## UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

#### BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:	)		
DTE Electric Company	)	Docket No. 50-341-LR	
(Fermi Nuclear Power Plant, Unit 2)	)		

# DTE ELECTRIC COMPANY ANSWER OPPOSING PETITIONS TO INTERVENE AND REQUESTS FOR HEARING

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#### **INTRODUCTION**

Pursuant to 10 C.F.R. § 2.309(i), DTE Electric Company ("DTE") answers the requests for hearing and petitions to intervene filed by (1) Don't Waste Michigan, Citizens Environment Alliance of Southwestern Ontario, and Beyond Nuclear, (collectively, "DWM") and (2) Citizens' Resistance at Fermi 2 ("CRAFT"). Neither DWM nor CRAFT have offered an admissible contention. As discussed below, the proposed contentions are unsupported, fail to establish a genuine dispute with the Fermi 2 application, or raise issues outside the scope of a license renewal proceeding. The Atomic Safety and Licensing Board ("Board") should deny both petitions in their entirety.

<sup>&</sup>quot;Petition for Leave to Intervene and Request for Hearing of Don't Waste Michigan, Citizens Environment Alliance of Southwestern Ontario and Beyond Nuclear," August 18, 2014 ("DWM Pet.").

<sup>&</sup>quot;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," August 18, 2014 ("CRAFT Pet.").

### **REGULATORY BACKGROUND**

#### A. <u>Contention Admissibility Requirements</u>

In addition to establishing standing under 10 C.F.R. § 2.309(d), a petitioner must proffer at least one contention that meets the admissibility standards in 10 C.F.R. § 2.309(f)(1)(i)-(vi).<sup>3</sup> A proposed contention must contain:

- (i) A specific statement of the issue of law or fact raised;
- (ii) A brief explanation of the basis for the contention;
- (iii) A demonstration that the issue is within the scope of the proceeding;
- (iv) A demonstration that the issue is material to the findings that the NRC must make regarding the action which is the subject of the proceeding;
- (v) A concise statement of the alleged facts or expert opinions supporting the contention; and
- (vi) Sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact.

The purpose of these six criteria is to "focus litigation on concrete issues and result in a clearer and more focused record for decision." 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." As a result, the contention

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The seventh contention admissibility requirement, 10 C.F.R. § 2.309(f)(1)(vii), only applies in proceedings arising under 10 C.F.R. § 52.103(b), and therefore has no bearing on the admissibility of the Petitioners' contentions in this proceeding.

<sup>&</sup>lt;sup>4</sup> "Changes to Adjudicatory Process; Final Rule," 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004).

<sup>&</sup>lt;sup>5</sup> 69 Fed. Reg. at 2202.

admissibility standards are "strict by design." Failure to comply with any one of the six admissibility criteria is grounds for rejecting a proposed contention.

A petitioner bears the burden to present the factual information or expert opinions necessary to support its contention adequately, and failure to do so requires the Board to reject the contention. Where a petitioner neglects to provide the requisite support for its contentions, a Board may not make assumptions of fact that favor the petitioner or supply information that is lacking. And, where factual information or expert opinion is proffered in support of a contention, "the Board is not to accept uncritically the assertion that a document or other factual information or an expert opinion supplies the basis for a contention." The Board must examine documents to confirm that they support the proposed contentions. A petitioner's imprecise reading of a document cannot be the basis for a litigable contention.

A contention that merely states a conclusion (e.g., the application is deficient, inadequate, or wrong) without providing a reasoned basis or explanation for why the application

Dominion Nuclear Conn., Inc. (Millstone Nuclear Power Station, Units 2 & 3), CLI-01-24, 54 NRC 349, 358 (2001).

<sup>&</sup>lt;sup>7</sup> 69 Fed. Reg. at 2221.

<sup>&</sup>lt;sup>8</sup> 10 C.F.R. § 2.309(f)(1)(v); *Yankee Atomic Elec. Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 262 (1996).

Ariz. Pub. Serv. Co. (Palo Verde Nuclear Station, Units 1, 2, & 3), CLI-91-12, 34 NRC 149, 155 (1991).

Private Fuel Storage, (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 181 (1998).

Vt. Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), ALAB-919,
30 NRC 29, 48 (1989), vacated in part on other grounds and remanded, CLI-90-4, 31
NRC 333 (1990).

Ga. Inst. of Tech. (Georgia Tech Research Reactor, Atlanta, Ga.), LBP-95-6, 41 NRC 281, 300 (1995).

is adequate cannot provide a basis for the contention.<sup>13</sup> A contention "will be ruled inadmissible if the petitioner 'has offered no tangible information, no experts, no substantive affidavits,' but instead only 'bare assertions and speculation.'"<sup>14</sup> Instead, to show a genuine dispute with the applicant on a material issue of law or fact, a petitioner must "read the pertinent portions of the license application . . . [and] state the applicant's position and the petitioner's opposing view," and explain why it disagrees with the applicant.<sup>15</sup> If a petitioner believes the license application fails to adequately address a relevant issue, then the petitioner must "explain why the application is deficient."<sup>16</sup> A contention that does not directly controvert a position taken in the application must be dismissed.<sup>17</sup>

#### B. Scope of License Renewal Proceeding

To be admissible, a contention must raise an issue within the scope of the proceeding. The scope of a license renewal proceeding is defined by the safety review under 10 C.F.R. Part 54 and the environmental review under 10 C.F.R. Part 51.

USEC, Inc. (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 472 (2006) (internal citations omitted).

Fansteel, Inc. (Muskogee, Oklahoma, Site) CLI-03-13, 58 NRC 195, 203, quoting GPU Nuclear (Oyster Creek Nuclear Generating Station), CLI-00-06, 51 NRC 193, 208 (2000).

<sup>&</sup>quot;Rules of Practice for Domestic Licensing Proceedings -- Procedural Changes in the Hearing Process; Final Rule," 54 Fed. Reg. 33,168, 33,170 (Aug. 11, 1989); see also Millstone, CLI-01-24, 54 NRC at 358.

<sup>&</sup>lt;sup>16</sup> *Palo Verde*, CLI-91-12, 34 NRC at 156.

Tex. Utils. Elec. Co. (Comanche Peak Steam Electric Station, Unit 2), LBP-92-37, 36 NRC 370, 384 (1992).

<sup>&</sup>lt;sup>18</sup> Portland Gen. Elec. Co. (Trojan Nuclear Plant), ALAB-534, 9 NRC 287, 289 n.6 (1979).

#### 1. Safety Review

The license renewal safety review is limited to the plant systems, structures, and components (as delineated in 10 C.F.R. § 54.4) that require an aging management review for the period of extended operation or are subject to time-limited aging analyses ("TLAAs"). Only "passive" structures and components — those that perform their intended functions without moving parts or change in configuration, that are "long lived," and that serve or could impact various safety functions — are within the scope of license renewal. The operability of "active" equipment or equipment with a defined replacement term is assured on a routine basis by ongoing surveillance and maintenance programs and is not subject to aging effects unique to the period of extended operation.

A fundamental principle of license renewal is that the Current Licensing Basis ("CLB") of an operating plant provides an acceptable level of safety and that the NRC's ongoing regulatory process is adequate to ensure compliance with the CLB.<sup>20</sup> As the Commission explained in *Turkey Point*:

[CLB is] a term of art comprehending the various Commission requirements applicable to a specific plant that are in effect at the time of the license renewal application ... The [CLB] represents an "evolving set of requirements and commitments for a specific plant that are modified as necessary over the life of a plant to ensure continuation of an adequate level of safety." 60 Fed. Reg. at 22,473. It is effectively addressed and maintained by ongoing agency oversight, review, and enforcement.<sup>21</sup>

<sup>&</sup>lt;sup>19</sup> 10 C.F.R. §§ 54.21(a) and (c), 54.29, and 54.30.

<sup>&</sup>quot;Nuclear Power Plant License Renewal; Final Rule," 56 Fed. Reg. 64,943, 64,946 (Dec. 13, 1991). The term "current licensing basis" is defined in 10 C.F.R. § 54.3.

Fla. Power & Light Co. (Turkey Point Nuclear Generating Station, Units 3 & 4), CLI-01-17, 54 NRC 3, 9 (2001).

The Commission concluded that requiring a full reassessment of safety issues that were "thoroughly reviewed when the facility was first licensed" and continue to be "routinely monitored and assessed by ongoing agency oversight and agency-mandated licensee programs" would be "both unnecessary and wasteful." Issues that are related to current operations (and implementation of existing programs) are addressed through ongoing regulatory processes and are not deferred until the license renewal period.

A second and equally important principle of license renewal holds that the plant-specific licensing basis must be maintained during the renewal term in the same manner and to the same extent as during the original licensing term.<sup>23</sup> This principle is "accomplished, in part, through a program of age-related degradation management for systems, structures, and components that are important to license renewal."<sup>24</sup> Accordingly, ongoing implementation of programs and regulatory oversight are presumed.

At bottom, the scope of the license renewal review is necessarily limited because, "with the exception of the detrimental effects of aging and a few other issues related to safety only during the period of extended operations, the [NRC's] existing regulatory processes are sufficient to ensure that the licensing bases of operating plants provide an acceptable level of safety to protect the public health and safety."<sup>25</sup> The scope of review under 10 C.F.R. Part 54 "is confined to the small number of issues uniquely determined by the Commission to be relevant for protecting the public health and safety during the renewal term, leaving all other issues to be

<sup>22</sup> *Id.* at 7.

<sup>&</sup>lt;sup>23</sup> "Nuclear Power Plant License Renewal; Revisions, Final Rule" 60 Fed. Reg. 22,461, 22,464 (May 8, 1995).

<sup>&</sup>lt;sup>24</sup> *Id*.

<sup>25</sup> *Id.* at 22,464.

addressed by the agency's existing regulatory processes."<sup>26</sup> The NRC's license renewal regulations thus deliberately reflect the distinction between *aging management issues* to be addressed in license renewal and operational issues addressed by the *ongoing regulatory process* (*e.g.*, inspection and oversight).

#### 2. Environmental Review

The NRC's review of environmental issues for license renewal is limited in accordance with 10 C.F.R. §§ 51.71(d) and 51.95(c).<sup>27</sup> In the License Renewal GEIS, the NRC documented its evaluation of generic environmental impacts, which are well understood based on experience gained from the operation of the existing fleet of U.S. nuclear power plants. The GEIS classifies certain environmental issues as "Category 1" issues, which means that "the Commission resolved the issues generically for all plants and those issues are not subject to further evaluation in any license renewal proceeding."<sup>28</sup> In contrast, an applicant must address environmental issues for which the Commission was not able to make generic environmental findings. The GEIS refers to these issues as "Category 2," or "plant specific," issues.

The NRC's rules provide limited opportunities (*e.g.*, apply for waiver) to address new and significant environmental information that might render the NRC's prior generic finding invalid. Absent action by the Commission, a Category 1 environmental issue — even if based on

Fla. Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-06, 53 NRC 138, 152 (2001) (emphasis added).

See also NUREG-1437, Rev. 1, "Generic Environmental Impact Statement (GEIS) for License Renewal of Nuclear Plants" ("License Renewal GEIS"); "License Renewal of Nuclear Power Plants; Generic Environmental Impact Statement and Standard Review Plans for Environmental Reviews," 78 Fed. Reg. 37,325 (June 20, 2013).

<sup>&</sup>lt;sup>28</sup> *Turkey Point*, LBP-01-06, 53 NRC at 152-53.

allegedly new and significant information — does not need to be addressed in a site-specific environmental review and cannot be adjudicated in a plant-specific license renewal proceeding.<sup>29</sup>

#### **DISCUSSION**

#### A. DWM Has Not Offered Any Admissible Contentions

### 1. Contention DWM-1: Inadequate SAMA Analysis of BWR Mark I Vulnerabilities

In Contention DWM-1, DWM alleges that DTE's Environmental Report ("ER") "fails to accurately and thoroughly conduct [a 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." DWM asserts that the SAMA analysis "does not acknowledge, analyze or factor in and otherwise

Exelon Generation Co., LLC (Limerick Generating Station, Units 1 and 2), CLI-13-07, 76 NRC \_\_, \_\_ (Oct. 31, 2013) (slip op. at 3), citing Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), CLI-07-03, 65 NRC 13, 17, 20 (2007).

<sup>30</sup> DWM Pet. at 6. The NRC determined in the License Renewal GEIS that the probabilityweighted consequences of atmospheric releases, fallout onto open bodies of water, releases to groundwater, and societal and economic impacts from severe accidents are SMALL for all plants. However, alternatives to mitigate severe accidents (SAMAs) must be considered for all plants that have not considered such alternatives, including Fermi 2. The Fermi 2 SAMA analysis is described in ER Section 4.9.3.4 (at 4-55) and detailed in Appendix D. For the SAMA analysis, DTE used the Fermi 2 Probabilistic Risk Assessment ("PRA") model output as input to an NRC-approved methodology that calculates economic costs and dose to the public from hypothesized releases from the Fermi 2 containment structure to the environment. Then, using NRC regulatory analysis techniques, DTE calculated the monetary value of the unmitigated severe accident risk for Fermi 2. The result represents the monetary value of the base risk of dose to the public and workers, offsite and onsite economic impacts, and replacement power. The value became a cost/benefit screening tool for potential SAMAs. A SAMA whose implementation cost exceeds the base risk value is not cost-beneficial. For Fermi 2, one SAMA was found to be cost-beneficial, while three additional SAMAs were identified as potentially cost-beneficial as part of a sensitivity analysis.

ignores the long-recognized vulnerability of the GE Mark I boiling water reactor pressure suppression containment system, now confirmed by post-Fukushima Daiichi consequences."<sup>31</sup>

Contention DWM-1 is inadmissible. At its core, DWM-1 is a contention of omission, alleging that "a potentially cost effective mitigation alternative is not being considered to prevent or reduce the environmental impacts of [a severe] accident." Specifically, DWM asserts that the SAMA analysis "fails to take into account, analyze and consider [an external engineered filtered venting system]" and that, as a result, the SAMA analysis is incomplete and inadequate. DWM also alleges that "the absence of analysis and neglect of mitigating alternatives, including engineered external high-capacity filters on hardened containment vents," may result in releases of radioactivity to the environment that have not been accurately or thoroughly weighed in the probability of a severe accident and its real consequences. As discussed below, this part of the contention is inadmissible because the alleged omission is in fact addressed in the Fermi 2 SAMA analysis and because DWM has provided no factual or expert information to dispute the SAMA analysis.

As discussed in the ER, Appendix D, DTE carefully considered a filtered vent in its SAMA analysis. Specifically, SAMA 123 considers installation of a filtered containment vent and evaluates the change in plant risk from installing a filtered containment vent that decreases the concentration of all radionuclides, excluding noble gases, by fifty percent.<sup>35</sup> As

DWM Pet. at 8.

<sup>&</sup>lt;sup>32</sup> *Id*.

<sup>&</sup>lt;sup>33</sup> *Id.* at 13.

<sup>34</sup> *Id.* at 8.

<sup>&</sup>lt;sup>35</sup> ER at D-120.

described in Table D-2.1, Summary of Phase II SAMA Candidates, the averted cost risk associated with the SAMA is \$1,102,769.<sup>36</sup> But, because the cost estimate for installation of the filtered vent is \$40,000,000, SAMA 123 is not cost-beneficial. Because DTE in fact considered the SAMA that DWM alleges to be omitted, this portion of the contention is inadmissible.

DWM also complains that the "radiological consequences to the environment as a result of venting containment during a severe accident without an external engineered filtration system post-fuel damage are not thoroughly or adequately analyzed in the Applicant's SAMA."<sup>37</sup> DWM asserts, without supporting basis, that the "Applicant's ER SAMA alternatives at Table D.1.5 are overly and unrealistically optimistic by not anticipating the potential for fuel damage in the analysis and do not thoroughly or adequately address the failure of the pressure suppression containment with the uncontrolled and unfiltered radiological releases to the environment."38 This portion of the contention fails because DWM presents no factual or expert support for its claims. DWM does not challenge any specific portion of the models used to assess radiological consequences, nor does it allege any specific deficiencies in the SAMA analysis. According to the Commission, a petitioner must approximate the relative cost and benefit of a challenged SAMA in order to justify an adjudicatory hearing.<sup>39</sup> A petitioner must at least present some notion of a difference in the results and provide at least some ballpark consequence and

<sup>36</sup> *Id.* at D-137.

<sup>37</sup> DWM Pet. at 21.

Id., citing ER, Table D.1.5, at D-45.

<sup>39</sup> Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-17, 56 NRC 1, 11-12 (2002).

implementation costs should the SAMA be performed.<sup>40</sup> Here, DWM has not directly challenged the inputs to the SAMA analysis, the SAMA analysis itself, or its conclusions, or provided any information regarding the potential costs or benefits associated with installation of a filtered vent. DWM's conclusory assertions cannot support an admissible contention. Given the absence of supporting information, this portion of proposed Contention DWM-1 should be rejected.<sup>41</sup>

Lastly, DWM alleges that DTE fails to comply with 10 C.F.R. Part 50, Appendix A, General Design Criteria ("GDC") 16, *Containment design*. DWM asserts that the Fukushima Daiichi nuclear power plant accident demonstrates that the "maximum credible accident" needs to be "updated" and "incorporated into the Fermi-2 license renewal request." This aspect of DWM-1 raises a challenge to the CLB that is outside the scope of a license renewal proceeding. License renewal, by its very nature, contemplates a limited inquiry — *i.e.*, the safety and environmental consequences of an additional 20-year operating period. License renewal

Entergy Nuclear Operations, Inc. (Indian Point, Units 2 & 3), LBP-08-13, 68 NRC 43, 104-05.

The licensing board in the *Pilgrim* license renewal proceeding denied a similar contention alleging that the Pilgrim SAMA analysis inadequately considering filtered vents. *Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), CLI-12-06, 75 NRC 352, 372, *citing Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), LBP-11-35, 74 NRC 701, 752-53. The Board rejected the claims concerning filtered vents, finding that Massachusetts failed to demonstrate the likelihood of a materially different result because it had not discussed the relative costs and benefits of adding filters. The Commission affirmed the Board decision and further noted that filtered vents already were considered as a SAMA candidate and that, like DWM-1, Massachusetts' contention and its supporting material did not acknowledge, let alone challenge, the existing analysis. *Pilgrim*, CLI-12-06, 75 NRC at 372.

DWM Pet. at 13.

<sup>43</sup> Turkey Point, CLI-01-17, 54 NRC at 6-13.

focuses on <u>aging</u> issues, not on current operating issues.<sup>44</sup> The Commission has confined Part 54 to those issues uniquely relevant to the public health and safety during the period of extended operation, leaving <u>all other safety issues</u> to be addressed by the existing regulatory processes.<sup>45</sup>

License renewal's limited scope is based on the principle established in the original Part 54 rulemaking that the NRC's ongoing regulatory process is adequate to ensure compliance with the CLB and to maintain an adequate level of safety during the renewal term.<sup>46</sup> Consequently, the license renewal review does not consider current operational or compliance issues because these issues "are effectively addressed … by ongoing agency oversight, review, and enforcement."<sup>47</sup> The proposed contention clearly raises an issue of current compliance with

Both the licensees' programs for ensuring safe operation and the Commission's regulatory oversight have been effective in identifying and correcting plant-specific non-compliances with the licensing bases. These programs will continue to be implemented throughout the remaining term of the operating license, as well as the term of any renewed license. In view of the comprehensiveness, effectiveness, and continuing nature of these programs, the Commission concludes that license renewal should not include a new, broad-scoped inquiry into compliance that is separate from and parallel to the Commission's ongoing compliance oversight activity.

56 Fed. Reg. 64,943, 64,952.

*Id.* at 7, 9-10.

<sup>&</sup>lt;sup>45</sup> 60 Fed. Reg. at 22,463; see also Turkey Point, LBP-01-06, 53 NRC 138, 152 (2001).

<sup>&</sup>lt;sup>46</sup> 60 Fed. Reg. at 22,464, 22,481-82.

Dominion Nuclear Conn., Inc. (Millstone Nuclear Power Station, Units 2 & 3), CLI-04-36, 60 NRC 631, 638 (2004). Indeed, the Commission has made clear that license renewal reviews should not duplicate the Commission's ongoing compliance oversight:

GDC 16 and not one involving the effects of aging.<sup>48</sup> The portion of DWM-1 alleging non-compliance with GDC 16 is inadmissible.

### 2. Contention DWM-2: Inadequate Consideration Under NEPA of Densely-Packed Spent Fuel Storage Pools

In contention DWM-2, DWM claims that the ER is deficient 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>49</sup> The proposed contention is based in large part on Chairman Macfarlane's vote on COMSECY-13-0030, "Staff Evaluation and Recommendation for Japan Lessons-Learned Tier 3 Issue on Expedited Transfer of Spent Fuel." The Chairman disapproved the NRC Staff's recommendation to "eliminate further generic assessment of the expedited transfer of spent fuel as it relates to broader spent fuel management alternatives." DWM focuses on the Chairman's views of the range of potential contamination events and environmental costs resulting from a spent fuel pool fire that are influenced by factors

[A]llegations that the implementation of a licensee's proposed actions to address age-related degradation . . . has or will cause noncompliance with the plant's current licensing basis during the period of extended operation, or that the failure of the licensee to address age-related degradation . . . in a particular area has or will cause such noncompliance during the period of extended operation would be valid subjects for contention, since the claim essentially questions the adequacy of the licensee's program to address age-related degradation.

56 Fed. Reg. at 64,952 n.1.

The Commission indicated that there would be two situations where specific allegations of non-compliance might be relevant to a license renewal proceeding, but neither of these situations is applicable here:

<sup>&</sup>lt;sup>49</sup> DWM Pet. at 26.

Vote of Chairman Macfarlane on COMSECY-13-0030, April 8, 2014. While Chairman Macfarlane disapproved the Staff's recommendation, a majority of the Commission approved it.

such as the distribution of recently-discharged fuel in the pool, the pool's cesium content, post-accident water make-up capabilities, and successful evacuation during an event.<sup>51</sup> DWM asserts that these factors constitute mitigative measures that should be — but have not been — considered in the ER.<sup>52</sup> DWM also argues that the National Environmental Policy Act ("NEPA") requires the social and economic effects of spent fuel pool fires to be considered, which could justify reducing the density of spent fuel in the Fermi 2 pool.<sup>53</sup>

Notwithstanding Chairman Macfarlane's vote on the COMSECY (which addressed generic policy issues related to current operations), the aspects of DWM-2 disputing the environmental impacts of spent fuel storage accidents are inadmissible. Spent fuel storage is a Category 1 issue.<sup>54</sup> 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." For spent fuel pools specifically, the Commission explained that, because the probability of a spent fuel pool accident causing

DWM Pet. at 27.

Id. at 27-28, 32. In effect, DWM alleges a contention of omission related to the absence of a discussion of spent fuel pool mitigation alternatives in the ER. As discussed below, there is no omission because spent fuel pool storage is a Category 1 issue.

Id. at 28. DWM relies on incorrect facts regarding the status of the Fermi 2 spent fuel pool. For example, DWM states that DTE has "inadequate means of removing [spent fuel] and placing it into dry cask storage." Id. at 33. To the contrary, just recently, DTE successfully removed spent fuel from the pool and placed the first spent fuel canister on the dry cask storage pad. See generally, Letter from J. Todd Conner, Site Vice President, Fermi 2, to NRC, "Fermi 2 ISFSI Decommissioning Funding Plan" (July 2, 2014) (ML14183B584) (the ISFSI Decommissioning Funding Plan must be provided to the NRC in advance of the date that the first spent fuel storage cask is used to store spent fuel).

<sup>&</sup>lt;sup>54</sup> 10 C.F.R. Part 51, Appendix B, Table B-1; 10 C.F.R. § 51.53(c)(3)(i).

Vermont Yankee, CLI-07-03, 65 NRC at 21 (internal footnote omitted), citing Turkey Point, CLI-01-17, 54 NRC at 21-22.

significant harm is remote, there is no need for applicants to assess spent fuel pool accident mitigation alternatives as part of license renewal.<sup>56</sup>

DWM asserts that changes in the 2013 License Renewal GEIS call into question the NRC's prior conclusions regarding the need to assess mitigation alternatives for spent fuel pool fires.<sup>57</sup> Citing a statement in the current License Renewal GEIS that the environmental impacts from spent fuel pool accidents are comparable to those of full-power reactor accidents, DWM claims that mitigation measures for pool fires could now be found to be cost-effective.<sup>58</sup> But the 2013 update to the License Renewal GEIS in fact shows the risks and impacts of spent fuel pool fires are less than full-power accidents. The GEIS states that the environmental impacts from spent fuel pool accidents (as quantified in NUREG-1738, "Technical Study of Spent Fuel Pool Accident Risk at Decommissioning Nuclear Power Plants," February 2001) can be comparable to those from full-power reactor accidents. But it goes on to find that "[s]ubsequent analyses performed and mitigative measures employed since 2001 have further lowered the risk of this class of accidents. In addition, the conservative estimates from NUREG-1738 are much less than the impacts from full-power reactor accidents that are estimated in the 1996 GEIS."59 Because the risks are even lower than those previously considered by the Commission, there is no basis for the Petitioners' claim that additional mitigation measures for pool fires could now be cost-effective.

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Id.

<sup>57</sup> DWM Pet. at 29.

Id. DWM states that "the NRC has never found mitigation of pool fire impacts [to] be cost effective because of the low probability of a pool fire." *Id.* 

NUREG-1437, Rev. 1, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants," (June 2013) at 4-161 and E-34 – E-39 (emphasis added).

DWM also relies on the Waste Confidence rulemaking to support its contention, arguing that an analysis of the "technical feasibility and availability of a repository" is necessary to issue a renewed license. Petitioners argue that without a final Waste Confidence rule, there is no generic conclusion upon which to rely regarding offsite radiological impacts of spent fuel disposal. As discussed more fully below in response to contention DWM-3, the Commission has approved issuance of a final rule (now called the "Continued Storage of Spent Nuclear Fuel" rule) and the NRC has issued the accompanying Generic Environmental Impact Statement ("Continued Storage GEIS") assessing the impacts of continued storage of spent nuclear fuel pending disposal. The Statement of Considerations for the final rule and the Continued Storage GEIS reaffirm the technical feasibility and expected availability of a geologic repository to dispose of spent nuclear fuel. As a result, the portion of DWM-2 relying on the pending Waste Confidence rulemaking is now moot.

<sup>60</sup> DWM Pet. at 28.

<sup>61</sup> *Id*.

Staff Requirements – Affirmation Session, SECY-14-0072 – Final Rule: Continued Storage of Spent Fuel (RIN 3150-AJ20) (Aug. 26, 2014); NUREG-2157, "Generic Environmental Impact Statement for Continued Storage of Spent Nuclear Fuel," (Sept. 2014). Additionally, the Continued Storage rule amends Table B-1 of 10 C.F.R. Part 51 with respect to the environmental impacts of offsite spent fuel disposal. In the 2013 License Renewal GEIS, the NRC classified onsite spent fuel storage as a Category 1 issue. But due to the pending Waste Confidence rulemaking at the time, the NRC could not classify the impacts of offsite spent fuel disposal. The Continued Storage rule resolves this issue by also classifying offsite spent fuel disposal as a Category 1 issue.

See SECY-14-0072 – Final Rule: Continued Storage of Spent Fuel (RIN 3150-AJ20) (July 21, 2014). Publication of the final rule in the *Federal Register* is scheduled to occur by October 3, 2014. See Waste Confidence Update Schedule, available at <a href="http://www.nrc.gov/waste/spent-fuel-storage/wcd/schedule.html">http://www.nrc.gov/waste/spent-fuel-storage/wcd/schedule.html</a> (last visited Sept. 12, 2014).

# 3. Contention DWM-3: Lack of Site-Specific Safety and Environmental Findings Regarding Storage and Disposal of Spent Fuel

Contention DWM-3 alleges that the Fermi 2 ER fails to satisfy the Atomic Energy Act and NEPA because it makes no safety or environmental findings regarding storage and disposal of spent nuclear fuel generated during the period of extended operation, and because the NRC has no valid findings upon which the ER can rely.<sup>64</sup> DWM premised the contention on the fact that, at the time DWM filed its Petition, the NRC had not yet issued a final rule to replace the previous Waste Confidence rule vacated in *New York v. NRC*, 681 F.3d 471 (D.C. Cir. 2012). DWM states, "[u]nless and until the NRC replaces the generic findings vacated by the Court of Appeals or DTE conducts its own analysis, the NRC has no lawful basis for re-licensing Fermi 2."<sup>65</sup> The factual predicate on which the contention was based has changed, rendering the contention moot.

On August 26, 2014, the Commission affirmed the revised Continued Storage of Spent Nuclear Fuel rule (formerly known as the "Waste Confidence" rule) and the associated Continued Storage GEIS.<sup>66</sup> The Commission therefore approved a final rule addressing the environmental impacts (and safety bases) for the continued storage of spent fuel and responded to the D.C. Circuit's remand.<sup>67</sup> The final rule is scheduled to be published in the *Federal* 

<sup>64</sup> DWM Pet. at 33.

<sup>65</sup> *Id.* at 34.

Staff Requirements – Affirmation Session, SECY-14-0072 – Final Rule: Continued Storage of Spent Fuel (RIN 3150-AJ20) (Aug. 26, 2014).

As described in footnote 62, *supra*, the Continued Storage rule amends Table B-1 of 10 C.F.R. Part 51 by classifying the environmental impacts of offsite spent fuel disposal as a Category 1 issue. This forecloses even further the ability of DWM to challenge spent fuel storage and disposal issues in this proceeding.

*Register* by October 3, 2014, and will become effective 30 days after publication.<sup>68</sup> There remains no dispute to be litigated, and the contention is now moot.

In approving issuance of the final rule, the Commission also directed licensing boards to dismiss all pending Waste Confidence-related contentions including in license renewal cases.<sup>69</sup> The Commission also lifted the suspension on all final licensing decisions affected by the Continued Storage rule as of the final rule's effective date.<sup>70</sup> There is therefore no basis to admit the proposed contention or hold it in abeyance. Proposed DWM-3 should be dismissed outright.

# 4. Contention DWM-4: Insufficient SAMA Analysis of Potential Fermi 2 and 3 Common-Mode Failures and Mutually Exacerbating Catastrophes

DWM alleges that the Fermi 2 license renewal application inadequately addresses "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." According to DWM, in addition to "the significantly increased risks represented by a breakdown phase reactor (the age-degraded Fermi 2 General Electric Mark I BWR) being located immediately adjacent to a breakin phase reactor (the new, untested Fermi 3 ESBWR), both reactors will be vulnerable to disruptions in the Transmission Corridor, which will, *de facto*, function as a single [transmission

Waste Confidence Update Schedule, available at <a href="http://www.nrc.gov/waste/spent-fuel-storage/wcd/schedule.html">http://www.nrc.gov/waste/spent-fuel-storage/wcd/schedule.html</a> (last visited Sept. 12, 2014).

Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-14-08, 77 NRC \_\_ (Aug. 26, 2014) (slip op.). The Commission carved out two exceptions involving *Indian Point* to the extent contentions there raised issues outside the Continued Storage rule's scope.

<sup>&</sup>lt;sup>70</sup> *Id.* 

<sup>&</sup>lt;sup>71</sup> DWM Pet. at 35.

corridor] which is common to both reactors."<sup>72</sup> The petition claims that the common offsite transmission corridor shared by Fermi 2 and Fermi 3 represents a serious violation of the NRC's "defense-in-depth" policy.<sup>73</sup> DWM claims that "DTE should have addressed such issues in the Fermi 3 COLA, ER, and FSAR, but did not," and also that "[t]he NRC Staff should have addressed such issues in the Fermi 3 EIS and FSER, but did not."<sup>74</sup>

Proposed DWM-4 is inadmissible. To the extent that the proposed contention challenges the ESBWR design that is being proposed for Fermi 3 (*see*, *e.g.*, DWM Pet. at 37) or the adequacy of the NRC's review of the Fermi 3 COL application, the contention raises issues outside the scope of the Fermi 2 license renewal proceeding. Neither the ESBWR design's adequacy nor Fermi 3's compliance with NRC requirements relating to offsite power or the need for diesel generators are within the scope of this proceeding.

Similarly, to the extent that the proposed contention challenges Fermi 2's compliance with NRC requirements relating to offsite power and diesel generators (that is, the transmission corridor represents a violation of defense-in-depth), it raises a current licensing basis issue, not an aging issue.<sup>75</sup> As noted above for DWM-1, the scope of license renewal does

<sup>72</sup> *Id.* at 36.

<sup>&</sup>lt;sup>73</sup> *Id.* at 38.

<sup>&</sup>lt;sup>74</sup> *Id*.

In Section 2.1.1.3.5, *Commission's Regulations for Station Blackout (10 CFR 50.63)*, the LRA provides a brief overview of the licensing bases for Station Blackout at Fermi 2 and discusses the approach used to identify systems and structures within license renewal's scope. The LRA also explains (at 2.5-2) that the Fermi 2 345-kV off-site power system and the Fermi 2 120-kV off-site power system are physically independent off-site power sources. DWM does not reference or dispute any of this information.

not include issues related to a plant's CLB that "already [are] monitored, reviewed, and commonly resolved as needed by ongoing regulatory oversight."

Moreover, as DWM itself recognizes (DWM Pet. at 23), the offsite transmission corridor is outside the scope of license renewal.<sup>77</sup> As a result, DWM's claims that "[w]hat DTE deems to be 'offsite' versus 'onsite' in the [License Renewal Application] constitutes arbitrary differences without a distinction" and that "[t]he common [transmission corridor] and its primary offsite electricity supply . . . must all be considered as in-scope" are outside the proceeding's scope and impermissibly challenge NRC regulations.<sup>78</sup>

DWM-4 also alleges that "the cumulative impacts associated with the proposed new Fermi 3 reactor cannot be excluded from DTE's Fermi 2 License Renewal Application ("LRA") and ER as 'remote' or 'speculative.'" DWM claims that the proposed Fermi 3 reactor and its associated transmission corridor "represent a bundle of potential cumulative effects (including construction impacts) which must be included within the scope of Fermi's 2 20-year LRA." But, the Fermi 2 ER already includes Fermi 3 in its cumulative impacts analysis. Table 3.12-1, *Past, Present, and Reasonably Foreseeable Future Projects and Other Actions Considered in the Cumulative Analysis*, specifically lists Fermi 3 as a project considered in the

<sup>&</sup>lt;sup>76</sup> *Turkey Point*, CLI-01-17, 54 NRC at 8.

See 10 C.F.R. Part 51, Appendix B, Table B-1 n.4 (defining the "in-scope portion of electric power transmission lines" as "transmission lines that connect the nuclear power plant to the substation where electricity is fed into the regional power distribution system and transmission lines that supply power to the nuclear plant from the grid"); ER Section 2.2.10, *Power Transmission Systems*, at 2-29 and 2-30 (identifying the "in scope" and "out of scope" transmission lines).

<sup>&</sup>lt;sup>78</sup> 10 C.F.R. § 2.335.

<sup>&</sup>lt;sup>79</sup> DWM Pet. at 35.

<sup>80</sup> *Id.* at 39.

cumulative impacts analysis.<sup>81</sup> The ER also considers the cumulative impacts of Fermi 3 in its discussion of resource areas, including land use (at 4-67), surface water (at 4-70), groundwater (at 4-71), ecology (at 4-72 and 4-73), human health (at 4-75), and waste (at 4-76 and 4-77).<sup>82</sup> DWM does not reference, much less dispute, any of this analysis.

Lastly, DWM-4 claims that "DTE has largely omitted Fermi 3 and common [transmission corridor]-related severe accident and cumulative impacts analyses from its Fermi 2 LRA, ER, and SAMAs." But, DWM has presented no factual or expert opinion to genuinely dispute the Fermi 2 application or SAMA analysis. As DWM recognizes (DWM Pet. at 49), DTE considered a number of different SAMAs related to the loss of offsite power or diesel generators. DWM also acknowledges (*id.*) that DTE concluded that none of those SAMAs were cost-beneficial. DWM appears to be arguing that a number of SAMAs are cost-beneficial, including SAMA 16, because the cost represents only a few days' worth of "net profit" at Fermi 2. But, this claim fails to directly refute the SAMA analysis.

As the Commission explained in *Pilgrim*, a SAMA analysis evaluates a number of potential accident progression sequences (scenarios) and the possible safety enhancements that may reduce the risk of those accident scenarios.<sup>84</sup> The analysis assesses whether and to what extent the *probability-weighted consequences* of the analyzed severe accident sequences would decrease if a specific SAMA were implemented at a particular facility. The SAMA analysis is

ER at 3-288.

In addition, the cumulative impact analysis for the Fermi 3 FEIS included consideration of license renewal at Fermi 2. Fermi 3 FEIS at Table 7-1.

by Pet. at 49.

Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), CLI 10-11, 71 NRC 287, 291 (2010).

used for determining whether particular SAMAs would sufficiently reduce risk — for example, by reducing frequency of core damage or frequency of containment failure — for the SAMA to be cost-effective to implement. If the cost of implementing a particular SAMA is greater than its estimated benefit, the SAMA is not considered cost-beneficial to implement. The approach advocated by DWM — that is, compare the costs of a modification to Fermi 2 "profits" without regard for the likelihood an event occurring — is, in effect, a generic challenge to the use of probabilistic techniques. As another licensing board explained in denying a similar SAMA contention:

[T]o the extent that any part of the contention or basis may be construed as challenging on a generic basis the use of probabilistic techniques that evaluate risk, we find any such portion(s) to be inadmissible. The use of probabilistic risk assessment and modeling is obviously accepted and standard practice in SAMA analyses. 85

DWM also did not challenge any of DTE's conclusions on any particular SAMA. A petitioner must approximate the relative cost and benefit of a challenged SAMA in order to be granted an adjudicatory hearing.<sup>86</sup> Here, DWM has not directly challenged the overall conclusions or provided any information regarding the potential costs or benefits associated with installation of a particular SAMA. Instead, DWM simply asserts (DWM Pet. at 53), without support, that the probability of "loss of vital safety and cooling system functions at Fermi 2" is more frequent than DTE acknowledges and also that "the consequences of such catastrophes are far greater than DTE is willing to acknowledge." These types of unsupported and conclusory claims cannot support an admissible contention. Contention DWM-4 is inadmissible.

Pilgrim, CLI-10-11, 71 NRC at 292-93, quoting Entergy Nuclear Vermont Yankee LLC and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station) LBP-06-23, 64 NRC 257, 339 (2006).

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<sup>&</sup>lt;sup>86</sup> *Duke Energy*, CLI-02-17, 56 NRC at 11-12.

#### B. <u>CRAFT Has Not Offered Any Admissible Contentions</u>

### 1. Contention CRAFT-1: Wind Energy Is a Viable Alternative

Contention CRAFT-1 argues that the ER's analysis of wind power as an alternative to license renewal is inadequate.<sup>87</sup> Although CRAFT cites no particular deficiency in the ER, it appears that the contention is based — at least in large part — on Petitioners' conclusion that wind power is a reasonable alternative, and that the ER therefore should include a detailed discussion of its environmental impacts.<sup>88</sup> CRAFT lists perceived advantages of wind power over nuclear (*e.g.*, no radiological emergency planning zones, no security perimeters, no creation of radioactive waste), and espouses that greater reliance on wind energy "would provide a significantly greater reduction in adverse human environmental consequences as compared to the proposed nuclear power license extension of Fermi 2."<sup>89</sup> Petitioners argue that the ER does not "rigorously discuss and provide a sufficiently complete evaluation of those alternatives with significantly less adverse human and environmental consequence to the requested federal relicensing action."<sup>90</sup> As "support," Petitioners include various projections of the future size of DTE's renewable energy portfolio.<sup>91</sup>

At the outset, it is unclear whether the proposed contention challenges the ER's assessment of wind energy as a discrete source of power (which the ER concludes *is not* a

CRAFT Pet. at 9. The ER's analysis of wind power as an alternative to license renewal is in Section 7.1.2.2.1.

The Petition argues that the ER "does not adequately evaluate the full potential for renewable energy sources, such as wind power." CRAFT Pet. at 4.

<sup>89</sup> *Id.* at 9.

<sup>&</sup>lt;sup>90</sup> *Id.* 

<sup>&</sup>lt;sup>91</sup> *Id.* at 8.

reasonable alternative), or the ER's assessment of wind energy as part of the combination energy alternative (which the ER concludes *is* a reasonable alternative). In either case, Chapter 7 addresses both options and CRAFT provides no information that would demonstrate a genuine dispute with the ER.

Regarding wind energy as a discrete source, the ER explains that a single wind farm generation unit would not provide consistent power generation to satisfy baseload demand.92 Although the ER notes that multiple, interconnected wind farms may approach baseload capacity, it concludes that wind energy may not be able to provide consistent power generation due to insufficient velocity and duration. 93 For these and other reasons explained in the ER, wind power alone is incapable of providing baseload energy. To overcome the intermittent nature of wind power and approximate baseload generation sources, the ER also discusses consideration of both pumped storage and compressed air energy storage ("CAES"), but concludes that neither is sufficient. As the NRC explained in the Fermi 3 FEIS (and as reiterated in the Fermi 2 LRA ER), pumped storage would require building new facilities and would result in significant construction impacts, while CAES technology is not sufficiently mature to determine long-term reliability, and ultimately depends upon the uncertain existence of geologic formations in which to store the compressed air. 94 At bottom, the ER concludes that wind power is not a reasonable alternative based on "the lack of adequate wind resources in the DTE service area, the significant shortcomings of reliability of wind as a base-load energy

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<sup>92</sup> ER at 7-7.

<sup>93</sup> *Id.* at 7-7, 7-9.

<sup>&</sup>lt;sup>94</sup> *Id.* at 7-9.

source, limited availability for new pumped storage, and the undetermined availability of geologic formations for CAES." <sup>95</sup>

CRAFT does not establish a genuine dispute with the ER's discussion of wind as a discrete energy source. The ER concludes that wind power alone would not accomplish the proposed action's purpose (producing baseload power) and therefore is not a reasonable alternative. While CRAFT complains that the ER lacks a detailed assessment of wind energy as a discrete power source, a detailed assessment is unnecessary because wind power alone is not a reasonable alternative. In any event, the contention points to no specific information regarding the ability of wind energy to produce baseload power and does not otherwise controvert the ER's reasons for rejecting wind energy alone as a reasonable alternative. Plainly put, Petitioners provide no analysis and instead simply assert that wind, on its own, is a reasonable alternative without providing support for their position. A bare assertion that the ER ought to consider "more" is insufficient to support an admissible contention.

Notwithstanding the shortcomings of wind power as a discrete generation source, the ER (at Section 7.1.3.4) also analyzes 190 MWe of wind energy as a component of the combined alternative based on DTE's plans for future renewable development.<sup>98</sup> The ER assesses the combination alternative's environmental impacts in detail, including impacts on land

<sup>&</sup>lt;sup>95</sup> *Id.* at 7-9.

<sup>&</sup>lt;sup>96</sup> *Id.* at 7-10.

Pacific Gas and Elec. Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-11-11, 74 NRC 427, 452 n.139 (2011), citing Crow Butte Resources, Inc. (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 562, 573 (2009).

ER at 7-34. The 190 MWe assumes 565 MW of installed wind energy capacity by 2029 at a capacity factor of 31 percent and in combination with a CAES facility. NUREG-2105, "Environmental Impact Statement for the Combined License (COL) for Enrico Fermi Unit 3" (January 2013) at 9-64.

use, air quality, ecological resources, and socioeconomics.<sup>99</sup> But CRAFT alleges no specific deficiency regarding the ER's assessment of the combined alternative, which includes a substantial component of wind generation. CRAFT offers nothing to suggest that the wind power component of the combination alternative should be greater than that considered in the ER, nor does it identify any other deficiencies in the ER's evaluation of the combination alternative. Therefore, CRAFT-1 does not establish a genuine dispute with the ER's combination alternative. For all of these reasons, proposed CRAFT-1 is inadmissible.

# 2. Contention CRAFT-2: Walpole Island First Nations' Exclusion from Proceedings

In its Contention 2, CRAFT alleges that the NRC "did not notify numerous Native American tribes, bands, and First Nations in the area of concern" about the "the environmental scoping public comment opportunity for the proposed extension of the Fermi 2 nuclear reactor license." CRAFT argues that the NRC has an obligation under NEPA and its own regulations to "to invite 'any affected Indian tribe' to participate in the environmental scoping process for the Fermi 2 license extension." The contention alleges that the NRC failed to send the required notification "to the Walpole Island First Nation, since they are neither Canadian nor American, but live in between the two countries on unceded lands." The contention also

ER at 7-34 to 7-40. In particular, the ER describes the land-use requirements for wind generation and its associated grid system as being "quite large compared to ... nuclear plants." *Id.* at 7-35. Land use for wind development "can range from 30 to 140 acres per megawatt," and 190 MWe of wind generation "would require 5,700 to 26,600 acres, with about 141 to 798 acres occupied by turbines and support facilities." *Id.* 

<sup>100</sup> CRAFT Pet. at 9.

<sup>101</sup> *Id.* at 10.

<sup>102</sup> *Id.* at 11.

alleges that the NRC failed to notify a number of additional First Nations in southwestern Ontario. 103

Proposed CRAFT-2 is inadmissible. First, CRAFT fails to take issue with any specific portion of the application. In fact, the contention does not even mention the Fermi 2 license renewal application. Instead, the proposed contention is focused exclusively on the NRC Staff's actions. All properly formulated contentions must focus on the license application in question, challenging specific portions of the application so as to establish that a genuine dispute exists with the applicant on a material issue of law or fact. Any contention that fails to directly controvert the application or that mistakenly asserts the application does not address a relevant issue should be dismissed. Proposed CRAFT-2 is therefore inadmissible for failing to demonstrate a genuine dispute with the application on a material issue.

The petition also does not identify any statutory or regulatory requirement that obligates DTE (as opposed to the NRC) to notify or consult with Native American tribes or First Nations. There is no legal requirement that the <u>applicant</u> consult with state or tribal authorities under NEPA or under various treaties. The requirement to consult applies only to federal

<sup>&</sup>lt;sup>103</sup> *Id*.

See, e.g., id. at 9-12 ("NRC failed notify..."; "NRC did not notify..."; and "NRC has legal obligations ... to notify..."; "NRC has never notified ...").

See Sacramento Mun. Util. Dist. (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 247-48 (1993).

Nevertheless, DTE did send letters to various tribes and bands notifying them of DTE's intent to renew the Fermi 2 license and requesting information regarding traditional cultural properties in the area, including the Walpole Island First Nation. *See* Table 9.1-2, *Environmental Consultations Related to License Renewal*, at 9-21. DTE contacted the tribe even though the Walpole First Nations is not a U.S. federally-recognized tribe and is not a tribe under the National Historic Preservation Act (*see* 36 C.F.R. § 800.16, defining "Indian tribes" as tribes that are eligible for services provided by the United States).

agencies such as the NRC. A contention cannot be admitted simply to serve as a placeholder for an NRC Staff obligation.<sup>107</sup> Any challenge based on the NRC's failure to consult under NEPA is premature as the agency has not yet completed the NEPA process.

Moreover, CRAFT-2 is inadmissible because Intervenors have alleged no factual or legal basis for applying the requirements of 10 C.F.R. § 51.28(a)(5) to the Walpole Island First Nation. Although CRAFT relies on 10 C.F.R. § 51.28(a)(5) for the proposition that First Nations in Canada must receive invitations to participate in the scoping process when there are transboundary environmental impacts from a project, that provision is subject to the general limitation in 10 C.F.R. § 51.1 that the NRC's NEPA regulations "do not apply to ... any environmental effects which NRC's domestic licensing and related regulatory functions may have upon the environment of foreign nations." As a result, the effects, if any, that the relicensing of Fermi 2 would have in Canada cannot provide a basis for alleging that the ER violates the NRC's NEPA regulations. 110

To the extent that the proposed contention asserts that Native American tribes or First Nations were not provided an opportunity to submit public comments or intervene in the proceeding, the argument is unfounded. A notice regarding environmental scoping comments or

Because the Walpole Island First Nation is not a U.S. federally-recognized tribe and is not considered a "tribe" under the National Historic Preservation Act, the NRC Staff "obligations" alleged by CRAFT in any event do not extend to the Walpole Island First Nation.

<sup>&</sup>lt;sup>108</sup> See CRAFT Pet. at 10 (referencing 10 C.F.R. § 51.28(a)(5)).

See Detroit Edison Company (Fermi Nuclear Power Plant, Unit 3), LBP-12-12, 75 NRC \_\_\_, \_\_ (June 21, 2012) (slip op. at 13-14) (rejecting a similar contention in the Fermi 3 COL proceeding).

<sup>10</sup> C.F.R. § 2.335(a) precludes challenges to NRC regulations absent a request for a waiver under Section 2.335(b), which CRAFT has not made here.

a notice to parties wishing to intervene in hearings before the Commission published in the *Federal Register* is notice to all the world.<sup>111</sup> Moreover, there is no requirement that the rights of interested local governmental bodies, such as tribes, to be parties to a proceeding be spelled out in the notice of opportunity for hearing. A notice of opportunity for hearing is not defective simply because it fails to state the right of an interested governmental body to participate in a proceeding.<sup>112</sup> CRAFT therefore also failed to articulate a basis for the proposed contention.

#### 3. Contention CRAFT-3: NRC Cannot Legally Extend Reactor Licenses

CRAFT-3 alleges that the NRC's moratorium on licensing actions due to the Waste Confidence rulemaking precludes the agency from renewing the Fermi 2 license. CRAFT airs various generic complaints about the Waste Confidence draft GEIS, including collateral attacks on the qualifications of the NRC Staff that prepared the draft GEIS. CRAFT also requests that the Board "recommend[] to the Commission to extend the moratorium until all legal appeals through the federal courts have been exhausted or resolved."

As explained above in response to DWM-3, the Commission has approved a final Continued Storage rule and the NRC has issued the final Continued Storage GEIS. The Commission has lifted the moratorium on licensing actions affected by the Waste Confidence rule as of the rule's effective date, and directed licensing boards to dismiss all pending Waste Confidence-related contentions.<sup>114</sup> The Commission's actions render CRAFT-3 moot.

Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), LBP-82-76, 16 NRC 1029, 1085 (1982).

Detroit Edison Co. (Enrico Fermi Atomic Power Plant, Unit 2), LBP-78-37, 8 NRC 575, 585 (1978).

<sup>113</sup> CRAFT Pet. at 13.

Calvert Cliffs, CLI-14-08, 77 NRC (Aug. 26, 2014) (slip op.).

To the extent that the contention alleges deficiencies in the Waste Confidence draft GEIS (which it does loosely with no specificity), this adjudicatory proceeding is not the proper forum for resolving those issues. The NRC's rulemaking process for the Continued Storage rule included numerous opportunities for public comment. CRAFT cannot now attempt to challenge the rule here. Should CRAFT wish to alter the Continued Storage rule, it must avail itself of the petition for rulemaking process under 10 C.F.R. § 2.802.

# 4. Contention CRAFT-4: Fermi 2 Transmission Corridor Offsite AC Power Supply

In proposed Contention 4, CRAFT contends that DTE failed to provide the NRC Staff with an acceptable final configuration for the offsite AC power supply, including sources, routing, and termination points for each channel/circuit, that would permit the NRC Staff to conclude that the channels/circuits are independent for the purpose of ensuring reliable and uninterrupted electric power for Fermi 2. CRAFT alleges that the current arrangement "explicitly violates the Acceptance Criteria of the Mitigation Strategies Directorate (NRR) Audit Plan to Review Licensee Submittals in response to the Commission's Issuance of Orders with regard to Beyond-Design-Basis External Events (BDBEE) mitigation response and recovery actions." 117

This contention raises a current licensing basis issue that is outside the scope of this proceeding. As noted above, license renewal focuses on equipment *aging* issues, not on current operating issues. This limited scope is based on the principle established in the

<sup>&</sup>lt;sup>115</sup> 10 C.F.R. § 2.335(a).

<sup>116</sup> CRAFT Pet. at 15-16.

<sup>117</sup> *Id.* at 16.

<sup>&</sup>lt;sup>118</sup> *Turkey Point*, CLI-01-17, 54 NRC at 7, 9-10.

original Part 54 rulemaking that the NRC's ongoing regulatory process is adequate to ensure compliance with the CLB and to maintain an adequate level of safety during the renewal term. 119 Consequently, a license renewal review does not address current operational issues because those issues "are effectively addressed and maintained by ongoing agency oversight, review, and enforcement." Here, the proposed contention clearly raises a current licensing basis issue related to the "design of the Fermi offsite AC power transmission system" and the adequacy of the supply of power to the spent fuel pool. But, the proposed contention does not even acknowledge or dispute the discussion of offsite power discussed in the ER or LRA. Nor does the proposed contention identify any issue related to aging or any SAMA that is alleged to have been omitted or to be cost-beneficial. CRAFT-4 therefore is outside the proceeding's scope and, in any event, fails to dispute the application. 123

### 5. Contention CRAFT-5: Spent Fuel Pool Instrumentation is Deficient

Contention CRAFT-5 asserts deficiencies with DTE's implementation of NRC Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool (SFP) Instrumentation" and claims that the renewed license should not be issued until the NRC has

<sup>60</sup> Fed. Reg. at 22,464, 22,481-82.

<sup>120</sup> Millstone, CLI-04-36, 60 NRC at 638.

<sup>121</sup> CRAFT Pet. at 16.

See, e.g., ER Section 2.2.10, Power Transmission Systems, at 2-29 et seq. (describing the "in scope" and "out of scope" transmission lines); LRA Section 2.1.1.3.5, Commission's Regulations for Station Blackout (10 CFR 50.63), at 2.1-11 (summarizing the licensing bases for Station Blackout at Fermi 2); id. at 2.5-1 (describing the scoping and screening results for the electrical and instrumentation and control systems); id. at 2.5-2 (explaining that the Fermi 2 345-kV off-site power system and the Fermi 2 120-kV off-site power system are physically independent preferred off-site power sources).

Issues of this nature must be raised through the 10 C.F.R. § 2.206 process or, possibly, the rulemaking process.

verified DTE's implementation of the Order.<sup>124</sup> CRAFT also raises concerns regarding spent fuel pool fires at pools with high-density storage. Petitioners argue that the ER "should start with a clean slate and sponsor a proper investigation of the physics and chemistry of pool fires."<sup>125</sup> The proposed contention raises matters outside the scope of a license renewal proceeding.

Notwithstanding its characterization as an environmental contention, CRAFT-5 first raises current operational issues — implementation of safety enhancements to measure spent fuel pool water levels — that are outside the scope of this license renewal proceeding. License renewal focuses on *aging* issues, not on plant operating and licensing issues. CRAFT also argues that DTE "will fail to complete Order implementation in an effective and timely manner." But, issues relevant to current plant operation are addressed by the NRC's existing regulatory oversight processes during the present license term and are not deferred until the time of license renewal. Consequently, license renewal does not focus on current operational issues, like spent fuel pool management, because these issues "are effectively addressed and

<sup>124</sup> CRAFT Pet. at 18.

<sup>125</sup> *Id.* at 20.

<sup>126</sup> Turkey Point, CLI-01-17, 54 NRC at 7, 9-10.

<sup>127</sup> CRAFT Pet. at 18.

Turkey Point, CLI-01-17, 54 NRC at 7, 9-10. Indeed, in the 1991 license renewal rulemaking the Commission made clear that "the licensees' programs for ensuring safe operation and the Commission's regulatory oversight have been effective in identifying and correcting plant-specific non-compliances with the licensing bases," and that "license renewal should not include a new, broad-scoped inquiry into compliance that is separate from and parallel to the Commission's ongoing compliance oversight activity." 56 Fed. Reg. at 64,952 (emphasis added). The Commission also specifically rejected a comment that operational history and quality assurance/quality control should be reviewed as part of license renewal. Instead, those matters "would be dealt with as they arose." *Id.* at 64,959.

maintained by ongoing agency oversight, review, and enforcement."<sup>129</sup> Order EA-12-051 is an example of that oversight process and its adequacy is not subject to challenge in this forum.

The Petitioners broadly challenge spent fuel storage in the Fermi 2 spent fuel pool. They superficially attempt to bring the contention within the scope of this proceeding by claiming that implementation of Order EA-12-051 is "materially relevant to the standard by which to properly judge the adequacy of the Applicant's Aging Management Plan (AMP) program." CRAFT vaguely alleges that DTE's implementation of the Order is (or will be) deficient simply because the NRC issued requests for additional information on DTE's implementation plan. But, the Order has no relationship to aging management or license renewal. The Order requires all U.S. nuclear power plants to install water level instrumentation in spent fuel pools (in response to the NRC's lessons learned from the Fukushima accident) independent of whether the plant has received, is applying for, or intends to pursue a renewed license. In any event, CRAFT does not address aging management in any explicit way, does not suggest that the instrument is within the scope of license renewal, and makes no attempt to link the Order to an aging mechanism, aging effect, or AMP within the scope of Part 54.

Millstone, CLI-04-36, 60 NRC at 638, citing Turkey Point, CLI-01-17, 54 NRC at 9.

<sup>130</sup> CRAFT Pet. at 18.

DTE responded to the NRC's requests for additional information in a letter from J. Todd Conner, Site Vice President, Fermi 2, to NRC, "Response to Request for Additional Information (RAI) Regarding the Overall Integrated Plan in Response to Order EA-12-051, 'Reliable Spent Fuel Pool Instrumentation'" (Aug. 19. 2013) (ML13231A233). The committed installation date for the spent fuel pool instrumentation at Fermi 2 is November 2015, but, in fact, may occur as early as November 2014. *See* letter from Vito Kaminskas, Site Vice President, Fermi 2, to NRC, "DTE Electric Company Third Six-Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order EA-12-051)" (Aug. 28, 2014) (ML14241A288), Encl. at 2.

CRAFT also requests a "public hearing to discuss the Open Matter of ISFSI Control of Heavy Loads," particularly regarding the seismic qualifications of certain welds and structural integrity of equipment used to transfer spent fuel from wet storage to dry storage. Again, CRAFT broadly claims that this issue affects "the adequacy of the Applicant's Aging Management Plan program," but points to no specific aging effect or deficiency in any particular AMP. This part of the contention is inadmissible not only because it is outside the scope of license renewal, but also because CRAFT "has offered no tangible information, no experts, no substantive affidavits," but instead only 'bare assertions and speculation." A contention that does not directly controvert a position taken in the application must be dismissed.

Lastly, attempting to make this an environmental contention, CRAFT-5 alleges that the ER fails to address "factors," "other expert bodies," and "real world nuclear accidents" regarding spent fuel pool fires. But the environmental impacts associated with onsite spent fuel storage have been assessed generically as a Category 1 issue, precluding them from challenge in individual licensing proceedings. As discussed above for DWM-2, the Commission has held that license renewal applications need not discuss mitigation alternatives for Category 1 issues. CRAFT-5 is therefore inadmissible.

<sup>132</sup> CRAFT Pet. at 19.

<sup>133</sup> *Id.* at 19. As noted above in Section A.2, the first transfer from the pool to a canister on the storage pad occurred just this past summer.

Fansteel, CLI-03-13, 58 NRC at 203 (quoting GPU Nuclear (Oyster Creek Nuclear Generating Station), CLI-00-06, 51 NRC 193, 208 (2000)).

<sup>&</sup>lt;sup>135</sup> *Comanche Peak*, LBP-92-37, 36 NRC at 384.

<sup>136</sup> CRAFT Pet. at 19.

<sup>137 10</sup> C.F.R. Part 51, Appendix B, Table B-1; 10 C.F.R. § 2.335(a).

# 6. Contention CRAFT-6: Mitigation Strategies for Beyond-Design-Basis External Events

Contention CRAFT-6 alleges that DTE has inadequately responded to NRC Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (BDBEE)." Like the spent fuel pool instrumentation order, the NRC issued Order EA-12-049 to all U.S. nuclear power plants in response to the lessons learned from the Fukushima accident. Order EA-12-049 requires nuclear plants to implement strategies that will allow them to cope without permanent electrical power sources for an indefinite amount of time. As with CRAFT-5, this proposed contention raises current operating issues that are outside the scope of license renewal.

First, CRAFT argues that DTE has not complied with the Order and broadly claims that the renewed license should not be considered until the Order has been implemented. Regarding this count, CRAFT makes no attempt to explain how implementation of the Mitigating Strategies Order is relevant to passive structures and components that require an aging management review. While CRAFT references other post-Fukushima NRC orders, such as the order requiring hardened vents for boiling water reactors with Mark I and II containments, CRAFT fails to articulate any connection between the orders—which are being implemented under the plant's current operating license, independent of license renewal—and the limited scope of license renewal under 10 C.F.R. Part 54. Current

CRAFT Pet. at 20-21. DTE has filed multiple reports with the NRC detailing the implementation status Order EA-12-049. *See, e.g.*, letter from Vito Kaminskas, Site Vice President, Fermi 2, to NRC, "DTE Electric Company's Third Six Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049)" (Aug. 28, 2014) (ML14241A298).

<sup>139</sup> CRAFT Pet. at 21.

operating and compliance issues related to implementation of Order EA-12-049 are simply outside the scope of license renewal. 140

CRAFT-6 also asserts that the ER is inadequate because it does not "accurately and thoroughly provide a [SAMA] analysis that comprehensively addresses the well-known and unresolved design vulnerability of the GE Mark I BWR pressure suppression containment system." As "support," CRAFT cites a transcribed statement that NRC official Chuck Casto made five days after the 2011 Tōhoku earthquake and tsunami hit Japan. CRAFT also references a March 2013 article in which former NRC Chairman Jaczko discusses the safety of U.S. nuclear reactors. But nowhere does CRAFT explain how these statements support its claim of an inadequate SAMA analysis, nor do they specify a portion of the SAMA analysis that they allege to be deficient. CRAFT consistently fails to acknowledge the agency's substantial effort to address lessons learned after the Japan accident — including the Order it cites, which was issued as part of the NRC's ongoing oversight. CRAFT's bare assertions and disconnected references are insufficient to support an admissible contention.

CRAFT summarizes its position in terms as over-broad as the contention itself: "[t]he overwhelming weight of evidence ... argues strongly and compellingly for an extremely

See Turkey Point, CLI-01-17, 54 NRC at 8 (explaining that issues resolved under ongoing regulatory oversight are not within the scope of license renewal reviews).

<sup>&</sup>lt;sup>141</sup> CRAFT Pet. at 22.

<sup>&</sup>lt;sup>142</sup> *Id*.

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

The SAMA analysis is included as Attachment D to the ER.

Diablo Canyon, CLI-11-11, 74 NRC at 452 n.139, citing North Trend, CLI-09-12, 69 NRC at 562, 573.

cautious approach *to any further reactor License Renewal Applications*."<sup>146</sup> This reveals that CRAFT's actual concern is not unique to Fermi 2, but rather is a generic concern with license renewal generally. This limited-scope adjudicatory proceeding is not an appropriate forum for CRAFT to air its generalized grievance, and CRAFT fails to raise a genuine and specific dispute with the application.<sup>147</sup> For the above reasons, CRAFT-6 is inadmissible.

# 7. Contention CRAFT-7: Aging Management Plan Does Not Adequately Inspect and Monitor for Leaks

In Contention 7, CRAFT alleges that the AMP for buried pipes and tanks that contain radioactively-contaminated water 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." According to CRAFT, "some of these systems include underground pipes and tanks which the current aging management and inspection programs do not effectively inspect and monitor." Specifically, CRAFT asserts that the Buried and Underground Piping AMP does not adequately provide for monitoring wells to detect leakage and does not adequately inspect and monitor for leaks in all buried systems and components within scope or in the partially buried sections of systems and components within scope. CRAFT asserts that the AMP "must be enhanced or supplemented 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>146</sup> CRAFT Pet. at 22-23 (emphasis added).

<sup>&</sup>lt;sup>147</sup> 10 C.F.R. § 2.309(f)(1)(vi).

<sup>148</sup> CRAFT Pet. at 23.

<sup>149</sup> *Id.* at 25.

system, the station blackout diesel generator system, the fire protection system and the water inflow piping that do not contain radioactive material but are within scope." <sup>150</sup>

This proposed contention is wholly unsupported. The license renewal application explains that the monitoring program was based on NEI-09-14 and describes (on B-26 and B-27) the inspections, corrective measures, and assessments that were performed to assess the potential for leaks. CRAFT fails to explain why the Fermi 2 inspection plan, which was based on risk ranking and assessments of pipe external and internal conditions, is inadequate. In fact, CRAFT does not cite to any portion of the license renewal application, nor does it identify any specific portion of the AMP that is alleged to be deficient. CRAFT also does not allege that additional monitoring wells should be established in certain locations or explain what additional inspections are supposedly needed. Rather than identify, with specificity, the alleged inadequacies with the AMP, CRAFT simply alleges that "more" must be done. This is not enough. CRAFT has failed to establish a genuine dispute with the application.

Second, several assumptions underlying CRAFT's claims are simply incorrect. For example, CRAFT asserts that the buried piping AMP must be enhanced to include cathodic protection. But, the license renewal application explains (at B-25) that Fermi 2 already has a cathodic protection system. The cathodic protection system is inspected and tested annually in accordance with National Association of Corrosion Engineers recommendations and more improvements are planned to increase system coverage through installation of additional anodes and rectifiers.<sup>151</sup> And, contrary to CRAFT's claims, there are no underground or buried tanks for

150 *Id.* at 23.

<sup>151</sup> LRA at B-27.

which aging effects would be managed by the Buried and Underground Piping Program.<sup>152</sup> Similarly, CRAFT contends that the AMP must include buried tanks for the fuel oil system, but Fermi 2 has no buried tanks that contain fuel oil other than the storm drains' oily water separator tank. The storm sewer is outside the scope of license renewal.<sup>153</sup> CRAFT disputes none of this information or the conclusions in the application.

The proposed contention also fails to recognize the existence of other AMPs that apply to areas that CRAFT alleges must be addressed. For example, to the extent that the contention alleges that the buried piping AMP must address the station blackout diesel generator system, CRAFT ignores the Diesel Fuel Monitoring AMP, which manages loss of material in piping, tanks, and other components exposed to an environment of diesel fuel oil.<sup>154</sup> Effectiveness of that program will be periodically verified by inspecting low flow areas where contaminants may collect, such as in the bottom of tanks.<sup>155</sup> The tanks will be periodically sampled, drained, cleaned, and internally inspected for signs of moisture, contaminants and corrosion.<sup>156</sup>

CRAFT also ignores the Fire Water System AMP. The Fire Water System AMP manages loss of material for the in-scope components in fire water systems using periodic flow

<sup>152</sup> *Id.* at A-7, B-25.

See id., Table 2.2-2, Mechanical Systems Not Within the Scope of License Renewal, at 2.2-8 (indicating that the storm sewer is outside the scope of license renewal).

<sup>154</sup> *Id.* at B-57.

<sup>&</sup>lt;sup>155</sup> *Id*.

<sup>156</sup> *Id*.

testing, visual inspections, and replacement or testing of sprinkler heads.<sup>157</sup> When visual inspections are used to detect loss of material, the inspection technique is capable of detecting surface irregularities that could indicate wall loss due to corrosion, corrosion product deposition, and flow blockage due to fouling.<sup>158</sup> Moreover, water system pressure is continuously monitored such that loss of pressure is immediately detected and corrective action initiated.<sup>159</sup>

Overall, CRAFT does not cite to any portion of the license renewal application, nor does it identify any specific portion of any AMP that it alleges to be deficient. Instead, CRAFT alleges deficiencies and omissions that are in fact clearly addressed in the application — either in uncontroverted descriptions of the current status of systems, structures, and components at Fermi 2 or in AMPs other than the buried piping AMP. Having failed to recognize the existence of other relevant AMPs, much less identify any deficiencies in those AMPs, CRAFT fails to demonstrate a genuine dispute with the application.

## 8. Contention CRAFT-8: SAMAs Are Materially Deficient

In CRAFT-8, the Petitioners assert that the 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." In the basis statement, CRAFT provides a disjointed discussion of the SAMA methodology, challenges the emergency response basis for Fermi 2, and identifies three concerns

Letter from V. Kaminskas, "Fermi 2 License Renewal Application - Supplement for LR-ISG-2012-02," (July 31, 2014) (ML14213A061), Encl. 2 at Sections A.1.19 and B.1.19.

<sup>&</sup>lt;sup>158</sup> *Id*.

<sup>&</sup>lt;sup>159</sup> *Id*.

<sup>160</sup> CRAFT Pet. at 25.

with the SAMA analysis: meteorology, the ETE, and economic consequences. Each of these is addressed below.

CRAFT first argues that, while it agrees that the "variable trajectory" plume distribution model used by DTE is more realistic and appropriate for the Fermi site than a "straight-line Gaussian" model, "the Fermi site's location necessitates a wider (larger) Emergency Planning Zone (EPZ) than is currently proposed by the Applicant and endorsed by the NRC." According to CRAFT, DTE's SAMA analysis assumes a 10-mile EPZ probabilistic model when a 50-mile EPZ "would be a more realistic and appropriate starting point for [Fermi 2]." This part of CRAFT-8 is inadmissible. Under 10 C.F.R. § 50.47(c)(2), the *plume exposure pathway* EPZ for nuclear power plants is 10 miles in radius, while the *ingestion pathway* EPZ is 50 miles in radius. To the extent that CRAFT is challenging NRC regulations establishing the size of an EPZ, the contention is an impermissible challenge to NRC regulations. Moreover, DTE's SAMA analysis in fact considered risks within a 50-mile radius of the Fermi site, including calculations of off-site dose and economic impacts within a 50-mile radius of Fermi. This part of CRAFT-8 therefore fails to identify an admissible issue.

CRAFT also complains that "a more in-depth NEPA evaluation" is necessary because the evacuation time estimates are unrealistically low and rely on "an arbitrary and scientifically inappropriate probabilistic model for the Fermi site — a 10-mile EPZ and minimal 'shadow evacuation zone'" and "the incorrect and unwise assumption that not everyone within

161 *Id.* at 26.

<sup>&</sup>lt;sup>162</sup> *Id*.

<sup>&</sup>lt;sup>163</sup> 10 C.F.R. § 2.335.

<sup>&</sup>lt;sup>164</sup> ER at D-95 to D-98.

ten miles of the Fermi site would have to evacuate, rather only those in the peak radiation plume." <sup>165</sup> In short, CRAFT is alleging that the current Fermi 2 Emergency Plan (including the ETE) is inadequate. <sup>166</sup> This portion of the proposed contention raises issues outside the scope of license renewal. According to the Commission, "[i]ssues like emergency planning – which already are the focus of ongoing regulatory processes – do not come within the NRC's safety review at the license renewal stage." <sup>167</sup> The Commission excluded emergency-planning issues from license renewal proceedings because its reviews are focused on "age-related degradation unique to license renewal." <sup>168</sup> Emergency planning is, by its very nature, neither germane to age-related degradation nor unique to the Fermi 2 license renewal period. <sup>169</sup>

The third part of CRAFT-8 addresses economic consequences. CRAFT alleges that DTE's "cost calculations assume an arbitrary and scientifically inappropriate EPZ probabilistic model for the Fermi site and, as a result, that a radiological release will affect only a relatively small area." According to CRAFT, "proper inputs specific to the Fermi site indicate a far larger affected area — potentially including the densely populated centers of Metro Detroit (MI), Ann Arbor (MI), Monroe (MI), Toledo (OH) and Windsor (ON)" that would result in

<sup>165</sup> CRAFT Pet. at 26.

See generally id. DTE developed the Fermi 2 ETE using NRC guidance in NUREG/CR-6863, "Development of Evacuation Time Estimate Studies for Nuclear Power Plants" (January 2005).

<sup>&</sup>lt;sup>167</sup> Turkey Point, CLI-01-17, 54 NRC at 10; Millstone, CLI-04-36, 60 NRC at 640.

Dominion Nuclear Conn., Inc. (Millstone Nuclear Power Station Units 2 & 3), CLI-05-24, 62 NRC 551, 560-61.

Challenges specifically to the ETE would also need to be asserted through the 10 C.F.R. § 2.206 process.

<sup>170</sup> CRAFT Pet. at 27.

longer evacuation times and greater costs and consequences.<sup>171</sup> But, the ER and SAMA analysis specifically account for population within 50 miles of the site, including Detroit, Ann Arbor, Monroe, and Toledo.<sup>172</sup> There is no genuine dispute.

The rest of CRAFT-8 lacks factual or expert support. CRAFT contends that "actual long-term recovery, remediation and redevelopment costs" from a severe accident could be "astronomical", but does not identify or dispute the portions of the ER that address evacuation, population density, or related issues.<sup>173</sup> Similarly, CRAFT challenges the "basic validity of the MACCS and MACCS2 codes as a proper diagnostic tool to assess economic costs and consequences," <sup>174</sup> but does not provide any specific aspect of the program that is alleged to be deficient, nor does it claim that any input parameters used in the Fermi 2 SAMA analysis are inadequate or incorrect. The proposed contention therefore also fails to demonstrate a genuine dispute on a material issue.

Lastly, CRAFT points to Sandia National Laboratory's *Calculation of Reactor Accident Consequences* ("CRAC-2 Report") as the basis for its claims related to accident costs. The CRAC-2 study was performed in 1982 using the CRAC-7 computer code to estimate offsite consequences. The CRAC-2 Report considered generic site parameters and source terms to reflect the spectrum of accidents that could occur at boiling-water reactors or pressurized-water reactors and representative probabilities to reflect the likelihood of each of these source terms.

<sup>&</sup>lt;sup>171</sup> *Id*.

See ER, Section D.1.5.2 (at D-95) (describing the inputs used to develop off-site dose and economic impacts for the cost-benefit analyses, including the projected population within 50 miles of the site for the year 2045).

<sup>173</sup> CRAFT Pet. at 27.

<sup>174</sup> *Id*.

In contrast, the offsite consequence analyses performed by DTE in support of the SAMA analysis was an assessment of offsite consequences based on a later generation offsite consequence code (*i.e.*, MACCS2) using <u>site-specific</u> information and <u>plant-specific</u> source terms and source term probabilities. The Fermi 2 SAMA analysis therefore relies on up-to-date plant- and site-specific consequence analyses. CRAFT has not submitted factual or expert information that would establish a genuine dispute with the adequacy of the site- and plant-specific SAMA analysis in the Fermi 2 application, nor has it provided any basis for using the outdated CRAC-7 code.

#### 9. Contention CRAFT-9: Quality Assurance Is Faulty

In proposed Contention 9, CRAFT seeks to litigate "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 remains unresolved to this day in the eye of the public." According to CRAFT, this issue must be addressed in the Fermi 2 license renewal review because "the root-cause of this fiasco remains unresolved and continues to constitute a systemic failure of regulatory oversight, as well as an ongoing weakness throughout the entire reactor fleet." CRAFT requests that the Board "refer this issue to an *independent body* for further analysis."

This contention, on its face, raises a historical enforcement issue that is outside the scope of license renewal. As discussed above, license renewal does not address current or historical operational issues because these issues "are effectively addressed ... by ongoing

176 *Id.* at 29.

*Id.* (emphasis in original).

<sup>175</sup> *Id.* at 28.

agency oversight, review, and enforcement."<sup>178</sup> The proposed contention relates to the "degraded voltage relay time" for the emergency diesel generators at Fermi 2. These issues have been addressed and resolved through the NRC inspection and enforcement processes.<sup>179</sup> Those processes require corrective actions and actions to prevent recurrence.<sup>180</sup> CRAFT has alleged no link between this historical issue and aging effects or aging management, nor does it identify any specific AMP that is alleged to be deficient. CRAFT's request for a referral to an independent body also raises an issue outside the scope of this proceeding. If CRAFT wants to challenge DTE's current compliance with NRC regulations, the appropriate vehicle is a petition for enforcement under 10 C.F.R. § 2.206. CRAFT-9 is inadmissible.

### 10. Contention CRAFT-10: Safety Assurance Violation

Contention CRAFT-10 requests a hearing to "ensur[e] compliance with reasonable safety and security standards, precautionary principles, and administrative controls and procedures ... in order to prevent a potentially significant unauthorized release over the entire licensed life for operation of the reactor." Specifically, Petitioners claim that a recent

<sup>&</sup>lt;sup>178</sup> *Millstone*, CLI-04-36, 60 NRC at 638.

In a letter from the NRC to Detroit Edison, "Fermi 2 - NRC Unresolved Item Resolution Inspection Report 05000341/2008008," dated June 20, 2008 (ML081720585), the NRC documented the actions taken by Detroit Edison to address an unresolved item concerning the degraded voltage protection scheme at Fermi 2. The NRC also noted that the issue was not a violation of NRC requirements, but did conclude that backfit modifications were necessary to bring a facility into compliance. The modifications were implemented in the fall of 2010. *See, e.g.*, Letter from Detroit Edison to NRC, "Proposed License Amendment to Revise the Degraded Voltage Function Requirements of Technical Specification Table 3.3.8.1-1 to Reflect Undervoltage Backfit Modification," dated June 10, 2009 (ML091680379); Letter from NRC to Detroit Edison, "Fermi Power Plant, Unit 2, Integrated Inspection Report 05000341/2011002," dated May 2, 2011, Encl. at 27 (ML111220240).

<sup>&</sup>lt;sup>180</sup> See., e.g., 10 C.F.R. § 2.201(a).

<sup>&</sup>lt;sup>181</sup> CRAFT Pet. at 29.

NRC security violation at Fermi 2 (broadly described as a "Safety/Security and Quality Assurance violation") "represents a fundamental Quality Assurance deficiency reflected in the Applicant/Licensee's incomplete License Renewal Application." On these grounds, CRAFT argues that "a higher level of scrutiny" should be applied, in which the ASLB would "evaluat[e] the severity of an accidental release, dose analysis, consideration of human factors." 183

The "greater-than-green" violation that is the sole basis for the contention was a security-related finding identified in a February 2014 NRC inspection.<sup>184</sup> Due to the finding's sensitive security nature, the violation's details are not publicly available. But the contention itself does not appear to be related to the facts involved in the violation. (If it were, the contention would be clearly outside the scope of the proceeding.) Instead, Petitioners allege general concerns (apparently both safety and environmental, notwithstanding their labeling the contention as "environmental") regarding "potentially significant unauthorized release[s]."<sup>185</sup>

As discussed above, license renewal safety reviews are limited to assessing the aging effects of passive structures and components. <sup>186</sup> CRAFT provides no support for its suggestion that, because the NRC issued a *security-related* violation to DTE, this somehow calls into question the adequacy of DTE's aging management programs. The contention therefore

<sup>182</sup> *Id.* at 30.

<sup>&</sup>lt;sup>183</sup> *Id*.

EA-14-022, "Final Significance Determination of a Greater Than Green Finding and Notice of Violation; NRC Inspection Report No. 05000341/2014407; Fermi Power Plant Unit 2," (May 29, 2014) (ML14150A041).

<sup>185</sup> CRAFT Pet. at 29.

Turkey Point, CLI-01-17, 54 NRC at 7, 9-10; 10 C.F.R. § 54.21.

rests on an unsupported (and unexplained) leap in logic.<sup>187</sup> In any event, resolution of an NRC enforcement matter is a current operating issue beyond the scope of this license renewal proceeding.

The Commission has rejected similar contentions in the past. In the *Prairie Island* license renewal proceeding, a proposed contention alleged that the NRC could not make a reasonable assurance finding regarding the applicant's ability to manage the effects of aging during the renewal period because of a non-compliance with NRC regulations. The Commission rejected the contention because it involved current operational issues addressed by the NRC Staff's ongoing oversight function. As with CRAFT-10, the fundamental concern underlying inadmissible contention in *Prairie Island* related to "current operations at the plant, as opposed to how it might operate during the period of extended operation." The contention is therefore inadmissible. 191

Lastly, to the extent that the proposed contention has an environmental component, CRAFT points to no deficiency in the ER related to, or implicated by, the cited NRC violation. In any event, the human health effects from radiation exposures during the period of

<sup>187</sup> CRAFT Pet. at 29-30.

Northern States Power Co. (Prairie Island Nuclear Generating Plant, Units 1 and 2), CLI-10-27, 72 NRC 481 (2010).

<sup>189</sup> *Id.* at 490-491.

*Id.* at 492. *See also Diablo Canyon*, CLI-11-11, 74 NRC at 434-35 (ruling that the Board erred in admitting a contention challenging management competence because that issue generally relates to current operations and is outside the scope of license renewal).

Should Petitioners wish to challenge DTE's compliance with NRC regulations, the appropriate vehicle is a petition for enforcement under 10 C.F.R. § 2.206. *Id.* 

extended operation have been generically assessed as a Category 1 issue in Part 51, Appendix B, Table B-1. Challenges to Category 1 issues are not permitted (absent a waiver). <sup>192</sup>

## 11. Contention CRAFT-11: DTE's ER Ignores Public Health Data

In CRAFT-11, CRAFT alleges that the Applicant's ER "fails to consider new and updated health data" and "fails to adequately consider Mitigation Alternatives." The contention cites two international studies on childhood leukemia, as well as a report apparently issued in 2012 by Joseph Mangano of the Radiation and Public Health Project, alleging that cancer and mortalities in Monroe County have increased since operation of Fermi 2. 194 The contention also reference other "studies from around the world" said to be consistent with the Mangano report. The contention is not admissible.

First, the contention lacks the requisite specificity for admission. CRAFT fails to cite any particular information in the Mangano report or the other studies that it alleges should have been considered in the ER. Nor does CRAFT explain how any information in the Mangano report is relevant to DTE's consideration of mitigation alternatives. Indeed, CRAFT points to no deficiency in the ER. "[C]ontentions shall not be admitted if at the *outset* they are not described with reasonable specificity or are not supported by some alleged fact or facts *demonstrating* a genuine material dispute' with the applicant."<sup>195</sup> The proposed contention does not establish any

<sup>&</sup>lt;sup>192</sup> 10 C.F.R. § 2.335; 10 C.F.R. § 51.53(c)(3)(i).

<sup>193</sup> CRAFT Pet. at 30.

<sup>194</sup> *Id.* at 31.

NextEra Energy Seabrook, LLC (Seabrook Station, Unit 1), CLI-12-05, 75 NRC \_\_\_, \_\_ (March 8, 2012) (slip op. at 7) (emphasis supplied), citing Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 335 (1999).

non-compliance with NRC regulations and fails to demonstrate a genuine dispute to be addressed in this proceeding.

Furthermore, human health impacts associated with renewed operating licenses are a Category 1 issue under 10 C.F.R. Part 51, Appendix B, Table B-1. CRAFT cannot challenge a Category 1 issue without a waiver. Similarly, to the extent the contention challenges the NRC's standards for radiation protection in 10 C.F.R. Part 20, it is also inadmissible. NRC rules may not be challenged in adjudicatory proceedings. 197

#### 12. Contention CRAFT-12: Thermal Discharge Increase Algal Blooms

CRAFT-12 seeks admission of a contention relating to the "effects of daily thermal discharges from Fermi 2 as an accelerator and contributor to harmful algal blooms (HABS)." CRAFT argues that the ER "fails to consider new and updated environmental and public health data, unavailable at the time of issuance of the original Operating License" and also "fails to adequately consider Mitigation Alternatives which could significantly reduce the alleged significant environmental and public health impact of Fermi, Unit 2 operations." CRAFT further contends that a significant contributing factor to algal blooms is the thermal discharges from Fermi 2 and alleges that 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." CRAFT-12 is inadmissible.

<sup>&</sup>lt;sup>196</sup> 10 C.F.R. § 2.335; 10 C.F.R. § 51.53(c)(3)(i).

<sup>&</sup>lt;sup>197</sup> 10 C.F.R. § 2.335(a).

<sup>&</sup>lt;sup>198</sup> CRAFT Pet. at 32.

<sup>&</sup>lt;sup>199</sup> *Id*.

<sup>200</sup> *Id.* at 33.

The ER contains an extensive discussion of Fermi 2's impact on algae. The ER describes the Lake Erie invertebrate population starting on page 3-113, including a discussion of several harmful algal blooms that have occurred in western Lake Erie. The ER also discusses the results of algae analyses conducted in September 2011 at the existing Fermi 2 discharge point, which found a healthy diatom-dominated algal community. The ER further explains that Fermi 2 is considered a closed-loop cooling system with respect to cooling water use, and concludes that, as a result, the typical impingement, entrainment, and thermal impacts are significantly reduced and considered SMALL.<sup>201</sup> The ER also notes that "no algal blooms of *Lyngbya* or other nuisance species have been reported at the site due to Fermi 2's operation and associated NPDES-permitted wastewater discharges." The ER concludes that operation of Fermi 2 (and the proposed construction and operation of Fermi 3) is not expected to increase the potential for algal blooms in the site's vicinity or increase the potential for establishment or survival of nuisance algal species in Lake Erie.<sup>203</sup>

CRAFT provides no expert or factual support, nor do they offer an expert, to challenge the ER discussion. CRAFT does not specifically identify or controvert any of the ER's conclusions and therefore fails to demonstrate a genuine dispute with the application on a material issue. As a result, CRAFT-12 is inadmissible.

<sup>&</sup>lt;sup>201</sup> ER at 4-72.

<sup>&</sup>lt;sup>202</sup> *Id*.

Id. at 4-73. A contention in the Fermi 3 COL proceeding alleged that Fermi 3 would contribute to algal production in Lake Erie and to proliferation of nuisance species of algae. The contention encompassed the distribution of nuisance algae, the impact of chemical effluent and thermal discharges on algae, and the effects of turbidity on algae. The Board ultimately granted summary disposition in favor of DTE. Detroit Edison Company (Fermi Nuclear Power Plant, Unit 3), LBP-12-23, 76 NRC 445, 451 (2012). The Fermi 2 ER based its discussion of algae on information developed in the Fermi 3 proceeding.

#### 13. Contention CRAFT-13: Inadequate Radiation Protection Standards

CRAFT-13 is an attempt to persuade the NRC to conduct an assessment of the adequacy of Environmental Protection Agency ("EPA") radiation protection standards.<sup>204</sup> In particular, CRAFT seeks revised EPA standards that increase radiation protection, particularly for women and children. Although CRAFT frames this as an "environmental" contention, any NRC assessment of EPA standards would be wholly unrelated to the NRC's environmental review of Fermi 2 license renewal.<sup>205</sup> This NRC adjudicatory proceeding is not an appropriate forum for challenging the adequacy of EPA radiation standards. Moreover, to the extent CRAFT wishes to challenge the NRC's radiological health and safety standards, the appropriate vehicle is a petition for rulemaking under 10 C.F.R. § 2.802.<sup>206</sup>

CRAFT does not identify any particular inadequacy in the ER, or allege any failure to satisfy NRC license renewal regulations. CRAFT therefore raises no genuine dispute with the application that could be litigated in this proceeding. CRAFT-13 is inadmissible.

#### 14. Contention CRAFT-14: Fermi Does Not Meet EPA Standards

CRAFT-14 seeks to re-litigate issues addressed in the *Pilgrim* license renewal proceeding. CRAFT claims that in *Pilgrim*, "the ASLB and the NRC Staff have failed to apply their own rules" regarding spent fuel pool severe accidents.<sup>207</sup> CRAFT alleges that the NRC must require a SAMA analysis for accidents involving onsite storage of high-level waste,

CRAFT Pet. at 34.

See generally Turkey Point, LBP-01-06, 53 NRC 138 (explaining the limited scope of environmental reviews in license renewal proceedings).

Exelon Generation Company, LLC (Byron Nuclear Station, Units 1 and 2; Braidwood Nuclear Station, Units 1 and 2), CLI-14-06, 77 NRC \_\_\_, \_\_ (May 2, 2014) (slip op. at 4).

<sup>&</sup>lt;sup>207</sup> CRAFT Pet. at 35.

particularly with respect to spent fuel pool fires.<sup>208</sup> But, this contention does not allege any specific deficiency in the Fermi 2 ER, and instead only seeks reconsideration of previous decisions in *Pilgrim*.<sup>209</sup> This Fermi 2 proceeding is not the proper forum for reconsidering decisions made in other proceedings.

Additionally, Petitioners' vaguely-worded contention impermissibly challenges an NRC regulation. CRAFT argues that the License Renewal GEIS and 10 C.F.R. Part 51, Appendix B, incorrectly treat accidents involving spent fuel pools as a Category 1 issue, and contends that spent fuel pool accidents should be treated as a Category 2 issue requiring a site-specific analysis. An adjudicatory proceeding is not the proper vehicle to challenge established agency rules, and "a contention may not challenge an agency rule or regulation in any adjudicatory proceeding absent a waiver from the Commission," which Petitioners have not requested here. CRAFT-14 is therefore inadmissible.

#### **CONCLUSION**

For all of the above reasons, neither DWM nor CRAFT has submitted an admissible contention. Accordingly, the petitions to intervene and requests for hearing should be denied.

See id. at 34 (requesting a hearing "to respectfully Appeal for Reconsideration a misguided previous ruling [in the *Pilgrim* license renewal proceeding]").

See supra Sections A.2 and B.5 (addressing proposed DWM-2 and CRAFT-5).

Exelon Generation Co., LLC (Limerick Generating Stations, Units 1 and 2), CLI-12-19, 75 NRC \_\_, \_ (Oct. 23, 2012) (slip op. at 3).

<sup>&</sup>lt;sup>208</sup> *Id*.

# Respectfully submitted,

## /s/ signed electronically by

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COUNSEL FOR DTE ELECTRIC COMPANY

Dated in Washington, D.C. this 12th day of September 2014

# UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

#### BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:	)	
DTE ELECTRIC COMPANY	)	Docket No. 50-341-LR
(Fermi 2 Nuclear Power Plant, Unit 2)	)	

### CERTIFICATE OF SERVICE

I certify that copies of the "DTE ELECTRIC COMPANY ANSWER OPPOSING PETITIONS TO INTERVENE AND REQUESTS FOR HEARING" has been served on this 12th day of September 2014 by Electronic Information Exchange, which to the best of my knowledge resulted in transmittal of the foregoing to those on the EIE Service List for the captioned proceeding.

Respectfully submitted,

/s/ signed electronically by Darani M. Reddick Winston & Strawn LLP 1700 K Street, N.W. Washington, DC 20006

COUNSEL FOR DTE ELECTRIC COMPANY

Dated in Washington, D.C. this 12th day of September 2014