

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Ronald M. Spritzer, Chairman  
Dr. Gary Arnold  
Nicholas G. Trikouros

In the Matter of

DTE ELECTRIC COMPANY

(Fermi Nuclear Power Plant, Unit 2)

Docket No. 50-341

ASLBP No. 14-933-01-LR-BD01

February 6, 2015

**MEMORANDUM and ORDER**  
**(Ruling on Petitions to Intervene and Requests for a Hearing)**

**I. Introduction**

Before the Board are two petitions to intervene and requests for a hearing. The first petition was filed on August 18, 2014, by Don't Waste Michigan, Citizens Environment Alliance of Southwestern Ontario, and Beyond Nuclear (Joint Petitioners).<sup>1</sup> The second petition was filed on the same date by Citizens' Resistance at Fermi 2 (CRAFT).<sup>2</sup>

In this decision, we address the Petitioners' standing to intervene and the admissibility of the Petitioners' proffered contentions. We find that the Petitioners have established representational standing to intervene in this proceeding. We admit Joint Petitioners'

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<sup>1</sup> Petition for Leave to Intervene and Request for Hearing of Don't Waste Michigan, Citizens Environment Alliance of Southwestern Ontario, and Beyond Nuclear (Aug. 18, 2014) [hereinafter "Joint Petition"].

<sup>2</sup> Citizens' Resistance at Fermi 2 (CRAFT) Petition for Leave to Intervene and Request for a Public Hearing upon DTE Electric's Request of 20-Year License Extension for the Enrico Fermi 2 Nuclear Reactor (Aug. 18, 2014) [hereinafter "CRAFT Petition"].

Contention 4 in part (we have designated the admissible part as Contention JP4B). We also admit CRAFT contentions 2 and 8, as narrowed by the Board.<sup>3</sup> The Board concludes that the remainder of the proffered contentions are inadmissible. Because Joint Petitioners and CRAFT have standing and have each proffered at least one admissible contention, they have satisfied the necessary prerequisites for the Board to grant their hearing requests.<sup>4</sup>

## II. Background

This proceeding concerns DTE's April 24, 2014 application to renew its operating license (LRA) for the Fermi Nuclear Power Plant, Unit 2 (Fermi 2) for an additional twenty years from the current expiration date of March 20, 2025.<sup>5</sup> Fermi 2 is a boiling-water reactor (BWR) designed by General Electric and is located near Frenchtown Township in Monroe County, Michigan.<sup>6</sup> The Staff accepted the LRA for review, and published a Federal Register Notice on June 18, 2014, providing a Notice of Opportunity for Hearing.<sup>7</sup> In response, Joint Petitioners proposed four contentions.<sup>8</sup> CRAFT's separate petition to intervene and request for a hearing includes an additional fourteen contentions.<sup>9</sup> The Board was appointed on August 28.<sup>10</sup> Both

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<sup>3</sup> Judge Arnold agrees with this decision, except for the admission of CRAFT's Contention 2. His separate views dissenting from the admission of that contention are attached.

<sup>4</sup> See 10 C.F.R. § 2.309(a), (f)(1).

<sup>5</sup> Letter from J. Todd Conner, Site Vice President, to Document Control Desk, U.S. Nuclear Regulatory Commission (Apr. 24, 2014) (ADAMS Accession No. ML14121A532). The LRA is available at ADAMS Package No. ML14121A554. LRA at 1-1.

<sup>6</sup> LRA at 1-7 to 1-8.

<sup>7</sup> DTE Electric Company; Fermi 2, License renewal application; opportunity to request a hearing and to petition for leave to intervene, 79 Fed. Reg. 34,787 (June 18, 2014).

<sup>8</sup> Joint Petition at 6–54; see also Intervenors' Combined Reply in Support of Petition For Leave to Intervene and Request for Hearing of Don't Waste Michigan, Citizens Environment Alliance of Southwestern Ontario and Beyond Nuclear (Sept. 19, 2014) [hereinafter "Joint Reply"].

<sup>9</sup> CRAFT Petition at 4–36; see also Combined Reply of Citizens' Resistance at Fermi 2 (CRAFT) to NRC Staff and DTE Electric Co. Answers to Craft's Petition (Sept. 19, 2014) [hereinafter "CRAFT Reply"].

the Applicant and the Staff have filed answers opposing the petitions to intervene and requests for a hearing.<sup>11</sup> The Board held oral argument on November 20 in Monroe, Michigan concerning contention admissibility.<sup>12</sup>

### III. Petitioners' Standing to Participate in this Proceeding

#### A. Legal Requirements for Standing

A petitioner's participation in a licensing proceeding requires a demonstration of standing. This requirement is derived from Section 189a of the Atomic Energy Act of 1954 (AEA),<sup>13</sup> which instructs the Nuclear Regulatory Commission (NRC) to provide a hearing "upon the request of any person whose interest may be affected by the proceeding."<sup>14</sup> When assessing whether an individual or organization has set forth a sufficient interest, the Commission has applied judicial concepts of standing, under which the petitioner must allege "a concrete and particularized injury that is fairly traceable to the challenged action and is likely to be redressed by a favorable decision."<sup>15</sup> For nuclear reactor licensing proceedings, the Commission has adopted a proximity presumption that allows a petitioner living within fifty miles

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<sup>10</sup> DTE Electric Company; Establishment of Atomic Safety and Licensing Board, 79 Fed. Reg. 53,082 (Sept. 5, 2014). Subsequently, a Notice of Board Reconstitution was issued, substituting Judge Gary S. Arnold to serve on the Board in place of Judge Paul B. Abramson. DTE Electric Company (Fermi Nuclear Power Plant, Unit 2); Notice of Atomic Safety and Licensing Board Reconstitution, 79 Fed. Reg. 59,867 (Oct. 3, 2014).

<sup>11</sup> DTE Electric Co. Answer Opposing Petitions to Intervene and Requests for Hearing (Sept. 12, 2014) [hereinafter "DTE Answer"]; NRC Staff's Answer to Petition for Leave to Intervene and Request for Hearing of Don't Waste Michigan, Citizens Environment Alliance of Southwestern Ontario, and Beyond Nuclear (Sept. 12, 2014) [hereinafter "Staff Answer to Joint Petition"]; NRC Staff's Answer to Citizens' Resistance at Fermi 2 (CRAFT) Petition for Leave to Intervene and Request for Public Hearing (Sept. 12, 2014) [hereinafter "Staff Answer to CRAFT Petition"].

<sup>12</sup> Transcript of Oral Argument in the Matter of Fermi Nuclear Power Plant, Unit 2 (Nov. 20, 2014) [hereinafter "Tr."].

<sup>13</sup> 42 U.S.C. § 2011 et seq. (1954).

<sup>14</sup> Id. § 2239(a)(1)(A).

<sup>15</sup> Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 92 (1993) (citing Lujan v. Defenders of Wildlife, 504 U.S. 555, 561 (1992)).

of the reactor to establish standing without the need to make an individualized showing of injury, causation, and redressability.<sup>16</sup>

When, as here, an organization petitions to intervene in a proceeding, it must establish either organizational or representational standing. To demonstrate organizational standing, the petitioner must show a discrete injury to the organization itself.<sup>17</sup> Where an organization seeks representational standing, it must show that at least one of its members would be affected by the proceeding and identify that member by name and address. Moreover, the organization must show that the members would have standing to intervene in their own right, and that the identified members have authorized the organization to request a hearing on their behalf.<sup>18</sup> In addition, the interests that the representative organization seeks to protect must be germane to its own purpose, and neither the asserted claim nor the required relief must require an individual member to participate in the organization's legal action.<sup>19</sup>

#### **B. Licensing Board's Ruling on Petitioners' Standing**

The Staff agrees that Joint Petitioners and CRAFT have demonstrated representational standing.<sup>20</sup> DTE did not address the standing of either Joint Petitioners or CRAFT. Although a

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<sup>16</sup> Calvert Cliffs 3 Nuclear Project, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 915–17 (2009).

<sup>17</sup> See Consumers Energy Co., et al. (Palisades Nuclear Power Plant), CLI-07-18, 65 NRC 399, 411–12 (2007).

<sup>18</sup> See id.; Sequoyah Fuels Corp. & Gen. Atomics (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 72 (1994) (citing Houston Lighting & Power Co. (Allens Creek Nuclear Generating Station, Unit 1), ALAB-535, 9 NRC 377, 389–400 (1979)) (“An organization seeking representational standing on behalf of its members may meet the ‘injury-in-fact’ requirement by demonstrating that at least one of its members, who has authorized the organization to represent his or her interest, will be injured by the possible outcome of the proceeding.”).

<sup>19</sup> Palisades, CLI-07-18, 65 NRC at 409.

<sup>20</sup> Staff Answer to Joint Petition at 2–3; Staff Answer to CRAFT Petition at 2–4.

licensing board has the obligation to independently assess petitioners' standing,<sup>21</sup> we have no difficulty concluding that the requirements for representational standing are met in this case. Both Joint Petitioners<sup>22</sup> and CRAFT<sup>23</sup> have provided declarations from members asserting that they reside within 50 miles of the Fermi 2 site. These members thus have standing under the Commission's 50-mile proximity presumption.<sup>24</sup> And Joint Petitioners and CRAFT have established representational standing by showing that the identified members have authorized the organization to request a hearing on their behalf,<sup>25</sup> that the interests that the representative organization seeks to protect are germane to its own purpose, and that neither the asserted claim nor the required relief require an individual member to participate in the proceeding.<sup>26</sup>

#### **IV. Standards for Admissibility of Contentions**

##### **A. General Requirements**

In order to participate as a party in this proceeding, a petitioner for intervention must not only establish standing, but must also proffer at least one admissible contention that meets the requirements of 10 C.F.R. § 2.309(f).<sup>27</sup> An admissible contention must: (i) provide a specific statement of the legal or factual issue sought to be raised; (ii) provide a brief explanation of the

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<sup>21</sup> See 10 C.F.R. § 2.309(d)(2); Progress Energy Carolinas, Inc. (Shearon Harris Nuclear Power Plant, Units 2 and 3), LBP-08-21, 68 NRC 554, 559 (2008).

<sup>22</sup> See Organizational and Individual Declarations in Support of Joint Petition (Aug. 14, 2014) (providing declarations of George Steinman and Shirley Steinman (Beyond Nuclear); Derek Coronado and Richard Coronado (Citizens Environment Alliance of Southwestern Ontario); Leonard Mandeville, Marcee Meyers, and Michael Keegan (Don't Waste Michigan)).

<sup>23</sup> See Declaration of Authorized Officer of CRAFT in Support of Petition to Intervene in Docket No. 50-341 LRA, 2014-0109 (Aug. 18, 2014) (providing declarations, among others, of Jessie Pauline Collins, James DeBussey, Gloria F. Eggleston, and Kenneth Fink) [hereinafter "CRAFT Declarations"].

<sup>24</sup> See Calvert Cliffs, CLI-09-20, 70 NRC at 916–17 (explaining that petitioners living within 50 miles of a reactor are presumed to have standing).

<sup>25</sup> See Gore, CLI-94-12, 40 NRC at 72 (citing Allens Creek, ALAB-535, 9 NRC at 389–400).

<sup>26</sup> See Palisades, CLI-07-18, 65 NRC at 409.

basis for the contention; (iii) demonstrate that the issue raised is within the scope of the proceeding; (iv) demonstrate that the issue raised is material to the findings the NRC must make to support the action that is involved in the proceeding; (v) provide a concise statement of the alleged facts or expert opinions, including references to specific sources and documents, that support the petitioner's position and upon which the petitioner intends to rely at the hearing; and (vi) provide sufficient information to show that a genuine dispute exists in regard to a material issue of law or fact, including references to specific portions of the application that the petitioner disputes, or, in the case when the application is alleged to be deficient, the identification of such deficiencies and supporting reasons for this belief.<sup>28</sup>

The purpose of Section 2.309(f)(1) is to “focus litigation on concrete issues and result in a clearer and more focused record for decision.”<sup>29</sup> The Commission has stated that it “should not have to expend resources to support the hearing process unless there is an issue that is appropriate for, and susceptible to, resolution in an NRC hearing.”<sup>30</sup> The Commission has emphasized that the rules on contention admissibility are “strict by design.”<sup>31</sup> Further, contentions challenging applicable statutory requirements or Commission regulations are not admissible in agency adjudications.<sup>32</sup> Petitioners must comply with all of these requirements.

Several of the contentions we address below are contentions of omission. A contention of omission claims that “the application fails to contain information on a relevant matter as

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<sup>27</sup> See 10 C.F.R. § 2.309(a).

<sup>28</sup> 10 C.F.R. § 2.309(f)(1).

<sup>29</sup> Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004).

<sup>30</sup> Id.

<sup>31</sup> Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 213 (2003) (citing Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358–59 (2001); Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334–35 (1999)).

<sup>32</sup> 10 C.F.R. § 2.335(a).

required by law . . . and [provides] the supporting reasons for the petitioner's belief."<sup>33</sup> To satisfy Section 2.309(f)(1)(i)–(ii), the contention of omission on a matter related to the National Environmental Policy Act (NEPA) must describe the information that should have been included in an applicant's Environmental Report (ER) and provide the legal basis that requires the omitted information to be included. The petitioner must also demonstrate that the contention is within the scope of the proceeding.<sup>34</sup>

Section 2.309(f)(1)(v) requires the petitioner to provide a concise statement of the alleged facts that support its position and upon which the petitioner intends to rely at the hearing. However, "the pleading requirements of 10 C.F.R. § 2.309(f)(1)(v), calling for a recitation of facts or expert opinion supporting the issue raised, are inapplicable to a contention of omission beyond identifying the regulatively required missing information."<sup>35</sup> Thus, for a contention of omission, the petitioner's burden is to identify the omission and the supporting reasons for the petitioners' belief that the application "fails to contain information on a relevant matter as required by law."<sup>36</sup> The facts relied on need not show that the facility cannot be safely operated, but only that the application is incomplete. If an applicant cures the omission, the contention will become moot unless revised by Intervenors.<sup>37</sup>

Finally, if the contention makes a prima facie allegation that the application omits information required by law, "it necessarily presents a genuine dispute with the Applicant on a material issue in compliance with 10 C.F.R. § 2.309(f)(1)(vi) [and] . . . raises an issue plainly

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<sup>33</sup> Id. § 2.309(f)(1)(vi).

<sup>34</sup> Id. § 2.309(f)(1)(iii).

<sup>35</sup> Virginia Electric & Power Co. (Combined License Application for North Anna Unit 3), LBP-08-15, 68 NRC 294, 317 (2008) (quoting Pa'ina Hawaii, LLC (Materials License Application), LBP-06-12, 63 NRC 403, 414 (2006)).

<sup>36</sup> 10 C.F.R. § 2.309(f)(1)(vi).

<sup>37</sup> Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 383 (2002); North Anna, LBP-08-15, 68 NRC at 317.

material to an essential finding of regulatory compliance needed for license issuance” in accordance with Section 2.309(f)(1)(iv).<sup>38</sup>

**B. License Renewal**

To evaluate a license renewal application for a nuclear power reactor, the NRC reviews (1) the management of aging effects and time-limited aging analysis of particular safety-related functions of the plant’s systems, structures, and components pursuant to 10 C.F.R. Part 54, to satisfy the NRC’s obligations under the AEA, and (2) the environmental impacts and alternatives to the proposed action in accordance with 10 C.F.R. Part 51, to satisfy the NRC’s obligations under NEPA.<sup>39</sup>

As part of their daily responsibilities, current licensees—including those applying for a renewed license—must comply with the NRC’s ongoing regulatory process. That process ensures that the current licensing basis (CLB) of an operating plant remains acceptably safe.<sup>40</sup> The Commission has limited its license renewal safety review to the matters specified in 10 C.F.R. Part 54, which focus on the management of aging for certain systems, structures and components, and the review of time-limited aging analyses.<sup>41</sup> To meet those regulations, applicants must “demonstrate how their programs will be effective in managing the effects of aging during the proposed period of extended operation,” at a “detailed . . . ‘component and structure level,’ rather than at a more generalized ‘system level.’”<sup>42</sup> Thus, the Commission distinguishes between aging management issues, reviewed at the time of license renewal, and

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<sup>38</sup> Pa’ina, LBP-06-12, 63 NRC at 414.

<sup>39</sup> See Entergy Nuclear Operations, Inc. (Indian Point, Units 2 and 3), LBP-11-17, 74 NRC 11, 20–22 (footnotes omitted), interlocutory review denied, CLI-11-14, 74 NRC 801, 803 (2011).

<sup>40</sup> Nuclear Power Plant License Renewal, 56 Fed. Reg. 64,943, 64,946 (1991); see 10 C.F.R. § 54.3(a) (defining “current licensing basis”).

<sup>41</sup> Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 7–8 (2001); Duke Energy, CLI-02-26, 56 NRC at 363.

<sup>42</sup> Turkey Point, CLI-01-17, 54 NRC at 8.

operational issues, reviewed at all times as part of the CLB.<sup>43</sup> Accordingly, contentions on aging management issues are appropriate for a license renewal proceeding, whereas contentions on operational issues are outside the scope of such a proceeding.

As with safety contentions, the NRC's regulations limit NEPA contentions in a license renewal proceeding. The ER for the license renewal stage need not contain environmental analysis of the "Category 1" issues identified in Appendix B to Subpart A of 10 C.F.R. Part 51.<sup>44</sup> Category 1 issues are not subject to challenge in a relicensing proceeding, absent a waiver under 10 C.F.R. § 2.335, because they "involve environmental effects that are essentially similar for all plants [and] need not be assessed repeatedly on a site-specific basis."<sup>45</sup> But the ER must analyze the environmental impacts of the renewal on matters identified as "Category 2" issues in Appendix B.<sup>46</sup> Category 2 issues are reviewed on a site-specific basis because they have not been determined to be "essentially similar" for all plants.<sup>47</sup> Therefore, challenges relating to these issues are properly part of a license renewal proceeding.

### **C. SAMA Contentions**

Joint Petitioners and CRAFT allege (among other things) that DTE failed to perform an adequate analysis of severe accident mitigation alternatives (SAMAs). A SAMA review identifies and assesses possible changes – such as improvements in hardware, training, or procedures – that could cost-effectively mitigate the environmental impacts that would otherwise

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<sup>43</sup> Id. at 10 ("Adjudicatory hearings in individual license renewal proceedings will share the same scope of issues as our NRC Staff review, for our hearing process (like our Staff's review) necessarily examines only the questions our safety rules make pertinent.")

<sup>44</sup> 10 C.F.R. § 51.53(c)(3)(i).

<sup>45</sup> Turkey Point, CLI-01-17, 54 NRC at 11.

<sup>46</sup> 10 C.F.R. § 51.53(c)(3)(ii). The ER must also "contain a consideration of alternatives for reducing adverse impacts, as required by [10 C.F.R. § 51.45(c)], for all Category 2 license renewal issues in [Appendix B]." Id. § 51.53(c)(3)(iii).

<sup>47</sup> 10 C.F.R. Pt. 51, subpt. A, app. B, n.2.

flow from a potential severe accident.<sup>48</sup> Under the NRC's environmental regulations for license renewal, applicants must provide a SAMA analysis if the Staff has not yet previously considered severe accident mitigation alternatives for the applicant's plant in an environmental impact statement (EIS) or related supplement, or in an environmental assessment. The SAMAs must be considered as part of the ER and, ultimately, as part of the Staff's supplemental EIS for a power reactor license renewal.<sup>49</sup> Furthermore, NEPA review in license renewal proceedings, which is conducted pursuant to Part 51, is not limited to aging management-related issues.<sup>50</sup> SAMAs fall within Category 2 and must therefore be addressed on a site-specific basis.<sup>51</sup> Thus petitioners may challenge the adequacy of the SAMA analysis prepared for a license renewal proceeding.

The Commission has stressed, however, that "[u]nless it looks genuinely plausible that inclusion of an additional factor or use of other assumptions and models may change the cost-benefit conclusions for the SAMA candidates evaluated, no purpose would be served to further refine the SAMA analysis."<sup>52</sup> A petitioner need not "rerun the Applicant's own cost-benefit calculations."<sup>53</sup> But a petitioner must do more than merely suggest that additional factors be evaluated or that different analytical techniques be used:

Given the quantitative nature of the SAMA analysis, where the analysis rests largely on selected inputs, it may always be possible to conceive of alternative and more conservative inputs, whose use in the analysis could result in greater

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<sup>48</sup> Indian Point, LBP-11-17, 74 NRC at 21 (citing Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-17, 56 NRC 1, 5 (2002)).

<sup>49</sup> Id. (citing 10 C.F.R. § 51.53(c)(3)(ii)(L)).

<sup>50</sup> Id. at 20–22 (footnotes omitted; emphasis added); see Turkey Point, CLI-01-17, 54 NRC at 13 ("The Commission's AEA review under Part 54 does not compromise or limit NEPA.").

<sup>51</sup> Indian Point, LBP-11-17, 74 NRC at 21 (citing 10 C.F.R. Pt. 51, subpt. A, app. B, tbl. B-1).

<sup>52</sup> Nextera Energy Seabrook, LLC (Seabrook Station, Unit 1), CLI-12-05, 75 NRC 301, 323 (2012).

<sup>53</sup> Id. at 329 (citation omitted).

estimated accident consequences. But the proper question is not whether there are plausible alternative choices for use in the analysis, but whether the analysis that was done is reasonable under NEPA . . . . A contention proposing alternative inputs or methodologies must present some factual or expert basis for why the proposed changes in the analysis are warranted (e.g., why the inputs or methodology used is unreasonable, and the proposed changes or methodology would be more appropriate). Otherwise, there is no genuine material dispute with the SAMA analysis that was done, only a proposal for an alternative NEPA analysis that may be no more accurate or meaningful.<sup>54</sup>

The Board must exercise its judgment in determining if it is credible that an alternative analysis would alter the cost-benefit ratio. The Commission has “recognize[d] that SAMA analysis issues can present difficult judgment calls at the contention admissibility stage.”<sup>55</sup>

## **V. Board Analysis and Rulings on Petitioners’ Contentions**

### **A. Joint Petitioners’ Contentions**

#### *1. JP1 – Inadequate SAMA Analysis of Mark I BWR Vulnerabilities*

Joint Petitioners state in Contention 1 that:

The Applicant’s Fermi 2 Environmental Report fails to accurately and thoroughly conduct Severe Accident Mitigation Alternatives (SAMA) analysis to the long-recognized and unaddressed design vulnerability of the General Electric Mark I Boiling Water Reactor pressure suppression containment system and the environmental consequences of a to-be-anticipated severe accident post-Fukushima Daiichi.<sup>56</sup>

Although this summary paragraph does not directly challenge DTE’s evaluation of any particular SAMA, Joint Petitioners’ explanation of the basis of the contention does identify a specific SAMA they contend DTE failed to evaluate adequately. Joint Petitioners contend that DTE’s SAMA analysis errs in rejecting SAMA 123, “engineered external high-capacity filters on hardened containment vents,” as a cost-beneficial SAMA.<sup>57</sup> DTE considered containment vents with engineered filters in its SAMA analysis but concluded that the estimated benefit of \$1.1

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<sup>54</sup> Id. at 323–24.

<sup>55</sup> Id. at 323.

<sup>56</sup> Joint Petition at 6.

<sup>57</sup> Id. at 7–8.

million did not justify the \$40 million cost.<sup>58</sup> Joint Petitioners do not dispute DTE's \$40 million cost estimate. But they do dispute DTE's evaluation of the benefits of installing engineered external high-capacity filters on hardened containment vents.<sup>59</sup>

Boards may reformulate contentions to "eliminate extraneous issues or to consolidate issues for a more efficient proceeding."<sup>60</sup> Thus, the Board will narrow this contention to focus on the specific SAMA that Joint Petitioners contend was improperly evaluated in the ER.

As evidence of vulnerabilities in the Mark 1 containment system, Joint Petitioners point to the Fukushima Daiichi meltdowns (which also involved Mark 1 systems),<sup>61</sup> statements by NRC officials in the 1970s and 1980s discussing safety issues with the Mark 1 containment system,<sup>62</sup> and a Staff Commission Paper from 2012 recommending vents with engineered filters as a defense-in-depth strategy.<sup>63</sup> The Staff Commission Paper stated:

The vast majority of Mark I and Mark II severe accident sequences would benefit from a containment vent, (whether the vent includes an engineered filter or not) and the addition of an engineered filter reduces the release of radioactive materials should a severe accident occur. A comparison of only the quantifiable costs and benefits of the proposed modifications, if considered safety enhancements, would not, by themselves, demonstrate that the benefits exceed

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<sup>58</sup> DTE Answer at 11–12 (citing DTE Electric Co., Applicant's Environmental Report at D-137 (Apr. 24, 2014) [hereinafter "ER"]); Staff Answer to Joint Petition at 14–15.

<sup>59</sup> Joint Petition at 8, 14–17.

<sup>60</sup> Crow Butte Resources, Inc. (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 552 (2009) (quoting Shaw Areva MOX Services (Mixed Oxide Fuel Fabrication Facility), LBP-08-11, 67 NRC 460, 482 (2008) (emphasis omitted)); Pennsylvania Power & Light Co. (Susquehanna Steam Electric Station, Units 1 and 2), LBP-79-6, 9 NRC 291, 295–96 (1979).

<sup>61</sup> Joint Petition at 11.

<sup>62</sup> Id. at 11–12 (citing Memo of Stephen H. Hanauer, U.S. Atomic Energy Commission, at 2 (Sept. 20, 1972); Office of Nuclear Reactor Regulation, Technical Update on Pressure Suppression Type Containment in Use in Light Water Reactor Nuclear Power Plants, NUREG-0474 at 13 (July 1978); Brian Jordan, Denton Urges Industry to Settle Doubts about Mark I Containment, Inside N.R.C. (June 9, 1986).

<sup>63</sup> Id. at 13 (citing R. William Borchardt, Executive Director for Operations, Consideration of Additional Requirements for Containment Venting Systems for Boiling Water Reactors with Mark I and Mark II Containments, SECY 12-0157 at 2 (Nov. 26, 2012)).

the associated costs. However, when qualitative factors such as the importance of containment systems within the NRC's defense-in-depth philosophy are considered, as is consistent with Commission direction, a decision to require the installation of engineered filtered vent systems is justified.<sup>64</sup>

Joint Petitioners contend that "the radiological consequences to the environment as a result of venting containment during a severe accident post-fuel damage without an external engineered filtration system are not thoroughly or adequately analyzed in the Applicant's SAMA" report.<sup>65</sup> Joint Petitioners state that "[t]he fact that the likelihood of an impact may not be easily quantifiable is not an excuse for failing to address it in an EIS."<sup>66</sup> The NRC's NEPA regulations, they note, direct that "to the extent there are important qualitative considerations or factors that cannot be quantified, these considerations or factors will be discussed in qualitative terms."<sup>67</sup>

To show the benefit of SAMA 123, Joint Petitioners cite a report by the National Academy of Sciences (NAS) concluding that the costs of the Fukushima Daiichi meltdowns were 33 times larger than NRC's estimate for a meltdown at a similar nuclear power plant in Pennsylvania (Peach Bottom).<sup>68</sup> The NAS committee concluded "that severe accidents such as occurred in the Fukushima Daiichi plant can have large costs and other consequences that are not considered in [the] USNRC backfit analyses" for the installation of filtered vents at nuclear plants in the United States.<sup>69</sup> Joint Petitioners contend that NEPA requires DTE to incorporate the NAS conclusions in its analysis of the filtered vents SAMA for Fermi 2.<sup>70</sup>

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<sup>64</sup> SECY 12-0157 at 2.

<sup>65</sup> Joint Petition at 22.

<sup>66</sup> Id. at 6.

<sup>67</sup> Id. (citing 10 C.F.R. § 51.71(d)).

<sup>68</sup> Id. at 22–23 (citing Nuclear and Radiation Studies Board, National Academy of Sciences, Lessons Learned from the Fukushima Nuclear Accident for Improving Safety of U.S. Nuclear Plants, Summary at L-2 (National Academies Press 2014) [hereinafter "NAS Report"]).

<sup>69</sup> Id. at 24 (quoting the NAS Report at L-2).

<sup>70</sup> Id.

DTE and the Staff argue that Joint Petitioners have not pointed to any specific error in DTE's cost-benefit analysis,<sup>71</sup> and both maintain that JP1 raises a safety issue that is outside the scope of the license renewal proceeding because it does not involve aging management issues.<sup>72</sup> The Staff also states that the model used in the ER accounts for large, uncontrolled releases,<sup>73</sup> and asserts that Joint Petitioners can raise compliance issues only under 10 C.F.R. § 2.206, which would allow them to petition NRC to take an enforcement action.<sup>74</sup>

In their reply, Joint Petitioners emphasized their argument that DTE underestimated the benefit of installing containment vents with engineered filters because the company did not consider the “qualitative benefits” discussed in the 2012 Commission Paper, such as defense in depth and reducing the chance of human error (which can be difficult to estimate in a model).<sup>75</sup> And given that § 2.206 petitions very rarely lead to enforcement actions, they argue that this provision does not provide a meaningful opportunity to challenge the facility's safety features.<sup>76</sup>

At oral argument, Joint Petitioners confirmed that their primary concern is DTE's failure to consider the qualitative benefits of installing the engineered filters, analysis of which they contend is required by 10 C.F.R. § 51.71(d).<sup>77</sup> On its face, Section 51.71(d) applies to the DEIS, not the ER. DTE and the Staff acknowledged, however, that Section 51.71(d) is

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<sup>71</sup> DTE Answer at 10–11; Staff Answer to Joint Petition at 19.

<sup>72</sup> DTE Answer at 11 (citing Turkey Point, CLI-01-17, 54 NRC at 6–13); Staff Answer to Joint Petition at 20 (citing Entergy Nuclear Generation Co. & Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), CLI-10-14, 71 NRC 449, 453–456 (2010)).

<sup>73</sup> Staff Answer to Joint Petition at 16–17.

<sup>74</sup> Id. at 22 (citing Pacific Gas & Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-11-11, 74 NRC 427, 437 (2011)).

<sup>75</sup> Joint Reply at 4–8.

<sup>76</sup> Id. at 13–16.

<sup>77</sup> See Tr. at 29–30.

instructive in evaluating the adequacy of the ER.<sup>78</sup> Staff counsel observed that “at this point of the proceeding the ER somewhat stands in for the staff’s EIS” and that the requirements for the EIS are “a good instruction point for figuring out what should be in the environmental report.”<sup>79</sup> We agree. “[T]he regulations in [Part 51] implement . . . Section 102(2) of the National Environmental Policy Act of 1969, as amended.”<sup>80</sup> The provision that governs the content of the ER, 10 C.F.R. § 51.45, is thus one of the agency’s regulations implementing NEPA Section 102(2). And “the environmental considerations that the ER must discuss are equivalent to, and in most instances verbatim restatements of, the environmental considerations that NEPA requires the agency to describe in detail in the EIS.”<sup>81</sup> Thus, we must determine if the ER complies with the Section 51.71(d) requirement to discuss in qualitative terms factors or considerations that cannot be readily quantified.

DTE acknowledged that its analysis of SAMA 123 does not include any analysis of the qualitative benefits of vents with engineered filters discussed in the 2012 Commission Paper.<sup>82</sup> Thus, Joint Petitioners have identified a deficiency in DTE’s evaluation of SAMA 123. But, as DTE stated, the Board must determine whether that deficiency, if corrected, would plausibly tip the cost-benefit balance in favor of installation of the engineered vents. We conclude that such a result is implausible given DTE’s estimate, on the basis of the costs and benefits it did quantify, that the benefits would be only a small fraction of the costs of installing the engineered vents. Notably, Joint Petitioners have not disputed either DTE’s cost estimate or its estimate of the benefits that could be readily quantified. Although qualitative factors (i.e., factors that

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<sup>78</sup> Tr. at 42 (DTE), 57 (Staff).

<sup>79</sup> Tr. at 57.

<sup>80</sup> 10 C.F.R. § 51.1.

<sup>81</sup> See Detroit Edison Co. (Fermi Nuclear Power Plant, Unit 3), LBP-09-16, 70 NRC 227, 262, aff’d, CLI-09-22, 70 NRC 932 (2009).

<sup>82</sup> Tr. at 38.

cannot be readily quantified) might be sufficient to tip the balance if the quantified costs and benefits were reasonably close, here the quantified costs and benefits are too far apart for the Board to conclude that such a result is genuinely plausible. Thus, Contention JP1 fails to present a “genuine material dispute with the SAMA analysis that was done, only a proposal for an alternative NEPA analysis that may be no more accurate or meaningful.”<sup>83</sup>

The Board therefore will not admit Contention JP1.

*2. JP2 – Inadequate Consideration of Densely-Packed Spent Fuel Pools*

Joint Petitioners contend that:

The Environmental Report for Fermi 2 does not satisfy the National Environmental Policy Act (“NEPA”) or 10 C.F.R. § 51.45(c) because it does not consider a range of mitigation measures to mitigate the risk of catastrophic fires in the densely packed, closed-frame spent fuel storage pools at Fermi 2.<sup>84</sup>

Joint Petitioners argue that DTE failed to consider mitigation measures to reduce the risk of fire from Fermi 2’s spent fuel pools, particularly dry cask storage.<sup>85</sup> Joint Petitioners allege that Fermi 2 faces a higher risk of fire because of densely packed pools and the plant’s current inability to move that spent fuel to dry storage.<sup>86</sup> They contend that a potential fire would be a severe accident, and is therefore a Category 2 issue.<sup>87</sup>

In response, the Staff argues that storage of spent fuel is a Category 1 issue that cannot be adjudicated without a waiver.<sup>88</sup> The Staff notes that Joint Petitioners did not seek a waiver and argue that they would be ineligible for a waiver in any event because safety issues

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<sup>83</sup> Seabrook, CLI-12-05, 75 NRC at 323–24.

<sup>84</sup> Joint Petition at 26.

<sup>85</sup> Id. at 26–29.

<sup>86</sup> Id. at 30–31.

<sup>87</sup> Id. at 29.

<sup>88</sup> Staff Answer to Joint Petition at 23–25.

concerning spent fuel storage are not unique to Fermi 2.<sup>89</sup> DTE agrees that spent fuel storage is a Category 1 issue for which no discussion of mitigation alternatives is necessary.<sup>90</sup>

Although Joint Petitioners maintain in their reply that accidents caused by spent fuel should be considered in DTE's SAMA analysis,<sup>91</sup> the Commission has explained that these accidents are a Category 1 issue that already has been considered generically.<sup>92</sup> Thus, JP2 is inadmissible. No discussion of mitigation alternatives for Category 1 issues is necessary because the Commission has already generically concluded "that additional site-specific mitigation alternatives are unlikely to be beneficial."<sup>93</sup> For spent fuel pools specifically, the Commission explained that, because the probability of a spent fuel pool accident causing significant harm is remote, there is no need for applicants to assess spent fuel pool accident mitigation alternatives as part of license renewal.<sup>94</sup>

Accordingly, the Board may not admit Contention JP2.

3. *JP3 – Lack of Site-Specific Safety and Environmental Findings Regarding Storage and Disposal of Spent Fuel*

Joint Petitioners allege:

The Environmental Report for Fermi 2 does not satisfy the Atomic Energy Act or NEPA because (1) it does not make any site-specific safety and environmental

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<sup>89</sup> Id. at 31.

<sup>90</sup> DTE Answer at 14.

<sup>91</sup> Joint Reply at 21.

<sup>92</sup> Pilgrim, CLI-10-14, 71 NRC at 471 ("License renewal applicants need not provide site-specific analyses of environmental impacts of subjects identified as 'Category 1' issues."); Turkey Point, CLI-01-17, 54 NRC at 21–23 ("[L]icense renewal provisions cover environmental issues relating to onsite spent fuel storage generically. All such issues, including accident risk, fall outside the scope of license renewal proceedings.") (footnote omitted).

<sup>93</sup> Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station) et al., CLI-07-03, 65 NRC 13, 21 (2007) (quoting Turkey Point, CLI-01-17, 54 NRC at 21–22) (footnote omitted).

<sup>94</sup> Id.; see Waste Confidence Directorate, Office of Nuclear Material Safety and Safeguards, Generic Environmental Impact Statement for Continued Storage of Spent Nuclear Fuel, NUREG-2157 at 4-85 to 4-88 (2014) (ADAMS Accession No. ML14196A105).

findings regarding the storage and ultimate disposal of the spent fuel that will be generated during the license renewal term and (2) the NRC has no valid generic findings on which the Environmental Report could rely.<sup>95</sup>

On August 26, 2014, after a two-year rulemaking process, the Commission adopted<sup>96</sup> (1) a generic environmental impact statement (“GEIS”) to identify and analyze the environmental impacts of continued storage of spent nuclear fuel beyond the licensed life of nuclear reactors;<sup>97</sup> and (2) associated revisions to the Temporary Storage Rule in 10 C.F.R. § 51.23 (now designated the “Continued Storage Rule”).<sup>98</sup> In light of these actions, the Commission lifted its suspension on final licensing decisions.<sup>99</sup> The Commission directed the Licensing Boards, including this one, to reject pending waste confidence contentions.<sup>100</sup> On September 19, 2014, the NRC published the new Continued Storage Rule and accompanying GEIS, which became effective on October 20, 2014.<sup>101</sup>

Accordingly, JP3 is moot and will not be admitted.<sup>102</sup>

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<sup>95</sup> Joint Petition at 33.

<sup>96</sup> Calvert Cliffs 3 Nuclear Project, LLC, & Unistar Nuclear Operating Services, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3) et al., CLI-14-08, 80 NRC \_\_, \_\_ (slip op. at 4) (Aug. 26, 2014).

<sup>97</sup> Generic Environmental Impact Statement for Continued Storage of Spent Nuclear Fuel, 79 Fed. Reg. 56,263 (Sept. 19, 2014).

<sup>98</sup> Continued Storage of Spent Nuclear Fuel, 79 Fed. Reg. 56,238 (Sept. 19, 2014).

<sup>99</sup> Calvert Cliffs, CLI-14-08, 80 NRC at \_\_ (slip op. at 7).

<sup>100</sup> Id. at \_\_ (slip op. at 10).

<sup>101</sup> Continued Storage Rule, 79 Fed. Reg. at 56,238.

<sup>102</sup> Joint Petitioners’ moved to amend Contention 3 to include safety issues concerning spent fuel storage, but the Commission has exercised its authority to consolidate and review the pending safety-related issues. See CLI-14-09, 80 NRC \_\_, \_\_ (slip op. at 2–3) (Oct. 7, 2014); Petitioners’ Motion for Leave to Amend and Supplement Contention 3 Concerning the Absence of Required Waste Confidence Safety Findings in The Relicensing Proceeding For Fermi 2 Nuclear Power Plant (Sept. 29, 2014).

4. *JP4 – Common-mode failures and/or mutually exacerbating catastrophes*

JP4 is entitled “Insufficient Severe Accident Mitigation Analysis (SAMA) of potential Fermi 2 and 3 common-mode failures and mutually exacerbating catastrophes.”<sup>103</sup> Contention 4 thus combines Joint Petitioners’ concerns with “common mode failures” and “mutually exacerbating catastrophes.” These two issues are best evaluated as separate contentions.<sup>104</sup> We shall therefore designate the first issue, “common mode failures,” as Contention JP4A. The second issue, concerning “mutually exacerbating catastrophes,” we designate Contention JP4B.

JP4A - Common Mode Failures

Contention JP4A concerns the potential for “common mode failures” that would simultaneously impact Fermi Units 2 and 3. Joint Petitioners argue that:

Fermi 2 and Fermi 3’s safety and environmental risks due to common mode failures, and the potential for mutually initiating/exacerbating radiological catastrophes, involving the common Transmission Corridor (TC) shared by both units’ reactors and pools, have been inadequately addressed in DTE’s Fermi 2 License Renewal Application (LRA) and Environmental Report (ER). Also, the cumulative impacts associated with the proposed new Fermi 3 reactor cannot be excluded from DTE’s Fermi 2 LRA and ER as “remote” or “speculative,” for it is DTE’s own proposal, and is advanced in the Fermi 3 COLA proceeding. Such environmental and safety analysis is required on this unique local problem specific to Fermi 2 and 3. It can, and must, be dealt with in Severe Accident Mitigation Alternatives (SAMA) analyses, and must be treated as Category 2 Issues in NRC’s forthcoming Draft Supplemental Environmental Impact Statement, as required by NEPA and the AEA.<sup>105</sup>

Joint Petitioners contend that DTE’s SAMA analysis does not sufficiently consider the likelihood that Fermi Units 2 and 3, which share the same transmission corridor, would lose power at the same time because an earthquake, tornado, fire or other event knocked out power

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<sup>103</sup> Joint Petition at 35.

<sup>104</sup> See 10 C.F.R. § 2.309(f)(1)(i) (requiring that a contention identify the specific issue of law or fact to be controverted); Detroit Edison Co. (Fermi Nuclear Power Plant, Unit 3), LBP-10-9, 71 NRC 493, 510–11 (2010) (dividing a contention that raised two distinct issues into separate contentions).

<sup>105</sup> Joint Petition at 35.

to both units.<sup>106</sup> They maintain that such a “common mode failure” could result in severe accidents at both units. They further argue that the cumulative impacts arising from severe accidents at both plants are not speculative and thus should have been considered in DTE’s SAMA analysis.<sup>107</sup> Joint Petitioners point to Mr. Farouk Baxter’s limited appearance statement in the Fermi 3 proceeding, where he alleged that the shared transmission corridor made both units vulnerable to single failure events.<sup>108</sup>

DTE replies that Fermi 3 was included as a future project in its cumulative impact analysis,<sup>109</sup> and argues that the shared transmission corridor is an “offsite” transmission line excluded from its environmental impact analysis by regulation.<sup>110</sup> DTE states that it considered a number of different SAMAs related to the loss of offsite power or diesel generators, but it concluded that none of those SAMAs was cost-beneficial.<sup>111</sup>

The Staff argues that DTE is not required explicitly to include Fermi 3 in its analysis of mitigation alternatives for Fermi 2, and also notes that DTE separately reviewed SAMAs for Fermi 3.<sup>112</sup> The Staff also asserts that any potential accidents caused by spent fuel pools are Category 1 issues excluded from the proceeding.<sup>113</sup>

In their reply, Joint Petitioners clarify that “while the risk of a spent fuel pool (SFP) accident cannot be subjected, in and of itself, to SAMA analysis, as a cumulative effect of a

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<sup>106</sup> Id. at 35–38.

<sup>107</sup> Id. at 40.

<sup>108</sup> Id. at 46–48 (quoting Farouk D. Baxter, Limited Statement for ASLB Hearing on Proposed Fermi New Reactor, Detroit Edison Co. (Fermi Nuclear Power Plant, Unit 3), Docket No. 052-033-COL (Oct. 21, 2013) (ADAMS Accession No. ML13294A355)).

<sup>109</sup> DTE Answer at 20–21 (citing ER at 3-288).

<sup>110</sup> Id. at 20 (citing 10 C.F.R. Pt. 51, subpt. A, app. B, tbl. B-1, n.4).

<sup>111</sup> Id. at 21.

<sup>112</sup> Staff Answer to Joint Petition at 46–47.

<sup>113</sup> Id. at 40.

common-mode failure that affects the TC, Petitioners believe it can be considered as a given within the analysis itself.”<sup>114</sup> They also argue that under NEPA, DTE cannot unduly narrow the scope of the project to avoid considering whether a severe accident at one plant increases the probability of a severe accident at a nearby plant.<sup>115</sup>

Contention JP4A challenges the adequacy of DTE’s SAMA analysis. Because the SAMA analysis is a category 2 issue, its adequacy is within the scope of this proceeding. Contention JP4A identifies a specific defect in DTE’s SAMA analysis: the failure to evaluate the possibility of a “common-mode failure” in the form of a transmission line failure that would lead to nearly simultaneous severe accidents at both Fermi 2 and Fermi 3. Joint Petitioners maintain that the costs averted by SAMAs that would reduce the likelihood of a transmission line failure should include the total costs resulting from severe accidents at both plants (i.e., the cumulative impact of severe accidents at both plants), and not just the costs from a severe accident at Fermi 2, which is all that DTE considered in its SAMA analysis. Joint Petitioners claim that, because DTE failed to evaluate the full cost of a transmission line failure in its SAMA analysis, DTE’s SAMA analysis understates the benefits from adopting SAMAs that would reduce the likelihood of a transmission line failure. This is a category 2 issue.

The Fermi 3 FEIS included a separate SAMA analysis for that proposed facility, and that separate Fermi 3 SAMA analysis is not open to challenge in this proceeding. But, to the extent Contention JP4A may be read to question the Fermi 3 SAMA analysis, we may narrow the contention to eliminate any such implication.<sup>116</sup> So construed, Contention JP4A challenges the failure to evaluate in the Fermi 2 SAMA analysis the full benefits of mitigation that they maintain

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<sup>114</sup> Joint Reply at 24 (emphasis in original).

<sup>115</sup> Id. at 27–28.

<sup>116</sup> The Board may reformulate contentions to “eliminate extraneous issues or to consolidate issues for a more efficient proceeding.” Crow Butte, CLI-09-12, 69 NRC at 552 (quoting Shaw Areva MOX Services, LBP-08-11, 67 NRC at 482); Pennsylvania Power & Light Co., LBP-79-6, 9 NRC at 295–96.

would benefit both plants by reducing the likelihood of a transmission line failure. Among other things, Joint Petitioners identify SAMA 026, burying off-site power lines, as a mitigation measure that would reduce the likelihood of a transmission line failure affecting both Fermi 2 and Fermi 3, and which would thus reduce the likelihood of a severe accident at both plants.<sup>117</sup> DTE concluded that this SAMA would not be cost-beneficial for Fermi 2 because it would provide an “Internal and External Benefit” of \$345,255, while the estimated cost is “>\$1,000,000.”<sup>118</sup> But, according to Joint Petitioners, DTE’s SAMA analysis considers only the benefit this SAMA would provide for Fermi 2. DTE failed to determine whether burying the power lines in the transmission corridor would be cost-beneficial if the analysis included the reduced risk of a severe accident at Fermi 3 as well as at Fermi 2. Joint Petitioners maintain that DTE must provide a complete SAMA analysis that fully evaluates the costs and benefits of SAMA 026, and that without such an analysis the NRC cannot accurately determine whether that mitigation measure would actually be cost-beneficial.

As we have explained, an admissible SAMA contention must do more than identify additional issues that could be incorporated into the SAMA analysis. It must be genuinely plausible that revising the SAMA analysis in the manner suggested would change the outcome so that one or more of the SAMA candidates that DTE evaluated and rejected would become cost-beneficial.<sup>119</sup> Even assuming that an event affecting the common transmission corridor caused a loss of offsite power for both plants, we think it highly unlikely that the result would be a complete loss of all power at Fermi 2 and 3. Both plants have backup diesel generators that provide replacement power in the event of a loss of offsite power. Joint Petitioners’ scenario

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<sup>117</sup> Joint Petition at 49. We assume, although it is not entirely clear from DTE’s SAMA analysis, that SAMA 026 contemplates burying the entire transmission line corridor, including the power lines in the corridor that serve Fermi 3 as well as those that serve Fermi 2. ER at D-112.

<sup>118</sup> ER at D-133.

<sup>119</sup> Seabrook, CLI-12-05, 75 NRC at 322–24.

assumes that all the backup diesel generators at both Fermi 2 and Fermi 3 would fail when the plants lose offsite power, resulting in severe accidents at both plants. To support the plausibility of this failure scenario, Joint Petitioners cite the statement of David Lochbaum of the Union of Concerned Scientists, who refers generally to “elevated safety risks during the early break-in phase with new atomic reactors,” as well as to “age-related degradation of systems, structures, and components” at older reactors.<sup>120</sup> Joint Petitioners further state that “it was revealed in 2006 that the Fermi 2 atomic reactor ha[d] unreliable emergency diesel generators . . . due to faulty testing procedures, for two decades (1986 to 2006).”<sup>121</sup>

Joint Petitioners acknowledge, however, that Fermi 3 will be an Economic Simplified Boiling Water Reactor (ESBWR), which relies on gravity to maintain circulation in the event of a complete loss of power.<sup>122</sup> The ESBWR can maintain circulation without offsite power and without power from backup diesel generators for up to 72 hours,<sup>123</sup> which would provide sufficient time for the safe shutdown of the plant. Thus, under its certified design, the ESBWR could maintain circulation long enough to permit safe shutdown of the reactor even if it were to lose offsite power and all of its backup generators failed to operate.<sup>124</sup>

To counter this argument, Joint Petitioners cite a statement from Dr. Edwin Lyman of the Union of Concerned Scientists, contending that “the ‘passive’ safety systems used by the ESBWR design are based on largely unproven technologies and are more complex and

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<sup>120</sup> Joint Petition at 41 (citing David Lochbaum, Nuclear Plant Risk Studies: Failing the Grade at 9 (2000), available at [http://www.ucsusa.org/assets/documents/nuclear\\_power/nuc\\_risk.pdf](http://www.ucsusa.org/assets/documents/nuclear_power/nuc_risk.pdf)).

<sup>121</sup> Id. at 42.

<sup>122</sup> Id. at 48.

<sup>123</sup> Tr. at 123 (citing GE-Hitachi Nuclear Energy, ESBWR Design Control Document, 26A6642BP Rev. 10, at 15.5.5.3 (2014) (ADAMS Accession No. ML14100A547)).

<sup>124</sup> Id.; 10 C.F.R. Pt. 52, app. E (“Design Certification Rule for the ESBWR Design”).

problematic than represented by GE-Hitachi in its public relations materials.”<sup>125</sup> Whatever the merits of Dr. Lyman’s argument may be, we may not consider it because, as Joint Petitioners acknowledge, the Commission certified the ESBWR design on September 16, 2014.<sup>126</sup> Thus, the Commission has resolved by regulation the adequacy of the ESBWR design. Although Joint Petitioners deny that they are challenging the ESBWR design,<sup>127</sup> the opinion of Dr. Lyman on which they rely plainly takes issue with the adequacy of the passive safety systems included in the design. A licensing board may not ordinarily consider the validity of or a challenge to a Commission regulation.<sup>128</sup> Although a party may petition the Commission for permission to challenge a rule, that party must make a showing of “special circumstances.”<sup>129</sup> Those special circumstances required to obtain waiver have been described as a prima facie showing that application of a rule in a particular way would not serve the purposes for which the rule was adopted.<sup>130</sup> Joint Petitioners have attempted no such showing here.

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<sup>125</sup> Joint Petition at 48 (quoting Declaration of Dr. Edwin S. Lyman ¶¶ 4–5 (October 31, 2008), Exelon Nuclear Texas Holdings, LLC (Victoria County Station, Units 1 and 2), Docket Nos. 52-031 COL and 52-032 COL (ADAMS Accession No. ML083090806)).

<sup>126</sup> Joint Reply at 23.

<sup>127</sup> Id.

<sup>128</sup> 10 C.F.R. § 2.335(a) (“[N]o rule or regulation of the Commission, or any provision thereof, concerning the licensing of production and utilization facilities . . . is subject to attack by way of discovery, proof, argument, or other means in any adjudicatory proceeding.”).

<sup>129</sup> 10 C.F.R. § 2.335(b). To obtain waiver of a rule, it is not enough merely to allege special circumstances. The special circumstances must be set forth with particularity and supported by an affidavit or other proof. Id.; see Exelon Generation Co., LLC (Limerick Generating Station, Units 1 and 2), CLI-13-07, 78 NRC 199, 206–07 (2013).

<sup>130</sup> See Limerick, CLI-13-07, 78 NRC at 207–09; Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 559–60 (2005); Detroit Edison Co. (Enrico Fermi Atomic Power Plant, Unit 2), LBP-78-37, 8 NRC 575, 584–85 (1978).

Given that the certified ESBWR design is intended to preclude the catastrophic scenario posited by Contention JP4A and that Joint Petitioners may not dispute before the Board the Commission's design certification, the Board concludes that Contention JP4A is inadmissible.

JP4B - Mutually Exacerbating Catastrophes

Contention JP4B concerns an emergency at Fermi 2 or 3 that would require the evacuation of both units. Joint Petitioners state:

A large-scale radioactivity release from Fermi 2's reactor and/or HLRW storage pool, and/or from Fermi 3's reactor and/or HLRW storage pool, could well lead to the evacuation of the entire Fermi nuclear power plant site - of the workforces for both plants, and even of emergency responders (such as firefighters, or military personnel) brought in from offsite to deal with a disaster. This possibility was contemplated by Tokyo Electric Power Company (TEPCO) during the darkest hours of the Fukushima Daiichi nuclear crisis and catastrophe in mid-March, 2011. In fact, Japanese Prime Minister Naoto Kan had to personally intervene in the middle of the night to prevent such a wholesale surrender, retreat, and abandonment of the multiple melting down reactors, and the nearby storage pools containing many hundreds of tons of irradiated fuel, themselves at risk of catching fire.<sup>131</sup>

This issue concerns a different scenario from that posited in Contention JP4A. Here, Joint Petitioners emphasize the potential for a severe accident at either Fermi 2 or Fermi 3 to bring about an evacuation of the entire Fermi site due to releases of radioactive material, rather than a transmission line failure causing simultaneous severe accidents at both plants. Joint Petitioners note that during the Fukushima accident, the fission product release from one unit interfered with actions to maintain safe operations at other units.<sup>132</sup> Joint Petitioners maintain that this provides evidence that a severe accident at one unit can affect operation of other units at the same site, and that DTE should have considered that effect in its SAMA analysis.

Insofar as Joint Petitioners' second scenario concerns SAMAs that would reduce the likelihood of a severe accident at Fermi 2 or its consequences, it is within the scope of this

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<sup>131</sup> Joint Petition at 38.

<sup>132</sup> Id. (citing Martin Fackler, Japan Weighed Evacuating Tokyo in Nuclear Crisis, N.Y. Times, February 27, 2012, at A1).

proceeding. We recognize, as stated previously, that the adequacy of the Fermi 3 SAMA analysis is not before this Board. But we may consider Joint Petitioners' argument that, as part of the Fermi 2 SAMA analysis, DTE should have considered the possibility that a fission product release from Fermi 2 would adversely impact the operation of Fermi 3, thereby increasing the total costs resulting from a release from Unit 2. According to Joint Petitioners, DTE should have evaluated the adverse impacts on the operation of Fermi 3 as costs averted by SAMAs that would reduce the risk of a severe accident at Fermi 2 or the consequences of such an accident. Including such averted costs in the Fermi 2 SAMA analysis, Joint Petitioners argue, would increase the likelihood that mitigation measures for Fermi 2 would be cost-beneficial.

As noted above, the Board may reformulate contentions to "eliminate extraneous issues or to consolidate issues for a more efficient proceeding."<sup>133</sup> Thus, we may reformulate the aspect of JP4 that concerns site-wide impacts of a fission product release to make clear that we will consider Joint Petitioners' argument only insofar as it concerns the adequacy of the SAMA analysis for Fermi 2. As so restated, the contention is:

The Fermi 2 Severe Accident Mitigation Alternatives analysis fails to evaluate the impact that a severe accident at Fermi 2 would have on the operation of the proposed nearby Fermi 3.

We shall designate this Contention JP4B.

This contention satisfies the requirement of Section 2.309(f)(1) that Joint Petitioners provide a specific statement of the issue of fact or law to be raised or controverted. Also, Joint Petitioners have provided an explanation of the basis of the contention, as required by Section 2.309(f)(1)(ii). Joint Petitioners maintain that the construction and operation of Fermi 3 is a foreseeable future event, but the influence of Unit 3 upon severe accident consequences has been omitted from the Fermi 2 SAMA analysis:

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<sup>133</sup> Crow Butte, CLI-09-12, 69 NRC at 552 (quoting Shaw Areva MOX Services, LBP-08-11, 67 NRC at 482); Pennsylvania Power & Light Co., LBP-79-6, 9 NRC at 295-96.

Fermi 3 is a Combined Operating License “proposal” actively pending before the Nuclear Regulatory Commission, and that at this point the Commission must consider that it is more likely than not that Fermi 3 will be built and operated during the 2025-2045 period of the Fermi 2 license extension. In light of the . . . proximity of the two nuclear plants to one another, DTE must be required to comply fully with the . . . “hard look” imposed by NEPA, by accounting for these facts, risks and possibilities in the planning documents.<sup>134</sup>

Joint Petitioners argue “that under both statutes, NEPA and the AEA, the cumulative and/or synergistic effects, and conceivable environmental consequences, of various accident possibilities [must] be considered together.”<sup>135</sup> Thus, the basis of the contention is the foreseeable construction of Fermi 3, the proximity of the two reactors, and the potential for a fission product release from Fermi 2 to impact operations at Fermi 3, thereby increasing the costs of such a release. Such a scenario, Joint Petitioners maintain, must be evaluated in the Fermi 2 SAMA analysis to satisfy NEPA’s “hard look” requirement.<sup>136</sup>

Contention JP4B is within the scope of this proceeding, as required by Section 2.309(f)(1)(iii), because it challenges the adequacy of DTE’s SAMA analysis for Fermi Unit 2. As we have explained, although the NRC has by regulation excluded various NEPA issues from a relicensing proceeding because they were resolved in the GEIS, the adequacy of the Fermi 2 SAMA analysis is a Category 2 issue that may be contested in this relicensing proceeding.

Under Section 2.309(f)(1)(iv), the issue raised by JP4B must be material to the findings the NRC is obligated to make to support the action involved in the proceeding. The action involved in this proceeding is the relicensing of an operating reactor. A properly executed environmental impact statement is required by NEPA in a relicensing proceeding for an operating reactor. And, as noted by Joint Petitioners, a SAMA analysis is required for the EIS

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<sup>134</sup> Joint Petition at 54.

<sup>135</sup> Id. at 41 (“The term ‘synergistic’ refers to the joint action of different parts - or sites - which, acting together, enhance the effects of one or more individual sites.”) (citing Sequoyah Fuels Corp. (Gore, Oklahoma, Site Decommissioning), LBP-99-46, 50 NRC 386 (1999)).

<sup>136</sup> Id. at 54.

for the relicensing of “all plants that have not considered such alternatives.”<sup>137</sup> Thus, NEPA and the NRC’s NEPA regulations require a sufficient analysis of SAMAs for Fermi 2, and compliance with that requirement is material to the findings the NRC must make to support relicensing of Fermi 2.

Under Section 2.309(f)(1)(v), Joint Petitioners must provide a statement of the alleged facts or expert opinions upon which they rely. Joint Petitioners explain that the ER fails to consider the potential for an accident at Fermi 2 to impact Fermi 3.<sup>138</sup> They point to Fukushima to demonstrate that under severe accident conditions, the operation of one unit can be affected by that of another.<sup>139</sup> Joint Petitioners maintain that “the cumulative impacts associated with the proposed new Fermi 3 reactor cannot be excluded from DTE’s Fermi 2 LRA and ER as ‘remote’ or ‘speculative,’ for Unit 3 is DTE’s own proposal and is the subject of the Fermi 3 COLA proceeding . . . It can, and must, be dealt with in Severe Accident Mitigation Alternatives (SAMA) analyses.”<sup>140</sup>

As required by Section 2.309(f)(1)(vi), Joint Petitioners have alleged a specific material error in DTE’s SAMA analysis: the failure to consider the potential for a severe accident at Fermi 2 to impact negatively safe operation at Fermi 3, thereby potentially increasing the total damage that would result from a severe accident at Unit 2. Joint Petitioners state that “DTE has “largely omitted Fermi 3 and common TC-related severe accident and cumulative impacts analyses from its Fermi 2 LRA, ER, and SAMAs.”<sup>141</sup> We recognize that DTE’s ER does evaluate the

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<sup>137</sup> Joint Petitioners cite Table B-1 of 10 C.F.R. Part 51, Subpart A, Appendix B, which requires that in the Environmental Report for license renewal “alternatives to mitigate severe accidents must be considered for all plants that have not considered such alternatives.” Id. at 39.

<sup>138</sup> Joint Petition at 38–39, 49.

<sup>139</sup> Id. at 38.

<sup>140</sup> Id. at 35.

<sup>141</sup> Id. at 49.

cumulative impact of normal operations at Fermi Units 2 and 3 upon environmental resources such as land use, surface water, groundwater, ecology, human health, and waste.<sup>142</sup> Thus, Joint Petitioners overstate their argument by suggesting that Fermi 3 was entirely excluded from the ER. But neither DTE nor the Staff has pointed us to any part of the ER that addresses the severe accident scenario postulated by Contention JP4B, much less shows that it was incorporated into the SAMA analysis. We therefore conclude that Contention JP4B identifies a potentially material deficiency in the ER's SAMA analysis.

Our ruling is consistent with the decision of the South Texas Project (STP) COL Board concerning a similar contention.<sup>143</sup> That proceeding concerned an application to build two new nuclear reactors, STP Units 3 and 4, at a site occupied by two operating reactors, STP Units 1 and 2. The contention was that “[i]mpacts from severe radiological accident scenarios on the operation of other units at the STP site have not been considered in the Environmental Report.”<sup>144</sup> Petitioners claimed that the ER for STP Units 3 and 4 “deals with severe accidents but has no discussion or analysis of the impact of a severe radiological accident at any one of the four units as it would impact the other remaining three units,’ or how ‘operations at undamaged units would be continued in the event that the entire site becomes seriously contaminated.”<sup>145</sup> The STP Board admitted the contention, stating that “Petitioners’ assertion that the Applicant must address the potential impacts of a radiological incident on the operations of the other units establishes an admissible contention of omission.”<sup>146</sup> In this case also, we find

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<sup>142</sup> DTE Answer at 21 (citing ER at 4-67, 4-70 to 4-77).

<sup>143</sup> See South Texas Project Nuclear Operating Co. (South Texas Project, Units 3 and 4), LBP-09-21, 70 NRC 581, 617 (2009), review denied, CLI-11-6, 74 N.R.C. 203, 210 (2011).

<sup>144</sup> Id.

<sup>145</sup> Id. at 618 (quoting the STP Unit 3 and 4 Petition at 46).

<sup>146</sup> Id. at 619.

that Contention JP4B states an admissible contention of omission based on the failure of the Fermi 2 SAMA analysis to evaluate the impact that a severe accident at Fermi 2 would have on the operation of the proposed nearby Fermi 3.

As instructed by the Commission, the Board must also consider whether it is genuinely plausible that correcting the alleged error will change the outcome of DTE's SAMA analysis.<sup>147</sup> Joint Petitioners stress the risk that the entire Fermi site would be evacuated or abandoned as the result of site-wide contamination, thus imperiling the safe operation of Fermi 3.<sup>148</sup> SAMAs that reduce the risk of such a release from Fermi 2, or which would mitigate its effect, would reduce the risk of a site-wide evacuation or the extent of the evacuation. Moreover, even if the site would not be totally evacuated, a fission product release from Fermi 2 would likely contaminate the entire site, with the result that both Fermi 2 and Fermi 3 could be out of operation for years.<sup>149</sup> The Fermi 2 SAMA analysis estimates the economic loss if Fermi 2 ceases operation as the result of a severe accident,<sup>150</sup> but it includes no estimate of the economic loss if Fermi 3 also stops generating electrical energy for an extended period. DTE appears to have assumed that a severe accident and resulting fission product release from Fermi 2 would have no impact upon the safe long-term operation of Fermi 3. That assumption is open to legitimate dispute.

It is beyond the scope of the contention admissibility stage of this proceeding to make a detailed determination of the specific cost/benefits that would result should this information be incorporated in the SAMA analysis. Nevertheless, for the reasons just stated, the costs of a

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<sup>147</sup> Seabrook, CLI-12-05, 75 NRC at 322–24.

<sup>148</sup> Joint Petition at 38.

<sup>149</sup> See Metropolitan Edison Co., et al. (Three Mile Island Nuclear Station, Unit No. 1), CLI-85-9, 21 NRC 1118, 1122 (1985) (lifting the enforcement order on Unit 1 and allowing that unit to resume operations six years after the accident at Unit 2).

<sup>150</sup> ER at D-105.

severe accident at Fermi 2 would increase if the impact on Fermi 3 is included in the analysis, making it genuinely plausible that some SAMAs could become cost-beneficial. Unlike Contention JP1, which was concerned solely with SAMA 123, Contention JP4B potentially affects the cost/benefit analysis of all 220 SAMA candidates that DTE evaluated. And some of the rejected SAMA candidates require only moderate costs, so that moderate increases in the estimated benefits (i.e., the costs averted) could make those SAMAs cost-beneficial. For example, SAMA 203, “Improve [Emergency Diesel Generator (EDG)] maintenance procedures to decrease unavailability time,” was projected to cost only \$50,000.<sup>151</sup> DTE rejected SAMA 203 because it estimated the benefit to be only \$16,474. Similarly, SAMA 176, “Develop a procedure to open the door to the EDG buildings upon the high temperature alarm,” was estimated to cost \$200,000.<sup>152</sup> Joint Petitioners allege that the nearby Davis-Besse reactor nearly experienced a “disaster,” in part because of an overheated generator.<sup>153</sup> DTE rejected SAMA 176, however, because it estimated the benefit to be only \$61,477.<sup>154</sup> It is genuinely plausible, given the moderate costs of SAMAs 203 and 176, that if the analysis is modified to include the site-wide impacts of a fission product release from Fermi 2, the costs averted would increase to the point that one or both of those SAMAs would become cost-beneficial.

The Board therefore concludes that Contention JP4B satisfies the admissibility criteria, and we will admit it in this proceeding.

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<sup>151</sup> ER at D-142.

<sup>152</sup> ER at D-139.

<sup>153</sup> Joint Petition at 43. According to Joint Petitioners, a nuclear disaster nearly occurred at Davis-Besse on June 24, 1998 “due to the near fatal failure of EDGs.” Id. The plant lost off-site electricity supply for 27 hours after a tornado destroyed the surrounding electric transmission grid and plant switchyard. “One of its EDGs initially would not start, and then had to be declared inoperable more than once over the course of the next day, due to the room housing [it] . . . overheating. Its second – and last – EDG would later be declared inoperable due to a problem with its governor control.” Id. & n.30 (citations omitted).

<sup>154</sup> ER at D-139.

**B. CRAFT's Contentions**

CRAFT, a *pro se* petitioner, has proffered 14 contentions challenging DTE's license renewal application and asserting that Fermi 2 is unnecessary, unsafe, and environmentally harmful.<sup>155</sup> DTE and the Staff oppose the request in its entirety,<sup>156</sup> and the Staff have moved to strike portions of CRAFT's reply brief.<sup>157</sup> For the reasons discussed below, the Board grants the motion to strike in part and denies it in part. Analyzing each contention in turn, the Board admits portions of two contentions—one alleging negative impacts on tribal hunting and fishing near Fermi 2 (Contention 2) and the other asserting that Canadians living within 50 miles of the facility were excluded from the SAMA analysis (Contention 8). The Board finds CRAFT's remaining contentions inadmissible.

*1. CRAFT 1 – Wind Power is a Viable Alternative*

CRAFT contends that “[DTE's] Environmental Report (ER) does not adequately evaluate the full potential for renewable energy sources, such as wind power, to replace the loss of energy production from Fermi 2, and to make the license renewal request from 2025 to 2045 unnecessary.”<sup>158</sup> CRAFT alleges that DTE did not adequately consider whether wind power from interconnected wind farms and offshore generation could supply the same level of power as Fermi 2,<sup>159</sup> which has a capacity of 1170 megawatts electrical (MWe).<sup>160</sup> To show that wind could generate sufficient power, CRAFT notes that DTE has built 400 MWe of wind power

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<sup>155</sup> CRAFT Petition at 4–36.

<sup>156</sup> DTE Answer at 23–51; Staff Answer to CRAFT Petition at 14–86.

<sup>157</sup> NRC Staff Motion to Strike Portions of CRAFT's Reply (Oct. 2, 2014) [hereinafter “Staff Motion to Strike”]; see also CRAFT Reply to Staff Motion to Strike (Oct. 10, 2014); DTE Electric Company Response in Support of Staff Motion to Strike (Oct. 14, 2014).

<sup>158</sup> CRAFT Petition at 4.

<sup>159</sup> Id. at 4–5.

<sup>160</sup> LRA at 1-8.

capacity in recent years and plans to contract with third parties for an additional 450 MWe.<sup>161</sup> Based on these increases in renewable power, CRAFT argues that DTE could replace Fermi 2 with renewable energy by the start of the renewal period.<sup>162</sup> In its reply, CRAFT also points to articles showing that: Michigan has 1,163 MWe of installed capacity at wind farms;<sup>163</sup> a 200 MWe wind farm is under construction in Minnesota;<sup>164</sup> several offshore projects “in advanced stages of development” across the United States would add 4,900 MWe of capacity;<sup>165</sup> and that wind power is increasingly financially viable.<sup>166</sup>

At oral argument, CRAFT argued that wind farms spread across the state would provide reliable power because the wind is always blowing somewhere in Michigan and, CRAFT noted, a pumped storage hydroelectric facility near Ludington, Michigan, can provide 1,800 MWe from stored water.<sup>167</sup> As an example of renewables providing base-load power, CRAFT also asserted that Denmark and Germany “are close to 100 percent renewable power, largely from wind and solar,”<sup>168</sup> but did not provide a supporting source.

This contention is inadmissible because CRAFT has not supported its proposition that wind power and other renewables could supply the same level of consistent base-load power as Fermi 2. The Commission rejected a nearly identical contention in Davis-Besse, explaining that it was not enough to demonstrate a theoretical possibility that wind farms spread across a wide

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<sup>161</sup> CRAFT Petition at 5.

<sup>162</sup> Id. at 8–9.

<sup>163</sup> CRAFT Reply at 6.

<sup>164</sup> Id. at 6–7.

<sup>165</sup> Id. at 7–9.

<sup>166</sup> Id. at 9–11.

<sup>167</sup> Tr. at 125–26.

<sup>168</sup> Tr. at 132.

area could provide consistent power; petitioners must show concretely that wind could be a reliable, commercially viable source of base-load power during the license renewal period.<sup>169</sup> Because CRAFT has not referenced specific sources showing that wind or other renewables are viable sources of base-load power within Fermi 2's service area, CRAFT has not adequately supported its contention.<sup>170</sup> Furthermore, CRAFT has failed to provide a direct critique of the analysis in the ER, which discussed the potential for offshore power and interconnected wind farms,<sup>171</sup> and thus CRAFT has also failed to identify a genuine dispute with the applicant.<sup>172</sup>

2. *CRAFT 2 – Walpole Island First Nations' Exclusion from Proceedings and Negative Impact on Treaty Rights*

CRAFT's next contention raises two issues concerning the Walpole Island First Nation:<sup>173</sup> (1) lack of notification about this proceeding and the scoping process and (2) alleged negative effects on tribal treaty rights to hunt and fish near Fermi 2 and the ER's failure to address those impacts.<sup>174</sup>

Concerning notification, CRAFT argues that the Staff violated a duty under 10 C.F.R. § 51.28(a)(5) to invite "[a]ny affected Indian tribe" to participate in the environmental scoping process.<sup>175</sup> CRAFT argues generally that no one sought the tribe's input concerning the LRA.<sup>176</sup>

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<sup>169</sup> FirstEnergy Nuclear Operating Co. (Davis-Besse Nuclear Power Station, Unit 1), CLI-12-08, 75 NRC 393, 400–02 (2012).

<sup>170</sup> 10 C.F.R. § 2.309(f)(1)(v); Davis-Besse, CLI-12-08, 75 NRC at 402, 405.

<sup>171</sup> ER at 7-7, 7-9.

<sup>172</sup> 10 C.F.R. § 2.309(f)(1)(vi); Davis-Besse, CLI-12-08, 75 NRC at 405.

<sup>173</sup> According to CRAFT, members of the Walpole Island First Nation "are neither Canadian nor American, but live in between the two countries on unceded lands" approximately 50 miles away from Fermi 2. CRAFT Petition at 11–12.

<sup>174</sup> Id. at 9–13.

<sup>175</sup> Id. at 10.

<sup>176</sup> Id. at 9–13.

As DTE and the Staff correctly note,<sup>177</sup> this part of the contention is inadmissible because it does not create a genuine dispute with the applicant, who has no such duty under Section 51.28(a)(5).<sup>178</sup> Nor has CRAFT pointed to any authority to support its proposition that the Staff must personally notify the tribe. The Staff notified the public of the opportunity to challenge DTE's application on June 18, 2014 via publication in the Federal Register,<sup>179</sup> and similarly requested public comments on June 30.<sup>180</sup> As the Commission has explained, publication in the Federal Register is legally sufficient notice to all affected people.<sup>181</sup>

The second issue raised by Contention 2 is the impact of license renewal on tribal hunting and fishing near Fermi 2 and DTE's failure to address those impacts in the ER. CRAFT prefaced its petition with the claim that "[t]he Applicant's LRA and associated analyses as part of the AMP and ER have material deficiencies to an extent that could significantly jeopardize (impact) public health and safety,"<sup>182</sup> and a portion of Contention 2 identified an alleged deficiency "given the n[eg]ative impacts upon such treaty rights as hunting and fishing near the

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<sup>177</sup> DTE Answer at 27–28; Staff Answer to CRAFT Petition at 22.

<sup>178</sup> 10 C.F.R. § 2.309(f)(1)(vi); see Powertech USA, Inc. (Dewey-Burdock in Situ Uranium Recovery Facility), LBP-13-9, 78 NRC 37, 49 (2013) (noting that "it is the duty of the Staff, not the applicant, to consult with interested tribes concerning the proposed site" in the context of a National Historic Preservation Act contention); see also Crow Butte Resources, Inc. (Marsland Expansion Area), CLI-14-2, 79 NRC 11, 20 n.49 (2014) ("A contention claiming the Staff's consultation was inadequate does not ripen until issuance of the Staff's draft [EIS].").

<sup>179</sup> 79 Fed. Reg. at 34,787.

<sup>180</sup> DTE Electric Company, Fermi 2; Intent to Prepare an Environmental Impact Statement and Conduct the Scoping Process; Public Meetings and Opportunity to Comment, 79 Fed. Reg. 36,837, 36,839 (June 30, 2014).

<sup>181</sup> Millstone, CLI-05-24, 62 NRC at 565 & n.60 ("The Board correctly viewed Federal Register publication of a notice of hearing opportunity as legally adequate notice."); see also 44 U.S.C. § 1507; Friends of Sierra R.R., Inc. v. Interstate Commerce Comm'n, 881 F.2d 663, 667–68 (9th Cir.1989) ("Publication in the Federal Register is legally sufficient notice to all interested or affected persons regardless of actual knowledge or hardship resulting from ignorance.")

<sup>182</sup> CRAFT Petition at 3.

Fermi 2 nuclear reactor site, especially in Lake Erie.”<sup>183</sup> To support its argument, CRAFT submitted declarations from 31 members of 14 tribes claiming “treaty rights to hunt, fish, and gather in the area of the Fermi 2 nuclear reactor.”<sup>184</sup> The members asserted that they are “concerned that numerous species of plants, fish, wild game, and migratory birds are being polluted by Fermi 2’s discharge, making them inedible.”<sup>185</sup> In Contention 2, CRAFT raises the issue of “n[eg]ative impacts upon such treaty rights as hunting and fishing near the Fermi 2 nuclear reactor site, especially in Lake Erie” and explained that fish and game near the facility are part of the Walpole Island First Nation’s food supply.<sup>186</sup> CRAFT asserts that “Fermi 2’s radiological, toxic chemical and thermal pollution negatively impacts the food supply of the Walpole Island First Nation.”<sup>187</sup>

In response, DTE and the Staff both argue that CRAFT has not disputed a specific part of the application.<sup>188</sup> They also maintain that CRAFT’s claims lack an adequate factual basis.<sup>189</sup>

In its reply, CRAFT attached a letter from Dan Miskokomon, the Chief of the Walpole Island First Nation, confirming that “[o]ur membership still actively fishes in and harvests the

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<sup>183</sup> Id. at 12.

<sup>184</sup> CRAFT Declarations. The tribes are the Walpole Island First Nation, Pokagon Band of Potawatomi, Nottawaseppi Huron Band of the Potawatomi, Potawatomi Nation, Match-E-Be-Nash-She-Wish Tribe [Band of Pottawatomi], Little River Band of Ottawa Indians, Little Traverse Bay Bands of Odawa Indians, Muskegon [River Band of Ottawa Indians], Grand Traverse Band of Ottawa & Chippewa Indians, Mackinac Band [of Chippewa and Ottawa Indians], Sault Ste. Marie Tribe of Chippewa Indians, Saginaw Chippewa, Oneida, and Pima. Id.

<sup>185</sup> Id.

<sup>186</sup> CRAFT Petition at 12.

<sup>187</sup> Id.

<sup>188</sup> DTE Answer at 27; Staff Answer to CRAFT Petition at 24–25.

<sup>189</sup> DTE Answer at 28; Staff Answer to CRAFT Petition at 24–25.

resources of western Lake Erie and other areas in close proximity to Fermi 2.”<sup>190</sup> Also in its reply, CRAFT states that it disagrees with the Environmental Justice conclusions of the ER,<sup>191</sup> which were based on the claim that no subsistence consumption activities occur near the site.<sup>192</sup> CRAFT argues that “Environmental Justice is an Applicable Category 2 Issue to Fermi 2 and its proposed continuing operations, and that seems to be the issue of law validating this contention.”<sup>193</sup>

To eliminate the inadmissible issue of tribal notification and to clarify the scope of the subsistence consumption issue,<sup>194</sup> the Board narrows and reformulates this contention as follows:

The ER failed to consider whether members of the Walpole Island First Nation would be negatively affected by the renewal of the Fermi 2 operating license due to impacts on tribal hunting and fishing rights, especially with respect to the potential for the consumption of contaminated foods.

Although CRAFT provided declarations from members of other tribes describing treaty rights to hunt and fish near Fermi 2,<sup>195</sup> we limit this subsistence consumption contention to the Walpole First Nation and its members because CRAFT specifically alleged “negative[] impacts [on] the food supply of the Walpole Island First Nation.”<sup>196</sup>

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<sup>190</sup> CRAFT Reply at 23–25 (citing Letter from Dan Miskokomon, Chief, Walpole Island First Nation, to Allison Macfarlane, Chairman, Nuclear Regulatory Commission (Sept. 22, 2014) (ADAMS Accession No. ML14265A490) [hereinafter “Miskokomon Letter”]).

<sup>191</sup> Id. at 21–22 (citing ER at 4-60).

<sup>192</sup> ER at 4-60.

<sup>193</sup> CRAFT Reply at 22.

<sup>194</sup> See Crow Butte, CLI-09-12, 69 NRC at 552–53 (describing Board’s authority to reformulate contentions to remove extraneous issues and clarify the scope of the admitted contention).

<sup>195</sup> CRAFT Petition at 2; CRAFT Declarations.

<sup>196</sup> Id. at 12–13.

We conclude that this narrowed reformulation of CRAFT's contention regarding tribal hunting and fishing near Fermi 2 is admissible. The contention includes a specific statement of the issue of fact or law to be raised or controverted.<sup>197</sup> Also, CRAFT has explained the basis of the contention: the existence of tribal hunting and fishing rights near Fermi 2 and subsistence consumption, and the failure to address those issues in the ER.<sup>198</sup> Given that Environmental Justice is a Category 2 issue, the contention is within the scope of this proceeding.<sup>199</sup>

Moreover, the issue raised by the contention is material to the findings the NRC must make to support the relicensing action involved in this proceeding.<sup>200</sup> The NRC must comply with NEPA, and to do so it must prepare an EIS that adequately evaluates the environmental impacts of relicensing, including impacts to tribal hunting and fishing rights and subsistence consumption.<sup>201</sup> The Contention's claims of tribal hunting and fishing rights near Fermi 2 support CRAFT's allegation of deficiencies in the ER because NEPA requires acknowledgement of tribal hunting and fishing rights, as well as an analysis of how the project will affect those rights.<sup>202</sup> Thus, whether the ER has considered tribal hunting and fishing rights and subsistence consumption is material to the compliance with NEPA and, ultimately, to license renewal.

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<sup>197</sup> 10 C.F.R. § 2.309(f)(1)(i); CRAFT Petition at 12 (alleging "negative[] impacts [on] the food supply of the Walpole Island First Nation").

<sup>198</sup> 10 C.F.R. § 2.309(f)(1)(ii); CRAFT Petition 2–3, 12–13; CRAFT Declarations.

<sup>199</sup> 10 C.F.R. § 2.309(f)(1)(iii); 10 C.F.R. Pt. 51, subpt. A, app. B, tbl. B-1.

<sup>200</sup> 10 C.F.R. §§ 2.309(f)(1)(iv), 51.45.

<sup>201</sup> Id. § 51.45; see Okanogan Highlands Alliance v. Williams, 236 F.3d 468, 479–80 (9th Cir. 2000) (affirming district court ruling upholding action of the U.S. Forest Service because the Service provided extensive analysis of impact on the tribe's hunting and fishing rights in its EIS).

<sup>202</sup> Okanogan Highlands Alliance, 236 F.3d at 479–80; see also 40 C.F.R. § 1502.16.

The Staff argues that CRAFT has failed to provide scientific evidence to show actual contamination of the Walpole's food supply.<sup>203</sup> But "petitioners may raise contentions seeking correction of significant inaccuracies and omissions in the ER."<sup>204</sup> Although boards do not sit "to 'flyspeck' environmental documents or to add details or nuances," the ER or EIS must "come[] to grips with all important considerations."<sup>205</sup> Here CRAFT has provided evidence to show that the Walpole Island First Nation has and continues to use tribal hunting and fishing rights in the vicinity of Fermi 2.<sup>206</sup> That claim, if upheld, is sufficient to demonstrate a significant inaccuracy or omission in the ER, given that it fails to evaluate the impact of license renewal on the Walpole's subsistence activities. And it is the Staff, not the petitioners, that has the burden of complying with NEPA.<sup>207</sup> CRAFT has therefore met its burden to identify the facts supporting Contention 2 as narrowed by the Board.<sup>208</sup>

We also find that Contention 2, as narrowed, presents a dispute of material fact with the LRA. In sharp contrast to CRAFT's claims that the Walpole Island First Nation has hunting and fishing rights near Fermi 2 that it continues to use for subsistence consumption, the ER asserted that there is "no documented subsistence fishing in Lake Erie" and "[n]o subsistence practices" near Fermi 2.<sup>209</sup> DTE reached this conclusion by asking the Monroe County sheriff, the

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<sup>203</sup> Staff Answer to CRAFT Petition at 24–25.

<sup>204</sup> System Energy Resources, Inc. (Early Site Permit for Grand Gulf ESP Site), CLI-05-4, 61 NRC 10, 13 (2005) (citations omitted).

<sup>205</sup> Id. (quoting Hydro Resources, Inc. (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 71 (2001)).

<sup>206</sup> See Declaration of Russ Blackbird in Support of CRAFT's Petition (July 5, 2014); CRAFT Reply at 23–25 (citing Miskokomon Letter at 1).

<sup>207</sup> See Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, 435 U.S. 519, 553 (1978).

<sup>208</sup> 10 C.F.R. § 2.309(f)(1)(v).

<sup>209</sup> ER at 4-60.

superintendent of the Monroe County Intermediate School District, “two local church officials,” and a local farmer whether anyone used “natural resources as food for consumption” in the nearby area.<sup>210</sup> But we have found no evidence that DTE consulted with any tribal member concerning tribal hunting and fishing rights or subsistence practices, and the Walpole steadfastly maintain that they have such rights and use them for subsistence purposes.<sup>211</sup>

Although DTE and the Staff both argue that CRAFT has not disputed a specific portion of the application,<sup>212</sup> petitioners do not need to cite a specific portion of the application to support a contention of omission.<sup>213</sup> CRAFT alleges that tribal hunting and fishing were not considered in the license renewal process,<sup>214</sup> and, indeed, no portion of the ER mentions tribal hunting or gathering near Fermi 2.<sup>215</sup> CRAFT has thus identified a material factual dispute with DTE regarding the existence of subsistence consumption within the vicinity of Fermi 2.

Alternatively, even if this contention is interpreted as a contention of inadequacy, CRAFT has sufficiently supported its contention by identifying the page of the ER with which the petitioners disagree.<sup>216</sup> As discussed above, this page is part of the Environmental Justice

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<sup>210</sup> ER at 3-246, 3-247.

<sup>211</sup> See Declaration of Russ Blackbird in Support of CRAFT’s Petition (July 5, 2014) (“I am a member of Walpole Island First Nation which has treaty rights to hunt, fish, and gather in the area of the Fermi 2 nuclear reactor . . . . I am concerned that numerous species of plants, fish, wild game, and migratory birds[] are being polluted by Fermi 2’s discharge, making them inedible.”); CRAFT Reply at 23–25 (citing Miskokomon Letter at 1).

<sup>212</sup> DTE Answer at 27–28; Staff Answer to CRAFT Petition at 24–25.

<sup>213</sup> 10 C.F.R. § 2.309(f)(1)(i)(vi) (“[I]f the petitioner believes that the application fails to contain information on a relevant matter as required by law,” the petitioner must identify “each failure and the supporting reasons for the petitioner’s belief.”); see Duke Energy Corp., CLI-02-28, 56 NRC at 382–84 (defining contentions of omission and contentions of inadequacy).

<sup>214</sup> CRAFT Petition at 12.

<sup>215</sup> See ER at 3-246, 3-247, 4-60.

<sup>216</sup> CRAFT Reply at 21 (citing ER at 4-60).

analysis because NRC regulations categorize “subsistence consumption” as a subset of Environmental Justice.<sup>217</sup> By identifying a potential impact on the tribe’s food supply,<sup>218</sup> CRAFT has sufficiently disputed DTE’s conclusion that there is no subsistence consumption near the Fermi 2 site.<sup>219</sup>

Thus, whether described as a contention of omission or adequacy, this contention is admissible because it identifies a genuine dispute with DTE on a material issue (the existence of tribal hunting and fishing rights and subsistence consumption near Fermi 2) required as part of the NEPA analysis.<sup>220</sup>

The Staff moved to strike CRAFT’s references in its reply to Environmental Justice, arguing that any discussion of Environmental Justice is a new argument outside the scope of the original contention.<sup>221</sup> A reply may not be used to present entirely new arguments in support of an existing contention or to propose a new contention.<sup>222</sup> But a board may consider information in a reply that legitimately amplifies an issue presented in the original petition.<sup>223</sup> The Commission also permits petitioners to cure deficiencies with regard to standing in their

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<sup>217</sup> 10 C.F.R. Pt. 51, subpt. A, app. B, tbl. B-1; see Office of New Reactors, Staff Guidance for the Socioeconomic and Environmental Justice Analysis for New Reactor Environmental Impact Statements, COL/ESP-ISG-026 (2014) (ADAMS Accession No. ML14100A535).

<sup>218</sup> CRAFT Petition at 12.

<sup>219</sup> ER at 4-60.

<sup>220</sup> See Diablo Canyon, CLI-11-11, 74 NRC at 442–43 (admitting petitioner’s contention that applicant had failed to discuss a recently identified seismic fault near the plant in its SAMA analysis, without deciding if it was a contention of omission or a contention of inadequacy).

<sup>221</sup> Staff Motion to Strike at 4.

<sup>222</sup> Louisiana Energy Services, L.P. (National Enrichment Facility), CLI-04-25, 60 NRC 223, 224 (2004).

<sup>223</sup> See id. (approving of Board’s decision to consider information in petitioners’ reply briefs that “legitimately amplified” issues presented in the initial petitions); PPL Susquehanna, LLC (Susquehanna Steam Electric Station, Units 1 & 2), LBP-07-4, 65 NRC 281, 299–302 (2007).

replies.<sup>224</sup> There is thus no absolute bar on petitioners presenting additional evidence or argument in a reply. We must therefore determine whether CRAFT has impermissibly attempted to present a new contention or an entirely new argument in support of an existing contention, or permissibly amplified existing arguments or issues.

We deny the Staff's motion to strike the references to Environmental Justice because, rather than attempting to introduce an entirely new argument or a new contention, they legitimately amplify the argument of Contention 2 that the ER is deficient for failing to evaluate impacts to tribal subsistence consumption.<sup>225</sup> The Staff acknowledges that the impact of Fermi 2 on the Walpole First Nation's food supply was raised in Contention 2:

Proposed Contention 2 stated that the Walpole Island First Nation would be negatively affected by the renewal of the Fermi 2 operating license due to airborne radiological or toxic chemical risks, waterborne radiological or toxic chemical risks, thermal pollution, and the effects of these on the tribe's hunting and fishing rights, especially with respect to the potential for the consumption of contaminated foods.<sup>226</sup>

This is an Environmental Justice issue, even though the petition did not expressly so describe it, because under the NRC's NEPA regulations impacts to "subsistence consumption" must be evaluated as part of the site-specific "Environmental Justice" analysis.<sup>227</sup> Unless such impacts have been adequately addressed in the ER, the ER necessarily fails to provide an adequate Environmental Justice review. Therefore, CRAFT's references to Environmental Justice in its reply did not introduce a new contention or argument, because Contention 2 already identified

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<sup>224</sup> South Carolina Electric & Gas Co. and South Carolina Public Service Authority (Virgil C. Summer Nuclear Station, Units 2 and 3), CLI-10-1, 71 NRC 1, 7 (ruling that Board erred in refusing to allow an intervenor to cure its standing in its reply); PPL Bell Bend, LLC (Bell Bend Nuclear Power Plant), CLI-10-7, 71 NRC 133, 139-40 ("Mr. Epstein had the opportunity to cure on reply the defects in his initial petition.").

<sup>225</sup> See supra note 223.

<sup>226</sup> Staff Motion to Strike at 4 (emphasis added).

<sup>227</sup> 10 C.F.R. Pt. 51, subpt. A, app. B, tbl. B-1.

an Environmental Justice issue that the ER failed to evaluate. The reply's references to Environmental Justice merely amplified the subsistence consumption issue initially raised in Contention 2.<sup>228</sup>

In any event, even if we refused to consider the Environmental Justice issue, NEPA requires an analysis of impacts to tribal hunting and fishing rights.<sup>229</sup> Thus, Contention 2 would remain viable even had we granted the Staff's motion to strike CRAFT's references to Environmental Justice.

The dissent claims that no deficiency in the ER is properly before the Board because Contention 2 as set forth in the petition did not challenge the ER. The dissent does not dispute that Contention 2 as reformulated by the Board meets the criteria for admission.<sup>230</sup> The dissent also acknowledges that CRAFT's Contention 2 refers to tribal hunting and fishing rights near Fermi 2.<sup>231</sup> But the dissent claims that those references were offered solely to support CRAFT's lack of notice argument.<sup>232</sup> According to the dissent, Contention 2 is "not about hunting and fishing in the area" or "an omission from the ER."<sup>233</sup>

The dissent arrives at this cramped interpretation only by completely ignoring a critical part of the petition, its preface, and by failing to give any effect to the rule of interpretation that pleadings submitted by *pro se* petitioners are afforded greater leniency than petitions drafted

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<sup>228</sup> See CRAFT Reply at 21–22 (citing ER at 4-60); Louisiana Energy Services, CLI-04-25, 60 NRC at 224.

<sup>229</sup> Okanogan Highlands Alliance v. Williams, 236 F.3d at 479–80.

<sup>230</sup> Dissent at 5.

<sup>231</sup> Id. at 3.

<sup>232</sup> Id.

<sup>233</sup> Id. at 1.

with the assistance of counsel.<sup>234</sup> CRAFT's petition may not be a model of clarity or organization, but, read in light of that general rule of interpretation, CRAFT has amply demonstrated its intent to challenge both the lack of notice and the ER's failure to address impacts on tribal hunting and fishing rights and subsistence consumption.

CRAFT's "PREFACE to ALL Contentions" plainly demonstrates CRAFT's intent to challenge deficiencies in the ER related to public health and safety.<sup>235</sup> The preface alleges that:

The Issues raised in each of the following Contentions are integrally relevant and Material to these proceedings. . . . The deficiencies highlighted in these Contentions have enormous independent health and safety significance. The Applicant's LRA and associated analyses as part of the AMP and ER have material deficiencies to an extent that could significantly jeopardize (impact) public health and safety.<sup>236</sup>

CRAFT's preface further argues that NEPA requires "meaningful review[]" of environmental concerns.<sup>237</sup> Thus, CRAFT's preface to all of its contentions shows that it intended the allegations related to public health and safety in its contentions, including those in Contention 2, to challenge the ER's failure to adequately evaluate those issues.

Contention 2 supports CRAFT's claim that the ER contains deficiencies relevant to public health and safety. The contention, as previously explained, alleged negative impacts on treaty rights to hunt, fish, and gather in the area of the Fermi 2 nuclear reactor; and tribal concerns that plants, fish, wild game, and migratory birds are being polluted by Fermi 2's

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<sup>234</sup> See Entergy Nuclear Vermont Yankee, L.L.C. & Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), CLI-10-17, 72 NRC 1, 45 n.246 (declining to reject argument on procedural grounds given practice of "treating pro se litigants more leniently than litigants with counsel"); Turkey Point, CLI-01-17, 54 NRC at 15 ("Given that Mr. Oncavage is a *pro se* intervenor, however, the Commission has made a special effort to review the contentions he made in his Amended Petition before the Board."); Virginia Electric & Power Co. (North Anna Power Station, Units 1 and 2), ALAB-146, 6 AEC 631, 633 & n.4 (1973) (recognizing that *pro se* petitioner is not held to the same standards of clarity and precision as a lawyer).

<sup>235</sup> CRAFT Petition at 3 (capitalization in original).

<sup>236</sup> Id. at 3 (emphasis added).

<sup>237</sup> Id. at 4.

radiological, toxic chemical and thermal pollution discharge, making them inedible.<sup>238</sup> CRAFT makes multiple allegations related to these claims.<sup>239</sup> The ER fails to address those issues. The most that the dissent could legitimately argue, therefore, is that CRAFT did not expressly reiterate in Contention 2 that the ER's deficiencies related to public health and safety alleged in the preface include the specific public health and safety issues identified in the Contention. But if the rule permitting liberal interpretation of pro se pleadings is to be given any meaningful effect, it must allow the Board to interpret CRAFT's statement in the preface that its contentions identify material deficiencies in the ER related to public health and safety to include the concerns related to tribal hunting and fishing rights and subsistence consumption identified in Contention 2. Those are the public health and safety issues identified in Contention 2. There is no plausible reason to think CRAFT's preface was referring to anything else in that Contention.

When Contention 2 is interpreted in light of CRAFT's preface, as it should be, the dissent's arguments that the Contention fails to satisfy the criteria of Section 2.309(f)(1) vanish.<sup>240</sup> We have explained that the reformulated contention satisfies all of the criteria of Section 2.309(f)(1).<sup>241</sup> The dissent does not disagree, stating that it is "not arguing that the

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<sup>238</sup> Supra text accompanying notes 183–187.

<sup>239</sup> See id. at 2 ("CRAFT also submits 32 affidavits for individual members of affected Indian tribes . . . . These tribes are listed by the NRC as having treaty rights to hunt, fish, and gather foods in the Lake Erie Western Basin."); id. at 10 ("Many tribal members had no idea their tribal governments were allowing the contamination of the lands they are guaranteed to hunt, fish, and gather food forevermore."); id. at 12 ("[N]umerous species of fish, wild game, and migratory bird consumed as food by Walpole Island First Nation spe[n]d a part of their life cycle at or near the Fermi 2 site."); id. ("Fermi 2's radiological, toxic chemical and thermal pollution negatively impacts the food supply of the Walpole Island First Nation."); id. at 12–13 ("[Walpole Island First Nation] is also well aware of the degrading [effects] upon the fish, wild game, and migratory birds its community fishes and hunts that could be contaminated by the continued operation of Fermi 2."); id. at 13 ("[CRAFT] has also agreed to represent the named tribal members who object to their treaty rights being contaminated for now and forevermore."); Tr. at 193.

<sup>240</sup> Dissent at 1–3.

<sup>241</sup> Supra text accompanying notes 197–20020.

reformulated contention does not meet the criteria for admission, only that it was not pled by petitioners and does not reflect the intent of the original contention.”<sup>242</sup> Because the reformulated contention best expresses CRAFT’s intent as reflected in both the preface and the contention, the dissent has provided no valid reason to question its admissibility.

The dissent’s other arguments are also without merit. The dissent states that “[i]n their Reply, Petitioners do not mention either hunting or fishing.”<sup>243</sup> The dissent subsequently acknowledges, however, that the reply included the letter to the NRC Chairman from Mr. Miskokomon, chief of the Walpole Nation, expressly confirming the Walpole’s hunting and fishing rights and its use of those rights in the vicinity of Fermi 2.<sup>244</sup> The reply also stated that “the fundamental thesis of the **Preface** has not been refuted.”<sup>245</sup> The dissent also complains that the 31 tribal members who filed declarations “only state that they have hunting and fishing rights, but do not say they exercise those rights or are concerned that these rights may be disturbed by relicensing Fermi 2.”<sup>246</sup> In fact, the tribal members asserted that they are “concerned that numerous species of plants, fish, wild game, and migratory birds are being polluted by Fermi 2’s discharge, making them inedible.”<sup>247</sup> Moreover, because a board may appropriately view a petitioner’s support for its contention in a light that is favorable to the

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<sup>242</sup> Dissent at 5.

<sup>243</sup> Dissent at 4.

<sup>244</sup> Id.; CRAFT Reply at 23–25 (citing Miskokomon Letter).

<sup>245</sup> CRAFT Reply at 5 (emphasis in original).

<sup>246</sup> Dissent at 5. The dissent also incorrectly claims that only one of CRAFT’s declarants is a member of the Walpole Island First Nation. Id. at 4-5. CRAFT clarified that, in addition to Russ Blackbird, James Aquash (who states that he lives within 50 miles of Fermi 2) is also a Walpole member. CRAFT Reply at 21.

petitioner,<sup>248</sup> we may reasonably conclude that the tribal members use or intend to use their hunting and fishing rights from their assertion of those rights; their stated concerns with Fermi 2's impacts to animal and plant species; and their statements that, if the NRC approves the requested license extension, this would adversely affect the quality of their lives.<sup>249</sup> In any event, Mr. Miskokomon confirms the Walpole's ongoing use of their hunting and fishing rights in the vicinity of Fermi 2.<sup>250</sup>

Finally, the dissent objects to the Board's consideration of Mr. Miskokomon's letter, because it was written after the original petition was filed and submitted with CRAFT's reply.<sup>251</sup> But no such objection was raised by a party. The Staff and DTE must have decided that an objection to Mr. Miskokomon's letter was not warranted, and they thereby waived any such objection.<sup>252</sup> The Board has no authority, and certainly no obligation, to make evidentiary objections *sua sponte* that the parties have waived.<sup>253</sup> Furthermore, if the Board did so, the

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<sup>247</sup> CRAFT Declarations.

<sup>248</sup> "The Commission has stated that a board may appropriately view a petitioner's support for its contention in a light that is favorable to the petitioner, but the board cannot do so by ignoring the requirements set forth" in current 10 C.F.R. 2.309(f)(1). Policy on Conduct Of Adjudicatory Proceedings, 63 Fed. Reg. 41872, 41874 (1998) (citing Arizona Public Service Co. (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155 (1991)).

<sup>249</sup> CRAFT Declarations.

<sup>250</sup> Miskokomon Letter.

<sup>251</sup> Dissent at 4.

<sup>252</sup> Tennessee Valley Authority (Hartsville Nuclear Plant, Units 1A, 2A, 1B & 2B), ALAB-463, 7 NRC 341, 362 n.90 (1978); Florida Power & Light Co. (St. Lucie Nuclear Power Plant, Unit 2), ALAB-335, 3 NRC 830, 842 n.26 (1976); Public Service Co. of New Hampshire (Seabrook Station, Units 1 & 2), LBP-89-32, 30 NRC 375, 554 n.56 (1989), rev'd in part on other grounds and remanded, ALAB-937, 32 NRC 135 (1990), aff'd in part and rev'd in part on other grounds, ALAB-941, 32 NRC 337 (1990), and aff'd on other grounds, ALAB-947, 33 NRC 299 (1991). Accord Fed. R. Evid. 103(a)(1).

<sup>253</sup> A board is obligated to consider jurisdictional issues even if they are not raised by a party. For example, as we noted earlier, the Board must address petitioners' standing even though it was not challenged by the Staff or DTE. Supra text accompanying note 21. Petitioners'

result would be a violation of the “cardinal rule, so far as fairness is concerned, . . . that each side must be heard.”<sup>254</sup> Petitioners would have no opportunity to be heard regarding a *sua sponte* objection by the Board because they would only learn of it when they received the Board’s ruling. Such a procedure would deprive petitioners of the opportunity to file the response expressly provided in our procedural rules.<sup>255</sup>

In any event, this is not a case where a party failed to provide support for a contention until its reply.<sup>256</sup> CRAFT submitted numerous declarations with its petition supporting the claim that tribal members have hunting and fishing rights in the vicinity of Fermi 2.<sup>257</sup> NEPA requires that the NRC evaluate the potential impact of license renewal upon those rights,<sup>258</sup> but the ER contains no such analysis. The letter from Mr. Miskokomon, confirming tribal members’ continued use of their hunting and fishing rights in close proximity to Fermi 2, merely amplified the factual basis that had already been presented.<sup>259</sup> It may therefore be considered by the Board.

For all of the reasons stated above, we will admit CRAFT Contention 2 as modified above.

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standing, however, is essential to the Board’s authority (*i.e.*, jurisdiction) to consider their contentions and admit them as parties to the proceeding. Objections to particular evidence, by contrast, do not present a jurisdictional issue and can be waived if not timely asserted.

<sup>254</sup> Houston Lighting and Power Co. (Allens Creek Nuclear Generating Station, Unit 1), ALAB-565, 10 NRC 521, 524 (1979) (citing Grannis v. Ordean, 234 U.S. 385, 394 (1914)).

<sup>255</sup> 10 C.F.R. § 2.323(c).

<sup>256</sup> See Amergen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 276 (2009).

<sup>257</sup> CRAFT Declarations; see CRAFT Petition at 2 (“CRAFT also submits 32 affidavits for individual members of affected Indian tribes . . . . These tribes are listed by the NRC as having treaty rights to hunt, fish, and gather foods in the Lake Erie Western Basin.”).

<sup>258</sup> Supra text accompanying note 201.

<sup>259</sup> CRAFT Reply at 23–25 (citing Miskokomon Letter at 1).

### 3. *CRAFT 3 – NRC Cannot Legally Extend Reactor Licenses*

CRAFT generally asserts that NRC cannot extend DTE's license because of ongoing legal battles concerning storage and disposal of spent nuclear fuel, formerly known as the Waste Confidence Rule.<sup>260</sup>

We grant the Staff's motion to strike<sup>261</sup> the part of CRAFT's reply that incorporates by reference Joint Petitioners' arguments concerning their waste-confidence contention.<sup>262</sup> The Commission has instructed that pleadings should be self-contained.<sup>263</sup> Thus, CRAFT may not rely on another petitioner's arguments about a similar contention to demonstrate that CRAFT's contention is admissible.

This contention is inadmissible for the reasons discussed regarding Joint Petitioners' Waste Confidence Contention (Contention JP3).<sup>264</sup>

### 4. *CRAFT 4 – Transmission Corridor Offsite AC Power Supply*

Similar to Joint Petitioners' Contention 4, CRAFT raises a contention concerning the transmission corridor shared by Fermi 2 and the proposed unit Fermi 3:

Applicant has failed to provide the NRC Staff with an acceptable final configuration of the offsite AC power supply, including sources, routing and termination points (transmission corridor) for each channel/circuit, so the Staff may conclude that the channels/circuits are independent (physically separate commensurate with the hazard) from a power supply assignment perspective, for

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<sup>260</sup> CRAFT Petition at 13–15; see 10 C.F.R. § 51.23.

<sup>261</sup> Staff Motion to Strike at 5.

<sup>262</sup> CRAFT Reply at 30.

<sup>263</sup> See Entergy Nuclear Generation Co. & Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), CLI-12-3, 75 NRC 132, 139 n.41 (2012) (“We discourage incorporating pleadings or arguments by reference.”); Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), CLI-01-11, 53 NRC 370, 383 (2001) (“We deem waived any arguments not raised before the Board or not clearly articulated in the petition for review.”); Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), CLI-89-3, 29 NRC 234, 241 (1989) (“[A] wholesale incorporation by reference does not serve the purposes of a pleading.”).

<sup>264</sup> See supra section V.A.3.

the purpose of ensuring reliable and uninterrupted electric power for the Fermi Nuclear Reactor, Unit 2, within and as part of the inseparable context of the same Applicant's active and pending Fermi, Unit 3 COLA as submitted.<sup>265</sup>

CRAFT argues that DTE has failed to comply with Order EA-12-051, which requires spent fuel pool instrumentation channels to be run on separate power supplies.<sup>266</sup> As support, CRAFT cites Farouk D. Baxter's statement made during a limited appearance in the Fermi 3 proceeding that the common corridor is more vulnerable to "severe weather and man-made single failure events."<sup>267</sup> The Staff responds that Order EA-12-051 does not impose any requirements on license renewal applicants, and is thus outside the scope of the proceeding.<sup>268</sup> DTE agrees that the "proposed contention clearly raises a current licensing basis issue."<sup>269</sup> In its reply, CRAFT argues that a "reasonable assurance of safety during the renewal term of Fermi, Unit 2" depends on considering how accidents could affect both reactors.<sup>270</sup>

CRAFT again sought to incorporate by reference Joint Petitioners' arguments,<sup>271</sup> and for the reasons given above,<sup>272</sup> we grant the Staff's motion to strike this portion of the reply.

This contention is inadmissible. CRAFT relies on Order EA-12-051 as legal authority, but compliance with these types of orders—which are issued as part of NRC's ongoing program to oversee plant operation—are enforcement issues that are not within the scope of a license

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<sup>265</sup> CRAFT Petition at 15–16.

<sup>266</sup> Id. at 16 (citing NRC, Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation, EA-12-051 (ADAMS Accession No. ML12056A044)).

<sup>267</sup> Id. at 16–17.

<sup>268</sup> NRC Answer to CRAFT Petition at 34.

<sup>269</sup> DTE Answer at 31.

<sup>270</sup> CRAFT Reply at 34–35

<sup>271</sup> CRAFT Reply at 35–36.

<sup>272</sup> Supra text accompanying note 263.

renewal proceeding.<sup>273</sup> Allegations of non-compliance with “already-issued, existing and open Commission Orders” are part of the current licensing basis,<sup>274</sup> and therefore under NRC regulations cannot be challenged in this proceeding.<sup>275</sup>

5. *CRAFT 5 – Spent Fuel Pool Instrumentation is Deficient*

CRAFT “requests an ASLB ruling and recommendation supporting full fleet wide implementation and compliance with already-issued, existing and open Commission Orders prior to the issuance and approval of any new licensing or relicensing action, including, specifically, the Fermi, Unit 2 LRA.”<sup>276</sup> CRAFT argues that “DTE’s ER has also failed to compare relative hazards of high-density pool storage with dry cask storage.”<sup>277</sup> In support of these contentions, CRAFT points to a NAS report on the risk of fires in partially drained spent fuel pools,<sup>278</sup> as well as an older study concluding that the risk of pool leaks increases as a facility ages.<sup>279</sup> Given these two factors, CRAFT argues, long-term spent fuel storage is too risky and Fermi 2 should be required to use dry casks instead.<sup>280</sup>

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<sup>273</sup> 10 C.F.R. § 54.30(b); see Turkey Point, CLI-01-17, 54 NRC at 8–9.

<sup>274</sup> See Turkey Point, CLI-01-17, 54 NRC at 8–9.

<sup>275</sup> 10 C.F.R. § 54.30(b); see Oyster Creek, CLI-09-7, 69 NRC at 270–71 (explaining that ‘current licensing basis’ issues cannot be challenged in license renewal proceedings).

<sup>276</sup> CRAFT Petition at 18–19.

<sup>277</sup> Id. at 20.

<sup>278</sup> Id. at 19 (citing Committee on the Safety and Security of Commercial Spent Nuclear Fuel, National Research Council, *Safety and Security of Commercial Spent Nuclear Fuel Storage* at 8 (National Academics Press 2006)).

<sup>279</sup> Id. at 20 (citing Imtiaz K. Madni, Brookhaven National Laboratory, MELCOR Simulation of Long-Term Station Blackout at Peach Bottom, BNL-NUREG-44993 (1990)).

<sup>280</sup> Id.

As with CRAFT's Contention 4, this contention is inadmissible because enforcement orders are outside the scope of the license renewal proceeding.<sup>281</sup> And the portion of the contention concerning spent fuel pools is likewise beyond the scope of this proceeding because storage of spent fuel is a Category 1 issue that, having been resolved generically, need not be addressed during a license renewal.<sup>282</sup>

#### 6. CRAFT 6 – Mitigation Strategies for Beyond-Design-Basis Events

In a contention similar to Joint Petitioners' Contention 1, CRAFT alleges that the Fermi 2 system design is vulnerable to leaks in containment during severe accidents:

The Applicant's Fermi 2's ER is inadequate and materially deficient because it fails to accurately and thoroughly provide a Severe Accident Mitigation Alternatives (SAMA) analysis that comprehensively addresses the well-known and unresolved design vulnerability of the GE Mark 1 BWR pressure suppression containment system, and any associated severe accident consequences.<sup>283</sup>

Pointing to Order EA-12-049 and a report from the U.S. National Academy of Sciences (NAS) Committee on the Implications of Fukushima Dai-ichi for U.S. GE Mark 1 and Mark 2 Boiling Water Reactors, CRAFT argues that the license renewal should not be granted until DTE implements Order EA-12-049 and addresses the reactor's design vulnerabilities as identified in the NAS report.<sup>284</sup> In particular, CRAFT asserts that DTE should install hardened filtered vents as a mitigation strategy.<sup>285</sup>

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<sup>281</sup> 10 C.F.R. § 54.30(b); see Turkey Point, CLI-01-17, 54 NRC at 8–9; Oyster Creek, CLI-09-7, 69 NRC at 270–71.

<sup>282</sup> See supra section IV.B.

<sup>283</sup> CRAFT Petition at 22.

<sup>284</sup> Id. at 21–22 (citing NAS Report at 5). As further support, CRAFT notes that a former Commissioner stated that these types of reactors are not safe. Id. at 22 (citing Stephanie Cooke, Nuclear Safety: Jaczko Calls for Phase-out in US, Says Plants Aren't Safe, Nuclear Intelligence Weekly, March 29, 2013).

<sup>285</sup> Id. at 22.

DTE responds that Order EA-12-049 is a current licensing basis issue outside the scope of the license renewal proceeding.<sup>286</sup> And to the extent that CRAFT is challenging the SAMA analysis, DTE argues that CRAFT has not identified any flaws in the ER's conclusion that hardened filtered vents are too costly to justify the estimated benefits.<sup>287</sup> The Staff argues that CRAFT has not identified which portions of the NAS report it believes support its contention.<sup>288</sup> The Staff also argues that there is no genuine dispute with the applicant because "CRAFT does not indicate how any claimed failure to implement Order EA-12-049 relates to an environmental concern or a deficiency in the LRA."<sup>289</sup>

CRAFT's reply consists of an attempt to incorporate by reference all of the arguments raised by Joint Petitioners in support of their Contention 1.<sup>290</sup> We grant the Staff's motion to strike this portion of CRAFT's reply for the reasons discussed above.<sup>291</sup>

The contention is inadmissible. As we explained with respect to Contentions 4 and 5, arguments about the plant's design or current Commission orders are impermissible challenges to the current licensing basis. And CRAFT's challenge to the SAMA analysis is inadmissible because it failed to identify an error or deficiency in DTE's analysis and also failed to provide factual support for its claim that hardened filtered vents are a cost-beneficial safety measure.<sup>292</sup>

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<sup>286</sup> DTE Answer at 35–36.

<sup>287</sup> Id. at 36.

<sup>288</sup> Staff Answer to CRAFT Petition at 50–51.

<sup>289</sup> Id. at 52.

<sup>290</sup> CRAFT Reply at 36–37.

<sup>291</sup> Supra text accompanying note 263.

<sup>292</sup> See Davis-Besse, CLI-12-08, 75 NRC at 406–07 ("Unless a petitioner sets forth a supported contention pointing to an apparent error or deficiency that may have significantly skewed the environmental conclusions, there is no genuine material dispute for hearing.").

Petitioners must provide site-specific support to show that the SAMA analysis is unreasonable,<sup>293</sup> but CRAFT has not provided any such support here.

7. *CRAFT 7 – AMP Does Not Adequately Inspect and Monitor for Leaks*

CRAFT contends that Fermi 2’s Aging Management program “is inadequate because (1) it does not provide for adequate inspection of all systems and components that may contain radioactively contaminated water and (2) there is no adequate monitoring to determine if and when leakage from these areas occurs.”<sup>294</sup> Based on 10 C.F.R. § 54.21, CRAFT argues that DTE is required to show that each pipe, including “buried pipes and tanks for the fuel oil system, the station blackout diesel generator system, the fire protection system and the water inflow piping,” will be adequately managed during the renewal period.<sup>295</sup> CRAFT specifically asserts that DTE must improve its aging management plan with “(1) a more robust inspection system; (2) cathodic protection; (3) a base line inspection prior to license extension; and (4) an effective monitoring well program.”<sup>296</sup> CRAFT argues that DTE has the burden of providing “reasonable assurance” that the current licensing basis will be maintained throughout the renewal period and also argued that “reasonable assurance” is inadequately defined under the regulations.<sup>297</sup>

DTE replies that it “already has a cathodic protection system”<sup>298</sup> and argues that CRAFT has not identified a specific deficiency in its inspection and monitoring systems.<sup>299</sup> DTE adds

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<sup>293</sup> Id. at 410–11.

<sup>294</sup> CRAFT Petition at 23.

<sup>295</sup> Id.

<sup>296</sup> Id. at 25.

<sup>297</sup> Id. at 24 (citing Metropolitan Edison Co. (Three Mile Island Nuclear Station, Unit 1), ALAB-697, 16 NRC 1265, 1271 (1982)).

<sup>298</sup> DTE Answer at 38 (citing LRA at B-27).

<sup>299</sup> Id.

that it also has Diesel Fuel Monitoring and Fire Water System aging management plans, both of which include periodic inspections.<sup>300</sup> With respect to the definition of ‘reasonable assurance,’ the Staff argues that the regulations require DTE to show that the safety features will fulfill their intended function, not that the every structure will maintain a current licensing basis throughout the renewal period.<sup>301</sup>

In general, CRAFT replies that *pro se* petitioners are not required to provide the same level of specificity as those with counsel,<sup>302</sup> and it argues that it has identified beneficial ways to improve DTE’s aging management plan.<sup>303</sup> Regarding cathodic protection, CRAFT notes that Fermi 2 currently does not have complete coverage given that DTE “plan[s] to increase system coverage.”<sup>304</sup> Finally CRAFT maintains that the burden is on DTE to provide a reasonable assurance it can maintain leak-free pipes during the renewal period.<sup>305</sup>

CRAFT makes two legal arguments in this contention, but the Commission has already rejected the one regarding the definition of “reasonable assurance,”<sup>306</sup> and the other is based on a misunderstanding of burdens of proof at each stage in the proceeding. First, the Commission has explained that “reasonable assurance” requires a case-by-case determination instead of a fixed level of assurance, so CRAFT’s challenge to the lack of a single overarching definition is

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<sup>300</sup> Id. at 39–40 (citing LRA at B-57; encl. 2 at B.1.19).

<sup>301</sup> Id. at 54 (citing 10 C.F.R. § 54.21(a)(1)); see also id. at 57–58.

<sup>302</sup> CRAFT Reply at 37 (citing Kansas Gas & Electric Co. (Wolf Creek Generating Station), ALAB-279, 1 NRC 559, 576–77 (1975)).

<sup>303</sup> Id.

<sup>304</sup> Id. at 39 (citing LRA at B-27)

<sup>305</sup> Id. at 38–39.

<sup>306</sup> See Pilgrim, CLI-10-14, 71 NRC at 465–67.

an incorrect reading of the regulation.<sup>307</sup> Second, the case that CRAFT cites regarding the applicant's burden of proof deals with the applicant's ultimate burden of proof after a contention has been admitted.<sup>308</sup> At this point in the proceeding, however, the petitioners have the "burden of going forward," which requires CRAFT to provide factual allegations or expert testimony to show a potential deficiency in DTE's aging management plan.<sup>309</sup> CRAFT has not done so. Because CRAFT has not shown how the proposed plan would fail to ensure that the buried pipes continue to fulfill their intended safety purposes, this contention is inadmissible.<sup>310</sup>

#### 8. CRAFT 8 – SAMAs are Materially Deficient

CRAFT argues that DTE underestimated the potential benefit of additional mitigation strategies because DTE underestimated the costs of a severe accident:

The Applicant's Fermi, Unit 2 LRA Environmental Report (ER) and SAMA analysis are materially deficient in that the input data concerning evacuation time estimates (ETE) and economic consequences are incorrect, resulting in incorrect conclusions about the costs versus benefits of possible mitigation alternatives, such that further analysis is called for under NEPA.<sup>311</sup>

As part of this contention, CRAFT raises a number of issues related to plume variability, evacuation time estimates, and densely populated cities within a 50-mile radius of Fermi 2.<sup>312</sup> First, citing Dr. Bruce Egan's testimony in the Indian Point license renewal proceeding, CRAFT argues that the Emergency Planning Zone should be larger to account for plume variability

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<sup>307</sup> Id.

<sup>308</sup> Three Mile Island, ALAB-697, 16 NRC at 1271 ("[The] licensee generally bears the ultimate burden of proof. But intervenors must give some basis for further inquiry.") (citation omitted).

<sup>309</sup> Oyster Creek, CLI-09-7, 69 NRC at 268–70.

<sup>310</sup> See Pilgrim, CLI-10-14, 71 NRC at 459–60.

<sup>311</sup> CRAFT Petition at 25.

<sup>312</sup> Id. at 25–28.

close to a large body of water such as Lake Erie.<sup>313</sup> And quoting David Chanin's declaration from the Pilgrim license renewal proceeding, CRAFT argues that the "economic cost numbers produced by MACCS2 have absolutely no basis."<sup>314</sup> CRAFT next asserts that evacuation times in the model are unrealistically low, alleging that the input conditions fail to consider "serious road construction delays" and "severe snow conditions."<sup>315</sup> Finally, CRAFT contends that DTE's analysis fails to consider "the densely populated centers of Metro Detroit (MI), Ann Arbor (MI), Monroe (MI), Toledo (OH) and Windsor (ON)."<sup>316</sup> Despite CRAFT's references to the 10-mile emergency planning zone and the 50-mile radius used as part of the SAMA analysis, we understand CRAFT to argue that these cities were excluded unreasonably from the SAMA analysis, leading DTE to "drastically undercount[] the costs of a Severe Accident."<sup>317</sup>

DTE responds that "the ER and SAMA analysis specifically account for population within 50 miles of the site, including Detroit, Ann Arbor, Monroe, and Toledo" and asserted that "[t]here is no genuine dispute."<sup>318</sup> DTE did not mention Windsor in its Answer and did not discuss Windsor at oral argument. DTE argues that challenges to emergency planning fall outside the scope of a license renewal proceeding.<sup>319</sup> The Staff likewise argues that "the adequacy of existing emergency preparedness plans need not be considered anew as part of issuing a

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<sup>313</sup> Id. at 26.

<sup>314</sup> Id. at 27 (citing Declaration of David I. Chanin in Support of Pilgrim Watch's Response Opposing Entergy's Motion for Summary Disposition of Pilgrim Watch Contention 3, Entergy Nuclear Operations, Inc. (Indian Point Nuclear Generating Units 2 and 3), Docket Nos. 50-247-LR and 50-286-LR (June 5, 2007)).

<sup>315</sup> Id. at 26.

<sup>316</sup> Id. at 27.

<sup>317</sup> Id. at 28.

<sup>318</sup> DTE Answer at 43 (citing ER at D-95).

<sup>319</sup> Id. at 42 (citing Millstone, CLI-05-24, 62 NRC at 560–61).

renewed operating license.”<sup>320</sup> To the extent CRAFT is challenging the adequacy of the computer modeling of plume variability, the Staff notes that petitioners bear the burden of providing evidence specific to the license renewal applicant.<sup>321</sup> And regarding evacuation times, the Staff points out that DTE considered a range of average evacuation times to account for road delays and serious snow conditions.<sup>322</sup>

In its reply, CRAFT maintains that Windsor, despite being within 50 miles of Fermi 2, was not considered in assessing the costs of a severe accident.<sup>323</sup> CRAFT also reiterates that severe Michigan snow conditions could significantly impair a winter evacuation.<sup>324</sup>

Regarding the portion of the contention focused on Windsor’s exclusion from the SAMA analysis, we conclude that CRAFT has proffered an admissible contention. The parties agree that this information is material and within scope. At oral argument, DTE and the Staff acknowledged that the SAMA analysis must include all populations within 50 miles of Fermi 2, regardless of international borders.<sup>325</sup> DTE asserted that the Fermi 2 SAMA analysis “modeled the population within 50 miles irrespective of . . . whether that location was within the United States or Canada or the Walpole Island.”<sup>326</sup> But, as CRAFT has alleged, the ER and SAMA analysis contradict DTE’s assurances that Canadians living within 50 miles of Fermi 2 were

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<sup>320</sup> NRC Answer to CRAFT Petition at 60 (citing Final Rule, Nuclear Power Plant License Renewal, 56 Fed. Reg. 64,943, 64,967 (Dec. 13, 1991)).

<sup>321</sup> Id. at 61–64 (citing Davis-Besse, CLI-12-08, 75 NRC at 416).

<sup>322</sup> Id. at 68 (citing ER at D-97).

<sup>323</sup> CRAFT Reply at 40–41; see CRAFT Petition at 14 (noting that “[t]he Fermi, Unit 2 nuclear fission reactor is located within a fifty-mile radius of . . . Windsor (Ontario)”).

<sup>324</sup> Id. at 41.

<sup>325</sup> Tr. at 210.

<sup>326</sup> Id.

included in the SAMA analysis, as shown by the absence of Windsor.<sup>327</sup> For example, the ER states that “[f]ive cities within a 50-mile radius have a population greater than 100,000: Ann Arbor, Michigan (32 miles); Detroit, Michigan (28 miles); Sterling Heights, Michigan (44 miles); Toledo, Ohio (26 miles); and Warren, Michigan (37 miles).”<sup>328</sup> As CRAFT noted, Windsor (pop. 210,891) is omitted from DTE’s list.<sup>329</sup> Indeed, DTE’s list of “Cities or Towns Located Totally or Partially within a 50-Mile Radius of Fermi 2” does not include any Canadian cities.<sup>330</sup> CRAFT has identified a genuine dispute over whether the SAMA population model excludes Canadians within 50 miles of Fermi 2.<sup>331</sup>

A contention that the applicant’s SAMA analysis is significantly flawed because of the use of inaccurate factual assumptions about population is admissible. For example, the Board in the Indian Point proceeding admitted a contention that the applicant’s SAMA analysis had unreasonably failed to account for the impact of a severe accident on tourists and commuters in New York City.<sup>332</sup> Because CRAFT has alleged that DTE failed to consider the costs and

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<sup>327</sup> CRAFT Reply at 40–41 (“Conspicuously absent in the Applicant’s Answer above is any mention of cities in Ontario, Canada such as Windsor and Amherstburg which are located in the extreme vicinity of the Fermi site. . . . Given that the Applicant’s Answer above first acknowledges CRAFT’s mention of Windsor (ON) in the proposed contention, it is quite revealing omission that the above Answer then immediately neglects to include Windsor (ON) within the list of cited communities accounted for by the ER and SAMA analysis.”).

<sup>328</sup> ER at 3-246.

<sup>329</sup> CRAFT Reply at 40–41; see “Windsor (city) community profile,” Statistics Canada (2011), <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm> (search ‘Windsor’).

<sup>330</sup> ER at 3-252 to 3-258.

<sup>331</sup> The SAMA analysis relies on “county-level databases which contain the land-fraction data for every county in the continental U.S.” LRA at D-96. The 2045 permanent population estimate in the ER lists only “U.S. Regional Counties.” Id. at 3-259. The chart for “Estimated Population Distribution within a 50-Mile Radius [of Fermi 2]” includes zero people ENE of the site and only 560 people NE of the site, id. at D-96, even though these areas cover Essex County, Ontario (pop. 388,782). “Census Profile: Essex, County (Census Division), Ontario,” Statistics Canada (2011), <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm>.

<sup>332</sup> Entergy Nuclear Operations, Inc. (Indian Point, Units 2 and 3), LBP-10-13, 71 NRC 673,

consequences of a severe accident on the population of Windsor in the SAMA analysis, this contention is equally admissible. By pointing to the absence of Windsor, CRAFT has provided a specific statement showing the basis of its contention.<sup>333</sup> This contention is within the scope of the proceeding because NRC regulations require that a license renewal ER include a SAMA analysis,<sup>334</sup> and the Commission has explained that an inadequacy in the SAMA analysis is material if the applicant failed to consider “complete information” without justifying why particular information was omitted.<sup>335</sup> DTE has neither acknowledged nor explained why the population of Windsor is absent from the SAMA analysis, and thus CRAFT has identified a genuine factual dispute with the applicant.<sup>336</sup> We narrow and reformulate the contention as follows:

The SAMA cost-benefit calculation is incorrect and thus inadequate because it did not properly account for the Canadian population within the 50-mile affected area of a Severe Accident.

The remaining portions of the contention are not admissible because they lack sufficient factual support. CRAFT has not provided any site-specific information regarding plume variability, which is required to show contention admissibility,<sup>337</sup> nor has it offered factual support for the proposition that DTE’s inputs for evacuation times are flawed or unreasonable or that its

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686–87 (2010) (“It is not clear that Entergy’s December 2009 SAMA Reanalysis adds the infusion of tourists and commuters in New York City to the population used for its SAMA analysis—an absence that might underestimate the exposed population in a severe accident and, in turn, underestimate the benefit achieved in implementing a SAMA.”); Entergy Nuclear Operations, Inc. (Indian Point, Units 2 and 3), LBP-08-13, 68 NRC 43, 112–13 (2008) (“The Board admits NYS-16 to the extent that it challenges whether the population projections used by Entergy are underestimated.”).

<sup>333</sup> 10 C.F.R. § 2.309(f)(1)(i)–(ii); see CRAFT Petition at 28; CRAFT Reply at 40–41.

<sup>334</sup> 10 C.F.R. §§ 2.309(f)(1)(iii), 51.53(c)(3)(ii)(L).

<sup>335</sup> 10 C.F.R. § 2.309(f)(1)(iv); see 40 C.F.R. § 1502.22; Diablo Canyon, CLI-11-11, 74 NRC at 440–43; Duke Energy Corp., CLI-02-17, 56 NRC at 3–7.

<sup>336</sup> 10 C.F.R. § 2.309(f)(1)(v)–(vii); see CRAFT Petition at 14, 28; CRAFT Reply at 40–41.

<sup>337</sup> Davis-Besse, CLI-12-08, 75 NRC at 416.

sensitivity analysis of these inputs was incorrect.<sup>338</sup> Likewise, the Commission has explained that the Chanin declaration concerning the MACCS2 code is too generalized to show a genuine dispute with the applicant.<sup>339</sup> Although that decision involved a motion for summary disposition, we see no reason why the same analysis would not apply here. Finally, to the extent that CRAFT challenged the adequacy of the emergency plan itself, as opposed to the SAMA analysis, the Staff and DTE are correct that the Commission has excluded “emergency planning” from the scope of the license renewal proceeding.<sup>340</sup>

### 9. CRAFT 9 – Quality Assurance is Faulty

CRAFT’s next contention is based on a testing error that occurred at Fermi 2 for two decades: DTE tested its backup generators at an old setpoint of 3702 volts from 1986 to 2006, even though its updated technical specifications called for a setpoint of 3952 volts.<sup>341</sup> CRAFT requests a public hearing:

[T]o consider the following Contention pertaining to a fundamental and egregious failure of Safety-Related Quality Assurance which occurred during a 20-year-period from 1986 to 2006 at the Fermi Nuclear Power Plant, Unit 2 and which

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<sup>338</sup> See Entergy Nuclear Generation Co. & Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 313–14 (2010) (explaining that petitioners had not identified a genuine dispute with the applicant because they had not contested the applicant’s sensitivity analysis of evacuation times); Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-942, 32 NRC 395, 408–09 (1990) (explaining that applicant’s plan for residents to shelter in place during snowstorm was reasonable).

<sup>339</sup> Pilgrim, CLI-10-11, 71 NRC at 311 & n.121 (“Mr. Chanin’s comments do not address Entergy’s supplemental economic analyses, demonstrate no specific knowledge of the analysis, and, as the majority stressed, do not ‘indicat[e], even broadly’ that the Pilgrim SAMA economic cost-benefit conclusions are not sufficiently conservative.”) (quoting Entergy Nuclear Generation Co. & Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), LBP-07-13, 66 NRC 131, 149 (2007)).

<sup>340</sup> Millstone, CLI-05-24, 62 NRC at 560–61 (explaining that emergency planning is not germane to the aging issues appropriate for adjudication in a license renewal proceeding).

<sup>341</sup> CRAFT Petition at 29 (citing David Lochbaum, Union of Concerned Scientists, “Futility at the Utility: How Use of the Wrong Answer Key for Safety Tests Went Undetected for 20 Years at Fermi Unit 2” at 4 (2007), [http://www.ucsusa.org/assets/documents/nuclear\\_power/20070200-f2-ucs-futility-at-the-utility.pdf](http://www.ucsusa.org/assets/documents/nuclear_power/20070200-f2-ucs-futility-at-the-utility.pdf)).

remains unresolved to this day in the eye of the public, thus warranting a fresh, “hard look” as part of any credible NEPA Review or Safety Review process associated with the Fermi, Unit 2 LRA.<sup>342</sup>

CRAFT generally argues that because DTE did not notice the error for two decades, the facility cannot ensure public safety.<sup>343</sup> The Staff responds that this claim raises “safety culture” issues that are outside the scope of this proceeding.<sup>344</sup> The Staff and DTE assert that enforcement and safety issues are addressed on an ongoing basis, not as part of the license renewal process.<sup>345</sup> In its reply, CRAFT counters that NRC’s ongoing safety programs have “proved to be wholly inadequate” given the 20-year testing problem and thus CRAFT argues that the safety issues require a public hearing.<sup>346</sup>

This contention is inadmissible because the Commission has explained that claims of past and current mismanagement are outside the scope of the license renewal proceeding.<sup>347</sup> CRAFT’s contention is based on operational history, faulty quality assurance, and human factors, but the Commission has stated explicitly that “broad-based issues akin to safety culture—such as operational history, quality assurance, quality control, management competence, and human factors—[are] beyond the bounds of a license renewal proceeding.”<sup>348</sup>

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<sup>342</sup> Id. at 28.

<sup>343</sup> Id.

<sup>344</sup> Staff Answer to CRAFT Petition at 70 (citing Northern States Power Co. (Prairie Island Nuclear Generating Plant, Units 1 and 2), CLI-10-27, 72 NRC 481, 484 (2010)).

<sup>345</sup> Id. at 70–71; DTE Answer at 44–45.

<sup>346</sup> CRAFT Reply at 43.

<sup>347</sup> Diablo Canyon, CLI-11-11, 74 NRC at 435–36; Prairie Island, CLI-10-27, 72 NRC at 484.

<sup>348</sup> Prairie Island, CLI-10-27, 72 NRC at 491.

Because the Commission has ruled that ongoing compliance oversight activities are not within the scope of the license renewal proceeding,<sup>349</sup> CRAFT's contention is inadmissible.

*10. CRAFT 10 – Safety Assurance Violation*

CRAFT's tenth contention involves a more recent safety issue. In February 2014 an independent contractor found a "vulnerability [that] could have allowed unauthorized or undetected access to the Protected Area for which sufficient compensatory measures had not been employed prior to discovery."<sup>350</sup> CRAFT contends that this violation requires a public hearing and further analysis:

The Petitioner contends that . . . [the 2014 Security] Violation represents a fundamental Quality Assurance deficiency reflected in the Applicant/Licensee's incomplete License Renewal Application. This Contention identifies a significant site safety and radiation protection Matter ("Significant New Unknown and Unanalyzed Conditions") which deserves further analysis and reevaluation at a higher level of scrutiny than is currently being applied by the NRC Staff.<sup>351</sup>

CRAFT also requests a change in the requirements of the Final Safety Analysis report under 10 C.F.R. § 50.59.<sup>352</sup> In its reply, CRAFT argues that there has not been sufficient review of the "human factor" in any safety-related aging management plan and maintains that DTE should not be able to renew its license while under probation for the 2014 safety violation.<sup>353</sup>

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<sup>349</sup> Diablo Canyon, CLI-11-11, 74 NRC at 435–36.

<sup>350</sup> Letter from Gary L. Shear, Director, NRC Region III Division of Reactor Safety, to Joseph Plona, Senior Vice President and Chief Nuclear Officer, DTE Electric Company (Mar. 18, 2014) (ADAMS Accession No. ML14079A093); see also Letter from Cynthia D. Pederson, NRC Region III Administrator, to Joseph Plona, Senior Vice President and Chief Nuclear Officer (May 29, 2014) (ADAMS Accession No. ML14150A041).

<sup>351</sup> CRAFT Petition at 30.

<sup>352</sup> Id.

<sup>353</sup> CRAFT Reply at 44.

As with Contention 9, CRAFT's arguments allege ongoing issues with mismanagement and negligence. Therefore, this contention related to safety culture is also inadmissible for being outside the scope of this license renewal proceeding.<sup>354</sup>

11. *CRAFT 11 – ER Ignores Public Health Data*

CRAFT contends that the continued operation of Fermi 2 poses a health risk to the general public from exposure to radiation:

Applicant's ER fails to consider new and updated public health data, unavailable at the time of issuance of the original Operating License; further, the Petitioner contends that the Applicant fails to adequately consider Mitigation Alternatives which could significantly reduce the alleged significant environmental and public health impact of Fermi, Unit 2 operations.<sup>355</sup>

In support of this contention, CRAFT points to a 2012 report from Joseph J. Mangano at the Radiation and Public Health Project concluding that deaths from cancer in Monroe County have increased relative to the national average since Fermi 2 began operating.<sup>356</sup> The report found a statistically significant change in ten of nineteen health indicators, such as cancer hospitalization rates, cancer mortality rates, low birth weights, and infant mortality rates, by comparing Monroe County health statistics to national health statistics.<sup>357</sup>

The Staff and DTE reply that health effects are a Category 1 issue that cannot be challenged in a license renewal proceeding.<sup>358</sup> DTE also argues that the contention lacks

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<sup>354</sup> Diablo Canyon, CLI-11-11, 74 NRC at 435–36; Prairie Island, CLI-10-27, 72 NRC at 491.

<sup>355</sup> CRAFT Petition at 30.

<sup>356</sup> Id. at 31 (citing Joseph J. Mangano, Potential Health Risks Posed by Adding a New Reactor at the Fermi Plant: Radioactive contamination from Fermi 2 and changes in local health status, Radiation and Public Health Project, at 1–21 (Jan. 10, 2012) [hereinafter “Mangano report”]).

<sup>357</sup> Id.

<sup>358</sup> Staff Answer to CRAFT Petition at 76 (citing 10 C.F.R. Pt. 51, app. B, “Human Health”); DTE Answer at 49 (same).

specificity and does not demonstrate a genuine dispute with any information contained in its license renewal application.<sup>359</sup>

CRAFT replies that the AEA, which prohibits NRC from issuing licenses that would be “inimical . . . to the health and safety of the public,” trumps the generic determinations in the regulations.<sup>360</sup> CRAFT also argues that site-specific determinations are the better approach because they can account for the unique characteristics of the populations living near the facility.<sup>361</sup> CRAFT asserts that the Mangano report contains “new and significant information” that needs to be analyzed under NEPA.<sup>362</sup>

The regulation is the measure that implements the agency’s statutory responsibilities and a regulation can only be challenged under extremely limited circumstances.<sup>363</sup> For a Category 1 issue such as public health,<sup>364</sup> CRAFT must request a waiver and show that unique circumstances warrant a site-specific determination.<sup>365</sup> Pointing to alleged “new and significant information” is not enough to allow the Board to adjudicate an issue resolved generically by regulation; CRAFT must also request a waiver and, among other requirements, show that this

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<sup>359</sup> DTE Answer at 48–49.

<sup>360</sup> CRAFT Reply at 46 (quoting 42 U.S.C. § 2133(d)).

<sup>361</sup> Id. at 47.

<sup>362</sup> Id. at 48–49.

<sup>363</sup> See 10 C.F.R. § 2.335(a); U.S. Dep’t of Energy (High Level Waste Repository), CLI-10-13, 71 NRC 387, 389 (2010) (“Interpretation of the statutes at issue and the regulations governing their implementation falls within [the Commission’s] province.”); Exelon Generation Co., LLC (Limerick Generating Station, Units 1 & 2), CLI-12-19, 76 NRC 377, 385–86 (2012).

<sup>364</sup> 10 C.F.R. Pt. 51, App. B (designating “Human Health” as a Category 1 issue).

<sup>365</sup> Limerick, CLI-12-19, 76 NRC at 387; see also Indian Point, LBP-08-13, 68 NRC at 195–96 (rejecting a human health contention because petitioner had not shown “any special circumstances at Indian Point that are sufficiently different from those that are present at other nuclear power plants to warrant site-specific treatment”).

information is unique to Fermi 2.<sup>366</sup> Because CRAFT has not requested a waiver and makes no arguments unique to Fermi 2,<sup>367</sup> this contention is inadmissible.<sup>368</sup>

## 12. CRAFT 12 – Thermal Discharge Increases Algae Blooms

CRAFT contends that Fermi 2 will exacerbate algae blooms in Lake Erie:

[T]hermal pollution from nearby power plants is a known contributing factor to the conditions which produce toxic algal blooms and consequent hypoxic dead zones. The exact and precise extent to which Fermi, Unit 2 normal operations are directly causative, not just correlative, of significant environmental and public health impacts is “unknown and unanalyzed.” Therefore, the Petitioner hereby invokes NEPA requirements and contends that a “hard look” and further analysis is called for, as a precondition for approval of the Applicant’s Fermi, Unit 2 License Renewal Application (LRA).<sup>369</sup>

In support of this contention, CRAFT points to the 2014 water emergency in Toledo, Ohio caused by toxic algae blooms and an August 2014 satellite image showing the spread of algae in Lake Erie.<sup>370</sup> As evidence that Fermi 2 contributes to the blooms, CRAFT notes that Fermi 2 releases 45 million gallons of water per day into Lake Erie with discharge temperature averaging 18° Fahrenheit (F) above ambient water temperature.<sup>371</sup> CRAFT asserts that these thermal discharges “add cumulative stress impacts to the fragile ecosystem of Lake Erie’s shallow western basin and shoreline,” and CRAFT argues that this thermal pollution was not adequately considered in the ER.<sup>372</sup>

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<sup>366</sup> See Limerick, CLI-12-19, 76 NRC at 385–86.

<sup>367</sup> Indeed, the Mangano report itself alleges that Fermi 2 is similar to other reactors: “Like all reactors, Fermi 2 has routinely emitted radiation into the local air.” Mangano report at 3.

<sup>368</sup> See Tennessee Valley Authority (Bellefonte Nuclear Power Plant, Units 3 and 4), CLI-09-03, 69 NRC 68, 75 (2009).

<sup>369</sup> CRAFT Petition at 33.

<sup>370</sup> Id. (citing NOAA Forecasts Support Response to Lake Erie Harmful Algal Bloom, National Ocean Service (Aug. 12, 2014), <http://oceanservice.noaa.gov/news/aug14/lake-erie-hab.html>).

<sup>371</sup> Id. at 32.

<sup>372</sup> Id. at 33.

DTE responds that the ER analyzed algae blooms and concluded that any impacts would be small because Fermi 2 uses a closed-loop cooling system.<sup>373</sup> The ER states that no algae blooms of *Lyngbya wollei* or other nuisance species have been reported at the site.<sup>374</sup> DTE acknowledges that harmful algae blooms require warmer water temperatures, but based on studies conducted in 2008 and 2011, the ER finds that blue-green algae have not developed within five miles of the site.<sup>375</sup> DTE also points to the Final Environmental Impact Statement for Fermi 3 and the National Pollution Discharge Elimination System (NPDES) permit review performed by the Michigan Department of Environmental Quality to bolster its conclusion that the plant's thermal discharges do not contribute to algae blooms.<sup>376</sup> The Staff argues that CRAFT has not explained how the 2014 Toledo water emergency or 2014 satellite image of Lake Erie show that DTE's analysis of harmful algae blooms is inadequate.<sup>377</sup>

In its reply, CRAFT maintains that the August 2014 toxic algae bloom was new and significant information that should have been analyzed in the ER.<sup>378</sup> CRAFT argues that DTE should have examined whether its thermal discharges contribute to this algae bloom by extending the warm summer season during which algae thrive.<sup>379</sup> Particularly, CRAFT argues that DTE's "discussion of Harmful Algal Blooms (HABS) provided in the ER (3-113, 114) relies

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<sup>373</sup> DTE Answer at 50 (citing ER at 4-72).

<sup>374</sup> Id. (citing ER at 4-73).

<sup>375</sup> ER at 3-114.

<sup>376</sup> ER at 4-73 (citing Office of New Reactors, Final Environmental Impact Statement for Combined License (COL) for Enrico Fermi Unit 3 (Jan. 2013) (ADAMS Accession No. ML12307A172); Minnesota Department of Environmental Quality, NPDES Permit No. MI0058892 (2012) (ADAMS Accession No. ML12129A570).

<sup>377</sup> Staff Answer to CRAFT Petition at 78–80.

<sup>378</sup> CRAFT Reply at 50.

<sup>379</sup> Id. at 51.

on data from 2008 [and] 2011 and [the conclusion of a] small impact misses the point that HABS are occurring now in real time and are having a devastating impact downstream.”<sup>380</sup> And at oral argument CRAFT asserted that 2014 satellite imagery showed that the algae blooms developed in the “footprint” of Fermi 2,<sup>381</sup> although the approximate distance between the Lake Erie algae blooms and the plant is unclear from the unmarked images.

Arguing that three portions of CRAFT’s reply are new arguments beyond the scope of the original petition, the Staff have moved to strike a link to satellite imagery provided in CRAFT’s reply brief,<sup>382</sup> as well as the assertion that DTE’s studies failed to account for more recent blooms and also failed to consider whether the temperature of the facility’s discharges extends the growing season for algae blooms.<sup>383</sup> All of these arguments legitimately amplify issues that were raised in CRAFT’s petition, so we deny this portion of the motion to strike.<sup>384</sup> First, CRAFT argued in its initial petition that current satellite imagery showed the extent of the algae blooms,<sup>385</sup> and CRAFT is allowed to provide a more recent image to bolster that same argument in its reply.<sup>386</sup> Second, CRAFT asserted that “further analysis” was necessary in light of the 2014 Toledo water emergency,<sup>387</sup> and the reference to DTE’s reliance on data from 2008 and 2011 addresses this issue by explaining why the 2014 blooms were not considered.

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<sup>380</sup> Id. at 52.

<sup>381</sup> Tr. at 158.

<sup>382</sup> Staff Motion to Strike at 5–6.

<sup>383</sup> Id. at 6.

<sup>384</sup> See Louisiana Energy Services, CLI-04-25, 60 NRC at 224.

<sup>385</sup> CRAFT Petition at 33 (providing link to satellite image “to illustrate how severe the algal bloom crisis has become”).

<sup>386</sup> See Entergy Nuclear Operations, Inc. (Indian Point, Units 2 and 3), CLI-11-14, 74 NRC 801, 809–10 (2011) (explaining that issues raised in the petition or answer are within the appropriate scope of the reply brief).

Finally, with respect to thermal discharges, CRAFT noted in its petition that Fermi 2 releases 45 million gallons of water per day at “18 degrees (F) above ambient lake temperature.”<sup>388</sup> CRAFT asserted that these “daily thermal discharges from Fermi 2 [are] an accelerator and contributor to harmful algal blooms,”<sup>389</sup> an argument that it legitimately repeated in its reply.<sup>390</sup>

Although we considered all of CRAFT’s arguments in its petition and the amplifications in its reply, this contention is inadmissible because it lacks sufficient factual support and also fails to identify a deficiency in the ER. First, CRAFT theorized that discharges from Fermi 2 increased the 2014 algae bloom that impacted Toledo’s water supply, but it does not offer any sources or expert testimony to support this position.<sup>391</sup> Nor does CRAFT point to an error in the ER’s analysis that would call into question its conclusion that “the operation of Fermi 2 and the proposed construction and operation of Fermi 3 is not expected to increase the potential for algae blooms in the vicinity of the site or increase the potential for establishment or survival of nuisance algae species in Lake Erie.”<sup>392</sup> The mere fact that algae blooms in Lake Erie recently impacted the Toledo water supply is not enough to show that the ER is materially deficient because it does not suggest how, after two decades of operation, Fermi 2 has now begun to contribute to larger algae blooms.<sup>393</sup> Although CRAFT noted that DTE used data from 2008 and

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<sup>387</sup> CRAFT Petition at 33.

<sup>388</sup> Id. at 32.

<sup>389</sup> Id.

<sup>390</sup> CRAFT Reply at 51.

<sup>391</sup> See Entergy Nuclear Generation Co. & Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), CLI-12-15, 75 NRC 704, 714–15 (2012) (explaining that petitioners must offer more than speculation at the contention admissibility stage).

<sup>392</sup> ER at 4-73.

<sup>393</sup> By contrast, the Fermi 3 Board admitted a contention about algae blooms because DTE’s statement that no *Lyngbya wollei* were present in the area did not explain whether the new Fermi 3 discharge pipe (with phosphoric acid as a corrosion inhibitor) would increase algae

2011, CRAFT has not provided sufficient support to suggest that new information about algae blooms in 2014 would lead to the conclusion that the continued operation of Fermi 2 will increase the likelihood of algae blooms near the site. Because CRAFT has not identified that information, this contention is inadmissible.<sup>394</sup>

### 13. CRAFT 13 – *Inadequate Radiation Protection Standards*

CRAFT seeks more stringent requirements on radioactive emissions in the form of “an ASLB recommendation to the NRC Commission to issue an Order to independently assess the adequacy of current and proposed U.S. EPA guidelines.”<sup>395</sup> CRAFT alleges that the EPA’s radiation limits for nuclear facilities set in 40 C.F.R. § 190 fail to protect children, particularly female infants.<sup>396</sup> But as the Staff and DTE correctly explained,<sup>397</sup> this Board lacks the authority to hold a hearing on the adequacy of a different agency’s regulations.<sup>398</sup> Accordingly, this contention is inadmissible.

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production. Detroit Edison Co. (Fermi Nuclear Power Plant, Unit 3), LBP-09-16, 70 NRC 227, 279-80 (2009). The Board granted DTE’s motion for summary disposition after the company provided an expert report demonstrating that the high and upward velocity of discharge water at Fermi 3 made it unlikely for harmful algae blooms to form because *Lyngbya wollei* grows in more sheltered areas. Detroit Edison Co. (Fermi Nuclear Power Plant, Unit 3), LBP-12-23, 76 NRC 445, 454–55 (2012).

<sup>394</sup> See USEC Inc. (American Centrifuge Plant), 63 NRC 451, 472–74 (2006) (holding that even if contention provided information not discussed in the ER, it was still not admissible because it failed to provide a reasoned basis or explanation for why the ER was wrong).

<sup>395</sup> CRAFT Petition at 34.

<sup>396</sup> Id.

<sup>397</sup> Staff Answer to CRAFT Petition at 81; DTE Answer at 51.

<sup>398</sup> 10 CFR § 2.309(f)(1)(iii); see Entergy Nuclear Generation Co. & Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), LBP-12-16, 76 NRC 44, 59–60 (2012).

14. *CRAFT 14 – Fermi Does Not Meet NEPA Standards*<sup>399</sup>

In its final contention, which concerns the risk of spent fuel fires, CRAFT alleges “that the Applicant’s Environmental Report (ER) utterly fails to address Severe Accident Mitigation Alternatives which could substantially reduce the risks and consequences associated with onsite storage of high level radioactive waste (HLRW), especially, spent fuel pool water loss and fires.”<sup>400</sup> Severe accidents involving the spent fuel pool must be addressed in the SAMA analysis because, CRAFT argues, the Generic Environmental Impact Statement (GEIS) for spent fuel pools covers only normal operations.<sup>401</sup> Therefore CRAFT maintains that the ER is inadequate insofar as it does not consider the risk of spent fuel pool fires.<sup>402</sup> CRAFT asks the Board to reconsider a ruling on a similar contention concerning spent fuel pools that was rejected in the Pilgrim proceeding.<sup>403</sup>

The Staff responds that this contention has already been rejected by the Commission, which concluded that severe accidents in the spent fuel pool are Category 1 issues that do not need to be included in the SAMA analysis.<sup>404</sup> DTE agrees with the Staff that the “Fermi 2 proceeding is not the proper forum for reconsidering decisions made in other proceedings.”<sup>405</sup>

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<sup>399</sup> In the petition, this contention referred to “EPA Standards.” In its reply, at 55, CRAFT stated that it intended to refer to “NEPA Standards.”

<sup>400</sup> CRAFT Petition at 36.

<sup>401</sup> Id. (citing Generic Environmental Impact Statement for License Renewal of Nuclear Plants, NUREG-1437 (2013) (ADAMS Accession No. ML13106A241)).

<sup>402</sup> Id.

<sup>403</sup> Id.; see Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), LBP-06-23, 64 NRC 257, 280–300 (2006).

<sup>404</sup> Staff Answer to CRAFT Petition at 82–85 (citing Pilgrim, CLI-07-03, 65 NRC at 21).

<sup>405</sup> DTE Answer at 52.

DTE also argues that the contention is an inadmissible challenge to the regulation designating spent fuel pools as a Category 1 issue.<sup>406</sup>

In its reply, CRAFT argues that the decisions in the Pilgrim proceeding incorrectly interpreted 10 C.F.R. § 51.53 and the GEIS.<sup>407</sup> CRAFT maintains that severe accidents, which are a Category 2 issue, cover any severe accident “based upon consequences as opposed to causes, thus incorporating spent fuel pool leaks and fires into the scope of the Applicant’s ER for a license renewal application.”<sup>408</sup>

This contention is inadmissible because the Commission has already rejected this precise argument.<sup>409</sup> The Commission concluded that the GEIS for spent fuel pools is “not limited to discussing only ‘normal operations,’ but also discusses potential accidents and other non-routine events.”<sup>410</sup> Thus the Commission ruled that spent fuel accidents do not need to be included in the SAMA analysis.<sup>411</sup> Because CRAFT has not offered any reason to distinguish this proceeding from the circumstances in the Commission’s decision, this contention is inadmissible.

## VI. Conclusion

The Board admits the part of Joint Petitioners’ Contention 4 reformulated as Contention JP4B. For the reasons given above, Joint Petitioners’ remaining contentions will not be admitted. Joint Petitioners are admitted as parties to this proceeding and their Request for a Hearing and Petition to Intervene is granted.

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<sup>406</sup> Id. (citing 10 C.F.R. Pt. 51, app. B).

<sup>407</sup> CRAFT Reply at 56.

<sup>408</sup> Id.

<sup>409</sup> See Pilgrim, CLI-10-14, 71 NRC at 473–76.

<sup>410</sup> Id. at 474.

<sup>411</sup> Id. at 474–75.

The Board grants the Staff's motion to strike with respect to CRAFT's incorporations-by-reference in support of Contentions 3, 4, 5, and 6. The motion is denied with respect to the arguments concerning Contentions 2 and 12. As described above, the Board admits narrowed portions of CRAFT's Contentions 2 and 8, and rejects CRAFT's remaining contentions. CRAFT is admitted as a party to this proceeding and its Request for a Hearing and Petition to Intervene is granted. All admitted contentions are listed in Appendix A.

This Order is subject to appeal to the Commission to the extent permitted by 10 C.F.R. § 2.311. Any petitions for review meeting applicable requirements set forth in that section must be filed within 25 days of service of this Memorandum and Order.

It is so ORDERED.

THE ATOMIC SAFETY  
AND LICENSING BOARD

*/RA/*

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Ronald M. Spritzer, Chairman  
ADMINISTRATIVE JUDGE

*/RA/*

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Dr. Gary Arnold<sup>412</sup>  
ADMINISTRATIVE JUDGE

*/RA/*

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Nicholas G. Trikouros  
ADMINISTRATIVE JUDGE

Rockville, Maryland  
February 6, 2015

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<sup>412</sup> Judge Arnold agrees with this decision, except for the admission of CRAFT's Contention 2. His separate views dissenting from the admission of that contention are attached.

## Appendix A – Admitted Contentions

### Contention JP4B:

The Fermi 2 Severe Accident Mitigation Alternatives analysis fails to evaluate the impact that a severe accident at Fermi 2 would have on the operation of the proposed nearby Fermi 3.

### Contention CRAFT 2:

The ER failed to consider whether members of the Walpole Island First Nation would be negatively affected by the renewal of the Fermi 2 operating license due to impacts on tribal hunting and fishing rights, especially with respect to the potential for the consumption of contaminated foods.

### Contention CRAFT 8:

The SAMA cost-benefit calculation is incorrect and thus inadequate because it did not properly account for the Canadian population within the 50-mile affected area of a Severe Accident.

## Separate Opinion of Judge Arnold

I signed this order because I am in full agreement with almost all of it. I disagree only with the admission of CRAFT Contention 2. The majority of the Board, stating that, "CRAFT's petition may not be a model of clarity or organization, but CRAFT is a *pro se* petitioner," rewrote the contention. I disagree even with that statement. I consider this contention, as drafted by CRAFT, is an excellent example of clarity and organization. It is organized into six titled sections, each one roughly addressing one of the contention admissibility criteria of 10 CFR § 2.309(f)(1).<sup>1</sup> It clearly advanced a contention concerning notification of the Walpole Island First Nation. The contention as drafted and filed did not need Board clarification.

CRAFT's Contention 2 was not about hunting and fishing in the area. Nor was it about an omission from the ER. I believe that the Board majority, in an overabundance of caution and deference to *pro se* petitioners, has crossed an ill-defined line and improperly assembled a contention from bits and pieces taken from the CRAFT Petition and from CRAFT's Reply. The resultant contention alleges that the ER fails to consider "impacts on the tribe's hunting and fishing rights, especially with respect to the potential for the consumption of contaminated foods."<sup>2</sup>

Regarding hunting and fishing, the contention as pled fails to provide a "specific statement of the issue of law or fact to be raised or controverted" reflecting this claim. Therefore

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<sup>1</sup> CRAFT Petition at 9–13. These sections are:

- A. Purpose of Contention
- B. Statement of the Issue
- C. Statement of Issues of Law and Fact to be Raised
- D. Brief Explanation of the Basis for the Contention
- E. Demonstration That the Issue Raised by the Contention is Within the Scope of the Proceeding and Material to the Findings the NRC Must Make to Support its Licensing Decision.
- F. Concise Statement of Facts or Expert Opinion Relied on to Show the Existence of a Genuine Dispute with the Applicant and the NRC Regarding the Adequacy of the License Extension Application.

<sup>2</sup> LBP-15-5, 81 NRC \_\_, \_\_ (slip op. at 37) (Feb. 6, 2014).

it fails the admissibility test of 10 CFR § 2.309(f)(1)(i). The statement of this contention provided by CRAFT is “Walpole Island First Nations’ exclusion from proceedings.”<sup>3</sup> CRAFT explains this, “[w]hile it appears that NRC notified a number of Native American tribes across Michigan . . . it seems that NRC did not notify numerous Native American tribes, bands, and First Nations in the area of concern.”<sup>4</sup> There is no mention of hunting or fishing, nor even of the ER in the contention statement. There is no statement in the contention as pled that I can reasonably interpret to mean “the ER fails to discuss Native American hunting and fishing rights in the region of Fermi 2.” Nor is there any statement claiming that such any such discussion is inadequate.

CRAFT provided a very clear explanation of the contention they proposed:

“A. Purpose of Contention

To ensure that all Native American tribes and bands and First Nations have adequate notification by NRC of the proposed Fermi 2 licensing extension and environmental review proceedings, as due to them under applicable treaties, laws, and regulations; and to ensure that individual tribal members’ interests are represented whether their tribal government intervenes or not on their behalf.”<sup>5</sup>

This clearly states the sole purpose of the contention is to protect the Tribe’s right to participate. Nowhere in this section does CRAFT make any reference to hunting or fishing.

Under a section of the contention titled, “Statement of Issues of Law and Fact to be Raised,” CRAFT discusses the NEPA requirement “to notify affected Native American tribes of pending significant proposals and actions,” and the regulatory requirement for the “NRC to invite any affected Indian tribe to participate in the environmental scoping process.”<sup>6</sup> But nowhere in

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<sup>3</sup> CRAFT Petition at 9.

<sup>4</sup> Id.

<sup>5</sup> Id.

<sup>6</sup> Id. at 10. This section of the CRAFT petition does, however, note that the Indian Tribes were granted hunting and fishing rights in a treaty signed in 1808. Id.

this section does CRAFT discuss any requirement for the ER to accurately report land and water use, local hunting or fishing, or Native American hunting and fishing rights.

Under the section of the contention titled, “Brief Explanation of the Basis for the Contention,” CRAFT discusses issues concerning notification of Indian tribes.<sup>7</sup> But nowhere in this section is either hunting or fishing mentioned.

In the section of the petition explaining that the contention was within the scope, and material to the proceeding, CRAFT makes two references to hunting and fishing:

“Walpole Island First Nation, and many, perhaps all, of the tribes which NRC notified or did not notify that have been mentioned above, likely have hunting and fishing rights. . .”<sup>8</sup>

“Given that numerous species of fish, wild game, and migratory bird consumed as food by Walpole Island First Nation sped [sic] a part of their life cycle at or near the Fermi 2 site, whether in the surrounding surface waters or on land, Fermi 2’s radiological, toxic chemical and thermal pollution negatively impacts the food supply of the Walpole Island First Nation.”<sup>9</sup>

These statements may give the impression that the contention concerns hunting and fishing, but this misimpression is corrected two paragraphs later:

“[G]iven the native [sic] impacts upon such treaty rights as hunting and fishing near the Fermi 2 nuclear reactor site, especially in Lake Erie, all the affected tribes of Michigan, Wisconsin, Oklahoma, Ontario, and beyond should have been notified by NRC of their opportunity to intervene against the Fermi 2 license extension . . . .”<sup>10</sup>

The references to hunting and fishing were made to support CRAFT’s position that the notification contention was within the scope of, and material to, the proceeding.

Finally, in CRAFT’s original discussion of Contention 2 there is no claim that any information is missing from the ER, nor is there reference to the ER’s existing discussion of subsistence hunting and fishing in the region.

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<sup>7</sup> Id. at 11.

<sup>8</sup> Id. at 12.

<sup>9</sup> Id.

<sup>10</sup> Id.

In order for a contention to be admissible, it is necessary that Petitioners, “[p]rovide a concise statement of the alleged facts or expert opinions which support the requestor’s/petitioner’s position on the issue and on which the petitioner intends to rely at hearing.”<sup>11</sup> The Commission has provided additional guidance on the need for supporting facts to be provided at the onset:

“Petitioners may not raise entirely new arguments in a reply brief unless the standards for late-filed contentions are met. And even if those standards are satisfied, **support for a contention must be provided when the contention is filed, not at some later date.**”<sup>12</sup>

The original contention provided no support for the assertion that Walpole Nation Indians either fished or hunted in the region of Fermi 2.

In their Reply, Petitioners do not mention either hunting or fishing. Instead they support their contention challenging that the Walpole Island Indians “should have been notified as a sovereign government whose low-income, minority people would be devastated by an accident at the Fermi 2 reactor.”<sup>13</sup> They include a letter from the chief of the Walpole Island First Nation, which states that members of their tribe hunt and fish in the area around Fermi 2. But this letter was written after the Petition was submitted. This contravenes the Commission direction that “support for a contention must be provided when the contention is filed, not at some later date.”<sup>14</sup>

The Board majority also cites to declarations submitted from 32 tribal members claiming treaty rights to hunt and fish in the area of Fermi 2.<sup>15</sup> Of the 51 declarations accompanying the petition, 31 of these were submitted by individuals claiming tribal association, and only one of

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<sup>11</sup> 10 C.F.R. § 2.309(f)(1)(v).

<sup>12</sup> Oyster Creek, CLI-09-7, 69 NRC at 276 (emphasis added).

<sup>13</sup> CRAFT Reply at 20.

<sup>14</sup> Oyster Creek, CLI-09-7, 69 NRC at 276.

<sup>15</sup> LBP-15-5, 81 NRC \_\_, \_\_ (slip op. at 46-48) (Feb. 6, 2014).

these claimed to be a member of the Walpole Island First Nation. And these 31 only state that they have hunting and fishing rights, but do not say they exercise those rights or are concerned that these rights may be disturbed by relicensing Fermi 2.

On the whole, I believe that CRAFT Contention 2 as admitted by the Board majority did not exist in the original CRAFT pleading. It was created by the Board majority using information provided in the contention and in CRAFT's reply. I am not arguing that the reformulated contention does not meet the criteria for admission, only that it was not pled by petitioners and does not reflect the intention of the original contention.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of )  
 )  
DTE ELECTRIC COMPANY ) Docket No. 50-341-LR  
 )  
(Fermi 2) )  
 )  
(License Renewal) )

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing **MEMORANDUM AND ORDER (Ruling on Petitions to Intervene and Requests for a Hearing)** have been served upon the following persons by Electronic Information Exchange.

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FERMI 2 (Docket No. 50-341-LR)

**MEMORANDUM AND ORDER (Ruling on Petitions to Intervene and Requests for a Hearing)**

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

Dated at Rockville, Maryland,  
this 6<sup>th</sup> day of February, 2015