. Reg. at 16.

<sup>&</sup>lt;sup>36</sup> 10 C.F.R. § 50.61a(c).

<sup>&</sup>lt;sup>37</sup> See *id.* § 50.61a(a) (defining RT<sub>MAX-X</sub>, in general, as "the material property which characterizes the reactor vessel's resistance to fracture initiating from flaws in" designated RPV locations).

<sup>&</sup>lt;sup>38</sup> *Id.* § 50.61a(c)(1).

<sup>&</sup>lt;sup>39</sup> *Id*.

<sup>&</sup>lt;sup>40</sup> Id. § 50.61a(f)(6)(i).

reactor vessel beltline identified during inservice inspections under ASME Code, Section XI.<sup>41</sup> As previously noted, Entergy submitted the required analyses as part of its Palisades LAR on July 29, 2014.

Since the analysis technique is established by the 2010 PTS Rule itself, and the Commission made a generic determination that the rule provides "reasonable assurance" for licensees who satisfy the requirements of the rule,<sup>42</sup> the only questions material to Entergy's LAR relate to whether Entergy has satisfied the requirements of the rule<sup>43</sup>—not whether another rule or method may be preferable.<sup>44</sup>

## IV. <u>PETITIONERS LACK STANDING</u>

## A. <u>Governing Legal Standards</u>

Section 189(a) of the Atomic Energy Act of 1954, as amended ("AEA"), states that "the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding."<sup>45</sup> The Commission's regulations implementing this requirement include the standing requirements in 10 C.F.R. § 2.309(d)(1), which requires a petitioner to address: (1) the nature of the petitioner's right under the AEA to be made a party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and

<sup>&</sup>lt;sup>41</sup> Id. § 50.61a(c)(2). On July 30, 2013, Beaver Valley Unit 1 became the first plant to request NRC approval to implement the 2010 PTS Rule. See Official Transcript, Advisory Committee on Reactor Safeguards, Metallurgy & Reactor Fuels Subcommittee Meeting at 11 (Oct. 16, 2014), available at ADAMS Accession No. ML14296A342. That request is under NRC Staff review. See id.

<sup>&</sup>lt;sup>42</sup> 2010 PTS Rule, 75 Fed. Reg. at 22.

<sup>&</sup>lt;sup>43</sup> See 10 C.F.R. § 50.92(a) (stating that license amendment request reviews are generally guided by considerations similar to initial licenses); 10 C.F.R. §§ 50.40(a), (c) (broadly identifying Part 50 initial license considerations); *N. States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 & 2), ALAB-455, 7 NRC 41, 44 (1978) (noting that the main consideration for license amendment requests is the "reasonable assurance" finding).

<sup>&</sup>lt;sup>44</sup> See, e.g., Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-04-4, 59 NRC 31, 38-39 (2004) (holding that contentions challenging determinations made by the NRC during the rulemaking process are inadmissible).

<sup>&</sup>lt;sup>45</sup> 42 U.S.C. § 2239(a)(1)(A).

(3) the possible effect of any decision or order that may be issued in the proceeding on the petitioner's interest.

In assessing these factors, the NRC applies "contemporaneous judicial concepts of standing."<sup>46</sup> Thus, to demonstrate standing, a petitioner must show: (1) an actual or threatened, concrete and particularized injury that is (2) fairly traceable to the challenged action and (3) likely to be redressed by a favorable decision.<sup>47</sup> These three criteria are referred to as injury-infact, causation, and redressability, respectively. Under some circumstances, a petitioner may be presumed to have fulfilled the judicial standards for standing based on his or her geographic proximity to a facility or source of radioactivity.<sup>48</sup> These standing concepts are discussed further below.

#### 1. Standing Based on Geographic Proximity

In some proceedings involving power reactors, "proximity" standing has been found for petitioners who reside within 50 miles of the facility in question.<sup>49</sup> The Commission has explained, however, that this proximity presumption only applies to proceedings involving applications for a "construction permit, operating licenses, or significant amendments thereto such as the expansion of the capacity of a spent fuel pool," not for other license amendments such as this.<sup>50</sup> The presumption applies because "those cases involved the construction or operation of the reactor itself, with clear implications for the offsite environment, or major

<sup>&</sup>lt;sup>46</sup> Calvert Cliffs 3 Nuclear Project, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 914-16 (2009) (internal citation omitted); see also Nuclear Mgmt. Co., LLC (Monticello Nuclear Generating Plant), CLI-06-6, 63 NRC 161, 163 (2006).

<sup>&</sup>lt;sup>47</sup> See Yankee Atomic Elec. Co. (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 6 (1996).

<sup>&</sup>lt;sup>48</sup> See Exelon Generation Co., LLC (Peach Bottom Atomic Power Station, Units 2 & 3), CLI-05-26, 62 NRC 577, 579-83 (2005).

<sup>&</sup>lt;sup>49</sup> See, e.g., Calvert Cliffs, CLI-09-20, 70 NRC at 916.

<sup>&</sup>lt;sup>50</sup> Fla. Power & Light Co. (St. Lucie, Units 1 & 2), CLI-89-21, 30 NRC 325, 329 (1989) (citing Va. Elec. Power Co. (N. Anna Nuclear Power Station, Units 1 & 2), ALAB-522, 9 NRC 54 (1979)).

alterations to the facility with a clear potential for offsite consequences."<sup>51</sup> Thus, in license amendment proceedings, absent an "obvious potential for offsite consequences," a petitioner must satisfy the traditional standing requirements.<sup>52</sup>

#### 2. Traditional Standing

First, a petitioner's injury-in-fact showing "requires that the party seeking review be himself among the injured."<sup>53</sup> The injury must be "concrete and particularized," not "conjectural" or "hypothetical."<sup>54</sup> As a result, standing will be "denied when the threat of injury is too speculative."<sup>55</sup> The Commission has further explained that "a petitioner seeking to intervene in a license amendment proceeding must assert an injury-in-fact associated with *the challenged license amendment*, not simply a general objection to the facility."<sup>56</sup>

Second, a petitioner must establish that the injuries alleged are "fairly traceable to the proposed action,"<sup>57</sup> which in this case is the amendment of the Palisades operating license to reference 10 C.F.R. § 50.61a, rather than § 50.61. Petitioners must show that the "chain of causation is plausible."<sup>58</sup> The Commission has explained that "[a] petitioner cannot seek to obtain standing in a license amendment proceeding simply by enumerating the proposed license

<sup>58</sup> Id.

<sup>&</sup>lt;sup>51</sup> *Id.* at 329.

 <sup>&</sup>lt;sup>52</sup> Id. at 329-30; see also Commonwealth Edison Co. (Zion Nuclear Power Station, Units 1 & 2), CLI-99-04, 49
 NRC 185, 191 (1999); Fla. Power & Light Co. (Turkey Point Nuclear Plant, Units 3 & 4), LBP-08-18, 68
 NRC 533, 539 (2008).

<sup>&</sup>lt;sup>53</sup> Sierra Club v. Morton, 405 U.S. 727, 734-35 (1972).

<sup>&</sup>lt;sup>54</sup> Sequoyah Fuels Corp. (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 72 (1994) (citations omitted).

<sup>&</sup>lt;sup>55</sup> *Id.* 

<sup>&</sup>lt;sup>56</sup> Zion, CLI-99-04, 49 NRC at 188 (emphasis in original).

<sup>&</sup>lt;sup>57</sup> Sequoyah Fuels, CLI-94-12, 40 NRC at 75.

changes and alleging without substantiation that the changes will lead to offsite radiological consequences.<sup>359</sup>

Finally, each petitioner must demonstrate that the injury can be "redressed" by a favorable decision in this proceeding. Furthermore, "it must be likely, as opposed to merely speculative that the injury will be redressed by a favorable decision."<sup>60</sup>

#### **3.** Standing of Organizations

An organization that wishes to intervene in a proceeding may do so either in its own right (by demonstrating injury to its organizational interests), or in a representative capacity (by demonstrating harm to the interests of its members).<sup>61</sup> To establish representational standing, an organization must: (1) show that at least one of its members has standing in his or her own right; (2) identify that member; and (3) show, "preferably by affidavit," that the organization is authorized by that member to request a hearing on behalf of the member.<sup>62</sup>

## B. <u>Petitioners Have Not Demonstrated Standing</u>

# 1. Petitioners Cannot Rely on the Proximity Presumption to Show Standing

As a threshold matter, Petitioners bear the burden of establishing standing. Here, the Petitioners cannot rely on the proximity presumption to show standing because the presumption is not valid for license amendment proceedings absent the obvious potential for offsite consequences. Yet, Petitioners assert standing based exclusively on the proximity presumption:

<sup>&</sup>lt;sup>59</sup> Zion, CLI-99-04, 49 NRC at 192.

<sup>&</sup>lt;sup>60</sup> Sequoyah Fuels, CLI-94-12, 40 NRC at 76 (quoting Lujan v. Defenders of Wildlife, 504 U.S. 555, 561 (1992) (internal quotations omitted)).

<sup>&</sup>lt;sup>61</sup> *Yankee Atomic Elec. Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 195 (1998) (citing *Ga. Inst. of Tech.* (Ga. Tech Research Reactor), CLI-95-12, 42 NRC 111, 115 (1995)).

<sup>&</sup>lt;sup>62</sup> Consumers Energy Co. (Palisades Nuclear Power Plant), CLI-07-18, 65 NRC 399, 408-10 (2007); see also N. States Power Co. (Monticello Nuclear Generating Plant, Prairie Island Nuclear Generating Plant, Units 1 & 2; Prairie Island Indep. Spent Fuel Storage Installation), CLI-00-14, 52 NRC 37, 47 (2000); GPU Nuclear Inc. (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 202 (2000).

"Because they live near the Palisades site, *i.e.*, within 50 miles, the individually-named Petitioners have presumptive standing by virtue of their proximity to the nuclear power plant."<sup>63</sup> Petitioners rely solely on a decision in the *Diablo Canyon* Part 72 Independent Spent Fuel Storage Installation ("ISFSI") licensing proceeding for the proposition that persons "who live within 50 miles of a proposed nuclear power plant are presumed to have standing in reactor operating license cases, because there is an 'obvious potential for offsite consequences' within that distance."<sup>64</sup>

Petitioners appear to assume that an "obvious" potential for offsite consequences is automatically imputed regardless of the scope or subject of the proceeding. Yet the *Diablo Canyon* decision is simply inapposite because it involved a Part 72 ISFSI licensing proceeding, not a license amendment proceeding, as here.<sup>65</sup> Petitioners cite no authority for proximity-based standing in a license amendment proceeding similar to this one, nor do they argue or show that this proceeding involves an obvious potential for offsite consequences under the governing case law, such that the proximity presumption should apply.

On the contrary, in a 1998 decision involving a license amendment at the Millstone plant, the Board found, and the Commission affirmed, that the petitioner failed to establish an "obvious" potential for offsite consequences, or causation under the concept of traditional

<sup>&</sup>lt;sup>63</sup> Petition at 3 (citing *Pac. Gas & Elec. Co.* (Diablo Canyon Power Plant Indep. Spent Fuel Storage Installation), LBP-02-23, 56 NRC 413, 426-27 (2002)); see also Hirt Declaration; DWM Declaration; Kaufman Declaration; MSEF Declaration; Snyder Declaration; NEIS Declaration; Amended Pierman Declaration; BN Declaration; Original Petition at second unnumbered page after p. 22 (Declaration of Bette Pierman in Support of Petition to Request a Public Hearing and Leave to Intervene in Opposition to Operating License Amendment for Palisades Nuclear Plant (dated Dec. 1, 2014, signed Nov. 25, 2014) (suggesting Don't Waste Michigan will represent her interests)).

<sup>&</sup>lt;sup>64</sup> Petition at 3-4 (citing *Diablo Canyon*, LBP-02-23, 56 NRC at 426-27). Petitioners make only a single reference to the elements of traditional standing, without explaining how the Board should apply those elements to the Petition. Petition at 4. Mere "conclusory allegations" are insufficient to establish standing. *See Zion*, CLI-99-4, 49 NRC at 191-93; *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 & 2), CLI-00-05, 51 NRC 90, 98 (2000).

<sup>&</sup>lt;sup>65</sup> See Diablo Canyon, LBP-02-23, 56 NRC at 413.

standing, where the petition was "not focused, as it should be on . . . the subject of the license amendment in th[at] proceeding."<sup>66</sup> In *Millstone*, the petition "merely repeat[ed] the contents of [an] earlier petition, [and was] aimed primarily at . . . the subject of [a different] license amendment."<sup>67</sup> Here, the Petition similarly repeats challenges from a previous intervention petition,<sup>68</sup> recycles rejected arguments from a license amendment proceeding at a different plant,<sup>69</sup> and challenges an analysis from an entirely separate license amendment proceeding.<sup>70</sup> Conspicuously, similar to *Millstone*, the Petition here does not make a single reference to WCAP-17628-NP, Rev. 1, the analysis at issue in this proceeding.<sup>71</sup>

The *Millstone* Board further found that "claims . . . that the license amendment involves . . . . modifications regarding the integrity of the containment . . . that have not been analyzed adequately does not demonstrate, without a great deal more, how an accident with offsite consequences results from" granting the amendment; and that, "even assuming the instant amendment . . . somehow presents the potential for offsite . . . consequences, that potential is

<sup>&</sup>lt;sup>66</sup> Ne. Nuclear Energy Co. (Millstone Nuclear Power Station, Unit No. 3), LBP-98-22, 48 NRC 149, 155 (1998), aff'd CLI-98-20, 48 NRC 183, 184 (1998).

<sup>&</sup>lt;sup>67</sup> Id.

<sup>&</sup>lt;sup>68</sup> See Nuclear Mgmt. Co. (Palisades Nuclear Plant), CLI-06-17, 63 NRC 727, 730 (2006) (affirming the rejection of an RPV embrittlement contention in the Palisades license renewal proceeding and "agree[ing] with the Board's assessment that [it] consists of only general allegations and obvious truisms (*i.e.*, that the longer the reactor pressure vessel is in service, the more vulnerable to embrittlement it becomes)."

<sup>&</sup>lt;sup>69</sup> Compare, e.g., Petition at 17 (arguing that Palisades is being operated as a "test" or "experiment"), and Petition at 9 (challenging the Staff's No Significant Hazards Consideration), with FirstEnergy Nuclear Operating Company (Davis-Besse Nuclear Power Station, Unit 1), LBP-13-11, 78 NRC 177, 179-181 (2013) (rejecting essentially identical arguments as outside the scope of the Davis-Besse license amendment proceeding).

<sup>&</sup>lt;sup>70</sup> See Petition at 11, 19-21 (attacking the Entergy "Equivalent Margins Analysis"); *infra* Part VI.B.4. (explaining that the "Equivalent Margins Analysis" document is the subject of a November 2014 Palisades license amendment request, not the LAR at issue in this proceeding).

<sup>&</sup>lt;sup>71</sup> See Petition; Gundersen Declaration.

*anything but obvious*.<sup>72</sup> Petitioners' bare assertions of deficiencies in the analyses in the LAR are substantially similar to those rejected in *Millstone*.<sup>73</sup>

Petitioners bear the burden of showing standing.<sup>74</sup> As Petitioners' only argument regarding standing is based on the proximity presumption, which does not apply here, they have not carried their burden of showing that the LAR involves an obvious potential for offsite consequences, nor have they demonstrated a causal link between the alleged harm and the proposed license amendment.<sup>75</sup> The Board should find that Petitioners lack standing.

## 2. NEIS Has Not Pled Facts Sufficient to Establish Standing

NEIS lacks standing because Ms. Gail Snyder, the NEIS member who submitted a declaration in support of NEIS's representative standing, has not demonstrated standing in her own right, as discussed below. Thus, as NEIS asserts standing in a representational capacity, solely on behalf of Ms. Snyder,<sup>76</sup> NEIS also lacks standing.<sup>77</sup>

A lack of specificity as to property location or frequency or duration of visits is sufficient to reject a claim of standing.<sup>78</sup> In the *Bell Bend* COL proceeding, the Commission affirmed a

<sup>&</sup>lt;sup>72</sup> *Millstone*, 48 NRC at 155-56 (emphasis added).

<sup>&</sup>lt;sup>73</sup> Compare, e.g., id. at 152-3 (the petitioner claimed that the applicant "has long been aware of problems" and "that the NRC has acknowledged that the facility has been permitted to operate" with these problems) with Petition at 15 ("the NRC continues to allow Entergy to operate [Palisades] in a compromised and *test condition*") (quoting Gundersen Declaration, emphasis in original), 20 (claiming a "long history of metallurgical concerns").

<sup>&</sup>lt;sup>74</sup> See PPL Bell Bend, LLC (Bell Bend Nuclear Power Plant), CLI-10-07, 71 NRC 133, 139 (2010).

<sup>&</sup>lt;sup>75</sup> In *Cleveland Elec. Illuminating Co.* (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 95-96 (1993), a decision the Petitioners do not cite, the Commission applied the proximity presumption in a license amendment proceeding related to an RPV surveillance program change. But the Commission has explicitly rejected the use of *Perry* as precedential outside of the "highly unusual" claims of procedural injury involved in that case. Millstone, CLI-98-20, 48 NRC at 184 n.1. Petitioners do not assert procedural injury here. *See generally* Petition.

<sup>&</sup>lt;sup>76</sup> *See* Petition at 3 (stating "[a]ll of the petitioning organizations here wish to participate in a representational capacity"); NEIS Declaration.

<sup>&</sup>lt;sup>77</sup> See Palisades, CLI-07-18, 65 NRC at 408-10.

<sup>&</sup>lt;sup>78</sup> Private Fuel Storage, L.L.C. (Indep. Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 324 (1999).

Board decision rejecting standing where the petitioner claimed, among other things, that he "routinely pierce[d] the 50-mile [radius around the plant] during his day-to-day activities"; and had "well-established business and professional interests" within a 50-mile radius of the facility.<sup>79</sup> The Commission found that these claims lacked specificity concerning the nature, extent, and duration of his contacts with the area sufficient to demonstrate that he had "substantial" and "regular" contacts within the vicinity of the site.<sup>80</sup>

NEIS presents a declaration from Gail Snyder, who asserts that she owns five acres of land in Columbia Township, Van Buren County, Michigan, approximately 15 miles from Palisades, that her family members have camped on the land and "go there during the warm season on day trips," and that "[w]e had intentions of constructing a house there until we learned about the dangers of being downwind of Palisades."<sup>81</sup> The Declaration, however, does not provide an address for her property, does not assert that Ms. Snyder—who lives in Chicago ever visits the property, and does not describe the frequency or duration of visits by her unspecified "family members."<sup>82</sup> As Ms. Snyder's statements provide even less specificity than the claims rejected in the *Bell Bend* decision, her declaration is insufficient to demonstrate standing.

Additionally, a petitioner can "not acquire standing to intervene on the basis of the interests of a third party."<sup>83</sup> Ms. Snyder's declaration does not claim that she ever visits her property.<sup>84</sup> For example, a mother who lived more than 50 miles from a plant, but who asserted

<sup>82</sup> Id.

<sup>&</sup>lt;sup>79</sup> *Bell Bend*, CLI-10-07, 71 NRC at 136, 140.

<sup>&</sup>lt;sup>80</sup> *Id.* at 139-140.

<sup>&</sup>lt;sup>81</sup> Snyder Declaration.

<sup>&</sup>lt;sup>83</sup> Detroit Edison Co. (Enrico Fermi Atomic Power Plant, Unit 2), ALAB-470, 7 NRC 473, 474 n.1 (1978).

<sup>&</sup>lt;sup>84</sup> See Snyder Declaration (noting, merely, that Ms. Snyder's "family members" have visited the property).

standing on behalf of her son who lived and attended medical school within 50 miles of the plant, did not have standing because she could not rely on the contacts of a third party.<sup>85</sup> So too here. Ms. Snyder, who lives in Chicago, IL, more than 50 miles from Palisades, impermissibly claims standing on the basis of activities of her "family members."<sup>86</sup>

Based on the above, the Board should find that NEIS has not proffered a sufficient claim of organizational standing because it has not shown that at least one of its members has standing in his or her own right.<sup>87</sup>

## V. <u>PETITIONERS' CHALLENGE TO THE NRC STAFF'S "NO SIGNIFICANT</u> <u>HAZARDS CONSIDERATION" DETERMINATION IS IMPERMISSIBLE</u>

In the Notice, NRC Staff "propose[d] to determine that the [LAR] involves no significant hazards consideration."<sup>88</sup> In the "Background" section of the Petition, Petitioners argue that the "standards of 10 C.F.R. § 50.92" governing the Staff's No Significant Hazards Consideration determination "have not been satisfied."<sup>89</sup> However, such challenges are impermissible under 10 C.F.R. § 50.58(b)(6), which states that: "No petition or other request for review of or hearing on the Staff's significant hazards consideration determination will be entertained by the Commission." Section 50.58(b)(6) has long been held to be a jurisdictional bar to intervenor challenges.<sup>90</sup> Therefore, Petitioners' argument is outside of the Board's jurisdiction, and the

<sup>&</sup>lt;sup>85</sup> *Fermi*, ALAB-470, 7 NRC at 474 n.1.

<sup>&</sup>lt;sup>86</sup> Snyder Declaration.

<sup>&</sup>lt;sup>87</sup> See Palisades, CLI-07-18, 65 NRC at 408-10.

<sup>&</sup>lt;sup>88</sup> Notice, 79 Fed. Reg. at 58,815.

<sup>&</sup>lt;sup>89</sup> Petition at 9.

See, e.g., Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), CLI-01-7, 53 NRC 113, 118 (2001) (holding that intervenor challenges on this topic will be summarily rejected: "Our regulations provide that '[n]o petition or other request for review of or hearing on the Staff's no significant hazards consideration determination will be entertained by the Commission." . . . The regulations are quite clear in this regard.") (quoting 10 C.F.R. § 50.58(b)(6)); Vt. Yankee Nuclear Power Corp. (Vt. Yankee Nuclear Power Station), LBP-90-6, 31 NRC 85, 90-91 (1990) ("The issue of whether the proposed amendment does or does not involve a significant hazards consideration is not litigable in any hearing") (citing Pac. Gas & Elec. Co. (Diablo Canyon Nuclear Power Plant, Units 1 & 2), CLI-86-12, 24 NRC 1, 4-5 (1986), rev'd and remanded on other grounds

Staff's proposed No Significant Hazards Consideration determination is not subject to challenge in this proceeding.

## VI. <u>PETITIONERS' CONTENTION IS INADMISSIBLE</u>

## A. Governing Legal Standards for Contention Admissibility

Under 10 C.F.R. § 2.309(f)(1), a hearing request "must set forth with particularity the

contentions sought to be raised." Section 2.309(f)(1)(i) through (vi) identifies the six

admissibility criteria for each proposed contention:

- i. provide a specific statement of the legal or factual issue sought to be raised;
- ii. provide a brief explanation of the basis for the contention;
- iii. demonstrate that the issue raised is within the scope of the proceeding;
- iv. demonstrate that the issue raised is material to the findings the NRC must make to support the action that is involved in the proceeding;
- v. provide a concise statement of the alleged facts or expert opinions, including references to specific sources and documents that support the petitioner's position and upon which the petitioner intends to rely; and
- vi. provide sufficient information to show that a genuine dispute exists with regard to a material issue of law or fact.

Failure to comply with any one of the six admissibility criteria is grounds for rejecting a

proposed contention.<sup>91</sup> The Commission has stated that it "should not have to expend resources

to support the hearing process unless there is an issue that is appropriate for, and susceptible to,

resolution in an NRC hearing."92

Of particular relevance here is the longstanding principle that a contention that challenges

an NRC rule is outside the scope of the proceeding under 10 C.F.R. § 2.309(f)(1)(iii) and,

sub nom. San Luis Obispo Mothers for Peace v. NRC, 799 F.2d 1268 (9th Cir. 1986)); Fla. Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 & 4), LBP-89-15, 29 NRC 493, 495-96 (1989).

<sup>&</sup>lt;sup>91</sup> See Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2221 (Jan. 14, 2004); see also Private Fuel Storage, CLI-99-10, 49 NRC at 325.

<sup>&</sup>lt;sup>92</sup> Changes to Adjudicatory Process, 69 Fed. Reg. at 2202.

therefore, inadmissible. This is because, absent a waiver, "no rule or regulation of the Commission . . . is subject to attack . . . in any adjudicatory proceeding."<sup>93</sup> This includes contentions that advocate stricter requirements than agency rules impose, or that otherwise seek to litigate a generic determination established by a Commission rulemaking.<sup>94</sup>

For license amendment proceedings, such as this one, the scope of a proceeding is defined by the Commission's notice of opportunity for a hearing.<sup>95</sup> The Notice for this proceeding explains: "Contentions shall be limited to matters within the scope of the amendment under consideration."<sup>96</sup> Any contention that falls outside the specified scope of the proceeding must be rejected.<sup>97</sup> In that regard, contentions that challenge the CLB, including previously-approved license amendments, rather than the proposed amendment, are not admissible in a license amendment proceeding.<sup>98</sup>

With respect to factual information or expert opinion proffered in support of a contention, "the Board is not to accept uncritically the assertion that a document or other factual information or an expert opinion supplies the basis for a contention."<sup>99</sup> "[A]n expert opinion that merely states a conclusion (*e.g.*, the application is 'deficient,' 'inadequate,' or 'wrong') without providing *a reasoned basis or explanation* for that conclusion is inadequate because it deprives

<sup>&</sup>lt;sup>93</sup> 10 C.F.R. § 2.335(a).

<sup>&</sup>lt;sup>94</sup> See, e.g., Calvert Cliffs 3 Nuclear Project, LLC, and Unistar Nuclear Operating Servs., LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), et al., CLI-14-08, 80 NRC \_\_, \_\_ (slip op. at 9) (2014); Private Fuel Storage, CLI-04-4, 59 NRC 31, 38-39.

<sup>&</sup>lt;sup>95</sup> See Duke Power Co. (Catawba Nuclear Station, Units 1 & 2), ALAB-825, 22 NRC 785, 790-91 (1985).

<sup>&</sup>lt;sup>96</sup> Notice, 79 Fed. Reg. at 58,813.

<sup>&</sup>lt;sup>97</sup> See Portland Gen. Elec. Co. (Trojan Nuclear Plant), ALAB-534, 9 NRC 287, 289 n.6 (1979) (affirming the board's rejection of issues raised by intervenors that fell outside the scope of issue identified in the notice of hearing); see also Yankee, CLI-98-21, 48 NRC at 204.

<sup>&</sup>lt;sup>98</sup> Wis. Elec. Power Co. (Point Beach Nuclear Plant, Units 1 & 2), LBP-82-88, 16 NRC 1335, 1342 (1982).

<sup>&</sup>lt;sup>99</sup> Private Fuel Storage, L.L.C. (Indep. Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 181 (1998), aff'd CLI- 98-13, 48 NRC 26, 37 (1998).

the Board of the ability to make the necessary, reflective assessment of the opinion" as it is alleged to provide a basis for the contention.<sup>100</sup>

Any supporting material provided by a petitioner, including those portions thereof not relied upon, is subject to Board scrutiny, "both for what it does and does not show."<sup>101</sup> The Board will examine documents to confirm that they support the proposed contentions.<sup>102</sup> A petitioner's imprecise reading of a document cannot be the basis for a litigable contention.<sup>103</sup> Moreover, vague references to documents do not suffice—the petitioner must identify specific portions of the documents on which it relies.<sup>104</sup>

#### B. <u>The Proposed Contention Is Inadmissible</u>

Petitioners sole Proposed Contention claims that Entergy's LAR "introduces further nonconservative analytical assumptions," involves an "untried methodological approach," and is ultimately "not acceptable."<sup>105</sup>

There appear to be five bases or allegations underpinning this contention. These bases are: (1) the NRC should deny Entergy's request to implement the 2010 PTS Rule because of the "sheer anomaly of substituting probabilistic risk assessment under 10 C.F.R. § 50.61a for the required physical sampling under § 50.61";<sup>106</sup> (2) that the "comparable nuclear reactor vessels"

<sup>&</sup>lt;sup>100</sup> USEC, Inc. (Am. Centrifuge Plant), CLI-06-10, 63 NRC 451, 472 (2006) (emphasis added) (quoting *Private Fuel Storage*, LBP-98-7, 47 NRC at 181).

<sup>&</sup>lt;sup>101</sup> See Yankee Atomic Elec. Co. (Yankee Nuclear Power Station), LBP-96-2, 43 NRC 61, 90 (1996), rev'd in part on other grounds, CLI-96-7, 43 NRC 235 (1996).

<sup>&</sup>lt;sup>102</sup> See Vt. Yankee Nuclear Power Corp. (Vt. Yankee Nuclear Power Station), ALAB-919, 30 NRC 29, 48 (1989), vacated in part on other grounds and remanded, CLI-90-4, 31 NRC 333 (1990).

<sup>&</sup>lt;sup>103</sup> See Ga. Inst. of Tech. (Ga. Tech Research Reactor, Atlanta, Ga.), LBP-95-6, 41 NRC 281, 300 (1995), aff<sup>\*</sup>d, CLI-95- 12, 42 NRC 111, 124 (1995).

<sup>&</sup>lt;sup>104</sup> *Pub. Serv. Co. of N.H.* (Seabrook Station, Units 1 & 2), CLI-89-3, 29 NRC 234, 240-41 (1989) (further stating that the mere incorporation of massive documents by reference is unacceptable).

<sup>&</sup>lt;sup>105</sup> Petition at 11-12.

<sup>&</sup>lt;sup>106</sup> *Id.* at 15-16.

allegedly evaluated by Entergy in its LAR do not present "apples to apples" comparisons to the Palisades RPV;<sup>107</sup> (3) that the "cross-comparisons and standard deviations" allegedly used to evaluate Palisades and other plant data in Entergy's LAR "don't match up";<sup>108</sup> (4) that Entergy's "equivalent margins evaluation," submitted in support of a separate license amendment request, is allegedly a "red flag" that Entergy is proposing to operate Palisades "outside the norm";<sup>109</sup> and (5) that the NRC has created an "illusion of regulation" and "weaken[ed] . . . PTS criteria" as demonstrated by a list of ADAMS search results which Petitioners style as "rollbacks."<sup>110</sup>

As explained in the following sections, none of these five bases raise an admissible issue. They are all either: (a) impermissible collateral attacks on the 2010 PTS Rule; (b) allegations of deficiencies on issues that are outside the scope of this proceeding; or (c) based on misinterpretations or misunderstandings of the technical analyses supporting Entergy's LAR. Therefore, the Proposed Contention is inadmissible, and the Petition should be denied.

## 1. Petitioners' Fundamental Arguments Are Collateral Attacks on the 2010 PTS Rule and Palisades Current Licensing Basis

#### a. <u>Petitioners Impermissibly Challenge the 2010 PTS Rule</u>

<sup>&</sup>lt;sup>107</sup> *Id.* at 16-18.

<sup>&</sup>lt;sup>108</sup> *Id.* at 18-19.

<sup>&</sup>lt;sup>109</sup> *Id.* at 19-21.

<sup>&</sup>lt;sup>110</sup> *Id.*, Exh. A.

<sup>&</sup>lt;sup>111</sup> *Id.* at 11.

physical sampling under § 50.61."<sup>112</sup> The Petitioners describe this claim as "the heart of Petitioners' case at trial."<sup>113</sup> But this is simply a collateral attack on the 2010 PTS Rule, forbidden under 10 C.F.R. § 2.335.<sup>114</sup>

"When a Commission regulation permits the use of a particular analysis, a contention asserting that a different analysis or technique should be utilized is inadmissible because it indirectly attacks the Commission's regulations."<sup>115</sup> For example, in *Three Mile Island* ("TMI"), the licensee used a linear fracture mechanics technique specified in 10 C.F.R. § 50.55a(g) to evaluate the reactor coolant pressure boundary against the criteria of ASME Code Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components."<sup>116</sup> The intervenors argued that a non-linear technique was the proper analysis because TMI's "cracks would not respond in a linear fashion."<sup>117</sup> The Board concluded "that the use of the linear fracture mechanics theory is acceptable under the regulations and that [the intervenor]'s [challenge] constitutes an impermissible attack on [that regulation]."<sup>118</sup> Here too Petitioners' challenge is an impermissible attack on an authorized, final regulation.

<sup>118</sup> *Id*.

<sup>&</sup>lt;sup>112</sup> *Id.* at 15.

<sup>&</sup>lt;sup>113</sup> *Id*.

Exelon Generation Co., LLC (Braidwood Nuclear Station, Units 1 & 2 and Byron Nuclear Station, Units 1 & 2), LBP-13-12, 78 NRC 239, 242 (2013) ("It is . . . not the role of licensing boards to review and reconsider the wisdom of the Commission's regulations." (internal quotations omitted)), aff'd on other grounds, CLI-14-06, 79 NRC (May 2, 2014).

<sup>&</sup>lt;sup>115</sup> Detroit Edison Co. (Fermi Nuclear Power Plant, Unit 3), LBP-09-16, 70 NRC 227, 255 (2009) (citing Metro. Edison Co. (Three Mile Island Nuclear Station, Unit No. 1), LBP-83-76, 18 NRC 1266, 1273 (1983)), aff'd on other grounds, CLI-09-22, 70 NRC 932, 933 (2009).

<sup>&</sup>lt;sup>116</sup> *Three Mile Island*, LBP-83-76, 18 NRC at 1273.

<sup>&</sup>lt;sup>117</sup> *Id*.

The appropriate mechanisms for challenging the 2010 PTS Rule as "unrealistic, unsupported, and imprudent,"<sup>119</sup> as Mr. Gundersen and the Petitioners argue, would have included the submission of comments to the NRC on the proposed rule, otherwise participating in the development of the 2010 PTS Rule, or filing a petition for rulemaking under 10 C.F.R. § 2.802. But Petitioners have done none of those things.<sup>120</sup> Ultimately, this proceeding is not the appropriate forum to challenge the requirements or basis of the 2010 PTS Rule.

## b. <u>Petitioners Impermissibly Challenge the Palisades CLB</u>

Petitioners further argue in their first basis that because there are surveillance capsules in the Palisades reactor vessel that have not been removed and tested, Entergy should not be permitted to implement the 2010 PTS Rule.<sup>121</sup> This claim is an impermissible attack on the plant's CLB.

The current capsule withdrawal schedule for Palisades is established under 10 C.F.R. Part 50, Appendix H, to accommodate the 60-year licensing period for the plant.<sup>122</sup> The NRC reviewed and approved Entergy's most recent amendment to the capsule withdrawal schedule in 2007.<sup>123</sup> The LAR, which is the subject of the Petition, does not seek any change to the

<sup>&</sup>lt;sup>119</sup> Petition at 16 (quoting Gundersen Declaration ¶ 23) (criticizing how the "NRC has allowed" calculations to substitute for physical sampling).

<sup>&</sup>lt;sup>120</sup> *See* 2010 PTS Rule, 75 Fed. Reg. at 16 ("All the comments on the proposed rule and supplemental proposed rule were submitted by industry stakeholders.").

<sup>&</sup>lt;sup>121</sup> See Petition at 15-16; Coupon Declaration at 1-5.

<sup>&</sup>lt;sup>122</sup> See Letter from T. Tate, Office of Nuclear Reactor Regulation, to M. Balduzzi, Entergy Nuclear Operations, Inc., Palisades Nuclear Plant – Approval of Proposed Reactor Vessel Surveillance Capsule Withdrawal Schedule (TAC No. MD3461) at 1 (Aug. 14, 2007), available at ADAMS Accession No. ML071640310.

<sup>&</sup>lt;sup>123</sup> *Id*.

approved capsule withdrawal schedule.<sup>124</sup> Thus, Petitioners' challenge to the existing Palisades capsule withdrawal schedule is not within the scope of this proceeding.<sup>125</sup>

Moreover, nothing in 10 C.F.R. § 50.61a requires licensees to withdraw and test *additional* surveillance capsules in order to implement the alternate fracture toughness requirements. Petitioners have not cited any such requirement because none exists. Therefore, when Petitioners argue that Entergy must withdraw and test the "available" coupons,<sup>126</sup> they are effectively seeking an amendment to Entergy's Appendix H surveillance program. There is no regulatory authority for imposing this prerequisite; and nothing in the rulemaking history or guidance supports Petitioners' argument. On the contrary, the Appendix H surveillance program is a separate regulatory requirement, not subject to challenge here.

Finally, the Gundersen Declaration claims that the ACRS "seems to agree" with his conclusion that "all possible samples" should be tested, and cites to an ACRS meeting transcript as support.<sup>127</sup> However, no participant in the meeting advocated or expressed agreement with this position.<sup>128</sup> On the contrary, the ACRS meeting participants noted that the 2010 PTS Rule requires three surveillance data statistical checks, whereas the 1985 PTS Rule only requires one.<sup>129</sup> This undercuts Petitioners' argument that only 10 C.F.R. § 50.61a dispenses with the

<sup>&</sup>lt;sup>124</sup> See LAR.

 <sup>&</sup>lt;sup>125</sup> Notice, 79 Fed. Reg. at 58,813 (limiting the scope of this proceeding to the LAR); *cf. also Fla. Power & Light Co.* (Turkey Point Nuclear Generating Station, Units 3 & 4), CLI-01-17, 54 NRC 3, 23, 24 n.18 (2001) (holding that challenges to the CLB in a license renewal proceeding must be brought under 10 C.F.R. § 2.206).

<sup>&</sup>lt;sup>126</sup> *E.g.*, Petition at 12.

<sup>&</sup>lt;sup>127</sup> Gundersen Declaration ¶ 53.

<sup>&</sup>lt;sup>128</sup> See Transcript, 619th Meeting, Advisory Committee on Reactor Safeguards ("ACRS Transcript"), available at ADAMS Accession No. ML14321A542.

<sup>&</sup>lt;sup>129</sup> ACRS Transcript at 16-20.

"physical sampling" relied upon in Section 50.61.<sup>130</sup> In fact, the opposite is true: the 2010 PTS Rule actually makes more use of surveillance data than the 1985 PTS Rule.<sup>131</sup>

\* \* \* \* \*

Thus, Petitioners' first basis is outside the scope of this proceeding, and is inadmissible under 10 C.F.R. § 2.309(f)(1)(iii). It further fails to raise a material issue, or show that a genuine dispute exists on a material issue of law or fact, and is therefore inadmissible under 10 C.F.R. § 2.309(f)(1)(iv) and (vi) as well.

## 2. Petitioners Misconstrue the Inputs and Methods Used in Entergy's Section 50.61a Submittal

The Petitioners' second basis is that the embrittlement-related data from "comparable nuclear reactor vessels" allegedly cited by Entergy in its LAR do not present "apples to apples" comparisons to the Palisades RPV.<sup>132</sup> According to Petitioners and Mr. Gundersen, these "false comparisons . . . significantly dilute Palisades' embrittlement calculations."<sup>133</sup> As a result, the Petitioners and Mr. Gundersen conclude, incongruously, that Entergy's LAR is an experiment or test under 10 C.F.R. § 50.59,<sup>134</sup> apparently requiring Entergy to seek a license amendment.

The claims in this section of the Petition are not clear. Petitioners do not articulate any specific deficiency in Entergy's LAR, but instead appear to disagree with the presence of certain data from other plants in the documents supporting Entergy's LAR. Petitioners do not specify what portion of Entergy's LAR allegedly inappropriately uses sister plant data, nor why that use is inappropriate. Ultimately, Petitioners misconstrue how Entergy uses data taken from similar

<sup>&</sup>lt;sup>130</sup> See Petition at 15.

<sup>&</sup>lt;sup>131</sup> Compare 10 C.F.R. § 50.61, with 10 C.F.R. § 50.61a; see also ACRS Transcript at 16-20.

<sup>&</sup>lt;sup>132</sup> *Id.* at 16.

<sup>&</sup>lt;sup>133</sup> *Id.* at 17 (citing Gundersen Declaration  $\P$  28).

<sup>&</sup>lt;sup>134</sup> *Id.* at 17-18 (citing Gundersen Declaration  $\P$  16).

materials at other plants, and as a result, the claims in this section of the Petition are unsupported, outside the scope of this proceeding, immaterial, and fail to raise a genuine dispute.

Petitioners could be asserting, though it is not entirely clear, that Entergy's analysis uses "sister plant" data as input into the 10 C.F.R. § 50.61a calculation of the material property RT<sub>MAX-X</sub>, described in Section III.B, above. If so, Petitioner's assertion lacks factual basis. RT<sub>MAX-X</sub>, the maximum reference transition temperature for RPV beltline materials as defined in the 2010 PTS Rule, is calculated using a variety of inputs specified in 10 C.F.R. § 50.61a, including assumptions regarding future plant operations (such as core loading patterns and projected capacity factors), the copper, phosphorus, manganese, and nickel contents of the materials, reactor cold leg temperature, and neutron flux and fluence.<sup>135</sup>

All of the inputs into the calculation of  $RT_{MAX-X}$  come from Palisades plant-specific data—except in instances when plant-specific materials data for certain welds was unavailable, and the analysis used specific conservative values specified in 10 C.F.R. § 50.61a, Table 4 instead.<sup>136</sup> The maximum neutron fluence values used in the analysis are taken from two prior Palisades-specific reports,<sup>137</sup> and do not rely on data from any plants other than Palisades.<sup>138</sup> Thus, when Petitioners allege that the use of sister plant data "significantly dilute[s]" Entergy's embrittlement calculations, the Petitioners are simply incorrect—the embrittlement calculations

<sup>&</sup>lt;sup>135</sup> See 10 C.F.R. § 50.61a(c)(1); see also 2010 PTS Rule, 75 Fed. Reg. at 16; WCAP-17628-NP, Rev. 1, at 2-1.

<sup>&</sup>lt;sup>136</sup> See WCAP-17628-NP, Rev. 1, at 4-2, Table 4-1, n.3 ("Weld material phosphorus and manganese content are conservative estimates provided in Table 3-1.").

<sup>&</sup>lt;sup>137</sup> See id. at 5-1, Table 5-1, nn. 1 & 2 (referencing WCAP-15353, Supp. 2-NP as the source of maximum fluence values for most components, and Structural Integrity Associates (SIA) Report No. 1000915.401, Revision 1 as the source for two vessel beltline plate materials).

<sup>&</sup>lt;sup>138</sup> See WCAP-15353, Supplement 2-NP, Revision 0, Palisades Reactor Pressure Vessel Fluence Evaluation at 2-1 (July 2011) ("the exposure of the Palisades pressure vessel was developed based on a series of fuel cycle-specific neutron transport calculations validated by comparison with *plant-specific measurements*") (emphasis added) ("WCAP-15353, Supp. 2-NP"), *available at* ADAMS Accession No. ML14316A207; Structural Integrity Associates, Inc. Report No. 1000915.401, Revision 1, Revised Pressurized Thermal Shock Evaluation for the Palisades Reactor Pressure Vessel at 9-10 (Nov 2010) (showing only Palisades surveillance capsule data used as input for vessel beltline plate fluence data), *available at* ADAMS Accession No. ML110060694.

(*i.e.*, calculations of  $RT_{MAX-X}$ ) Entergy presents in its LAR do not rely upon data from any other plants.<sup>139</sup> Such mistaken assumptions cannot form the basis for an admissible contention.<sup>140</sup>

While the calculation of  $RT_{MAX-X}$  is based solely on plant-specific inputs, 10 C.F.R. § 50.61a(f) requires that licensees determine whether surveillance data from plant-specific or integrated surveillance programs show a significantly different trend than what the embrittlement model in the rule predicts (*i.e.*, a consistency verification).<sup>141</sup> Entergy was therefore required by rule to use all available data from the material heats used in the Palisades RPV—regardless of whether the data came from Palisades or a different plant. Entergy had no discretion here: "If three or more surveillance data points measured at three or more different neutron fluences *exist for a specific material*, the licensee *shall* determine if the surveillance data show a significantly different trend than the embrittlement model predicts."<sup>142</sup>

Thus, to the extent Petitioners are objecting to Entergy's use of data from similar materials irradiated at other plants, as required under 10 C.F.R. § 50.61a(f)(6), Petitioners are challenging this rule. Such challenges are outside the scope of, and not material to, this proceeding and are, therefore, inadmissible.<sup>143</sup>

<sup>&</sup>lt;sup>139</sup> Petitioners and Mr. Gundersen may have been confused by the presentation of certain fluence data from other plants in the Palisades fluence analyses. For example, WCAP-15353, Supp. 2-NP provides fluence data for Indian Point Units 2 and 3 and the Robinson plant, as a convenient compilation for use in certain embrittlement evaluations. *See* WCAP-15353, Supp. 2-NP at 1-2, 4-1 (explaining that the sister plant fluence values are simply being *compiled* in this document, not used as inputs into the calculation of RT<sub>MAX-X</sub> in the LAR).

<sup>&</sup>lt;sup>140</sup> See Ga. Tech., LBP-95-6, 41 NRC at 300 (holding that a petitioner's imprecise reading of a document cannot be the basis for a litigable contention).

<sup>&</sup>lt;sup>141</sup> 10 C.F.R. § 50.61a(f)(6); *see also* 2010 PTS Rule, 75 Fed. Reg. at 16, 19.

<sup>&</sup>lt;sup>142</sup> 10 C.F.R. § 50.61a(f)(6)(i)(B) (emphasis added).

<sup>&</sup>lt;sup>143</sup> See Calvert Cliffs, CLI-14-08, 80 NRC at \_\_ (slip op. at 9) (holding that challenges to Commission determinations in rulemaking proceedings are not subject to challenge in individual licensing adjudications); accord Private Fuel Storage, CLI-04-4, 59 NRC 31, 38-39.

Petitioners' specific criticisms of Structural Integrity Associates Report No. 0901132.401 fall into this category.<sup>144</sup> Entergy cited this report as the source of certain data used in the Section 50.61a(f)(6) consistency check, not as an input into the calculation of  $RT_{MAX-X}$ .<sup>145</sup> Entergy is specifically required by the 2010 PTS Rule to perform the consistency check of available surveillance data. Petitioners' challenge to Entergy's consistency check is a collateral attack on the rule and inadmissible.<sup>146</sup>

Finally, Petitioners do not point to any specific deficiency in the LAR under 10 C.F.R. §§ 50.61a, 50.61, 50.90, or any other regulation pertinent to this proceeding. Instead, Petitioners and Mr. Gundersen proffer a vague allegation that the "fluid PTS standards" should be considered an "experiment" or "test" under 10 C.F.R. § 50.59.<sup>147</sup> This conclusion is unclear, as the standards in Section 50.59 are irrelevant to Entergy's LAR.<sup>148</sup>

Section 50.59 establishes conditions under which licensees may make changes or conduct tests and experiments at their facility *without* obtaining a license amendment under Section

<sup>&</sup>lt;sup>144</sup> See Petition at 16.

<sup>&</sup>lt;sup>145</sup> See WCAP-17628-NP, Rev. 1 at 6-3, Table 6-2 n. 5.

<sup>&</sup>lt;sup>146</sup> See, e.g., Calvert Cliffs, CLI-14-08, 80 NRC at \_\_\_\_ (slip op. at 9).

<sup>&</sup>lt;sup>147</sup> Petition at 18.

<sup>148</sup> Petitioners also allege that the continued operation of Palisades is a "test," because of an NRC Staff statement during a public "webinar" in 2013, that Palisades was "one of the most embrittled plants." See Petition at 20 (citing Gundersen Declaration ¶ 50). The NRC Staff's statement was based on NUREG-1874, which concluded that, after 48 effective full-power years ("EFPY") of operation, Palisades would be the fourthclosest plant to the 10 C.F.R. § 50.61a screening limits. See Meeting Summary at 2-3. However, Palisades is not expected to reach 48 EFPY during the term of its license (including the authorized period of extended operation through March 24, 2031), but is instead estimated to reach only 42.1 EFPY during that time—so the Palisades RPV will likely experience six full-power years less neutron irradiation than the Staff estimated in NUREG-1874. See Letter from M. Chawla, Office of Nuclear Reactor Regulation, to Vice President, Operations, Entergy Nuclear Operations, Inc., Palisades Nuclear Plant - Issuance of Amendment re: Primary Coolant System Pressure-Temperature Limits (TAC No. ME5806) (Jan. 19, 2012) (amending license to incorporate the 42.1 EFPY "applicability period" into Palisades' Technical Specifications), available at ADAMS Accession No. ML113480303. Thus, by the NRC Staff's estimations prior to the receipt of the LAR, the Palisades RPV is not expected to exceed the embrittlement screening criteria during its licensed operating life.

50.90.<sup>149</sup> Here, it is undisputed that Entergy is requesting a license amendment, so any arguments about whether or not the proposed amendment could be implemented without prior NRC approval under Section 50.59 are irrelevant, and fail to raise a material issue or a genuine dispute on a material issue of law or fact.<sup>150</sup>

Thus, Petitioners arguments regarding the use of data from sister plants in Entergy's LAR lack basis, are outside the scope of this proceeding, and fail to raise a genuine dispute on a material issue of law or fact, contrary to 10 C.F.R. §§ 2.309(f)(1)(ii), (iii), (iv), (v), and (vi).

## 3. Petitioners' Criticisms of the Statistical Comparisons Entergy Performed are Inaccurate and Disregard the Requirements for Statistical Comparisons in the 2010 PTS Rule

Next, Petitioners allege that "cross-comparisons and standard deviations" allegedly used by Entergy to evaluate certain surveillance data from Palisades and sister plants in Entergy's LAR "don't match up."<sup>151</sup> Specifically, Petitioners and Mr. Gundersen claim that it is extraordinarily difficult to compare fluence data from sister plants while still maintaining all of the data within one standard deviation ("1  $\sigma$ ") and a 20% "error band."<sup>152</sup> They further allege that certain plant-specific fluence data from Palisades does not fall within these standards.<sup>153</sup>

Here, Mr. Gundersen and Petitioners are mixing apples and oranges in multiple ways. First, NRC Staff guidance for determining RPV neutron fluence in Reg. Guide 1.190 specifies that the uncertainty in reactor vessel neutron fluence at a given location should be 20% (1  $\sigma$ ) or

<sup>&</sup>lt;sup>149</sup> See 10 C.F.R. § 50.59(c)(1) (allowing licensees to make changes and conduct tests or experiments at licensed facilities without a license amendment under Section 50.90 only if specified conditions are met).

<sup>&</sup>lt;sup>150</sup> Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, & 3), CLI-99-11, 49 NRC 328, 333-34 (1999) (stating that a dispute is only material "if its resolution would make a difference in the outcome of the licensing proceeding"); see also 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>151</sup> Petition at 18.

<sup>&</sup>lt;sup>152</sup> *Id*.

<sup>&</sup>lt;sup>153</sup> See id. at 18-19.

less when the fluence—as calculated using the methods specified in the Reg. Guide—is used to determine the reference transition temperature for a material.<sup>154</sup> As previously explained, the neutron fluence inputs into Entergy's  $RT_{MAX-X}$  calculation under 10 C.F.R. § 50.61a came entirely from plant-specific data, not from sister plant data, and meet this criterion. Thus, when Mr. Gundersen states that "there has never been a discussion of how this [*i.e.*, the 20%/1  $\sigma$  standard] was achieved between the four sister units,"<sup>155</sup> his statement is irrelevant. No sister unit fluence data was required to be evaluated under the 20%/1  $\sigma$  standard, and Entergy did not evaluate sister unit fluence data under that standard.

As to the separate consistency verifications under 10 C.F.R. § 50.61a(f)(6), the 2010 PTS Rule specifies three different statistical tests: a Mean Deviation Test, a Slope Deviation Test, and an Outlier Deviation Test.<sup>156</sup> The 20%/1  $\sigma$  screening standard for plant-specific fluence inputs specified in Reg. Guide 1.190 is *not* relevant to these tests. Entergy's LAR shows that the available surveillance data for Palisades and for other plants passes all three required statistical tests.<sup>157</sup> Petitioners and Mr. Gundersen do not discuss or dispute this conclusion.

Petitioners and Mr. Gundersen further misunderstand Entergy's analyses when they discuss the allegedly "extraordinary variability between the neutron flux across the [Palisades] nuclear core . . . . <sup>n158</sup> Because there is allegedly substantial flux variation across different locations in the Palisades core, they allege that it is "mathematically implausible" to meet the allegedly "mandatory" standard of "20% variation."<sup>159</sup> Once again, Petitioners and Mr.

<sup>&</sup>lt;sup>154</sup> See Reg. Guide 1.190 at 3.

<sup>&</sup>lt;sup>155</sup> Gundersen Declaration ¶ 30.

<sup>&</sup>lt;sup>156</sup> See 10 C.F.R. § 50.61a (f)(v)(A)-(C).

<sup>&</sup>lt;sup>157</sup> See WCAP-17628-NP, Rev. 1 at 8-3 to 8-7.

<sup>&</sup>lt;sup>158</sup> Petition at 18 (citing Gundersen Declaration ¶ 34).

<sup>&</sup>lt;sup>159</sup> *Id.* at 18-19 (citing Gundersen Declaration ¶¶ 34, 39).

Gundersen confuse the issues. The flux at different locations within the Palisades core can normally vary at different locations, for various reasons, including core geometry and the presence of shielding. The  $1\sigma/20\%$  standard, however, applies to estimates of the *uncertainty* in specific fluence calculations at a particular location—not to "variations" in fluence across the core at different locations, as the Petitioners and Mr. Gundersen appear to assume. The Petitioners' and Mr. Gundersen's concerns about mathematical implausibility, therefore, are simply misplaced.<sup>160</sup>

Thus, Petitioners arguments regarding statistical comparisons in Entergy's LAR lack basis, are outside the scope of this proceeding, lack support in alleged facts or expert opinion, and fail to raise a genuine dispute on a material issue of law or fact, contrary to 10 C.F.R. \$

### 4. The Equivalent Margins Analysis Is the Subject of a Separate License Amendment Request and is Outside the Scope of This Proceeding

Next, Petitioners and Mr. Gundersen challenge an "equivalent margins evaluation" prepared by Entergy, as an alleged "red flag" that Entergy is proposing to operate Palisades "outside the norm."<sup>161</sup> Specifically, Mr. Gundersen "accuses Entergy of 'seeking NRC approval for another untried methodological approach to measure neutron bombardment . . . . "<sup>162</sup>

See, e.g., USEC, CLI-06-10, 63 NRC at 472 (an expert must provide a reasoned basis or explanation for opinions in support of a contention). This section of the Petition also discusses a capsule used in the Palisades core, which was inadvertently over-irradiated in the 1980s, and therefore could provide "no useful fracture toughness data." See Petition at 19. Petitioners state that Mr. Gundersen "deduced" from this evidence that this sample "was discarded precisely because it gave an answer that would have required Palisades to shut down." *Id.* (quoting Gundersen Declaration ¶ 42). Mr. Gundersen's deduction is simply unsupported by any evidence. Moreover, Petitioners are challenging a licensing action from 30 years ago, not any issue that is within the scope of this proceeding. See Notice, 79 Fed. Reg. at 58,813.

<sup>&</sup>lt;sup>161</sup> Petition at 20 (citing Gundersen Declaration ¶ 48). Beyond Nuclear, Don't Waste Michigan, and their counsel have previously been chastised, by the Board in the *Davis-Besse* license renewal proceeding, for "putting forward baseless and irrelevant allegations of fraud" and ill-intent on the part of the applicant and NRC Staff that were "meant to inflame rather than address any legitimate argument." *FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station, Unit 1), Order (Granting in Part and Denying in Part Motion to Strike) at 4-5 (Oct. 11, 2012) (unpublished). Yet the Petition and its supporting documents are replete with similar claims which should, at a minimum, be summarily dismissed. *See, e.g.*, Petition at 20 (asserting that Entergy

Here, Petitioners are challenging an entirely separate license amendment request,

submitted by Entergy on November 12, 2014, to meet the requirements in 10 C.F.R. Part 50,

Appendix G.<sup>163</sup> The Appendix G standards addressed in the November 12 license amendment

request are separate from, and in addition to, the PTS requirements in 10 C.F.R. §§ 50.61 and

50.61a. Contrary to Petitioners' allegation, the LAR at issue in this adjudicatory proceeding

simply does not "contain[] an equivalent margins evaluation."<sup>164</sup>

Challenges to a separate licensing matter are outside the scope of this proceeding.<sup>165</sup>

Additionally, criticism of the equivalent margins analysis does not bear on any material issue in

this proceeding. Thus, Petitioners arguments regarding the equivalent margins analysis in a

different license amendment request are outside the scope of this proceeding and fail to raise a

material issue, contrary to 10 C.F.R. §§ 2.309(f)(1)(iii) and (iv).

plans to operate the plant "well outside the norm"); *id.* at 11 (questioning "Entergy's motivation" for switching to § 50.61a); *id.* (suggesting that Entergy plans to "deviate" from the regulations); *id.* at 19 (claiming Entergy "ignore[d]" data) and Gundersen Declaration ¶ 42 (claiming that Entergy "disregarded" data and "put[] the public at risk"); *id.* at 9 ¶ 42 (implying that Entergy has compromised safety to "save money"); and Petition at 14 (alleging that Entergy "magically" obtains regulatory approval of analyses). Beyond Nuclear has continued this tone of discourse on its public website, accusing Entergy and NRC Staff of "sheer chicanery," "criminal negligence," and "sneering contempt . . . for the public," calling the NRC Staff "inept," and comparing the former NRC Chairman to "Humpty Dumpty." Coalition Alleges Safety Regulation Rollbacks at Entergy Nuclear Palisades (Dec. 2, 2014), *available at* http://www.beyondnuclear.org/storage/kk-links/12%202%2014%20Palisades%20press%20release.pdf.

<sup>&</sup>lt;sup>162</sup> Petition at 19 (citing Gundersen Declaration ¶ 45.5).

<sup>&</sup>lt;sup>163</sup> PNP 2014-099, Letter from A. Vitale, Entergy Nuclear Operations, Inc., to NRC Document Control Desk, License Amendment Request for Approval of Palisades Nuclear Plant 10 CFR 50 Appendix G Equivalent Margins Analysis (Nov. 12, 2014), *available at* ADAMS Accession No. ML14316A190. The November 12, 2014 license amendment request has been docketed and is currently under consideration by the NRC Staff. *See* Letter from J. Rankin, Office of Nuclear Reactor Regulation, to Entergy Nuclear Operations, Inc., Palisades Nuclear Plant – Acceptance Review re: License Amendment Request for Approval of Palisades Nuclear Plant 10 CFR 50 Appendix G Equivalent Margins Analysis (TAC No. MF5163) (Dec. 8, 2014), *available at* ADAMS Accession No. ML14338A674.

<sup>&</sup>lt;sup>164</sup> Petition at 11.

See Notice, 79 Fed. Reg. at 58,813 (limiting the scope of this proceeding to the LAR); N. States Power Co. (Prairie Island Nuclear Generating Plant, Units 1 & 2), LBP-08-26, 68 NRC 905, 922-23 (2008) (holding that a challenge was outside the scope of the proceeding where an applicant had "no obligation to discuss," for purposes of the proceeding at issue, "a separate project, subject to a separate proceeding, and governed by [separate] regulations"); cf., e.g., Palisades, CLI-06-17, 63 NRC at 733 ("The current proceeding concerns the renewal of the reactor operating license pursuant to 10 C.F.R. Parts 51 and 54, and not the ISFSI, which is licensed pursuant to 10 C.F.R. Part 72.").

## 5. Petitioners' List of Purported "Roll Backs" Is Unexplained and Does Not Present An Admissible Issue

Finally, Petitioners present a list of so-called "Roll Backs"—a six-page list of regulatory changes and licensing actions by Entergy and the NRC Staff over the past four decades that have allegedly weakened the PTS criteria applied to the Palisades RPV.<sup>166</sup> Neither Petitioners nor Mr. Gundersen explain the significance of, or Petitioners' specific concerns with, any of these prior events.<sup>167</sup> Instead, this is simply a list of half-explained citations to historical documents—many of which do not involve changes to the PTS screening evaluations for Palisades, and thus nothing in this list provides sufficient support for a contention.

The Commission has held that "parties must clearly identify evidence on which they rely," and "may not simply incorporate massive documents by reference as the basis for or a statement of [their] contentions."<sup>168</sup> A document list of historical information notices and generic letters, previously-approved license amendments, data transmittals, and NUREG publications cannot, standing alone, provide a sufficient basis for a contention. Intervenors are required to clearly identify and summarize the incidents being relied upon, identify and append specific portions of the documents, and, importantly, explain why they are relevant here.<sup>169</sup> Petitioners have not done this, nor have they clearly explained how any of the listed documents is material to this proceeding or raises a genuine dispute. It is not the Board's responsibility to

<sup>&</sup>lt;sup>166</sup> Petition, Exh. A.

<sup>&</sup>lt;sup>167</sup> Instead, Petitioners describe the list as "Provided by Michael Keegan, December 1, 2014." *Id.* The Petitioners, however, have not proffered Mr. Keegan as an expert and have presented no information about Mr. Keegan's qualifications to compile this list. A witness must be qualified as an expert by knowledge, skill, experience, training, or education. *Phila. Elec. Co.* (Limerick Generating Station, Units 1 & 2), ALAB-819, 22 NRC 681, 732 n.67 (1985) (citing Fed. R. Evid. 702).

<sup>&</sup>lt;sup>168</sup> Seabrook, CLI-89-3, 29 NRC at 240-41.

<sup>&</sup>lt;sup>169</sup> *Commonwealth Edison Co.* (Braidwood Nuclear Power Station, Units 1 & 2), LBP-85-20, 21 NRC 1732, 1741 (1985).

search through a list of documents to uncover arguments and support not advanced by the petitioners themselves.<sup>170</sup>

Accordingly, the list of purported historical "Roll Backs" cannot support of the admission of the Proposed Contention, as it lacks basis and support, fails to raise a material issue and fails to raise a genuine dispute on a material issue of law or fact, contrary to 10 C.F.R.

§ 2.309(f)(1)(ii), (iv), (v), and (vi).

#### VII. <u>CONCLUSION</u>

As demonstrated above, Petitioners have not satisfied the standing requirements in 10 C.F.R. § 2.309(d) and proffer no contention satisfying the admissibility requirements in 10 C.F.R. § 2.309(f)(1). For these reasons, Entergy respectfully requests that the Board reject the Petition in its entirety.

Respectfully submitted,

#### Signed (electronically) by Raphael P. Kuyler

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Dated in Washington, DC this 12th day of January 2015

<sup>&</sup>lt;sup>170</sup> See USEC, CLI-06-10, 63 NRC at 457.

## UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

### **BEFORE THE ATOMIC SAFETY AND LICENSING BOARD**

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In the Matter of:

ENTERGY NUCLEAR OPERATIONS, INC. )

(Palisades Nuclear Plant)

Docket No. 50-255-LA

January 12, 2015

## **CERTIFICATE OF SERVICE**

Pursuant to 10 C.F.R. § 2.305, I certify that, on this date, copies of the foregoing "Entergy's Answer Opposing Petition to Intervene and Request for Hearing" were served upon the Electronic Information Exchange (the NRC's E-Filing System), in the above-captioned proceeding.

Signed (electronically) by Raphael P. Kuyler

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