

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
 )  
DETROIT EDISON CO. ) Docket No. 52-033 COL  
 )  
Fermi Nuclear Power Plant, Unit 3 )  
 )

NRC STAFF ANSWER TO INTERVENORS' MOTION TO ADMIT NEW CONTENTION  
REGARDING THE SAFETY AND ENVIRONMENTAL IMPLICATIONS OF THE NRC TASK  
FORCE REPORT ON THE FUKUSHIMA DAI-ICHI ACCIDENT

INTRODUCTION

On March 11, 2011, an earthquake of magnitude 9.0 and subsequent tsunami caused an accident at the Fukushima Dai-ichi nuclear power plant in Japan. On July 12, 2011, a Task Force established by the NRC published its review of lessons learned from this accident in *Recommendations for Enhancing Reactor Safety in the 21<sup>st</sup> Century: The Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident* (July 12, 2011), ADAMS Accession No. ML111861807 (Task Force Report). On August 11 and 12, 2011, the Intervenor previously admitted as parties to this proceeding filed a new unnumbered contention in response to publication of the Task Force Report. For the reasons discussed below, the contention does not meet the requirements of 10 C.F.R. §§ 2.309 and 2.335 and should therefore be rejected.

PROCEDURAL BACKGROUND

On September 18, 2008, the Detroit Edison Company (Applicant) submitted an application for a combined license (COL) for one ESBWR advanced boiling water reactor, designated as Unit 3, to be located at the site of the operating Fermi Nuclear Power Plant, Unit 2, in Monroe County, Michigan. Letter from Jack M. Davis, DTE, to NRC, Detroit Edison

Company Submittal of a Combined License Application for Fermi 3 (NRC Project No. 757) (Sept. 18, 2008), ADAMS Accession No. ML082730763. The *Federal Register* notice of docketing was published on December 2, 2008 (73 Fed. Reg. 73,350), and the *Federal Register* notice of hearing was published on January 8, 2009 (74 Fed. Reg. 836). The ESBWR design is the subject of an NRC rulemaking under Docket No. 52-010. The Fermi 3 COL application includes an Environmental Report (ER), as required by 10 C.F.R. § 51.50(c).

On March 9, 2009, Beyond Nuclear, Citizens for Alternatives to Chemical Contamination, Citizens Environmental Alliance of Southwestern Ontario, Don't Waste Michigan, Sierra Club, Keith Gunter, Edward McArdle, Henry Newman, Derek Coronado, Sandra Bihn, Harold L. Stokes, Michael J. Keegan, Richard Coronado, George Steinman, Marilyn R. Timmer, Leonard Mandeville, Frank Mantei, Marcee Meyers, and Shirley Steinman (collectively, Intervenors) filed a Petition for Leave to Intervene in the COL proceeding, along with a separate document containing 14 contentions. Following oral argument, the Licensing Board ruled that the Intervenors were admitted as parties to this proceeding. *Detroit Edison Co.* (Fermi Nuclear Power Plant, Unit 3), LBP-09-16, 70 NRC 227 (2009). Two contentions admitted at that time, contentions 6 and 8, are still pending before the Licensing Board. Subsequently, the Board admitted another contention, contention 15, which also remains pending. *Detroit Edison Co.* (Fermi Nuclear Power Plant, Unit 3), LBP-10-09, 71 NRC \_\_, \_\_ (slip op. at 32) (June 15, 2010).

On March 11, 2011, an earthquake of magnitude 9.0 occurred off the coast of Japan. The earthquake caused the shutdown of the three units of the Fukushima Dai-ichi power plant that were operating at the time (Units 1, 2, and 3) as well as the loss of offsite power to the station. Subsequent tsunami waves caused the loss of all ac electrical power at Units 1 through 5 at the site. This led to loss of cooling at Units 1, 2 and 3, resulting in damage to the nuclear fuel. These and other events resulting from the earthquake and tsunami are described in greater detail in the Task Force Report at 7-14. The Task Force Report, issued on July 12,

2011, was prepared pursuant to a Tasking Memorandum directing the NRC Staff to “establish a senior-level task force to conduct a methodological and systematic review of . . . processes and regulations to determine whether the agency should make additional improvements to [its] regulatory system . . . .” Memorandum from Chairman Jaczko to R.W. Borchardt, Executive Director for Operations, Tasking Memorandum – COMGBJ-11-0002 – Actions Following the Events in Japan (Mar. 23, 2011), ADAMS Accession No. ML1108208750.

On April 14, 2011, the Intervenors filed an Emergency Petition to Suspend All Pending Reactor Licensing Decisions and Related Rulemaking Decisions Pending Investigation of Lessons Learned from Fukushima Dai-Ichi Nuclear Power Station Accident (Emergency Petition) before the Commission. An Errata sheet was filed on April 21, 2011. The Staff and Applicant filed answers to the Emergency Petition on May 2, 2011. The Emergency Petition was accompanied by the declaration of Dr. Arjun Makhijani (First Makhijani Declaration). The Commission has not yet issued a ruling on the Emergency Petition.

On July 12, 2011, the Task Force Report was published. This report contains twelve recommendations for consideration by the Commission. See Task Force Report at 69-70. On August 11, 2011, the Intervenors filed a Motion to Admit New Contention Regarding the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-Ichi Accident (Motion to Admit). On August 12, 2011, the Intervenors filed a Contention Regarding NEPA Requirement to Address Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima-Dai-Ichi Accident (Proposed Contention). The Proposed Contention was accompanied by a second declaration by Dr. Arjun Makhijani (Second Makhijani Declaration).

### LEGAL STANDARDS

The admissibility of new and amended contentions is governed by 10 C.F.R.

§ 2.309(f)(2) and 2.309(f)(1). New or amended contentions filed after the initial filing period may be admitted only with leave of the presiding officer if, in accordance with 10 C.F.R. § 2.309(f)(2), the contentions meet the following requirements:

- (i) The information upon which the amended or new contention is based was not previously available;
- (ii) The information upon which the amended or new contention is based is materially different than information previously available; and
- (iii) The amended or new contention has been submitted in a timely fashion based on the availability of the subsequent information.

10 C.F.R. § 2.309(f)(2)(i)-(iii).

Additionally, a new or amended contention must also meet the general contention admissibility requirements of 10 C.F.R. § 2.309(f)(1). *Id.* In accordance with

10 C.F.R. § 2.309(f)(1), an admissible contention must:

- (i) Provide a specific statement of the issue of law or fact to be raised or controverted . . . ;
- (ii) Provide a brief explanation of the basis for the contention;
- (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;
- (iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;
- (v) Provide a concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the requestor/petitioner intends to rely to support its position on the issue;
- (vi) . . . provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must include references to specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a

relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief. . . .

10 C.F.R. § 2.309(f)(1)(i)-(vi). The Commission has emphasized that the rules on contention admissibility are “strict by design.” *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001), *petition for reconsideration denied*, CLI-02-01, 55 NRC 1 (2002). Failure to comply with any of these requirements is grounds for the dismissal of a contention. *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 325 (1999).

Finally, a contention that does not qualify for admission as a new contention under § 2.309(f)(2) may still be admitted if it meets the provisions governing nontimely contentions set forth in 10 C.F.R. § 2.309(c)(1).<sup>1</sup> Pursuant to 10 C.F.R. § 2.309(c)(2), each of the factors is required to be addressed in the requestor’s nontimely filing. The first factor, whether good cause exists for the failure to file on time, is the “most important” and entitled to the most weight. *Amergen Energy Co., LLC* (License Renewal for Oyster Creek Nuclear Generating Station), CLI-09-07, 69 NRC 235, 261 (2009). If no showing of good cause for the lateness is tendered, “petitioner’s demonstration on the other factors must be particularly strong.” *Texas Utilities*

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<sup>1</sup> 10 C.F.R. § 2.309(c)(1) requires a balancing of the following factors to the extent that they apply to a particular nontimely filing:

- (i) Good cause, if any, for the failure to file on time;
- (ii) The nature of the requestor's/petitioner's right under the Act to be made a party to the proceeding;
- (iii) The nature and extent of the requestor's/petitioner's property, financial or other interest in the proceeding;
- (iv) The possible effect of any order that may be entered in the proceeding on the requestor's/petitioner's interest;
- (v) The availability of other means whereby the requestor's/petitioner's interest will be protected;
- (vi) The extent to which the requestor's/petitioner's interests will be represented by existing parties;
- (vii) The extent to which the requestor's/petitioner's participation will broaden the issues or delay the proceeding; and
- (viii) The extent to which the requestor's/petitioner's participation may reasonably be expected to assist in developing a sound record.

10 C.F.R. § 2.309(c)(1)(i)-(viii).

*Electric Co.* (Comanche Peak Steam Electric Station, Units 1 & 2), CLI-92-12, 36 NRC 62, 73 (1992) (quoting *Duke Power Co.* (Perkins Nuclear Station, Units 1, 2 & 3), ALAB-431, 6 NRC 460, 462 (1977)).

The Licensing Board has issued an order setting forth other pleading rules specific to this proceeding. *Detroit Edison Co.* (Fermi Nuclear Power Plant, Unit 3) (Establishing schedule and procedures to govern further proceedings) (Sept. 11, 2009) (unpublished) (Scheduling Order). This Scheduling Order establishes consolidated briefing for motions for leave to file new contentions and the substantive contentions themselves, with the schedule for answers and replies to follow the contention pleading schedule in 10 C.F.R. § 2.309(h)(1)-(2). *Id.* at 2. The Scheduling Order also establishes that “[i]n general, a proposed new or amended contention shall be deemed timely under 10 C.F.R. § 2.309(f)(2)(iii) if it is filed within thirty (30) days of the date when the new and material information on which it is based first becomes available.” *Id.*

### DISCUSSION

The Motion to Admit contains the Intervenor’s arguments regarding the timeliness of the Proposed Contention. According to the Intervenor, the contention is based on the issuance of the Task Force Report on July 12, 2011, and is therefore timely because it was filed within 30 days of the report’s publication. Motion to Admit at 5. However, the Intervenor also address the standards for nontimely filing under 10 C.F.R. § 2.309(c)(1). The Staff raises no timeliness objection to those portions of the Proposed Contention that are, in fact, based on new information found in the Task Force Report. Timeliness arguments related to portions of the contention *not* based on the Task Force Report are raised in the substantive discussion below.

The Intervenor’s substantive contention filing incorporates by reference an attached contention<sup>2</sup> filed in the license renewal proceeding for the Seabrook Nuclear Power Plant in

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<sup>2</sup> Because the cover document signed by Intervenor’s counsel does not contain the substance of the argument, citations in the following discussion follow the pagination of the attached

New Hampshire. See *generally* Proposed Contention. According to the Intervenors, the Proposed Contention is based on a conclusion in the Task Force Report that the level of protection currently provided by NRC regulations is inadequate to ensure protection of public health, safety, and the environment. Proposed Contention at 2; see *also* Second Makhijani Declaration ¶ 11. From this starting point, the Intervenors argue that “[t]he conclusions and recommendations presented in the Task Force Report constitute ‘new and significant information,’ the environmental implications of which must be considered before the NRC may make a decision” related to reactor licensing. Proposed Contention at 12. The Intervenors therefore claim that any conclusions in environmental documents associated with this proceeding must be revisited, because compliance with NRC safety regulations is no longer sufficient to ensure that environmental impacts of accidents are acceptable. *Id.* at 13-14; see *also* Second Makhijani Declaration ¶ 11.

The Intervenors also make several distinct claims regarding both the content of the Task Force Report and the deficiencies they allege in environmental documents issued in COL proceedings. First, the Intervenors claim that environmental licensing documents for reactors do not adequately address the environmental analysis of design-basis accidents, severe accidents, and severe accident mitigation alternatives (SAMAs). Proposed Contention at 13-14. Second, the Intervenors assert that the Task Force Report requires supplementation of environmental documents in the proceeding to address recommendations related to seismic and flooding events. *Id.* at 24-25. Finally, the Intervenors argue that all twelve recommendations in the Task Force Report be considered in the environmental review of the Fermi COL application before licensing decisions are made. *Id.* at 25-27.

As further discussed below, the Proposed Contention is barred to the extent that it challenges existing NRC safety regulations, is not supported by the Task Force Report with respect to severe accident analyses under NEPA, and includes several additional claims that are

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Seabrook contention and disregard the pagination of the cover document.

not supported by the Task Force Report. For these reasons and others discussed below, it fails to satisfy the contention pleading rules in 10 C.F.R. §§ 2.309 and 2.335 and should be rejected.

I. TO THE EXTENT THE PROPOSED CONTENTION CHALLENGES EXISTING SAFETY REGULATIONS, IT IS BARRED BY NRC REGULATIONS

The Proposed Contention is styled as a contention regarding both the safety and environmental implications of the Task Force Report. Proposed Contention at 1. According to the Intervenor, “[t]he NRC’s current regulatory scheme requires significant re-evaluation and revision in order to expand or upgrade the design basis for reactor safety as recommended by the Task Force Report.” *Id.* at 9.

To the extent the Proposed Contention is intended to challenge existing NRC safety regulations, it is barred from consideration in adjudicatory proceedings by 10 C.F.R. § 2.335(a). Pursuant to this regulation, “no rule or regulation of the Commission, or any provision thereof . . . is subject to attack by way of discovery, proof, argument, or other means in any adjudicatory proceeding subject to this part.” 10 C.F.R. § 2.335(a). Petitioners seeking a waiver of this rule in a particular proceeding must meet the standards set forth in 10 C.F.R. § 2.335(b), something the Intervenor has not attempted here. For this reason, to the extent the Proposed Contention is meant as a challenge to the adequacy of current NRC safety regulations, it is not adjudicable in this proceeding and must be rejected.<sup>3</sup>

II. THE PROPOSED CONTENTION IS NOT SUPPORTED BY THE TASK FORCE REPORT WITH RESPECT TO SEVERE ACCIDENTS

The Intervenor’s overarching argument, that the Task Force Report demonstrates the inadequacy of current NRC safety regulations and therefore of all related environmental reviews, is not supported by the Task Force Report itself. The Intervenor asserts that the

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<sup>3</sup> The NRC Staff notes that a Petition for Rulemaking under 10 C.F.R. § 2.802 has also been submitted in response to the Task Force Report. To the extent any interested person desires a specific change to NRC regulations, this is the correct procedural approach. The Intervenor themselves recognize that some of the issues they raise may be more appropriate for generic resolution by rulemaking, Proposed Contention at 5, and the Petition for Rulemaking provides further indication that the Proposed Contention is intended in part to challenge Commission rules.



Proposed Contention is based on a conclusion in the Task Force Report that the level of protection currently provided by NRC regulations is inadequate to ensure protection of public health, safety, and the environment, and that the environmental implications of the report's recommendations must be considered before any new reactor licensing decision. Proposed Contention at 2; see *also* Second Makhijani Declaration ¶ 11. The Task Force does not make this conclusion; rather, it states that "continued operation and continued licensing activities do not pose an imminent risk to the public health and safety and are not inimical to the common defense and security." Task Force Report at 18. The Task Force notes that the level of safety associated with adequate protection of public health and safety has improved over time and should continue to improve "supported by new scientific information, technologies, methods, and operating experience," but does not state that the current level of protection is inadequate. *Id.* Furthermore, the Task Force Report does not take any position on NRC's environmental reviews. It is well established that a document cited by a petitioner as the supporting basis for a contention is subject to scrutiny, for what it both does and does not say. When a report is the central support for a contention, the contents of that report in its entirety is before the Board and subject to the Board's scrutiny. See, e.g., *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), LBP-96-2, 43 NRC 61, 90 (1996); *rev'd in part on other grounds*, CLI-96-7, 43 NRC 235 (1996). See *also* *Southern Nuclear Operating Co.* (Early Site Permit for the Vogtle ESP Site), LBP-07-3, 65 NRC 237, 254 (2007) ("the material provided in support of a contention will be carefully examined by the Board to confirm that on its face it does supply an adequate basis for the contention"). Because this central element of the Intervenor's argument is not supported by the document that serves as the grounds for filing the Proposed Contention, the Intervenor has not provided a sufficient basis for the contention or sufficient information to show that a genuine dispute with the Applicant exists. One of the most important claims made in the Proposed Contention therefore fails to meet the requirements of 10 C.F.R. § 2.309(f)(1)(ii) and (vi).

The Intervenors appear to believe that the Task Force Report calls for a change to the way accidents are treated in environmental review documents. See Proposed Contention at 14-15. The Task Force does discuss the distinction between design-basis accidents and severe or beyond design-basis accidents. Task Force Report at 17-22. It suggests creating a new category of events designated as “extended design-basis” and including a number of existing regulatory requirements under this heading. *Id.* at 20.

The Intervenors appear to have interpreted this section of the Task Force Report as support for a claim either that severe accidents are not currently addressed in NRC environmental reviews, or that the way they are addressed must be changed. See Proposed Contention at 13-14. To the extent that the Intervenors intend the former interpretation, they are simply incorrect. The Environmental Standard Review Plan (ESRP), which provides guidance for all NRC COL reviews, includes instructions for NRC Staff reviewers to consider the environmental impacts of both design-basis accidents and severe accidents. See generally NUREG-1555, *Environmental Standard Review Plan*, Chapter 7 (Oct. 1999). The ER in the Fermi 3 COL application addresses the environmental impacts of design-basis accidents at 7-1 to 7-16, and of severe accidents at 7-17 to 7-28. A petitioner’s imprecise reading of a reference document does not create a contention suitable for litigation. *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Ga.), LBP-95-6, 41 NRC 281, 300 (1995). This portion of the contention therefore fails to demonstrate the existence of a genuine dispute with the Applicant, and is inadmissible pursuant to 10 C.F.R. § 2.309(f)(1)(vi).

A. The Challenge to the Adequacy of the Fermi 3 Severe Accident Review is Unsupported by the Task Force Report and Therefore Untimely

To the extent that the Intervenors intend instead to question the adequacy of the ER in the Fermi 3 COL application with respect to its analysis of the environmental consequences of accidents, the Intervenors have not cited any part of the Task Force Report in support of their

claims. See Proposed Contention at 14. Rather, this portion of their argument is based on assertions by the Intervenors' expert, Dr. Arjun Makhijani, that

a major overarching step that needs to be taken is to integrate into the design basis for NRC safety requirements an expanded list of severe accidents and events, based on current scientific understanding and evaluations. This would ensure that potential mitigation measures are evaluated on the basis of whether they are needed for safety and not whether they are merely desirable. Should the NRC fail to incorporate an expanded list of severe accident requirements in the design basis of reactors, then a conclusion that the design provides for adequate protection to the public against severe accident risks could not be justified.

Second Makhijani Declaration ¶ 7. The Intervenors rephrase Dr. Makhijani's assertions as a claim that the Task Force recommends "the incorporation of accidents formerly classified as 'severe' or 'beyond design basis' into the design basis." Proposed Contentions at 14. The Seabrook contention attached by the Intervenors goes on to argue that the accident analysis in the draft environmental impact statement (EIS) for the Seabrook license renewal must be reevaluated. *Id.* at 15-22. The draft EIS for Fermi 3 has not yet been published, and the rest of this discussion will therefore make reference to the ER submitted as part of the COL application.

Neither Dr. Makhijani's Declaration nor the Proposed Contention text cites to the Task Force Report in support of this proposition. Indeed, both ignore contrary statements within the Task Force Report itself, including the statement that "[t]he Task Force envisions a framework in which the current design-basis requirements (i.e., for anticipated operational occurrences and postulated accidents) would remain largely unchanged" and the proposal to establish a new "extended design-basis" category for both current beyond design-basis regulatory requirements and any future rules that may be added. Task Force Report at 21. Both also disregard the Task Force's conclusion that "the ESBWR and AP1000 designs have many of the design features and attributes necessary to address the Task Force recommendations" and recommendation that design certification rulemakings for those designs be completed "without delay." *Id.* at 71-72.

With respect to this portion of the Proposed Contention, the Intervenors' assertions are untimely in that they are not based on any new information contained in the Task Force Report and could have been filed on a number of occasions prior to that report's publication. Related claims were, in fact, made in Dr. Makhijani's April 2011 declaration accompanying the Emergency Petition currently pending before the Commission. See First Makhijani Declaration ¶¶ 16, 33-35. Any specific challenges to the Applicant's ER could have been raised at any time following publication of that document. NRC regulations permit the filing of new or amended contentions

only with leave of the presiding officer upon a showing that (i) [t]he information upon which the amended or new contention is based was not previously available; (ii) [t]he information upon which the amended or new contention is based is materially different than information previously available; and (iii) [t]he amended or new contention has been submitted in a timely fashion based on the availability of the subsequent information.

10 C.F.R. § 2.309(f)(2). The Intervenors have not cited to any allegedly new information in the Task Force Report that supports their argument regarding "the incorporation of accidents formerly classified as 'severe' or 'beyond design basis' into the design basis," and the schedule for filing timely contentions based on new information is therefore inapplicable. See Scheduling Order at 2. For this reason, this portion of the contention is untimely.

The Intervenors have also failed to show good cause for untimely filing, as required by 10 C.F.R. § 2.309(c)(1)(i). Good cause for late filing is the most important factor to consider when evaluating whether an untimely filing will be accepted, and failure to meet this factor requires a compelling showing regarding the other factors. *Oyster Creek*, CLI-09-07, 69 NRC at 261; *Comanche Peak*, CLI-92-12, 36 NRC at 73 (quoting *Perkins Nuclear Station*, ALAB-431, 6 NRC at 462). Of the remaining factors in 10 C.F.R. § 2.309(c)(1), (vii) and (viii) also disfavor the Intervenors, as the issues they raise would broaden the proceeding, result in delays, and not contribute to a sound record. The other factors favor the Intervenors or are neutral. However,

given the importance of 10 C.F.R. § 2.309(c)(1)(i), (vii), and (viii), this untimely portion of the Proposed Contention should not be entertained.

Like those before it, the portion of the Proposed Contention also fails to supply an adequate basis or demonstrate the existence of a genuine dispute with the Applicant on a material issue of law or fact. In part, this failure may be related to the Intervenors' assumption, evident throughout their pleading, that only design-basis accidents are associated with mandatory safety regulations, and that regulations related to severe accidents are subject to cost-benefit analysis. See Proposed Contention at 2, 7, 8, 9, 14, 15; *see also infra* n. 4. The Task Force Report itself notes the potential for confusion associated with this issue, and observes that

the phrase "beyond design basis" is vague, sometimes misused, and often misunderstood. Several elements of the phrase contribute to these misunderstandings. *First, some beyond-design-basis considerations have been incorporated into the requirements and therefore directly affect reactor designs.* The phrase is therefore inconsistent with the normal meaning of the words. In addition, there are many other beyond-design-basis considerations that are not requirements. *The phrase therefore fails to convey the importance of the requirements to which it refers.*

Task Force Report at 19 (emphasis added). The Task Force Report makes recommendations regarding the a new regulatory framework for mandatory requirements related to beyond design-basis considerations, including a terminology change intended to clarify the nature of these requirements, but does not propose changes to current design-basis requirements. *Id.* at 20-21. As noted above, a petitioner's imprecise reading of a reference document does not create a contention suitable for litigation. *Georgia Tech*, LBP-95-6, 41 NRC at 300. The Intervenors' arguments related to this issue therefore fail to provide an adequate basis for an admissible contention, in violation of 10 C.F.R. § 2.309(f)(1)(ii), or to demonstrate the existence of a material dispute as required by 10 C.F.R. § 2.309(f)(1)(vi).

B. The Discussion of SAMAs is Not Supported by the Task Force Report

The Proposed Contention also includes an argument related to SAMAs, which are considered in NRC environmental reviews. See, e.g., ER at 7-29 to 7-32. According to the Intervenor, the Task Force Report includes a recommendation that all SAMAs be incorporated into the set of features required in all nuclear power plants “*without regard to their cost as fundamentally required for all NRC standards that set requirements for adequate protection of health and safety.*” Proposed Contention at 15 (emphasis in original). Neither the Task Force Report nor the declaration submitted in support of the Proposed Contention contains any statement to that effect; further, as noted in Section II above, the Task Force Report makes no reference to SAMAs or any other portion of NRC’s environmental reviews. Because neither the Task Force Report nor the declaration submitted with the contention contains such a statement, this portion of the Proposed Contention fails to satisfy the requirements of 10 C.F.R.

§ 2.309(f)(1)(v), which requires factual or expert support for a contention.

The recommendations in the Task Force Report, were they to be adopted, would have no impact on the nature of SAMA analysis. SAMA analyses, which are related to the probabilistic risk assessment (PRA) requirement of 10 C.F.R. § 50.34(f)(1)(i) and include cost-benefit analysis by definition, are intended “to review and evaluate plant-design alternatives that could significantly reduce the radiological risk from a severe accident.” See ESRP at 7.3-1 to 7.3-5. As the Commission has stated, SAMAs are safety enhancements intended to reduce the risk of severe accidents. *Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 290-91 (2010). A SAMA analysis examines the extent to which implementation of the SAMA would decrease the probability-weighted consequences of the analyzed severe accident sequences. *Id.* at 291. “Significantly, NRC SAMA analyses are not a substitute for, and do not represent, the NRC NEPA analysis of potential impacts of severe accidents.” *Id.* at 316. Rather, SAMA analyses are rooted in a cost-beneficial assessment:

SAMA analysis is used for determining whether particular SAMAs would sufficiently reduce risk – e.g., by reducing frequency of core damage or frequency of containment failure – for the SAMA to be cost-effective to implement. The SAMA analysis therefore is a [PRA] analysis. If the cost of implementing a particular SAMA is greater than its estimated benefit, the SAMA is not considered cost-beneficial to implement.

*Id.* at 291. For a SAMA analysis, the “goal is *only* to determine what safety enhancements are cost-effective to implement.” *Id.* at 317 (emphasis added). A SAMA analysis, including cost-benefit considerations, is specifically required by NRC regulations governing the environmental review of standard design certification applications. See 10 C.F.R. § 51.55(a). Design features required by safety regulations are not subject to SAMA analysis in the environmental review, even if they are related to severe accidents, because the SAMA analysis only considers mitigation *alternatives* – features that are not already incorporated into the design.

In making their argument, the Intervenors appear to merge concepts related to mandatory safety regulations under 10 C.F.R. Parts 50 and 52 with the SAMA analysis process. The Intervenors assert that “the Task Force effectively recommends a complete overhaul of the NRC’s system for mitigating severe accidents through consideration of SAMAs. *Id.* at 14. According to the Intervenors, the NRC’s current strategy related to severe accidents is limited to the SAMA analysis prepared as part of the environmental review and any voluntary measures adopted at a specific facility. *Id.*

In so arguing, the Intervenors ignore those regulations mentioned in the Task Force Report that do impose mandatory safety requirements related to severe accidents, and which the Task Force identifies as elements to be incorporated into their proposed “extended design-basis” regulatory framework. Task Force Report at 20-21. These include the station blackout rule in 10 C.F.R. § 50.63, the rules governing anticipated transient without scram in 10 C.F.R. § 50.62, the maintenance rule in 10 C.F.R. § 50.65, the aircraft impact rule in 10 C.F.R. § 50.150, the rule for protection against beyond design-basis fires and explosions in 10 C.F.R.

§ 50.54(hh), and others. *Id.* at 20. Furthermore, the Intervenor's ignore the Task Force's observation that 10 C.F.R. §§ 52.47(a)(23), which applies to design certifications, and 52.79(a)(38), which applies to COLs, have "clearly established . . . defense-in-depth severe accident requirements for new reactors, . . . thus bringing unity and completeness to the defense-in-depth concept." *Id.* By disregarding these regulatory requirements and focusing on the cost-benefit analysis conducted as part of the SAMA review in the ER and EIS, the Intervenor's misunderstand the NRC's current approach to severe accidents, as well as the Task Force's recommendations.

To the extent Intervenor's are using the term "SAMA" as shorthand for new design features they wish to see implemented at nuclear facilities, they have not identified any such feature or features here. Furthermore, the correct procedural option for interested persons to propose new safety rules is a Petition for Rulemaking under 10 C.F.R. § 2.802 rather than contentions in individual proceedings. The Intervenor's themselves concede that some of the issues they raise may be resolved more appropriately by rulemaking than in site-specific proceedings. Proposed Contention at 5.

The possibility that the Intervenor's are using the term "SAMA" outside its usual NEPA context may be responsible for the assertion that certain mandatory safety regulations are subject to cost-benefit analysis. See Proposed Contention at 8-9. As stated above, SAMA analyses conducted pursuant to NEPA use cost-benefit analyses to evaluate potential design alternatives for use at specific facilities. As discussed in Section II.A, safety regulations in 10 C.F.R. Parts 50 and 52 do not, regardless of whether they apply to design-basis or severe accident phenomena.<sup>4</sup> Whatever the Intervenor's' intent in using the "SAMA" terminology,

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<sup>4</sup> It appears that the Intervenor's have drawn incorrect inferences from *Union of Concerned Scientists v. NRC*, which they cite in their pleading. Proposed Contention at 9, citing 824 F.2d 108, 120 (D.C. Cir., 1987). As stated in this case, the AEA

prohibits the Commission from considering costs in setting the level of adequate protection and requires the Commission to impose backfits, regardless of cost,



however, nothing in this portion of their argument amounts to a contention meeting the requirements of 10 C.F.R. § 2.309(f)(1).

C. Assertions Related to the Alternatives Analysis in the ER are Also Unsupported by the Task Force Report and Do Not Include an Admissible Contention

The Intervenor's final NEPA-related claim is that making SAMAs mandatory would affect the outcome of NRC's environmental reviews in two ways. First, the Intervenor argues that making SAMAs mandatory would improve plant safety. Proposed Contention at 22. Second, the Intervenor asserts that imposing new mandatory safety features would raise the cost of new reactors and could affect the alternatives analysis in the ER. *Id.* at 23; see also Second Makhijani Declaration ¶¶ 13-24. According to the Intervenor, "these costs may be significant, showing that other alternatives such as the no-action alternative and other alternative electricity production sources may be more attractive." Proposed Contention at 23.

The first of these claims does nothing to invalidate the analysis in the ER. If additional safety measures were to be imposed on reactors for any reason, the result would likely be to lower accident risks and therefore reduce accident impacts below those stated in the ER. Any environmental analysis carried out under the current regulations would therefore be conservative.

The second claim states what appears to be the essence of the Intervenor's NEPA contention, namely that the alternative analysis in the ER is inadequate. If this is intended as the

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on any plant that fails to meet this level. The Act allows the Commission to consider costs only in deciding whether to establish or whether to enforce through backfitting safety requirements that are not necessary to provide adequate protection.

824 F.2d at 119-20. This distinction, which relates to NRC decisions about making new regulations and applying them to existing licensees by imposing a backfit, does not open the door to the use of cost-benefit analysis by license applicants with respect to safety features required by current mandatory safety rules. The distinction between design-basis and beyond design-basis phenomena, which the Petitioners consider central to their argument, therefore has no connection to the question of whether a given safety feature is mandatory or not.

core of the Proposed Contention, then the Proposed Contention as a whole is untimely for the reasons discussed in Section II.A above. As in that section, the argument that increased costs for nuclear facilities will alter the alternatives analysis in environmental reviews for new reactors has been submitted previously in connection with the Emergency Petition currently pending before the Commission. See First Makhijani Declaration ¶¶ 35. Additionally, contentions challenging the alternatives analysis in the Fermi 3 COL application could have been filed at any time since the application became available. This portion of the Proposed Contention should therefore be rejected for timeliness reasons alone.

In addition to the timeliness issue, the Proposed Contention also fails to meet the pleading requirements of 10 C.F.R. § 2.309(f)(1). The text of the Proposed Contention does not mention the specific recommendations in the Task Force Report or raise a challenge to any portion of the Fermi 3 COL application. The accompanying declaration does list a number of specific items that, according to Dr. Makhijani, are likely to substantially increase the cost of nuclear reactors in general. Second Makhijani Declaration ¶¶ 13-24. Many of these are clearly inapplicable to the Fermi 3 proceeding in that they recommend specific upgrades to the existing reactor fleet rather than any changes related to new reactors. See *id.* ¶¶ 15, 19, 21, 22, & 23. Others, such as a recommendation to review design certifications with respect to station blackout and spent fuel pool issues, are not drawn from the Task Force Report directly, but rather represent Dr. Makhijani's inferences. See *id.* ¶ 20. Even with respect to the others, however, Dr. Makhijani makes no attempt to relate his assertions to the Fermi 3 alternatives analysis, and merely asserts that significantly increased costs are likely. The Intervenor makes no attempt to focus the claims made in Dr. Makhijani's declaration, which is extremely broad and has been filed in multiple proceedings, to anything specific to the Fermi 3 COL application. For these reasons, this portion of the Proposed Contention fails to meet the basis requirement of 10 C.F.R. § 2.309(f)(1)(ii), or the requirements in 10 C.F.R. § 2.309(f)(1)(v)-(vi) that petitioners provided supporting information to show a genuine dispute with the applicant.

In addition, the Intervenor's assertions regarding the proposed reactors' costs fail to meet the materiality requirements of 10 C.F.R. § 2.309(f)(1)(iv) and (vi) because reactor costs are not material to the Fermi 3 environmental review. In the Summer COL proceeding, the Commission held that contentions related to reactor costs "were potentially relevant only if an environmentally preferable alternative had been identified." See *South Carolina Electric & Gas Co. & South Carolina Public Service Authority (Also Referred to as Santee Cooper)* (Virgil C. Summer Nuclear Station, Units 2 and 3), CLI-10-21, 72 NRC \_\_, \_\_ (Aug. 27, 2010) (slip op. at 4). The Commission provided the basis for this holding in a previous decision in the same proceeding:

[N]either NEPA nor any other statute gives us the authority to reject an applicant's proposal solely because an alternative might prove less costly financially. Monetary considerations come into play in only the opposite fashion — i.e., if an alternative to the applicant's proposal is environmentally preferable, then we must determine whether the environmental benefits conferred by that alternative are worthwhile enough to outweigh any additional cost needed to achieve them.

*South Carolina Electric & Gas Co. & South Carolina Public Service Authority (Also Referred to as Santee Cooper)* (Virgil C. Summer Nuclear Station, Units 2 and 3), CLI-10-1, 71 NRC 1, 23-24 (2010) (quoting *Consumers Power Co. (Midland Plant, Units 1 and 2)*, ALAB-458, 7 NRC 155, 162 (1978)). In *Summer*, the possibility of an environmentally preferable alternative remained only if the petitioners' alternatives contention was admissible, and the Commission therefore stated that should the licensing board reject this alternatives contention, then it must also reject the petitioners' cost-related contentions. *Summer*, CLI-10-21, 72 NRC at \_\_ (slip op. at 4). In the instant proceeding, the ER analyzes alternatives and concludes that none of them are environmentally preferable. See ER at 9-31 to 9-32. In addition, there are no pending or admitted alternatives contentions in this proceeding. Therefore, the Intervenor's assertions regarding reactors costs are not material to this proceeding and do not form an admissible basis for the Proposed Contention. See 10 C.F.R. § 2.309(f)(1)(iv), (vi).

III. THE INTERVENORS' FURTHER ASSERTIONS RELATED TO ENVIRONMENTAL IMPLICATIONS OF THE TASK FORCE REPORT ARE UNSUPPORTED AND INADMISSIBLE

The Intervenor's further assertion that the Task Force Report requires supplementation of environmental documents in this proceeding to address recommendations related to seismic and flooding events also does not accurately reflect the report's contents. The Intervenor's cite portions of the Task Force Report recommending that existing licensees reevaluate seismic and flooding hazards at their sites and make any necessary changes to structures, systems, and components that are important to safety. Proposed Contention at 24-25, citing Task Force Report at 30. The Intervenor's conclude that, as a consequence of this recommendation, the environmental documents in the Fermi 3 COL proceedings are incomplete and require supplementation. *Id.* However, the Task Force Report states clearly that all current design certification and COL applicants address seismic and flooding issues adequately under existing regulations and guidance. Task Force Report at 71. As noted in Section II above, a referenced document may be scrutinized both for what it does and what it does not say. *Yankee Atomic*, LBP-96-2, 43 NRC at 90. Thus, this portion of the contention is not supported by fact or expert opinion and fails to demonstrate the existence of a genuine dispute, in contravention of the requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi).

Finally, the assertion that all twelve of the task force's recommendations must be addressed in environmental documents prior to COL issuance is not supported by the report itself. As stated previously, the Task Force Report makes no mention of environmental reviews. It also recommends specific strategies for addressing its recommendations in the safety reviews of design certification and COL applications. Task Force Report at 71-72. The Intervenor's do not address this portion of the report, which specifically states that not all recommendations related to the existing reactor fleet apply to new reactors. This portion of the Proposed Contention, like the previous one, therefore fails to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi).

CONCLUSION

Pursuant to 10 C.F.R. § 2.335, the Proposed Contention is inadmissible in this proceeding to the extent that it challenges existing NRC safety regulations. Furthermore, it is not supported by the Task Force Report with respect to severe accident analyses under NEPA, and includes several additional claims that are not supported by the Task Force Report. For these reasons, it fails to satisfy the contention pleading rules in 10 C.F.R. § 2.309 and should be rejected.

Respectfully Submitted,

**/Signed (electronically) by/**  
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Dated at Rockville, Maryland  
this 6th day of September, 2011

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
)  
)  
DETROIT EDISON CO. ) Docket No. 52-033  
)  
)  
(Fermi Nuclear Power Plant, Unit 3) )

CERTIFICATE OF SERVICE

I hereby certify that copies of the NRC STAFF ANSWER TO INTERVENORS' MOTION TO ADMIT NEW CONTENTION REGARDING THE SAFETY AND ENVIRONMENTAL IMPLICATIONS OF THE NRC TASK FORCE REPORT ON THE FUKUSHIMA DAI-ICHI ACCIDENT have been served upon the following persons by Electronic Information Exchange and electronic mail this 6th day of September, 2011:

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