

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))

NRC STAFF ANSWER TO PETITION OF BEYOND NUCLEAR, CITIZENS FOR ALTERNATIVES TO CHEMICAL CONTAMINATION, CITIZENS ENVIRONMENTAL ALLIANCE OF SOUTHWESTERN ONTARIO, DON'T WASTE MICHIGAN, SIERRA CLUB, COLAN KEITH GUNTER, EDWARD MCARDLE, HENRY NEWNAN, 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 FOR LEAVE TO INTERVENE IN COMBINED OPERATING LICENSE PROCEEDINGS AND REQUEST FOR ADJUDICATION HEARING

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April 3, 2009

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Pursuant to 10 C.F.R. § 2.309(h)(1), the staff (Staff) of the Nuclear Regulatory Commission (NRC or Commission) hereby answers the Petition for Leave to Intervene and Request for Adjudication Hearing (Petition) that was filed in the proceeding on the proposed Fermi Nuclear Power Plant, Unit 3 (Fermi 3) combined license (COL) by the organizations Beyond Nuclear, Citizens for Alternatives to Chemical Contamination (CACC), Citizens Environmental Alliance of Southwestern Ontario (CEASO), Don't Waste Michigan (DWM), the Sierra Club, and various individuals (collectively, Petitioners) on March 9, 2009. For the reasons set forth below, the Staff does not oppose the standing of the Petitioners. The Staff opposes the admissibility of all but part of one of the Petitioners' contentions. Because a part of Contention 5 is admissible, the Petition should be granted and the Petitioners admitted as parties to this proceeding.

BACKGROUND

By letter dated September 18, 2008, Detroit Edison Co. (DTE or Applicant), acting for itself, submitted a COL application (Application or COLA) for one ESBWR advanced boiling water reactor to be located at the site of the operating Fermi Nuclear Power Plant, Unit 2 in Monroe County, Michigan. The *Federal Register* notice of docketing was published on December 2, 2008 (73 Fed. Reg. 73,350), and the *Federal Register* notice of hearing (Hearing Notice) was published on January 8, 2009 (74 Fed. Reg. 836). The Hearing Notice included an “Order Imposing Procedures for Access to Sensitive Unclassified Non-Safeguards Information [SUNSI] and Safeguards Information [SGI] for Contention Preparation.”

Two important parts of the Fermi 3 COL Application that will be discussed extensively below are the Fermi 3 COL Final Safety Analysis Report (FSAR) and Environmental Report (ER). The Fermi 3 COL Application also incorporates by reference Revision 4 of the ESBWR design control document (DCD), which was submitted to the NRC by GE-Hitachi Nuclear Energy Americas LLC (GE-Hitachi) on September 28, 2007. GE-Hitachi submitted Revision 5 to the ESBWR DCD on June 1, 2008, and both revisions will be the subject of an NRC rulemaking under Docket No. 52-010.

DISCUSSION

In their Petition, the Petitioners that are organizations assert that they have standing based upon their representation of one or more of their members, and the individual Petitioners assert that they have standing in their own right. Petition at 2-8. In four separate documents filed with their Petition (collectively, Contentions), the Petitioners submit a total of fourteen contentions.¹ As explained below, the Staff does not oppose the standing of the Petitioners or

¹ The four documents submitted are untitled, except for the headings of the individual contentions they contain. The pages are also unnumbered. For convenience, the NRC Staff has assembled the four documents in the order in which the contentions are numbered and has numbered the pages sequentially from 1 to 139. We will refer to this document as

the admission of the parts of Contention 5 identified below. The Staff opposes admission of all other contentions, including other parts of Contention 5.

I. LEGAL STANDARDS

A. STANDING TO INTERVENE

In accordance with the Commission's Rules of Practice:²

[a]ny person whose interest may be affected by a proceeding and who desires to participate as a party must file a written request for hearing or petition for leave to intervene and a specification of the contentions that the person seeks to have litigated in the hearing.

10 C.F.R. § 2.309(a). The regulations further provide that the Licensing Board:

will grant the [petition] if it determines that the [petitioner] has standing under the provisions of [10 C.F.R. § 2.309(d)] and has proposed at least one admissible contention that meets the requirements of [10 C.F.R. § 2.309(f)].

Id.

Under the general standing requirements set forth in 10 C.F.R. § 2.309(d)(1), a request for hearing or petition for leave to intervene must state:

(i) The name, address and telephone number of the requestor or petitioner;

(ii) The nature of the requestor's/petitioner's right under the [Atomic Energy Act of 1954, as amended (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; and

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

10 C.F.R. § 2.309(d)(1).

"Contentions" throughout, to distinguish it from the Petition itself. The Petition proper, which bears the signature of counsel, contains the standing argument and incorporates the contentions by reference. We note this because other parties may have chosen to refer to these documents in other ways, and we wish to be clear about the system we have adopted.

² See Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders, 10 C.F.R. Part 2.

As the Commission has observed:

[a]t the heart of the standing inquiry is whether the petitioner has “alleged such a personal stake in the outcome of the controversy” as to demonstrate that a concrete adverseness exists which will sharpen the presentation of issues.

Sequoyah Fuels Corp. and Gen. Atomics (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 71 (1994) (quoting *Baker v. Carr*, 369 U.S. 186, 204 (1962)) (citing *Duke Power Co. v. Carolina Envtl. Study Group, Inc.*, 438 U.S. 59, 72 (1978)).

To demonstrate such a “personal stake,” the Commission applies contemporaneous judicial concepts of standing. Accordingly, petitioner must (1) allege an “injury in fact” that is (2) “fairly traceable to the challenged action” and (3) is “likely” to be “redressed by a favorable decision.”³

In reactor license proceedings, licensing boards have typically applied a “proximity” presumption to persons “who reside in or frequent the area within a 50-mile radius” of the plant in question.⁴ The Commission noted this practice with approval, stating that:

We have held that living within a specific distance from the plant is enough to confer standing on an individual or group in proceedings for construction permits, operating licenses, or significant amendments thereto[.] See, e.g. *Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), ALAB-522, 9 NRC 54 (1979) . . . [T]hose cases involved the construction or operation of the reactor itself, with clear implications for the offsite environment[.] See, e.g., *Gulf States Utilities Co.* (River Bend Station, Units 1 and 2), ALAB-183, 8 [sic, 7] AEC 222, 226 (1974).

Fla. Power & Light Co. (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329 (1989). The proximity presumption establishes standing without the need to establish the elements of injury, causation, or redressability. *Turkey Point*, LBP-01-6, 53 NRC at 150.

³ *Sequoyah Fuels*, 40 NRC at 71-72 (citations omitted) (quoting *Lujan v. Defenders of Wildlife*, 504 U.S. 505, 560-61 (1992)) (internal quotations omitted) (citing *Cleveland Elec. Illuminating Co.* (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 92 (1993)). See also *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 323 (1999).

⁴ See, e.g., *Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 148 (2001). The *Turkey Point* decision summarizes the development of this doctrine. See *Turkey Point*, LBP-01-6, 53 NRC at 147-48.

Because a COL application is an application for a construction permit combined with an operating license (see 10 C.F.R. § 52.1(a)), the proximity presumption has been applied to COL proceedings.⁵

An organization may establish its standing to intervene based on organizational standing (showing that its own organizational interests could be adversely affected by the proceeding), or representational standing (based on the standing of its members). Where an organization seeks to establish "representational standing," it must show that at least one of its members may be affected by the proceeding, it must identify that member by name and address and it must show that the member "has authorized the organization to represent him or her and to request a hearing on his or her behalf."⁶ Further, for the organization to establish representational standing, the member seeking representation must qualify for standing in his or her own right, the interests that the organization seeks to protect must be germane to its own purpose, and neither the asserted claim nor the requested relief must require an individual member to participate in the organization's legal action.⁷

⁵ See *Duke Energy Carolinas, LLC* (Combined License Application for William States Lee III Nuclear Station, Units 1 and 2), LBP-08-17, 67 NRC ____, ____ (Aug. 22, 2008) (slip op. at 5); *Tennessee Valley Authority* (Bellefonte Nuclear Power Plant Units 3 and 4), LBP-08-16, 67 NRC ____, ____ (Sept. 12, 2008) (slip op. at 8).

⁶ See, e.g., *Entergy Nuclear Operations Inc. and Entergy Nuclear Palisades, LLC, et al.* (Palisades Nuclear Plant), CLI-08-19, 68 NRC ____, ____ (Aug. 22, 2008) (slip op. at 6-7); *Consumers Energy Co.* (Palisades Nuclear Power Plant), CLI-07-18, 65 NRC 399, 409 (2007); *Amergen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), LBP-06-07, 63 NRC 188, 195 (2006) (citing *GPU Nuclear Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 202 (2000)).

⁷ *Consumers Energy Co., Nuclear Management Co., LLC, Entergy Nuclear Palisades, LLC, and Entergy Nuclear Operations, Inc.* (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 409; *Private Fuel Storage, LLC* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 323 (citing *Hunt v. Wash. State Apple Advertising Comm'n*, 432 U.S. 333, 343 (1977)).

B. LEGAL REQUIREMENTS FOR CONTENTIONS

The legal requirements governing the admissibility of contentions are well established and currently are set forth in 10 C.F.R. § 2.309(f) of the Commission's Rules of Practice (formerly § 2.714(b)).⁸

The standards in 10 C.F.R. § 2.309(f)(1) may be summarized as follows. An admissible contention must: (1) provide a specific statement of the legal or factual issue sought to be raised; (2) provide a brief explanation of the basis for the contention; (3) demonstrate that the issue raised is within the scope of the proceeding; (4) demonstrate that the issue raised is material to the findings the NRC must make to support the action that is involved in the proceeding; (5) provide a concise statement of the alleged facts or expert opinions, including references to specific sources and documents, that support the petitioner's position and upon which the petitioner intends to rely at the hearing; and (6) provide sufficient information to show that a genuine dispute with the applicant exists with regard to a material issue of law or fact, including references to specific portions of the application that the petitioner disputes, or in the case when the application is alleged to be deficient, the identification of such deficiencies and supporting reasons for this belief.⁹

⁸ The Commission codified the requirements of former § 2.714, together with rules regarding contentions set forth in Commission cases, in § 2.309 in 2004. See *Changes to Adjudicatory Process; Final Rule*, 69 Fed. Reg. 2182 (Jan. 14, 2004), *as corrected*, 69 Fed. Reg. 25,997 (May 11, 2004). In the Statements of Consideration for the final rule, the Commission cited several Commission and Atomic Safety and Licensing Appeal Board decisions applying former § 2.714 in support of the codified provisions of § 2.309. See 69 Fed. Reg. at 2202. Accordingly, Commission and Appeal Board decisions on former § 2.714 retain their vitality, except to the extent the Commission changed the provisions of § 2.309 as compared to former § 2.714.

⁹ 10 C.F.R. § 2.309(f)(1)(i)-(vi). Section 2.309(f) states the following requirements for contentions:

(f) Contentions.

(1) A request for hearing or petition for leave to intervene must set forth with particularity the contentions sought to be raised. For each contention, the request or petition must:

Sound legal and policy considerations underlie the Commission's contention requirements. The purpose of the contention rule is to "focus litigation on concrete issues and result in a clearer and more focused record for decision." 69 Fed. Reg. at 2202; *see also Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519, 553-54 (1978); *BPI v. AEC*, 502 F.2d 424, 428 (D.C. Cir. 1974); *Phila. Elec. Co. (Peach Bottom Atomic Power Station, Units 2 and 3)*, ALAB-216, 8 AEC 13, 20 (1974). 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." 69 Fed. Reg. at 2202. 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

(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; and

(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. . . .

(2) Contentions must be based on documents or other information available at the time the petition is to be filed, such as the application, supporting safety analysis report, environmental report or other supporting document filed by an applicant or licensee, or otherwise available to a petitioner. On issues arising under the National Environmental Policy Act, the petitioner shall file contentions based on the applicant's environmental report.

10 C.F.R. § 2.309(f)(1)-(2).

(2001), *pet. 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. 69 Fed. Reg. at 2221; see also *Private Fuel Storage, L.L.C.*, CLI-99-10, 49 NRC at 325; *Arizona Public Service Co. et al.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155-56 (1991). "Mere 'notice pleading' does not suffice."¹⁰ *Amergen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 119 (2006).

Finally, it is well established that the purpose for the basis requirements is: (1) to assure that the contention raises a matter appropriate for adjudication in a particular proceeding; (2) to establish a sufficient foundation for the contention to warrant further inquiry into the assertion; and (3) to put other parties sufficiently on notice of the issues so that they will know generally what they will have to defend against or oppose. *Peach Bottom*, ALAB-216, 8 AEC at 20-21; *Ariz. Pub. Serv. Co., et al.* (Palo Verde Nuclear Generating Station, Units 1, 2 and 3), LBP-91-19, 33 NRC 397, 400 (1991). The *Peach Bottom* decision requires that a contention be rejected if:

- (1) it constitutes an attack on applicable statutory requirements;
- (2) it challenges the basic structure of the Commission's regulatory process or is an attack on the regulations;
- (3) it is nothing more than a generalization regarding the petitioner's view of what applicable policies ought to be;
- (4) it seeks to raise an issue which is not proper for adjudication in the proceeding or does not apply to the facility in question; or
- (5) it seeks to raise an issue which is not concrete or litigable.

¹⁰ See also *Palo Verde*, CLI-91-12, 34 NRC at 155; *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), LBP-91-35, 34 NRC 163, 167-68 (1991). These requirements are intended, *inter alia*, to ensure that a petitioner reviews the application and supporting documentation prior to filing contentions; that the contention is supported by at least some facts or expert opinion known to the petitioner at the time of filing; and that there exists a genuine dispute between the petitioner and the applicant before a contention is admitted for litigation -- so as to avoid the practice of filing contentions which lack any factual support and seeking to flesh them out later through discovery. See, e.g., *Shoreham*, LBP-91-35, 34 NRC at 167-68.

Peach Bottom, ALAB-216, 8 AEC at 20-21.

These rules focus the hearing process on real disputes susceptible of resolution in an adjudication. See *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334 (1999). For example, “a petitioner may not demand an adjudicatory hearing to attack generic NRC requirements or regulations or to express generalized grievances about NRC policies.” *Id.* Specifically, NRC regulations do not allow a contention to attack a regulation unless the proponent requests a waiver from the Commission. 10 C.F.R. § 2.335; *Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-07-3, 65 NRC 13, 17-18 and n.15 (2007) (citing *Millstone*, CLI-01-24, 54 NRC at 364).

II. EACH OF THE PETITIONERS HAS STANDING.

As discussed below, the five organizational petitioners (Beyond Nuclear, CACC, Sierra Club, DWM, and CEASO) have established representational standing on behalf of one or more of their members. In addition, eight individuals have established standing to intervene and have authorized the five organizational petitioners to represent them in the proceeding. However, the Staff notes that no one – attorney¹¹ or authorized representative – has filed a written notice of appearance on behalf of any of the petitioners, organizational or individual, in this proceeding. See 10 C.F.R. § 2.314(b).

A. Representational Standing

1. Beyond Nuclear

Beyond Nuclear claims representational standing to intervene in this proceeding through one of its members, Colan Keith Gunter, who resides at 15784 Whitby, Livonia, Michigan. Petition at 2-3; Declaration of Colan Keith Gunter in Support of Beyond Nuclear Petition to

¹¹ The Petition is signed by Terry J. Lodge, who indicates that he is “Counsel for Petitioners.” Petition at 8.

Intervene in Docket 52-033 (Gunter Decl.) ¶ 1. Colan Gunter asserts in his declaration that he is a member of Beyond Nuclear, that he lives within fifty miles of the Fermi 3 site, and that he authorizes Beyond Nuclear to represent him in this proceeding. Gunter Decl. ¶¶ 1, 3. Colan Gunter's assertion that he lives within 50 miles of the site establishes his standing under the proximity presumption without a need to show injury, causality, or redressability. Beyond Nuclear has also submitted a declaration from the Director of its Reactor Oversight Project, Paul Gunter, affirming that Beyond Nuclear seeks to intervene on Colan Gunter's behalf. Declaration of Authorized Official of Beyond Nuclear in Support of Petition to Intervene in Docket 52-033 (Beyond Nuclear Decl.).

Beyond Nuclear describes itself as a "public education and advocacy group that aims to educate and activate the public on issues pertaining to the hazards of nuclear power" and which "advocates for an energy future for the State of Michigan and the United States that is sustainable, benign, and democratic." Petition at 2. Colan Gunter has stated his interest in the proceeding as follows:

I am concerned that if the NRC grants the Detroit Edison Company COLA, the construction and operation of the proposed nuclear power plant could adversely affect my health and safety and the integrity of the environment in which I live. I am particularly concerned about the risk of the accidental release of radiation into the environment, and the potential harm to groundwater and surface waters.

Gunter Decl. ¶ 2. Based on these statements, Beyond Nuclear's interests are germane to the interests of the member that Beyond Nuclear seeks to protect. *Palisades*, CLI-07-18, 65 NRC at 409. Because a member of Beyond Nuclear has established standing to intervene in his own right, and has authorized Beyond Nuclear to represent his interests in this proceeding, Beyond Nuclear has satisfied the standards for representational standing. See *id.* Therefore, the Staff does not object to Beyond Nuclear's representational standing to petition to intervene on behalf of its member, Colan Gunter.

2. Citizens for Alternatives to Chemical Contamination (CACC)

CACC claims representational standing to intervene in this proceeding through one of its members, Harold L. Stokes, who resides at 26345 W. Seven Mile, Redford Twp., Michigan. Petition at 3; Declaration of Harold L. Stokes in Support of [CACC] Petition to Intervene in Docket 52-033 (Stokes Decl.) ¶ 1. Mr. Stokes declares that he is a member of CACC, that he resides within fifty miles of the Fermi 3 site, and that he authorizes CACC to represent him in this proceeding. Stokes Decl. ¶¶ 1, 3. Mr. Stokes's assertion that he lives within 50 miles of the site establishes his standing under the proximity presumption without a need to show injury, causality, or redressability. CACC has also submitted a declaration from its Chairperson, Kathryn F. Cumbow, affirming that CACC seeks to intervene on Mr. Stokes's behalf. Declaration of Authorized Official of [CACC] in Support of Petition to Intervene in Docket 52-033 (CACC Decl.) ¶¶ 1, 3.

CACC describes itself as "a Michigan-based grassroots organization that for over 20 years has educated and organized the public around issues of chemical and radiation safety and protection of the environment." Petition at 3. Mr. Stokes has stated his interest in the proceeding as follows:

I am concerned that if the NRC grants the Detroit Edison Company COLA, the construction and operation of the proposed nuclear power plant could adversely affect my health and safety and the integrity of the environment in which I live. I am particularly concerned about the risk of the accidental release of radiation into the environment, and the potential harm to groundwater and surface waters.

Stokes Decl. ¶ 2. Based on these statements, CACC's interests are germane to the interests of the member that CACC seeks to protect. *Palisades*, CLI-07-18, 65 NRC at 409. Because a member of CACC has established standing to intervene in his own right and has authorized CACC to represent his interests in this proceeding, CACC has satisfied the standards for representational standing. See *id.* Therefore, the Staff does not object to CACC's representational standing to petition to intervene on behalf of its member, Harold Stokes.

3. Sierra Club, Michigan Chapter (Sierra Club)

Sierra Club claims representational standing to intervene in this proceeding through two of its members: Edward McArdle, who resides at 18841 Reed, Melvindale, Michigan, and Henry Newnan, who resides at 27156 Gail Drive, Warren, Michigan. Petition at 3; Declaration of Edward McArdle in Support of Sierra Club Petition to Intervene in Docket 52-033 (McArdle Decl.) ¶ 1; Declaration of Henry Newnan in Support of Sierra Club Petition to Intervene in Docket 52-033 (Newnan Decl.) ¶ 1. Mr. McArdle and Mr. Newnan have provided declarations which state that they are members of Sierra Club, that they reside within fifty miles of the Fermi 3 site, and that they authorize Sierra Club to represent them in this proceeding. McArdle Decl. ¶¶ 1, 3; Newnan Decl. ¶¶ 1, 3. The assertions that Mr. McArdle and Mr. Newnan live within 50 miles of the site establish their standing under the proximity presumption without a need to show injury, causality, or redressability. Sierra Club has also submitted a declaration from the Michigan Chapter Director, Anne Woiwode, affirming that Sierra Club seeks to intervene on behalf of Mr. McArdle and Mr. Newnan. Declaration of Authorized Official of Sierra Club in Support of Petition to Intervene in Docket 52-033 (Sierra Club Decl.) ¶¶ 1, 3.

Sierra Club describes itself as “a national environmental organization dedicated to preserving the environment on many fronts . . . including organizing and educating the public about the risks and choices between nuclear power and other energy options.” Petition at 3.

Mr. McArdle and Mr. Newnan have both stated their interests in the proceeding as follows:

I am concerned that if the NRC grants the Detroit Edison Company COLA, the construction and operation of the proposed nuclear power plant could adversely affect my health and safety and the integrity of the environment in which I live. I am particularly concerned about the risk of the accidental release of radiation into the environment and the potential harm to groundwater and surface waters.

McArdle Decl. ¶ 2; Newnan Decl. ¶ 2. Based on these statements, Sierra Club’s interests are germane to the interests of the members that Sierra Club seeks to protect. *Palisades*, CLI-07-18, 65 NRC at 409. Because two members of Sierra Club have established standing to

intervene in their own right, and have authorized Sierra Club to represent their interests in this proceeding, Sierra Club has satisfied the standards for representational standing. *See id.*

Therefore, the Staff does not object to Sierra Club's representational standing to petition to intervene on behalf of its members, Edward McArdle and Harold Newnan.

4. Don't Waste Michigan (DWM)

DWM claims representational standing to intervene in this proceeding through one of its members, Michael J. Keegan, who resides at 811 Harrison Street, Monroe, Michigan.¹² Petition at 4; Declaration of Michael J. Keegan in Support of [DWM] Petition to Intervene in Docket 52-033 (Keegan DWM Decl.) ¶ 1. Mr. Keegan's declaration states that he is a member of DWM, that he resides within fifty miles of the Fermi 3 site, and that he authorizes DWM to represent him in this proceeding. Keegan DWM Decl. ¶¶ 1, 3. Mr. Keegan's assertion that he lives within 50 miles of the site establishes his standing under the proximity presumption without a need to show injury, causality, or redressability.

DWM describes itself as a "grassroots organization in Michigan which has opposed various incarnations of nuclear energy, from commercial nuclear power plants to radioactive waste." Petition at 4. Mr. Keegan has stated his interest in the proceeding as follows:

I am concerned that if the NRC grants the Detroit Edison Company COLA, the construction and operation of the proposed nuclear power plant could adversely affect my health and safety and the integrity of the environment in which I live. I am particularly concerned about the risk of the accidental release of radiation into the environment, and the potential harm to groundwater and surface waters.

Keegan DWM Decl. ¶ 2. Based on these statements, DWM's interests are germane to the interests of the member, Michael Keegan, that DWM seeks to protect. *Palisades*, CLI-07-18, 65 NRC at 409. Because a member of DWM has established standing to intervene in his own right and has authorized DWM to represent his interests in this proceeding, DWM has satisfied

¹² Mr. Keegan has also submitted a separate declaration asserting his individual standing to intervene.

the standards for representational standing. *See id.* Therefore, the Staff does not object to DWM's representational standing to petition to intervene on behalf of its member, Michael Keegan.

5. Citizens Environmental Alliance of Southwestern Ontario (CEASO)

CEASO claims representational standing to intervene in this proceeding through two of its members, Derek and Richard Coronado, who both reside at 1950 Ottawa Street, Windsor, Ontario, Canada. Petition at 3; Declaration of Derek Coronado in Support of [CEASO] Petition to Intervene in Docket 52-033 and Declaration of Richard Coronado in Support of [CEASO] Petition to Intervene in Docket 52-033 (collectively, Coronado Decls.) ¶¶ 1. Derek and Richard Coronado state in their declarations that they are members of CEASO, that they reside within fifty miles of the Fermi 3 site, and that they authorize CEASO to represent them in this proceeding. Coronado Decls. ¶¶ 1, 3. Derek and Richard Coronado's assertions that they live within 50 miles of the site establish their standing under the proximity presumption without a need to show injury, causality, or redressability. CEASO has also submitted a second declaration from Derek Coronado, Coordinator of CEASO, affirming that CEASO seeks to intervene on behalf of himself and Richard Coronado. Declaration of Authorized Official of [CEASO] in Support of Petition to Intervene in Docket 52-033 (CEASO Decl.) ¶¶ 1, 3.

CEASO describes itself as "an organization based in the southwestern portion of the province of Ontario, Canada, which has for more than a decade worked on raising citizen awareness of various issues related to preservation of the Great Lakes and favoring the increased deployment of environmentally-benign energy sources." Petition at 3. Derek and Richard Coronado have both stated their interests in the proceeding as follows:

I am concerned that if the NRC grants the Detroit Edison Company COLA, the construction and operation of the proposed nuclear power plant could adversely affect my health and safety and the integrity of the environment in which I live. I am particularly concerned about the risk of the accidental release of radiation into the environment, and the potential harm to groundwater and surface waters.

Coronado Decls. ¶ 2. Based on these statements, CEASO's interests are germane to the interests of the members that CEASO seeks to protect. *Palisades*, CLI-07-18, 65 NRC at 409. Because two members of CEASO have established standing to intervene in their own right, and have authorized CEASO to represent their interests in this proceeding, CEASO has satisfied the standards for representational standing. See *id.* Therefore, the Staff does not object to CEASO's representational standing to petition to intervene on behalf of its members, Derek and Richard Coronado.

B. Individual Standing

The Petition contains declarations from eight individuals "in Support of Beyond Nuclear; Citizens for Alternatives to Chemical Contamination; Citizens Environmental Alliance; Don't Waste Michigan; Sierra Club Michigan Chapter; Toledo Coalition Safe Energy¹³ in Petition to Intervene in Docket 52-033." (collectively, *Indiv. Decls.*). These individuals are Michael J. Keegan, 811 Harrison Street, Monroe, Michigan; George Steinman, 3011 Vivian Road, Monroe, Michigan; Shirley Steinman, 3011 Vivian Road, Monroe, Michigan; Leonard Mandeville, 1280 S. Raisinville, Monroe, Michigan; Marcee Meyers, 1280 S. Raisinville, Monroe, Michigan; Sandra Bihn, 6565 Bayshore Road, Oregon, Ohio; Marilyn Timmer, 507 St. Mary's Ave., Monroe, Michigan; and Frank Mantei, 571 St. Mary's Ave., Monroe, Michigan.

In these declarations, each of the eight individuals has asserted that he or she lives within fifty miles of the Fermi 3 site, and each individual has stated the following interest in the proceeding:

I am concerned that if the NRC grants the Detroit Edison Company COLA, the construction and operation of the proposed nuclear power plant could adversely affect my health and safety and the integrity of the environment in which I live. I am particularly concerned about the risk of the accidental release of radiation into the environment, and the potential harm to groundwater and surface waters.

¹³ Although included in the caption of these declarations, Toledo Coalition Safe Energy is not listed as a Petitioner in the Petition, nor did it submit a declaration in its own right or from a member asserting standing to intervene in this proceeding.

With the exception of Michael Keegan, who asserted his membership in DWM in a separate declaration (Keegan DWM Decl. ¶ 1), none of these individuals have stated that they are members of Beyond Nuclear, CACC, Sierra Club, DWM, or CEASO. Likewise, none of the five petitioning organizations have indicated that these individuals are members. However, each of these individuals has expressly authorized the petitioning organizations to represent his or her interests in this proceeding. See *Indiv. Decls.* ¶ 3. The NRC regulations state that a person other than a partnership, corporation, or other association may appear on his own behalf or through an attorney, 10 C.F.R. § 2.314(b). However, because these individuals have expressly authorized the petitioning organizations to represent them, the Staff does not object to such representation. See *Long Island Lighting Co.* (Shoreham Nuclear Power Plant, Unit 1), LBP-77-11, 5 NRC 481, 483 (1977) (an organization may represent persons other than its own members if it has express authorization to do so).

III. PETITIONERS' PROPOSED CONTENTIONS

The Petitioners submitted fourteen proposed contentions, which are discussed below. As explained below, the NRC Staff does not oppose admission of the parts of Contention 5 that are identified in Section E.1. The Staff opposes admission of all other contentions, including other parts of Contention 5. The NRC Staff discusses the proposed contentions *seriatim* as they appear in Petitioners' filing.

A. CONTENTION 1

The Environmental Report is unacceptably deficient because it omits an adequate analysis of the significance of Fermi 3 environmental impacts and its contribution to cumulative and additive persistent toxic discharges into Lake Erie and the Great Lakes Basin from the nuclear industry.

In this contention, the Petitioners attack the adequacy of the Applicant's analysis of cumulative environmental effects.¹⁴ Contentions at 1; see *also id.* at 15. Specifically, the

¹⁴ The Petitioners initially characterize the defect as an "omission" of "any analysis . . .

Petitioners assert that the Applicant has improperly limited its analysis of cumulative water use impacts to the “immediate vicinity of the Fermi 3 site,” and that such a limitation does not satisfy the National Environmental Policy Act (NEPA) and is “scientifically unsupported.”¹⁵ According to the Petitioners, NEPA requires analysis of cumulative effects “on a regional scope,” and therefore the Applicant’s cumulative effects analysis must include the effects of 33 existing and 12 proposed reactors in the United States and Canada that are located in the Great Lakes Basin. *Id.* at 14-15. The Petitioners claim that the Applicant has failed to include these effects in its analysis and ask the Board to require the Applicant to do so. *Id.* at 15.

In support of this contention, the Petitioners cite to and provide excerpts from several sections of Chapters 2 and 5 of the ER. The Petitioners also provide excerpts from the International Joint Commission’s (IJC) “Inventory of Radionuclides in the Great Lakes,” discussions of tritium and the “reference man” standard from unknown sources, and a reference to the Council on Environmental Quality’s (CEQ) “Guidance on the Consideration of Past Actions in Cumulative Effects Analysis” (CEQ Guidance on Past Actions).¹⁶

Staff Response: As discussed more fully below, Contention 1 is inadmissible because the Applicant’s ER considers the effects of other nuclear reactor activity in the region, and the Petitioners have failed to provide adequate factual or expert support to indicate that further analysis is necessary. See 10 C.F.R. § 2.309(f)(1)(v).

that would provide reasonable assurance that there is or is not an anticipated cumulative effect on Lake Erie and the Great Lakes Basin” Contentions at 1. This should not be viewed as a contention of omission, however, because the applicant has provided a cumulative effects analysis in Chapter 5 of the ER. See ER at 5-197 to 5-212. The Petitioners’ primary concern appears to be that the Applicant has limited its cumulative effects analysis of water use and quality to the “immediate vicinity” of Fermi 3. Contentions at 7-8, 15.

¹⁵ *Id.* at 2, 7-8. The Petitioners provide no further support or discussion of the assertion that the Applicant’s analysis is “scientifically unsupported.”

¹⁶ Available at <http://ceq.hss.doe.gov/nepa/regs/guidance.html>.

1. The Applicant's ER considers the effects of other nuclear reactors on cumulative impacts.

The Petitioners assert that the cumulative effects analysis of water use is deficient because it is limited to the "immediate vicinity of the Fermi 3 site." Contentions at 2, 7-8. The Petitioners claim that the Applicant must individually analyze the contributions of Davis-Besse, Perry, Canadian reactors on the north shore of Lake Erie, and other existing and proposed reactors in the Great Lakes Region. See *id.* at 8-9, 14-15.

The crux of this contention is that the Petitioners believe that the Applicant has failed to consider the cumulative effects of all operating and proposed reactors in the Great Lakes Basin, and that a "regional" analysis, in which the effects of all of the currently operating and proposed reactors in the Great Lakes Basin are considered, is needed to satisfy NEPA. This contention is similar to a contention recently considered and rejected in the Calvert Cliffs COL proceeding.¹⁷ In *Calvert Cliffs*, the licensing board found that, although the applicant's description of existing water quality conditions did not "separately evaluate the contributions of specific sources," it nonetheless formed "an environmental baseline against which to measure the cumulative impact of the proposed new reactor." *Id.* at 39-40. The board concluded that the environmental baseline reflected the effects of all currently existing pollution sources in the Chesapeake Bay watershed, including contributions of all nuclear power plants, and that the Petitioners had failed to provide information indicating that this "aggregate" analysis was insufficient under NEPA. *Id.* at 40-43.

Here, the situation is similar. Although the ER does not contain individual assessments of impacts of existing pollution sources, including other operating nuclear plants, it does contain

¹⁷ *Calvert Cliffs 3 Nuclear Project, LLC, and Unistar Nuclear Operating Services, LLC* (Combined License Application for Calvert Cliffs Unit 3), LBP-09-04, 69 NRC ____, ____ (Mar. 24, 2009) (slip op. at 38-43). In *Calvert Cliffs*, the petitioners asserted that the applicant was required to analyze individually the cumulative effect of all existing and proposed nuclear power plants within the Chesapeake Bay watershed. *Id.* at ____ (slip op. at 38).

descriptions and data on hydrology, water use, and water quality for the Great Lakes Drainage Basin, Lake Erie, and other surface water features in the region. See, e.g., ER at 2-57 to 2-69; 2-93 to 2-108. The Applicant states that these descriptions and data “are intended to serve as a baseline for assessing the impacts of construction or operation of Fermi 3.” *Id.* at 2-57. The Applicant also conducts a radiological environmental monitoring program (REMP) for Fermi 2, which provides baseline information for Fermi 3. ER at 5-209, 6-5. The results of the REMP also serve as an aggregate assessment of radiological impacts from other Lake Erie nuclear plants.

The Petitioners do not provide any facts or expert opinion to show that the Applicant’s analysis should have been broader. In its analysis, the Applicant notes that discharge of water from Fermi 2 to Lake Erie has not had a measurable water quality impact, based on ongoing monitoring programs, and states that Fermi 3 is expected to have impacts similar to those of Fermi 2. ER at 5-202. Furthermore, the Applicant states that “[b]ecause of the volume of Lake Erie water, the assimilation ability of Lake Erie for discharge wastewater from Fermi 3 is expected to be scarcely affected by the addition of the new facility.” *Id.* Finally, the Applicant notes that Fermi discharges are subject to National Pollutant Discharge Elimination System (NPDES) permits and water quality regulations imposed by the Michigan Department of Environmental Quality (MDEQ) and the Environmental Protection Agency (EPA). *Id.* The Petitioners do not dispute any of these statements, and do not provide facts or expert opinion showing that the statements are incorrect or contradicting the Applicant’s conclusions. Therefore, the Petitioners have not adequately supported their assertion that effects of existing reactors have not been considered.

With respect to Davis-Besse, which is 31 miles from Fermi, the Petitioners further assert that, because Davis-Besse is within the 50-mile Emergency Planning Zone, and because the Applicant stated in Section 5.11.7 of the ER that radiological impacts of operation at Fermi 3

were calculated over the geographical area within 50 miles of the site, an analysis of Davis-Besse's impact should have been included in the ER. Contentions at 8-9. However, the Petitioners do not point to any legal requirement to analyze the effects of other reactors within 50 miles of a site. The Emergency Planning Zone is established based on safety considerations, not as a boundary for assessing environmental impacts. See 10 C.F.R. §§ 50.33(g), 50.47(c)(2). Furthermore, the Petitioners' assertions regarding Davis-Besse – in particular the statement that Davis Besse is an “unanalyzed additional cumulative radiation source routinely discharging into Lake Erie” – also lack factual or expert support. As discussed above, the Applicant's baseline information incorporates the effects of radiological impacts from Davis-Besse. Therefore, the Petitioners have not shown that further analysis of Davis-Besse's impacts are needed.

Finally, the Petitioners assert that the Applicant must consider the future effects of proposed reactors in the Great Lakes Basin. *Id.* at 15. Specifically, the Petitioners point to the Nine Mile Point Unit 3 application that has been submitted to the NRC, along with “up to 10 . . . Canadian reactor units being considered by the Canadian Nuclear Safety Commission.” *Id.* This assertion should be rejected because it lacks factual or expert support. A cumulative effects analysis must consider “reasonably foreseeable” future actions. See 40 C.F.R. § 1508.7. There is no need to evaluate the effects of remote or speculative alternatives. *Natural Resources Defense Council v. Morton*, 458 F.2d 827, 838 (D.C. Cir. 1972). Furthermore, the Supreme Court has stated that environmental consequences must be considered concurrently “when several proposals for . . . actions that will have cumulative or synergistic environmental impacts upon a region are pending concurrently before an agency.” *Kleppe v. Sierra Club*, 427 U.S. 390, 410 (1976). The Petitioners have not provided facts or expert opinion to demonstrate that the proposed reactors they identify will have “cumulative or synergistic environmental impacts” with Fermi 3. The Petitioners do not provide specific

information on the locations of the proposed Canadian power plants, except to say that two of them would be located on the north shore of Lake Erie and the others would be located on Lakes Huron and Ontario. Contentions at 4-5, 8. Thus, all of the proposed Canadian plants appear to be a considerable distance from the Fermi 3 site. Furthermore, none of the Canadian reactor applications are pending before the NRC. The one application that is pending before the NRC is Nine Mile Point, which is located near Oswego, New York, on the eastern shore of Lake Ontario, approximately 350 miles from the Fermi 3 site. The Petitioners provide no facts or expert opinion supporting the need to examine the effects of such a geographically remote reactor. Because the Petitioners provide no information supporting the need to examine the effects of these proposed actions, this basis should be rejected.

2. The Petitioners do not provide facts or expert support demonstrating that further analysis is warranted.

In support of their arguments, the Petitioners provide excerpts from the ER and other documents, along with factual information on tritium and the reference man standard. However, as discussed below, none of this information provides adequate support for the contention as required by 10 C.F.R. § 2.309(f)(1)(v).

First, the Petitioners refer to and provide excerpts from several sections of the ER. These excerpts include statements from Chapter 2 regarding surface water features (Section 2.3.3.1), surface water quality (Section 2.3.1), and water use (Section 2.3.2), and statements from Chapter 5 regarding regional water consumption (Section 5.2.1.4) and exposure pathways (Sections 5.4.1 and 5.4.1.1). Contentions at 2-3, 5-7. However, the Petitioners provide no explanation of the significance of these statements. Merely providing excerpts without explaining their significance is insufficient to support admission of a contention. *USEC, Inc.* (American Centrifuge Plant), LBP-05-28, 62 NRC 585, 597 (2005), *aff'd* CLI-06-10, 63 NRC 451 (2006).

The Petitioners also provide three excerpts from the findings of the International Joint Commission's 1997 "Inventory of Radionuclides for the Great Lakes" (Inventory). Contentions at 9-10. Again, the Petitioners merely excerpt three findings from the Inventory without explaining how these excerpts relate to the asserted omission of cumulative impacts analysis in the ER or the need for a regional Environmental Impact Statement (EIS). These unexplained excerpts, taken outside the context of the entire report, are insufficient to support the contention. *USEC*, LBP-05-28, 62 NRC at 597.

Similarly, the Petitioners' discussion of tritium and the reference man standard, Contentions at 12-14, are inadequate to support the contention because the Petitioners do not cite the sources of this information or show how it relates to the contention. *USEC*, LBP-05-28, 62 NRC at 609. The Petitioners' assertions of "uncertainty" and "lack of confidence" in standards for tritium exposure, Contentions at 12-13, are not only unrelated to Contention 1 but also constitute an impermissible attack on the Commission's regulations in 10 C.F.R. Part 20. See 10 C.F.R. § 2.335. Furthermore, the Petitioners' statement that DCD Table 12.2-19b is part of an uncertified design, Contentions at 7, appears to be related to Contention 4, see Contentions at 45, but lends no support to Contention 1.

Finally, the Petitioners' citation to the CEQ Guidance on Past Actions actually undermines the Petitioners' claims regarding analysis of past and present actions. The *Calvert Cliffs* board relied on this guidance in concluding that an aggregate analysis of past impacts was sufficient. *Calvert Cliffs*, LBP-09-04, 69 NRC at ____ (slip op. at 41-42). This guidance specifically states that agencies "are not required to list or analyze the effects of individual past actions unless such information is necessary to describe the cumulative effect of all past actions combined," and that "[g]enerally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions." CEQ Guidance on Past Actions at 2. As discussed above,

the Applicant has provided an aggregate assessment of past actions through the baseline information in Chapter 2 of the ER and its onsite monitoring program, and the Petitioners have not demonstrated the need for further assessment.

In summary, the Petitioners have provided no facts or expert support to show that additional analysis of cumulative effects is needed. Therefore, the contention is inadmissible.

B. PROPOSED CONTENTION 2

There is no technical basis for a finding of “reasonable confidence” that spent fuel can and will be safely disposed of at some time in the future.

In this contention, the Petitioners challenge the Commission’s proposed revision of its 1990 Waste Confidence Decision (WCD),¹⁸ as well as the related proposed revision to 10 C.F.R. § 51.23(a), the Commission’s generic determination regarding temporary storage of spent nuclear fuel after cessation of reactor operation (Temporary Storage Rule).¹⁹ See Contentions at 17-25; 29-36. Additionally, as part of this contention, the Petitioners ask the Commission to reconsider its ruling regarding consideration of the impact of terrorist attacks under NEPA. *Id.* at 26-28.

In their extensive “Background” discussion, the Petitioners provide their views on the future of Yucca Mountain and the WCD. *Id.* at 17-25. With respect to the Fermi 3 licensing, the Petitioners argue that the apparent cancellation of the Yucca Mountain project “casts deeply in doubt DTE’s ability to dispose of high-level radioactive waste that would be generated by the proposed Fermi 3.” *Id.* at 17. The Petitioners further assert that, because the Commission is reevaluating the 1990 WCD, “it is inappropriate for NRC Staff and Detroit Edison . . . to take

¹⁸ 73 Fed. Reg. 59,551 (Oct. 9, 2008). The proposed WCD revises Findings 2 and 4 in the 1990 WCD, which relate to storage of high-level waste in geological repositories (Finding 2) and storage of spent fuel onsite or offsite at independent spent fuel storage installations (ISFSIs) (Finding 4). 73 Fed. Reg. at 59,551.

¹⁹ Consideration of Environmental Impacts of Temporary Storage of Spent Fuel After Cessation of Reactor Operation, 73 Fed. Reg. 59,547 (Oct. 9, 2008) (Temporary Storage Rule). The Temporary Storage Rule revises 10 C.F.R. § 51.23(a) to reflect the Commission’s findings in the proposed WCD. *Id.* at 59,547.

credit for a 'Confidence Decision' not yet made." *Id.* at 23. More generally, the Petitioners claim that "[t]he [NRC's] failure to express confidence that a second repository will be opened any time soon also implicates the proposed new findings . . . that irradiated fuel and other high-level radioactive waste can be safely stored at reactor sites for up to many decades years [sic] post permanent shutdown and operating license termination." *Id.* at 25. The Petitioners assert that such "*de facto* permanent on-site storage" poses risks of accidents, leakage from deterioration of waste containers, and terrorist attacks. *Id.*

The Petitioners state that they are raising the following "legal and factual issues" in this contention: (1) the NRC has no technical basis for its waste confidence findings; (2) this lack of technical basis "fatally undermines Table S-3 of the NRC's Uranium Fuel Cycle Rule"; (3) in the WCD Update and the proposed Temporary Storage Rule, the NRC "continues to deny that temporary spent fuel storage poses significant environmental risks"; (4) the NRC has not complied with its own procedural requirements for issuing a Finding of No Significant Impact (FONSI); (5) NRC's failure to identify documents relied upon in its FONSI decision violates NEPA; and (6) NRC "fails to explain why it is justified in continuing to allow licensees to use dangerous high-density fuel storage pools to store spent fuel under protective measures whose adequacy is suspect." Contentions at 31-33. The Petitioners conclude that "[t]he Proposed Waste Confidence Rule and the Proposed Temporary Storage Rule are utterly inadequate to satisfy the requirements of the AEA and NEPA for a generic licensing decision for new nuclear power plants." *Id.* at 34.

The Petitioners want "whatever decision the NRC reaches" in response to comments submitted on the proposed WCD and Temporary Storage Rule to be applied to Fermi 3 before the plant is licensed. *Id.* at 30. The Petitioners claim that "[n]either the Proposed Waste Confidence Decision nor the Proposed Spent Fuel Storage Rule satisfy the requirements of NEPA or the Atomic Energy Act" and, therefore, that "they fail to provide adequate support for

the Applicant's Environmental Report or for an Environmental Impact Statement in this particular licensing case." *Id.* at 31. According to the Petitioners, this contention "seeks to enforce, in this specific proceeding, the NRC's commitment that 'it would not continue to license reactors if it did not have reasonable confidence that the wastes can and will in due course be disposed of safely.'"²⁰ *Id.* at 29, (quoting 73 Fed. Reg. at 59,552 (internal citations omitted)). The contention also "seeks to enforce the requirement of the National Environmental Policy Act ("NEPA") that generic determinations under NEPA must be applied to individual licensing decisions and must be adequate to justify those individual decisions." *Id.* Recognizing that the issues they raise are "generic in nature," the Petitioners "do not seek to litigate [these issues] in this individual proceeding," but instead, assert that "the contention should be admitted and held in abeyance in order to avoid the necessity of a premature judicial appeal if this case should conclude before the NRC has completed the rulemaking proceeding." *Id.* at 30-31.

Staff Response: As discussed more fully below, this contention is inadmissible because it impermissibly challenges the Commission's regulations, it seeks to address issues that are the subject of ongoing rulemaking, and it fails to satisfy several of the contention admissibility requirements in 10 C.F.R. § 2.309(f)(1).

1. The Petitioners' challenges to the current WCD and to Table S-3 of 10 C.F.R. § 51.51 are impermissible challenges to the regulations.

Several of the Petitioners' statements in this contention can be viewed as challenges to the current Part 51 regulations. For example, the Petitioners assert that the NRC "*continues to deny that temporary spent fuel storage poses significant environmental risks*" and that NRC "*fails to explain why it is justified in continuing to allow licensees to use dangerous high-density*

²⁰ The Petitioners have not, however, identified any evidence that the NRC does not have such confidence. The proposed WCD does not alter the Commission's findings of reasonable assurance. See 73 Fed. Reg. at 59,551 (proposed revisions to Findings 2 and 4 both state that the Commission finds reasonable assurance regarding future repository availability and ability to store spent fuel after cessation of reactor operations).

fuel storage pools to store spent fuel under protective measures whose adequacy is suspect.” Contentions at 33. These statements, which the Petitioners identify as two of the “legal and factual issues raised in this contention,” *id.* at 31, attack the current waste confidence rule codified at 10 C.F.R. § 51.23(a). The Petitioners also assert that “[t]he deficiencies in the Waste Confidence Rule also fatally undermine the adequacy of the NRC’s findings in Table S-3 of 10 C.F.R. § 51.51 to satisfy NEPA.” *Id.* at 31. To the extent that these statements imply that the current regulations are inadequate, they must be rejected as impermissible attacks on the regulations.²¹

2. The Petitioners’ challenges to the proposed WCD and Temporary Storage Rule are inadmissible because the issues are the subject of ongoing rulemakings.

The clear focus of this contention is the Petitioners’ dissatisfaction and disagreement with the Commission’s proposed WCD and Temporary Storage Rule. The Commission has stated that “[i]t has long been agency policy that Licensing Boards should not accept in individual license proceedings contentions which are (or are about to become) the subject of general rulemaking by the Commission.” *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2 and 3), CLI-99-11, 49 NRC 328, 345 (1999) (quoting *Potomac Elec. Power Co.* (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 85 (1974)) (alteration in original). In *Oconee*, the Commission also stated that “a petitioner may not demand an adjudicatory hearing to attack generic NRC requirements or regulations or to express generalized grievances about NRC policies.” *Id.* at 334.

In a recent decision, the licensing board in the Shearon Harris COL proceeding rejected a contention attacking the adequacy of the current (1990) Waste Confidence Decision. The *Shearon Harris* licensing board, like several others before it, held that the contention was “an

²¹ 10 C.F.R. § 2.335(a). Pursuant to 10 C.F.R. § 2.335, an NRC regulation may not be attacked in an adjudicatory proceeding unless the petitioner meets the standards for a waiver of, or exception to, the regulation that are set forth in § 2.335(b). Here, the Petitioners have not even attempted to address this standard.

impermissible challenge to NRC regulations (in contravention of 10 C.F.R. § 2.335(a)).”

Progress Energy Carolinas, Inc. (Shearon Harris Nuclear Power Plant, Units 2 and 3), LBP-08-21, 67 NRC ___, ___ (Oct. 30, 2008) (slip op. at 39 & n.35). The *Shearon Harris* board also rejected the contention as an attack on the proposed WCD, noting that “[a] contention that seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking, is inadmissible.” *Id.* at 40 & n.36.

The Petitioners themselves recognize that the issues raised in their contention are generic issues that are the subject of ongoing rulemaking proceedings. Contentions at 29, 30-31. If the Petitioners wish to take issue with the WCD or the proposed Temporary Storage Rule, the proper venue is the rulemaking process and not the adjudicatory process. See *Oconee*, CLI-99-11, 49 NRC at 345. The Petitioners admit that “this contention is intended to be identical to” comments that the Petitioners and other groups submitted to the NRC regarding the proposed WCD and the Temporary Storage Rule. Contentions at 31. Thus, the Petitioners have already availed themselves of the opportunity to voice their concerns to the Commission. See *id.* at 29. The proper forum for any additional comments about the Commission’s proposed rules and the generic issue of waste disposal is the rulemaking process, not this licensing proceeding. See 10 C.F.R. § 2.335.

Furthermore, the Petitioners’ request to admit the contention and hold it in abeyance, Contentions at 31, is inappropriate. The Petitioners have not cited any legal basis for holding the contention in abeyance, but have simply stated that holding the contention in abeyance would “avoid the necessity of a premature judicial appeal if this case should conclude before the NRC has completed the rulemaking proceeding.” *Id.* This request is at odds with the Petitioners’ statement that they “do not seek to litigate [the issues raised by this contention] in this individual proceeding.” *Id.* at 30-31. If the Petitioners do not seek to litigate the issues raised in a contention, there is no point in admitting the contention.

Finally, even if the Board were to consider holding Contention 2 in abeyance, the Board would first have to find the contention admissible. *Cf. Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-08-15, 68 NRC ____, ____ (July 23, 2008) (slip op. at 3-4) (holding that a contention that challenges aspects of a design certification rulemaking should be held in abeyance *if it is otherwise admissible*). As explained herein, the contention is inadmissible for several reasons. Therefore, the contention should not be admitted and held in abeyance.

3. The contention is inadmissible because it fails to meet the requirements of 10 C.F.R. § 2.309(f)(1).
 - a. *The contention is outside the scope of this proceeding.*

The Commission has emphasized that “[t]he purpose and scope of a licensing proceeding is to allow interested persons the right to challenge the sufficiency of the *application*.”²² Furthermore, NEPA contentions are limited to issues arising from the Applicant’s Environmental Report or the NRC’s draft or final EIS. See 10 C.F.R. § 2.309(f)(2). The Petitioners’ challenges to the WCD and the Temporary Storage Rule do not assert deficiencies or omissions in the Application and therefore do not fall within the scope of the proceeding. The only mention of the Application or the EIS that NRC will prepare is in the Petitioners’ claim that the proposed WCD and Temporary Storage Rule “fail to provide adequate support for the Applicant’s ER or for an EIS in this particular licensing case.” Contentions at 31. This claim clearly asserts a deficiency in the WCD and the Temporary Storage Rule. The Petitioners have not identified any deficiencies or omissions in the Environmental Report.²³ Thus, because the

²² *Amergen Energy Co., LLC, et al.* (Oyster Creek Nuclear Generating Station), CLI-08-23, 68 NRC ____, ____ (Oct. 6, 2008) (slip op. at 18) (emphasis added); see also *Shearon Harris*, CLI-08-15, 68 NRC at ____ (slip op. at 2) (“the very purpose of NRC adjudicatory hearings is to consider claims of deficiencies in a license application”).

²³ The Petitioners also do not acknowledge that in the current WCD, codified at 10 C.F.R. § 51.23(a), the NRC has made a determination of no significant environmental

issues raised in this contention are aimed solely at the NRC's actions, not the Application, the contention is outside the scope of the proceeding and is therefore inadmissible.

The Petitioners also claim that NEPA and federal case law²⁴ require the NRC to make a final decision on the proposed WCD and Temporary Storage Rule *before* issuing a license in this proceeding. See Contentions at 30. However, neither NEPA nor the cases Petitioners cite support this claim. The Petitioners have not pointed to any statutory language in NEPA stating such a requirement, and the case law the Petitioners cite is similarly unavailing. *BG&E* and *Minnesota v. NRC* addressed the appropriateness of using rulemaking to address certain issues, but did not address the question of whether an agency must finish an ongoing rulemaking before issuing a license in a pending proceeding. See, e.g., *BG&E*, 462 U.S. at 96, 100-101; *Minnesota v. NRC*, 602 F.2d at 416.²⁵ *Robertson v. Methow Valley Citizens Council* addressed the extent to which NEPA requires federal agencies to address mitigation. 490 U.S. at 335-336, 359. In *Robertson*, the Court stated that "an agency contemplating a major action [must] prepare an EIS," *id.* at 349, but the Court did not address generic determinations through

impact from temporary storage of spent fuel after cessation of operations. Thus, pursuant to 10 C.F.R. § 51.23(b), no discussion of any environmental impact of spent fuel storage in an onsite storage pool or ISFSI for the period following the term of the reactor operating license is required in any environmental report or EIS prepared in connection with the issuance of a COL under Part 52.

²⁴ The Petitioners cite *Baltimore Gas & Electric Co. v. Natural Resources Defense Council*, 462 U.S. 87, 96 (1983) (*BG&E*); *Minnesota v. U.S. Nuclear Regulatory Commission*, 602 F.2d 412, 416 (D.C. Cir. 1979) (*Minnesota v. NRC*), and *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989).

²⁵ In *BG&E*, the Court concluded that

NEPA does not require agencies to adopt any particular internal decisionmaking structure. Here, the agency has chosen to evaluate generically the environmental impact of the fuel cycle and inform individual licensing boards, through the Table S-3 rule, of its evaluation. The generic method chosen by the agency is clearly an appropriate method of conducting the hard look required by NEPA.

Id. at 100-101.

rulemaking and their application in individual licensing actions. Thus, the Petitioners have not shown that such a requirement exists.

Finally, the Petitioners make several other assertions or requests that are not within the scope of this proceeding. First, the Petitioners' assertions that NRC did not comply with its own regulations or NEPA in making the FONSI determination regarding spent fuel storage, Contentions at 33, are criticisms of NRC actions in a rulemaking proceeding that is completely unrelated to the Fermi 3 licensing. Second, the Petitioners' request that the Commission reconsider its decision that impacts of terrorist attacks are not cognizable under NEPA, Contentions at 26-28, is a request for Commission action on a generic issue unrelated to the Fermi 3 COLA. Because these issues do not relate to this licensing proceeding, and do not identify inadequacies in the Fermi 3 Application, they are outside the scope of this proceeding and are not material to the decision that the NRC must make in this proceeding. 10 C.F.R. § 2.309(f)(1)(iii), (iv).

- b. *The contention fails to provide a concise statement of alleged facts or expert opinion or to raise a genuine dispute with the Applicant.*

As support for this contention, the Petitioners state that they “rely on the facts, expert opinion, and documentary resources set forth in the attached IEER Comments and Thompson Report.” Contentions at 36. The Petitioners further state that these documents demonstrate a genuine dispute “with the applicant and with the NRC regarding the safety and environmental impacts of spent fuel storage and disposal, and whether the NRC has complied with the requirements of the Atomic Energy Act and NEPA” in the proposed WCD and Temporary Storage Rule. *Id.* The attachments the Petitioners refer to were not provided with the Petition,²⁶

²⁶ The Petitioners also state that they included in their filing comments they submitted in relation to the WCD and Temporary Storage Rule and expert witness declarations prepared by Drs. Arjun Makhijani and Gordon R. Thompson. Contentions at 34-35. These documents were not attached to the Petition and have not been filed in this proceeding.

therefore, those documents do not provide factual or expert support for the contention or show the existence of a genuine dispute.

Moreover, because this contention focuses not on the Application, but on the Commission's actions, the contention inherently does not demonstrate a dispute with the *Applicant*. As discussed above, disputes with the NRC regarding the WCD and the Temporary Storage Rule are not within the scope of the proceeding and cannot form the basis for an admissible contention. Therefore, for the reasons stated above, the contention is inadmissible pursuant to 10 CFR § 2.309(f)(1)(v) and (vi).

C. PROPOSED CONTENTION 3

The COLA violates NEPA by failing to address the environmental impacts of the "low-level" radioactive waste that it will generate in the absence of licensed disposal facilities or capability to isolate the radioactive waste from the environment.

In Contention 3, the Petitioners challenge references in the COLA that describe the Applicant's plans for managing low-level radioactive waste (LLRW) at the Fermi 3 site. Contentions at 37-44. According to the Petitioners, Contention 3 is a "contention of omission" because the COLA does not include information that is required by law. *Id.* at 44. The Petitioners argue that the Applicant's plans rely on the existence of offsite LLRW disposal facilities that will accept Class B, C, and greater-than-C LLWR from Michigan, and such facilities do not currently exist. *Id.* at 37-38. For this reason, the Petitioners believe that LLRW will almost certainly accumulate at the Fermi 3 site. *Id.* at 40-42. This would constitute "*de facto* disposal," the Petitioners say, and the environmental effects of leaving the waste in place must be addressed in the COLA in order to comply with NEPA. *Id.* at 40. The Petitioners also allude to safety and security issues related to the presence of LLRW on the site, and they discuss the impact of LLRW at the site on decommissioning planning and funding at some length. *Id.* at 40-42.

Staff Response: The NRC Staff opposes admission of Contention 3. The contents of the contention are a challenge the adequacy of those portions of the Application that set forth the Applicant's plans for managing LLRW, not a contention of omission as the Petitioners claim, and the Petitioners have not provided the type of support that such a contention requires. Furthermore, even if Contention 3 were a contention of omission, the Petitioners have failed to include a specific statement of the issue they wish to raise or to provide a legal basis for their claim regarding what the Application should contain. Contention 3 appears to be an environmental contention and to be covered by 10 C.F.R. § 51.51, in particular Table S-3 of that section of the NRC regulations. The Petitioners do not address this regulation or the Applicant's use of this regulation, and they do not explain why the LLRW issues they raise render the Applicant's conclusions based on Table S-3 invalid. For these reasons, Contention 3 does not satisfy the contention pleading requirements of 10 C.F.R. § 2.309(f)(1).

1. Contention 3 is not properly a contention of omission, but rather a contention challenging the adequacy of the Applicant's plans for managing LLRW on-site.

The Petitioners argue that Contention 3 should be considered a "contention of omission," a specific type of contention that alleges that an applicant has neglected to include information in the application that is required under a specific provision of law.²⁷ When filing contentions of omission, petitioners must clearly identify the alleged omission and the reasons for their belief that an applicant must submit the missing material. At least one licensing board has held, however, that they need not provide the type of factual or expert witness support that must accompany contentions challenging the adequacy of material contained in an application. See, e.g., *Pa'ina Hawaii, LLC* (Material License Application), LBP-06-12, 63 NRC 403, 414 (2006). When petitioners challenge the adequacy of some portion of an application, they are required to

²⁷ 10 C.F.R. § 2.309(f)(1)(vi); see also *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 382-84 (2002).

provide “a concise statement of 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.” 10 C.F.R. § 2.309(f)(1)(v).

Contention 3 itself, as the Petitioners present it, does not appear to be a contention of omission. Rather, it appears to be an environmental contention that challenges the adequacy of the ER’s treatment of the environmental effects of LLRW management at the Fermi 3 site. Contentions at 40. As licensing boards in other cases have noted, “[t]here is a difference between contentions that, on the one hand, allege that a license application suffers from an improper omission, and contentions that, on the other hand, raise a specific substantive challenge to *how particular information or issues have been discussed* in a license application.” *Amergen Co., LLC* (Oyster Creek Nuclear Generating Station), LBP-06-16, 63 NRC 737, 742 (2006) (emphasis added).

Contention 3 cannot be a contention of omission because the Petitioners have not set forth any specific legal theory to serve as the basis for their claim that the Applicant must provide information concerning how waste storage over the durations they mention or permanent LLRW disposal will be accomplished.²⁸ The basis provided by the Petitioners is a general citation to NEPA that fails to identify any specific provision of the statute or of the NRC’s implementing regulations that the Applicant has allegedly violated. Contentions at 40. Similarly, the Petitioners have not addressed any of the technical information concerning LLRW handling, for example the capacity issue, that is contained in Revision 4 of the ESBWR DCD and

²⁸ See Contentions at 41. The Petitioners routinely equate permanent disposal and storage for a period of time pending disposal, although the two are distinct issues. See *id.* at 39, 40, 42, 43.

incorporated into the Fermi 3 COLA by reference.²⁹ In short, the Petitioners have alleged that something is missing from the COLA, but they have not set forth their arguments regarding what is required specifically by law and why the material that does appear in the COLA is technically or legally deficient. This lack of specificity in the Petitioners' submission does not transform a contention about the adequacy of the Application's treatment of the LLRW issue into one regarding an omission of information. If this approach were to become routine, lack of specificity in pleading would become a virtue and the intent behind the pleading rules of 10 C.F.R. § 2.309(f)(1) would be undermined.³⁰

Because Contention 3 challenges the adequacy of the COLA, it must be accompanied by the sort of factual or expert support that 10 C.F.R. § 2.309(f)(1)(v) requires. The Petitioners have failed to provide any such support. For this reason, Contention 3 fails to meet the pleading requirements of 10 C.F.R. § 2.309(f)(1) and should be rejected.

2. Even if Contention 3 is considered a contention of omission, it fails to satisfy the pleading requirements of 10 C.F.R. § 2.309(f)(1)(i)-(ii).

All contentions, including contentions of omission, must include specific statements of the legal or factual issue raised and of the basis for the contention. 10 C.F.R. § 2.309(f)(1)(i)-(ii). Here the Petitioners have failed to include a specific statement of the issue they wish to resolve through litigation; rather, they have painted with a broad brush and included a wide range of issues related to LLRW storage and disposal. Some of these are current policy issues, as the Commission noted recently in an order concerning the LLRW issues raised in the *Bellefonte* proceeding. *Tennessee Valley Authority* (Bellefonte Nuclear Power Plant, Units 3 & 4), CLI-09-03, 69 NRC ____, ____ (Feb. 17, 2009) (slip op. at 12-13). Touching on policy issues,

²⁹ Contentions based on the ESBWR DCD may be admissible in adjudicatory proceedings in some cases. However, Commission policy is to hold such contentions in abeyance until resolution of the design certification rulemaking. See *infra* pp. 41-42.

³⁰ See 69 Fed. Reg. at 2188, 2202.

however, is not enough to render a contention admissible and susceptible to resolution in litigation. Rather, the Commission has indicated that an admissible contention must “focus[] litigation efforts on specific and well defined issues” in order to ensure that all parties to an adjudicatory proceeding are “relieved of the burden of having to develop evidence and prepare a case to address possibly wide-ranging, vague, undefined issues.” See 69 Fed. Reg. at 2202. The Petitioners have not provided such a well-defined issue here, and Contention 3 therefore violates the pleading requirement of 10 C.F.R. § 2.309(f)(1)(i).

The Petitioners have also failed to provide a clear basis for their contention. In contentions of omission that allege that an item required by law is not included in the application under consideration, this is ordinarily done by citing to the regulation that requires the missing item. See, e.g., *Pa’ina Hawaii*, LBP-06-12, 63 NRC at 413-14. The Petitioners here fail to do so, alleging that there are “no regulations that specifically guide this situation.” Contentions at 38. However, if the regulatory requirements underlying a contention are sufficiently unclear to present questions of law, or if it is unclear whether the Applicant’s documents comply with even an unambiguous requirement, the contention in question is almost certainly *not* a contention of omission. If, as here, a petitioner wishes to have a contention treated as a contention of omission, the lack of a clear, stated legal basis is a flaw that renders the contention inadmissible.

3. Contention 3 is an environmental contention, based on NEPA, and therefore is governed by 10 C.F.R. § 51.51.

The Petitioners begin their initial statement of Contention 3 with the claim that the Fermi 3 COLA violates NEPA. Contentions at 37. Most of the contention’s citations to the Application cite to the ER, and most of the textual references in the contention refer to the ER. See *id.* at 37 nn.3-4, 38 n.5, 39 n.6, 41-42 nn.10-11. The Petitioners argue that “[t]he environmental impacts of leaving these wastes onsite must be addressed in order for the Nuclear Regulatory Commission to comply with NEPA,” and requests relief primarily in the form

of a better description of how LLRW from Fermi 3 will be isolated from the environment. *Id.* at 39-40. The Petitioners do mention safety and security issues in two places in their presentation of Contention 3, *id.* at 40, 42, but these issues are not discussed at length or linked to any specific section of the Application. *Id.* at 43. For these reasons, the Staff believes that the Petitioners intend Contention 3 to be read as an environmental contention.

As the Commission held recently in *Bellefonte*, the regulation that applies to the environmental effects of LLRW is 10 C.F.R. § 51.51, and in particular Table S-3 of 10 C.F.R. § 51.51(b).³¹ This regulation requires COL applicants to use Table S-3, Table of Uranium Fuel Cycle Environmental Data, as the basis for evaluating the contribution of the environmental effects of many stages of the uranium fuel cycle, including low-level waste management, to the environmental costs of licensing a nuclear reactor. 10 C.F.R. § 51.51(a). Table S-3 provides a list of total effluents and other environmental impacts for light-water-cooled reactors and “may be supplemented by a discussion of the environmental significance of the data set forth in the table as weighed in the analysis for the proposed facility.” *Id.* Table S-3 specifically omits health effects arising from the effluents described in the table, as well as any issues related to the release of Radon-222 or Technetium-99. 10 C.F.R. § 51.51(b), Table S-3, n.1. These issues are identified as subject to litigation in individual licensing proceedings. *Id.*

The Petitioners cite to the relevant section of the ER at the outset of their contention and include a quotation that makes reference to Table S-3. Contentions at 37 n.3. Otherwise, as mentioned above, the Petitioners do not mention NRC regulations but rather base Contention 3 on a general citation to NEPA.³² Because the contention is not connected explicitly to 10 C.F.R.

³¹ *Bellefonte*, CLI-09-03, 69 NRC at ____ (slip op. at 8-9) (citing *Virginia Electric and Power Co.* (Combined License Application for North Anna Unit 3), LBP-08-15, 68 NRC ____, ____ (Aug. 15, 2008) (slip op. at 25)).

³² The Petitioners do not identify any particular sections of NEPA that may apply here, and they do not refer to any specific statutory language.

§ 51.51, it is unclear to the Staff how the Petitioners intend to apply Table S-3 in their contention.

To the extent that Contention 3 is intended as a challenge to 10 C.F.R. § 51.51 and to the effluent quantities listed in Table S-3, it is barred from consideration in an NRC adjudicatory proceeding by the provisions of 10 C.F.R. § 2.335(a). Indeed, the Commission recently overturned a licensing board's decision to admit an environmental contention on LLRW for just this reason. *Bellefonte*, CLI-09-03, 69 NRC at ____ (slip op. at 9).

To the extent that Contention 3 is intended to present arguments related to the type of "site- and design-specific" impacts of on-site LLRW *storage* that the Commission has recently found to be appropriate for resolution in adjudicatory proceedings,³³ the Petitioners have failed to proffer a "properly framed and supported" contention as required. *See id.*

A properly framed environmental contention of this type would have to address an issue that is not already resolved by Table S-3, for example the health effects question specifically reserved for resolution in adjudication or a site-specific issue related to the environmental significance of the effluents and other impacts the table describes. However, the Petitioners have not provided such a contention here.

Rather, they have speculated that on-site storage will be necessary for an extended period of time and provided an unsupported discussion of what might happen as a result. Contentions at 41. In order for a contention to be admissible, a petitioner may not rely on "bare assertions and speculation," but must provide factual information or expert support for its claims.

³³ *Bellefonte*, CLI-09-03, 69 NRC at ____ (slip op. at 11). In the same decision, the Commission stated that the ultimate resolution of the LLRW *disposal* issue is outside the scope of NRC adjudicatory proceedings and may require statutory, as opposed to merely regulatory, changes. *Id.*

Fansteel, Inc. (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003). This the Petitioners have failed to do.

The Petitioners do not challenge those parts of the Application that utilize Table S-3 to project the environmental impacts of the uranium fuel cycle, including radiation doses and health effects. See ER at 5-140 to 5-147. They have therefore failed to demonstrate the existence of a genuine dispute with the Applicant, in violation of 10 C.F.R. § 2.309(f)(1)(vi).

For these reasons, Contention 3 is inadmissible under 10 C.F.R. § 2.309(f)(1)(ii), (v), and (vi) for failure to include an explanation of the basis for the contention, failure to provide a statement of the factual or expert support the Petitioners rely upon, and failure to demonstrate that a genuine dispute with the Applicant exists.

D. PROPOSED CONTENTION 4

The Commission must suspend the COL adjudication pending completion of the NRC review of the ESBWR reactor design and the obligatory design rulemaking.

Contention 4 alleges that there is “no complete, accepted and certified design” for the ESBWR, and that the NRC must therefore either delay a hearing on the Fermi 3 COLA until a design certification rulemaking is complete or hold an adjudicatory hearing on the entire COLA, including the contents of the ESBWR application for design certification. Contentions at 48. According to the Petitioners, holding a hearing on the COLA while the design certification application is pending “would deprive Petitioners of a fair and meaningful opportunity for a hearing on the Fermi COLA,” in violation of the Atomic Energy Act (AEA), the Administrative Procedures Act (APA), NEPA, and NRC regulations. *Id.* at 46.

According to the Petitioners, the content of the ESBWR standard design “has yet to be established.” *Id.* at 47. For this reason, the Petitioner claim that any hearing notice issued in this proceeding will fail to specify the relevant “issues of . . . law” and therefore violates the APA. Further, the Petitioners allege that the NRC cannot comply with NEPA unless the COLA includes “a certified reactor design that may be analyzed in context.” *Id.* at 48. Finally, the

Petitioners argue that there is no certainty DTE will proceed with an ESBWR at all, and that this uncertainty represents a denial of the Petitioners' due process rights. *Id.*

Staff Response: The NRC Staff opposes admission of Contention 4 on the grounds that it represents an impermissible challenge to NRC regulations, that it violates established Commission policy and case law, and that the due process claims made by the Petitioners represent an incorrect reading of the applicable law. Contention 4 challenges NRC's regulation, found in 10 C.F.R. § 52.55(c), that allows a COL applicant to reference a design for which a design certification application has been docketed but for which the final design certification rulemaking has not been completed.³⁴ A 2008 *Federal Register* statement sets forth the policy that the Commission applies when a COL applicant chooses this approach. See *Conduct of New Reactor Licensing Proceedings; Final Policy Statement*, 73 Fed. Reg. 20,963 (Apr. 17, 2008). The Petitioners are not the first to present this issue to the NRC, and the Commission has previously held that the hearing process on a COL application should proceed in parallel with the standard design certification under circumstances analogous to those here. See *Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 1 and 2), CLI-08-15, 67 NRC ___, ___ (July 23, 2008) (slip op. at 3-4). Finally, Commission policy complies with all applicable legal requirements and provides the Petitioners with the opportunity for a fair and meaningful hearing.

1. Contention 4 represents an impermissible challenge to Commission regulations.

NRC regulations contain a provision which specifically states that “[a]n applicant for a construction permit or a combined license may, at its own risk, reference in its application a

³⁴ Of the seventeen COL applications currently pending before the Staff, ten take advantage of this provision and reference design certification applications rather than certified designs. A further six reference a design that has been certified in the past, but is currently subject to a revision process. Only one references a design that has been certified and that is not currently undergoing revision. See <http://www.nrc.gov/reactors/new-reactors/col.html>.

design for which a design certification application has been docketed but not granted.” 10 C.F.R. §52.55(c). Contention 4 represents a direct challenge to the regulation itself and is therefore inadmissible under Commission regulations and applicable case law. 10 C.F.R. §2.335(a); *see also supra* pp. 8-9. It should therefore be rejected.

2. Contention 4 violates Commission policy and previous case law regarding COL applications referencing docketed design certification applications.

It is general NRC policy to resolve generic issues common to many nuclear power plants through the rulemaking process rather than through litigation of individual cases, and Contention 4 does not challenge the general applicability of this approach. Examining this overall approach, which has been upheld in Federal courts over several decades,³⁵ is nevertheless an important step in explaining the rationale behind NRC’s policy with regard to standard design certifications. The purpose of using the rulemaking procedure is to increase efficiency and consistency in Commission decision-making by resolving issues common to many facilities at the same time, an approach that clearly applies in the case of standard designs. The rulemaking process allows public participation, perhaps to an even greater degree than the hearing process. Members of the public have an unrestricted opportunity to participate in the rulemaking process by offering comments on proposed rules. Because generic issues are resolved in this way, administrative litigation is reserved for site-specific issues and for issues for which a waiver of a general rule is obtained. *See* 10 C.F.R. § 2.335. A design certification rulemaking is not treated differently from any other rulemaking on issues common to many plants, and the use of the rulemaking process specifically to resolve design certification issues

³⁵ *See, e.g., Baltimore Gas & Elec. Co. v. NRDC*, 46 U.S. 87, 101 (1983) (“Administrative efficiency and consistency of decision are both furthered by a generic determination of these effects without needless repetition of the litigation in individual proceedings, which are subject to review by the Commission in any event.”). *See also Massachusetts v. United States*, 522 F.3d 115, 119 (1st Cir. 2008); *Ecology Action v. AEC*, 492 F.2d 998, 1002 (2d Cir. 1974).

has been upheld in Federal court. *Nuclear Information Resource Service v. NRC*, 969 F.2d 1169, 1171-72 (D.C. Cir. 1992).

With limited exceptions, Commission rules and regulations, as well as issues “which are (or are about to become) the subject of general rulemaking by the Commission” are not subject to challenge by any party in NRC adjudicatory proceedings.³⁶ The Commission’s Policy Statement on new reactor licensing states that the decision to docket a design certification application serves as the Commission’s determination that the design is subject to a general rulemaking, and that any contentions challenging such a design that are submitted in a COL adjudicatory proceeding should be referred for resolution in the rulemaking process and their litigation held in abeyance until either the rulemaking is complete or the applicant chooses to proceed in the absence of a final rule on the issue. 73 Fed. Reg. at 20,972. Such contentions would eventually be denied if the final rule is adopted, but could become active litigation issues in the event that the applicant chose to proceed with an uncertified design (for example if the design certification were delayed or denied). *Id.*

In Contention 4, the Petitioners challenge the Commission’s decision to proceed in the manner described in the Commission Policy Statement, referring to it as an example of “fixing policy around convenience.” Contentions at 47. As stated above, standard design issues are resolved by rulemaking rather than adjudication not for convenience, but rather because they are generic to multiple facilities. The Commission’s policy is to resolve generic issues by means of general rules binding on all affected facilities rather than to conduct multiple adjudicatory proceedings that might lead to contradictory, non-binding results. And when such a rulemaking is planned to resolve a class of issues, the Commission’s policy is to direct interested members

³⁶ 73 Fed. Reg. at 20,972 (citing *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 345 (1999), *Potomac Elec. Power Co.* (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 85 (1974)); 10 C.F.R. § 2.335(a).

of the public to participate in the rulemaking process rather than to litigate such issues on a facility-by-facility basis.

There is nothing unique about the case of a COL referencing a docketed design certification application that would justify a departure from these long-standing policies. The Petitioners allege that the content of the ESBWR design “has yet to be established,” and that there is considerable “uncertainty” about such issues as the environmental effects of the facility, accident scenarios, or routine radiation emissions. Contentions at 48. Despite the Petitioners’ claims, however, there is no such ambiguity about the contents of the Fermi COL Application. The very first page of the Application notes that it references Revision 4 of the ESBWR design, a document with fixed content that is readily available to the public by way of a link from the NRC’s public web site for the Fermi 3 COLA.³⁷ Although the COL Application may be revised formally at a later date, either because of textual changes in the Application itself or because the Applicant makes a decision to reference a subsequent version of the ESBWR design, there is no ambiguity regarding its content at present. Furthermore, all licensing applications pending before the NRC may be revised, and a COL application that references a docketed design certification application is not unique in that regard.

The Commission has previously stated that the hearing process on COL applications should proceed under circumstances analogous to those here. *See Shearon Harris*, CLI-08-15, 67 NRC at ___ (slip op. at 3-4). In the *Shearon Harris* case, review of the COL application and associated litigation are proceeding in parallel with the certified design review that is underway. Such proceedings are contemplated in the regulations and do not justify the remedy that the Petitioners request.

³⁷ See Application, Part 1 at 1; <http://www.nrc.gov/reactors/new-reactors/col/fermi.html>.

3. The policy adopted by the Commission complies with legal requirements and is not a denial of due process.

The Petitioners argue that the Commission's policy in this matter is unacceptable, and that the NRC is limited by statute and by its own regulations to either postponing the adjudication on the Fermi COLA until it completes the rulemaking on the ESBWR design certification application or offering an adjudicatory hearing on the entire COLA, including the ESBWR design certification application that is incorporated into the COLA. Contentions at 48-49. Any other course of action, the Petitioners claim, would be a denial of the public's due process rights. *Id.*

The arguments presented by the Petitioners are incorrect. The Commission's Policy Statement complies with all applicable legal requirements, including those of the APA, the AEA, NEPA, the NRC's licensing regulations, and previous precedent. Furthermore, a hearing conducted consistent with this Policy Statement would not necessarily be any more burdensome than the alternatives the Petitioners propose.

The APA clearly permits resolution of certain issues by rulemaking. Rulemakings are conducted under the APA provisions set forth in 5 U.S.C. § 553, and under the NRC regulations contained in 10 C.F.R. Part 2, Subpart H. In contrast, adjudicatory proceedings are conducted pursuant to the NRC regulations in 10 C.F.R. Part 2, Subparts C and L.³⁸ The Petitioners have not disputed the availability of these two procedural approaches, the NRC policy of resolving generic issues by means of rulemaking rather than adjudication, or those sections of the NRC's regulations that provide for review of design certification applications through the rulemaking process and COL applications by means of adjudicatory proceedings. See 10 C.F.R. §§ 52.51, 52.85. Contention 4's challenge is instead directed at a much narrower question – that of the

³⁸ The APA's sections governing adjudicatory proceedings are found in 5 U.S.C. §§ 554, 556, and 557. Procedural rules for NRC hearings comply with these statutory provisions. See 69 Fed. Reg. at 2192; see also *Citizen's Awareness Network, Inc. v. United States*, 391 F.3d 338, 347-51 (1st Cir. 2004).

status of a design certification application which has been docketed but for which no final rule has yet been issued. The APA itself contains no provisions that resolve this issue, and the Petitioners do not identify any specific statutory provision that is violated by the Commission's policy.

Similarly, the AEA states only that, in licensing cases, "the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding." 42 U.S.C § 2239. The scope, procedures, and general nature of the hearing are not set forth in detail in the statute, and the Petitioners do not argue that Commission policy violates any specific statutory provision.

NEPA and its implementing regulations are equally uninformative on this point. As the Petitioners note, an EIS must be "supported by evidence that the agency has made the necessary environmental analyses." 40 C.F.R. § 1502.1. However, it is not clear how this or any other NEPA-related regulatory provision applies to the situation currently before the NRC. The NRC's environmental review will proceed on the basis of the COLA as submitted and of Revision 4 of the ESBWR design as submitted. If the Applicant later abandons the Fermi 3 project, decides to proceed in the absence of a design certification rulemaking, or alters the Application in a significant way, the NRC will take appropriate action at that time. In all cases, however, the NRC's environmental review will be based on the content of the Application then under consideration.

The Petitioners' claim that following established NRC policy would be a denial of the public's due process rights does not withstand scrutiny. Generic resolution of issues by the Commission through the rulemaking process is meant, ultimately, as a way to make regulatory oversight more efficient and more consistent. The content of the Fermi 3 COLA is not ambiguous and does not present any unique procedural problems that would prevent it from being reviewed under the procedures specified in NRC's regulations merely because it may be

revised in the future. Applications in all NRC proceedings are revised frequently as a result of the interaction between applicants and regulators.³⁹ The Petitioners have presented no compelling argument for treating the Fermi 3 COLA differently from the way other applications pending before the NRC are treated.

One of the two approaches listed as acceptable by the Petitioners would actually present a greater burden for the public than the approach the Commission has adopted in its Policy Statement. Considering the entire ESBWR application as part of the litigation of the Fermi 3 COLA would make all contentions related to the design certification application active litigation issues throughout the course of a multi-year proceeding, thereby imposing extensive procedural burdens on all parties when the issues themselves are to be subject to resolution elsewhere. Holding contentions related to the design certification rulemaking in abeyance was viewed by the Commission as the appropriate compromise between imposing this ongoing litigation burden and denying contentions outright at the beginning of the proceeding, a procedure that would require petitioners to resubmit their contentions if, for some reason, an applicant chose to seek license issuance without a certified design.⁴⁰

Accordingly, the Staff disagrees with the Petitioners' claim that commencing the proceeding before the design certification is complete would be a denial of the public's due process rights. Using the rulemaking process to resolve generic issues and the adjudicatory process for site-specific issues is not unusually complex, and opportunities for public participation exist in both processes. Furthermore, one of the options the Petitioners propose

³⁹ The Commission has consistently held that an application may be modified or improved as the Staff's review goes forward. See, e.g., *Curators of the University of Missouri* (Byproduct License No. 24-00513-32; Special Nuclear Materials License No. SNM-247), CLI-95-08, 41 NRC 863, 395 (1995).

⁴⁰ This procedure of rejecting contentions outright was proposed by industry during the comment period on the Commission's Policy Statement. 73 Fed. Reg. at 20,966. The Commission rejected this approach on the grounds of inefficiency and duplication of effort.

would be significantly more burdensome than the approach outlined in the Commission's Policy Statement. For these reasons, Contention 4 should be denied.

E. PROPOSED CONTENTION 5

The Fermi site may have problematic hydrology likely to allow offsite transport of chemical and radiological contaminants.

In this contention, which is based primarily on the Staff's Requests for Additional Information⁴¹ (RAIs) concerning the Applicant's FSAR section 2.4.13 analysis⁴² and the Applicant's responses⁴³ to those RAIs, the Petitioners suggest that there "may" be hydrological conditions at the Fermi site which could allow offsite transport of contaminants. The Petitioners claim that the Staff's RAIs "highlight key missing data and measurements that Petitioners need for preparing contentions against Fermi 3" and ask for at least sixty days to modify the contention "once Detroit Edison provides the missing data and analyses."⁴⁴ The Petitioners raise four distinct concerns under this general umbrella.

First, the Petitioners assert that the Applicant's "hydrological studies" are inadequate because they "omit[] key data on 'factors important to hydrological radionuclide transport' and

⁴¹ Letter from Jerry Hale, NRC, to Peter W. Smith, DTE Energy, "Request For Additional Information Letter No. 2 Related to the SRP Sections 02.04.13 for the Fermi 3 Combined License Application" (Jan. 14, 2009) (RAI Letter No. 2), ADAMS Accession No. ML090140366. This letter contains six RAIs, numbered 2.4.13-1 to 2.4.13-6.

⁴² Letter from Jack M. Davis, DTE Energy, to NRC Document Control Desk, "Detroit Edison Company Submittal of Fermi 3 FSAR Section 2.4.13" (Nov. 11, 2008) (FSAR Section 2.4.13 Analysis), ADAMS Accession No. ML083190539.

⁴³ Letter from Jack M. Davis, Detroit Edison Co., to NRC Document Control Desk, "Detroit Edison Company Response to NRC Request for Additional Information Letters No. 1 and 2" (Feb. 16, 2009) (RAI Response), ADAMS Accession No. ML090610219.

⁴⁴ Contentions at 52. The Petitioners repeat this request later in the contention, referring to the Applicant's response to RAI 2.4.13-6 and its commitment provided in the RAI Response. Contentions at 64-66 (quoting RAI Response, Attachment 7 at 2 and Attachment 8 at 1). These requests all have a common origin in the Applicant's promise to perform testing to determine site-specific values for distribution coefficients and retardation factors, and to provide an updated analysis using these parameters, by September 1, 2009. See Contentions at 52-53 (quoting RAI Response, Attachment 2 at 2); Contentions at 64-66 (quoting RAI Response, Attachment 7 at 2 and Attachment 8 at 1).

lack[] key, adequate on-site measurements.” Contentions at 50. As support for this claim, the Petitioners cite the requirement in 10 C.F.R. § 100.20(c)(3), which states that certain factors related to hydrological radionuclide transport “must be obtained from on-site measurements.” *Id.*

Second, Petitioners also assert that chelating agents “could serve to accelerate the transport of hazardous radioactive substances leaked or spilled onto the soil into the groundwater, including the Bass Islands Group Aquifer, a sole source of drinking water downstream.” Contentions at 55. The Petitioners raise this concern with respect to several types of substances (i.e., possible chelating agents) in the non-radioactive and mixed waste streams and the cooling water system. *See id.* at 55-57. The Petitioners also contend that “naturally and artificially occurring chelates” that enter Lake Erie through water pollution could interact with radionuclides at the Fermi 3 site. *Id.* at 59. The Petitioners also assert that chelating agents might be used during decommissioning of Fermi 3. *Id.* at 59-60.

Third, the Petitioners raise concerns about possible effects of releases from Fermi 3 on the Bass Islands Aquifer at Catawba Island, “hydrological interactions between the Bass Islands Aquifer and other aquifers throughout the area” that supply drinking water, and quarries drawing contaminated groundwater from the Fermi site into surrounding drinking water supplies. *Id.* at 60-62. The Petitioners also “challenge Detroit Edison’s assumption [in its FSAR Section 2.4.13 Analysis] that contaminated groundwater is limited to only two possible receptors,” claiming that the Applicant must also consider the “Catawba Island sole source aquifer.” *Id.* at 63.

Finally, the Petitioners assert that the Applicant “seeks to manipulate its ‘distribution coefficients and retardation factors’ in order to achieve . . . compliance with NRC regulations.” Citing the Applicant’s commitment expressed in the RAI Response, the Petitioners state that they are “very troubled by Detroit Edison’s ‘commitment’ to relax conservatisms,” and that “‘crediting dilution in the Radwaste Building prior to release’ does not seem . . . to be an

acceptable method of protecting the Great Lakes and a sole source aquifer from hazardous radiological contamination.” *Id.* at 65.

Staff Response: The Staff does not object to the admission of the portion of this contention which asserts that on-site measurements of distribution coefficients, retardation factors, and porosity are omitted from the Application. Otherwise, as discussed below, the remainder of this contention is inadmissible because it lacks adequate factual or expert support and fails to raise a genuine dispute with the Applicant on a material issue of fact or law.

10 C.F.R. § 2.309(f)(1)(v)-(vi).

As an initial matter, the Staff notes that this contention relies extensively on the Staff’s RAIs and the Applicant’s responses to those RAIs. The Commission has stated that the mere issuance of an RAI does not establish deficiencies in an application. *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 336 (1999). As the Commission has explained, “RAIs are a standard and ongoing part of NRC license reviews,” *Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 349 (1998), and “a routine means for [the NRC] staff to request clarification or further discussion of particular items in the application.” *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 336 (1999). Therefore, a petitioner must generally do more than simply quote from an RAI or a response to an RAI to justify admission of a contention. *Id.* at 341. Rather, petitioners must provide “analysis, discussion, or information *of their own* on . . . the issues raised in the RAIs.” *Id.* at 337 (emphasis added). Furthermore, “[t]o show a genuine dispute with the applicant, petitioners must use the RAI to make the issue of concern their own” by developing “a fact-based argument that actually and specifically challenges the application.” *Id.* at 341.

1. The Contention is admissible to the extent that it asserts omission of on-site measurements of distribution coefficients, retardation factors, and porosity.

The Staff does not object to the admission of the portion of this contention that asserts omission of site-specific measurements of distribution coefficients, retardation factors, and porosity from the Application. The Petitioners cite a regulatory requirement that certain factors related to hydrological radionuclide transport “must be obtained from on-site measurements.” 10 C.F.R. § 100.20(c)(3). In its response to RAI 2.4.13-1, the Applicant stated that site-specific distribution coefficients and retardation factors were not determined for the FSAR Section 2.4.13 analysis, and that porosity field data was not collected.⁴⁵ RAI Response, Attachment 2 at 2-3. The Petitioners cite these statements as support for its assertion that the Applicant has omitted “key data” and “key on-site measurements.” Contentions at 53, 54. Therefore, the Petitioners have stated a contention of omission with respect to site-specific measurements of three parameters: distribution coefficients, retardation factors, and porosity.

The Staff notes, however, that the Petitioners’ broad assertion that “key data” and onsite measurements have been omitted must be restricted to these three parameters, because the Petitioner is relying solely on the Applicant’s RAI Response as its factual support. In the RAI Response, the Applicant identified specific portions of the Application where information concerning other site-specific hydrological parameters could be found. RAI Response, Attachment 2 at 2-3. The Petitioners have not disputed that information.

2. The remainder of the Contention is inadmissible because it lacks adequate factual or expert support and fails to raise a genuine issue with the Applicant.

In addition to the contention of omission discussed above, the Petitioners make several additional assertions in Contention 5. As discussed below, these other assertions, whether intended as bases for Contention 5 or separate contentions, are inadmissible because they lack

⁴⁵ In lieu of using site-specific porosity values, the Applicant used literature values and performed groundwater velocity calculations using estimated high and low values in order to bracket the results. RAI Response, Attachment 2 at 3.

factual or expert support and fail to raise a genuine dispute with the Applicant. 10 C.F.R.

§ 2.309(f)(1)(v)-(vi).

In order for a contention to be admissible, the petitioner may not rely on “bare assertions and speculation,” but must provide factual information or expert support for its claims. *Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003); *see also* 10 C.F.R.

§ 2.309(f)(1)(v). Moreover, “[p]roviding any material or document as a basis for a contention, without setting forth an explanation of its significance, is inadequate to support the admission of the contention. *USEC, Inc.*, LBP-05-28, 62 NRC 585, 597 (2005), *aff’d* CLI-06-10, 63 NRC 451 (2006) (citing *Fansteel*, CLI-03-13, 58 NRC at 203).

In addition, a petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. 10 C.F.R. § 2.309(f)(1)(vi). To satisfy this requirement, a petitioner must identify particular portions of the application that are in dispute and provide supporting reasons for the dispute. 10 C.F.R. § 2.309(f)(1)(vi). For contentions asserting omissions of legally required information, a petitioner must identify the omission and provide supporting reasons for its belief that the information is required. *Id.*

- a. *The Petitioners’ claims regarding possible chelating agents is not related to the contention, lacks adequate support, and fails to demonstrate a genuine dispute with the Applicant.*

The Petitioners’ first additional claim is that chelating agents “could accelerate transport of hazardous radioactive substances leaked or spilled onto soil into groundwater, including the Bass Islands Group Aquifer, a sole source of drinking water downstream.”⁴⁶ The Petitioners assert this concern about several types of substances: (1) laboratory solvent wastes, organic

⁴⁶ The sole source aquifer the Petitioners refer to is the Bass Islands Aquifer at Catawba Island in Ottawa County, Ohio, approximately 35 miles southeast of the Fermi 3 site. FSAR at 2-465. The Petitioners fail to explain how this aquifer is “downstream” from the Fermi 3 site, when, as explained in the FSAR, Lake Erie is a hydraulic boundary for regional groundwater flow to the east, and local flow at the site is away from the lake. *See id.* at 2-464, 2-486, 2-592 to 2-594.

solvents, and aqueous corrosives that might be present in the non-radioactive hazardous waste and mixed waste streams from Fermi 3; (2) organic compounds present in Lake Erie that could enter the Fermi cooling towers in makeup water; (3) phosphoric acid to be used as a corrosion inhibitor in various water systems; (4) “persistent organics” present in Lake Erie that could flow into the Fermi 3 cooling tower; and (5) “naturally and artificially occurring chelates . . . present in the flora, fauna, and Lake Erie waters surrounding Fermi nuclear power plant” that “could find their way into the waters of Lake Erie via water pollution.” Contentions at 54-59. The Petitioners also express concerns about chelating agents that might be used during decommissioning of Fermi 3. *Id.* at 59-60.

The Petitioners have not provided a link between the assertion that chelating agents might accelerate transport of radioactive materials in groundwater and the proposed contention, which asserts that “the Fermi site may have problematic hydrology.” Contentions at 52. Therefore, the assertions regarding chelating agents should be rejected as a basis for this contention. *See USEC, LBP-05-28, 62 NRC at 608-09.*

The Petitioners’ assertions about chelating agents are also inadmissible as a independent contention because they are not adequately supported and fail to raise a genuine dispute with the Applicant. With respect to substances that might be present in certain plant systems, the Petitioners support their claims with excerpts from several sections of the Application. *Id.* at 54-59 (quoting ER at 5-123 (§ 5.5), 5-128 (§ 5.5.2.1), 5-14 to 5-15 (§ 5.2.2.2.1), 3-46 (Table 3.6-1), 5-202 (§ 5.11.3.2)). However, these excerpts merely indicate that certain types of substances are likely to be present in particular plant systems, and, with the exception of phosphoric acid, do not even identify specific substances. The Petitioners provide no factual support or expert opinion for the proposition that these substances are chelating agents that could react with radioactive materials, or that these substances could mix with “radioactive material leaked or spilled onto the soil.” The Application indicates that non-

radioactive waste and radioactive waste are handled in two separate streams, see ER at 3-37 to 3-38; 3-41 to 3-45, and any concerns about chelating agents in non-radioactive waste would therefore be relevant only if the two streams were to mix. Similarly, the Petitioners have not provided any facts or expert opinion to support the claim that phosphoric acid from the circulating water system could mix with radioactive material leaked or spilled onto the soil.⁴⁷

The Petitioners also fail to support their claim regarding natural and artificial chelating agents. The Petitioners do not identify any particular chelating agents that might be present at the Fermi 3 site or in the surrounding ecosystem, or how those chelating agents would mix with radioactive leaks or spills. Furthermore, although the Petitioners provide approximately two pages of discussion about chelating agents and their uses, they fail to cite the source of this information or to explain how this general discussion is relevant to the contention. See Contentions at 57-59. Providing information as a basis for a contention without explaining its significance cannot support admission of the contention. *USEC, LBP-05-28, 62 NRC at 597.*

Finally, the Petitioners' statements regarding use of chelating agents during decommissioning is speculative and outside the scope of the COL proceeding.⁴⁸ Moreover, while the Petitioners have indicated that chelating agents were used in pipes at Big Rock Point reactor, they have not pointed to any deleterious effect of such use. Contentions at 59-60.

⁴⁷ The Petitioners also state, in passing, that they are concerned with the effects of phosphoric acid on the Lake Erie ecosystem. Contentions at 56. However, the Application states that the effluent flow from the site is controlled by the NPDES permit and limits set by the MDEQ. ER at 3-41. Furthermore, the Application indicates that the concentration of phosphoric acid in the system is "non-detectable" because it dissociates in the system. *Id.* at 3-46. The Petitioners have not disputed these statements and have not provided facts or expert opinion showing that phosphoric acid discharges from the plant would be excessive or would result in ecological harm. Therefore, this concern is inadmissible speculation.

⁴⁸ The Petitioners state that they are worried about "persistent contamination" that would occur after decommissioning that failed to clean up the site. Contentions at 59. This is a purely speculative concern at this point, and is an issue to be addressed at the license termination stage, not the COL stage. See 10 C.F.R. § 50.82. Furthermore, 10 C.F.R. Part 20, Subpart E, provides the standards that must be met before a license can be terminated.

In summary, because the Petitioners have provided no facts or expert support for any of their assertions regarding chelating agents, the assertions should be rejected. 10 C.F.R. § 2.309(f)(1)(v); *see also Fansteel*, CLI-03-13, 58 NRC at 203. In addition, although the Petitioners cite several sections of the ER in their assertions about chelating agents, they do not dispute any of the information in those ER sections or any other section of the Application. Thus, the Petitioners do not, as the regulations require, provide sufficient information to show that a genuine dispute exists with the Applicant on this issue. 10 C.F.R. § 2.309(f)(1)(vi).

- b. *The Petitioners' additional claims regarding possible contamination of aquifers and drinking water supplies lack adequate support.*

The Petitioners also make several assertions regarding potential contamination of “the Bass Islands Group sole source aquifer,” other aquifers, and drinking water supplies. Contentions at 53, 60-62. In addition, the Petitioners challenge the Applicant’s use of two groundwater receptors in its FSAR 2.4.13 Analysis. Contentions at 63. As discussed below, all of these assertions should be rejected because they lack adequate factual or expert support.

First, citing certain words and phrases in the Applicant’s response to RAI 2.4.13-1, the Petitioners’ assert that “the Bass Islands Group sole source aquifer [is] vulnerable to fast moving plumes of radioactive contamination [and] is also at risk of leaking this contamination into adjacent aquifers which also could flow into Lake Erie or area drinking water supplies.” Contentions at 53. The Petitioners have not provided any factual information or expert opinion suggesting the existence of a radioactive plume, fast-moving or otherwise, or the ability of such a plume to reach the Bass Islands Aquifer at Catawba Island. The response to RAI 2.4.13-1, which the Petitioners rely on for support, does not support the Petitioners’ assertion because the response addresses a question about the Bass Islands Group that is part of the bedrock aquifer *at the Fermi 3 site*, not the Bass Islands Aquifer at Catawba Island in Ottawa County, Ohio.⁴⁹

⁴⁹ See RAI Letter No. 2, Enclosure at 1 (requesting “site-specific” information about “the

Furthermore, the Application states that the Bass Islands Aquifer at Catawba Island is located approximately 35 miles southeast of the Fermi 3 site, across Lake Erie. FSAR at 2-465, 2-579. The Application also states that Lake Erie is a hydraulic boundary for regional groundwater flow to the east from the Fermi site, that the regional water flow is generally from southwest to northeast for the bedrock aquifer in Monroe County, and that groundwater flow at the site is away from Lake Erie (reversed from pre-development conditions) due to quarry dewatering. *Id.* at 2-464, 2-470, 2-485 to 2-486, 2-592 to 2-594. The Petitioners have not disputed any of these statements or provided additional support for their claim. Thus, it must be rejected as a bare, conclusory assertion. See *Fansteel, Inc.* (Muskogee, Oklahoma, Site), CLI-03-13, 58 NRC 195, 203 (2003).

The Petitioners also fail to adequately support their assertions that releases from Fermi 3 could affect “the Bass Islands sole source aquifer” or that hydrological interactions could occur between aquifers and lead to contaminated drinking water. Contentions at 60-61. The Petitioners cite to an excerpt from the ER which states that “[t]he local bedrock formation subcropping beneath the overburden is the Bass Islands Group, [which] is part of the bedrock aquifer that exists throughout Monroe County.” *Id.* at 61 (citing ER at 2-73). This statement does not support the Petitioners’ assertions because the Petitioners have confused the Bass Islands aquifer at the site with the Bass Islands Aquifer at Catawba Island. The Petitioners have provided no facts or expert opinion showing that contamination could move across Lake Erie to an aquifer 35 miles to the southeast. Nor have the Petitioners disputed the Applicant’s statements that Lake Erie is a hydrological barrier to groundwater flow to the east, or that, due to extensive quarrying, the current direction of flow from the site is away from Lake Erie. See ER at 2-72 and 2-88 (flow pattern is now reversed from pre-development pattern, which was

hydrologic characteristics of the bedrock aquifer (Bass Islands Group) . . . near Fermi Unit 3”).

toward the lake). The Petitioners have likewise failed to identify any other specific aquifer they are concerned about, any particular drinking water source that would be affected, or any facts or expert opinion indicating that interactions among aquifers exists.

Similarly, the Petitioners have not adequately supported their assertion that quarries will draw contaminated groundwater into drinking water. Contentions at 62. The only support the Petitioners cite is an excerpt from the Applicant's response to RAI 2.4.13-4, which discusses alterations to groundwater flow conditions that are expected to occur during and after construction. *Id.* at 61-62 (quoting RAI Response, Attachment 5 at 2). The Applicant concluded that local alterations in groundwater flow "are not expected to have an effect on the overall groundwater flow for the area" because "Fermi 3 operations do not rely on groundwater," and that "there would be no influence to radionuclide pathways other than those previously evaluated in the [FSAR Section 2.4.13 analysis]." RAI Response, Attachment 5 at 2. The Petitioners do not provide any facts or expert opinion to contradict the Applicant's response, or to indicate that such contamination would occur, migrate offsite, and reach drinking water supplies. In addition, the Petitioners do not identify any particular drinking water supplies that would be affected. Therefore, this claim lacks sufficient support and is inadmissible.

The Petitioners' "challenge" to the use of two groundwater receptors in the Applicant's FSAR 2.4.13 analysis is also inadequately supported. Nothing in the excerpt from the Applicant's response to RAI 2.4.13-5 suggests the need for a third receptor, and the Petitioners have provided no facts or expert opinion indicating that the Bass Islands Aquifer at Catawba Island, 35 miles away, must be considered. As discussed above, the Petitioners have not disputed the Applicant's statements that the Catawba Island aquifer is hydraulically separated from the Fermi 3 site by Lake Erie and that groundwater does not flow toward Catawba Island. See ER at 2-72 and 2-88. The Petitioners also provide a list of radionuclides from Table 12.2-

13a of the DCD for the ESBWR, but do not explain how this list supports their claim. Therefore, the claim is not adequately supported.

- c. *The Petitioners' assertions regarding the Applicant's commitment in the RAI Response are unrelated to the contention, lack adequate support, and fail to demonstrate a genuine dispute with the Applicant.*

Finally, the Petitioners assert that the Applicant "seeks to manipulate its 'distribution coefficients and retardation factors' in order to achieve . . . compliance with NRC regulations." This assertion cannot serve as a basis for Contention 5, because the Petitioners have not shown a link between the assertion and possible "problematic hydrology" at the Fermi site. If the assertion is viewed as a separate contention, then it is inadmissible because it lacks factual or expert support and fails to raise a genuine dispute with the Applicant.

As support for this assertion, the Petitioners cite the Applicant's commitment in the RAI Response, which reads as follows:

Detroit Edison will perform laboratory testing to determine site specific values for distribution coefficients and retardation factors. Using these factors, coupled with relaxation of other conservatisms (for example, crediting dilution in the Radwaste Building prior to release), Detroit Edison expects the results to be less than the ECL. . . .

Contentions at 65 (quoting RAI Response, Attachment 8 at 1). The Petitioners also refer to the Applicant's response to RAI 2.4.13-1, in which the Applicant stated that "due to [the] fractured nature of the Bass Islands Group, testing methods were considered to be limited in their capability to represent subsurface conditions."⁵⁰

The statements that Petitioners have cited simply indicate that the Applicant has committed to perform testing to determine site-specific values. Any assertion that the Applicant seeks to manipulate the data from these tests is premature, since the tests have not been

⁵⁰ In discussing the Applicant's statement, the Petitioners erroneously refer to it as a "report that the Bass Islands Group Sole Source Aquifer is 'fractured'" The statement clearly refers to the fractured nature of the Bass Islands Group at the Fermi 3 site. This error again highlights the Petitioners' confusion of the Bass Islands aquifer at the Fermi site and the Bass Islands Aquifer at Catawba Island.

completed. Pursuant to 10 C.F.R. § 52.6, the Applicant must provide accurate and complete information to the NRC when it provides the test results and updated analysis. Contentions “premised on a general fear that a licensee cannot be trusted to follow regulations” are not allowed. *Dominion Nuclear Connecticut* (Millstone Nuclear Power Plant, Units 2 and 3), CLI-01-24, 54 NRC 349, 366 (2001).

Furthermore, the Petitioners’ assertions that the “commitment to relax conservatisms” is troubling and that “crediting dilution in the Radwaste Building prior to release’ does not seem . . . to be an acceptable method of protecting the Great Lakes and a sole source aquifer from contamination” are mere conclusory assertions without support. The Applicant’s commitment is not to “relax conservatisms,” but rather to perform testing and an updated analysis. In conjunction with this analysis, the Applicant has stated that it may relax other conservatisms in the original analysis, such as “crediting dilution in the Radwaste Building prior to release.” RAI Response, Attachment 8 at 1. The Petitioners have not provided any facts or expert opinion supporting their belief that such crediting is “not acceptable.”

In addition, even if this assertion had factual support, it disputes the RAI Response, not the Application. The Petitioners have not provided “a fact-based argument that actually and specifically challenges the application.” *Oconee*, CLI-99-11, 49 NRC at 341. Therefore, the assertion does not raise a genuine dispute with the Applicant. 10 C.F.R. § 2.309(f)(1)(vi).

3. The Petitioners’ request for an opportunity to modify this contention should be rejected as an anticipatory contention.

Finally, the Board should deny the Petitioners’ request for additional time to modify this contention after the Applicant completes testing to determine site-specific values for distribution coefficients and retardation factors and provides an updated analysis using these parameters. See Contentions at 52-53 (quoting RAI Response, Attachment 2 at 2); Contentions at 64-66 (quoting RAI Response, Attachment 7 at 2 and Attachment 8 at 1). Such a request amounts to an “anticipatory” contention, because the issues, if any, raised by the new data and analysis will

not be known until the Applicant submits the information. The Commission has squarely rejected such requests as impermissible “notice pleading.” See *Oconee*, CLI-99-11, 49 NRC at 337-38; see also *Dominion Nuclear Connecticut* (Millstone Power Station, Unit 3), CLI-09-05, 69 NRC ___, ___ (Mar. 5, 2009) (slip op. at 5-6 and n.21). Furthermore, the rules allow for filing of new or amended contentions based on previously unavailable information, as well as the filing of untimely contentions. 10 C.F.R. § 2.309(f)(2), (c). Thus, the Petitioners’ request should be denied.

F. PROPOSED CONTENTION 6

The COLA omits critical information disclosing environmental impacts to Lake Erie’s Western Basin and Maumee River/Maumee Bay.

In Contention 6, the Petitioners argue that the Application is deficient because it does not include information on “the disproportionate impacts Fermi 3 would have on Lake Erie’s biologically-rich, but remarkably shallow, and thus vulnerable, western basin, as well as the shallow, vulnerable, and intensely biologically productive estuary system formed by Maumee Bay and the Maumee River downstream from the proposed Fermi 3 atomic reactor.” Contentions at 67. According to the Petitioners, Contention 6 is a contention of omission that the Applicant must rectify by submitting the information that the Petitioners claim is missing. *Id.* The Petitioners make a wide range of claims in the text of Contention 6, and it is not always clear from the text of the Petitioners’ document which claim any given statement is meant to support. For this reason, the NRC Staff has attempted to organize the information into four broad categories that can be discussed *seriatim*.⁵¹

First, the Petitioners argue that fluctuations in the water level in the western basin of Lake Erie will influence the availability of cooling and makeup water for the Fermi 3 facility and may lead to plant shutdowns if the water grows too warm for use in the plant cooling system.

⁵¹ The Petitioners also mention several other issues in passing, and these will be described at the end of the Staff’s response to this contention.

Id. at 67-69. The average water depth in the western basin of the lake is only 24 feet, the Petitioners say, and western Lake Erie is the first to lose ice in the spring. *Id.* According to the Petitioners, the western basin contains only about 5% of the water in the lake, or 2.3 billion gallons of water, and the Fermi 3 facility would use 49 million gallons of water per day. *Id.* at 70-71. Furthermore, the Petitioners say, the average water level in the western basin of Lake Erie has dropped by 10 inches since the late 1990s and is predicted to drop by as much as 3 to 6.5 feet over the next 70 years because of climate change. *Id.* at 68. Seiches, or changes in water level due to strong winds, are also likely to present problems. *Id.* In addition, the Petitioners argue that the DTE Monroe Coal Power Plant also uses water from the western basin of Lake Erie, and the water in the western basin of the lake may “already be significantly warmed above natural temperatures.” *Id.* For these reasons, the Petitioners assert that the waters in the western basin of Lake Erie may become too warm to cool the plant as designed. *Id.* The Petitioners therefore argue that “Detroit Edison must address in its COLA the risk that – rather than being a solution to the climate crisis – new atomic power reactors may not even be able to function in a warming world. *Id.* at 69.

Second, the Petitioners argue that use of water by the Fermi 3 reactor could influence water quality in the western basin of Lake Erie. *Id.* at 68, 70, 71-72, 73. The facility would release heated water into the western basin and could affect algae growth and water quality, both in the immediate area of the plant and in the wider region. *Id.* at 68, 71. As remedies for these alleged deficiencies, the Petitioners argue that specific tables in the COLA must be updated with data for the western end of the lake specifically, rather than for Lake Erie as a whole. *Id.* The Petitioners also assert that the COLA does not address new information related to algae growth and the potential for Fermi 3 to affect algae proliferation, and that the Applicant must include this information in the ER. *Id.* at 70.

Third, the Petitioners address the issue of fish kills. According to the Petitioners, the ER uses outdated information from Fermi 2 in its discussion of the potential effects of Fermi 3 on the fish population in the western basin of Lake Erie. *Id.* at 70. The Petitioners argue that the Applicant should be required to perform a new analysis, taking into account the effects of existing power plants in the area on the overall fish populations. *Id.* The Petitioners also request that the Applicant be required to carry out a full analysis of potential fish kills under Section 316(b) of the Clean Water Act. *Id.* at 72.

Finally, the Petitioners assert that the Applicant is required to address the effects of Fermi 3 on the Maumee Bay and Maumee River. *Id.* at 73-74. According to the Petitioners, the Applicant claims that there are no estuaries in the area surrounding the Fermi 3 site that need to be considered in the ER. *Id.* at 73 (citing ER § 2.3.1). This is not true, the Petitioners say, because Lake Erie affects the Maumee Bay and River for up to 15 miles. Contentions at 73-74. For this reason, the Petitioners argue that the Maumee River and Bay should be included in the water quality analysis in the ER. *Id.* at 74.

Staff Response: The NRC Staff opposes admission of Contention 6 or any subpart thereof. As was discussed in response to Contention 3, the NRC Staff does not agree that a contention challenging the substantive adequacy of multiple sections in the Applicant's documents can properly be considered a contention of omission. *See supra* Section III.C.1. Similarly, contentions that challenge the details of how specific regulations apply to a given situation are not contentions of omission, but rather contentions that present legal or factual questions for resolution.

At no point in their presentation of Contention 6 do the Petitioners mention NRC regulations or legal precedent, and it is therefore difficult to determine whether Contention 6 is to be read as the Petitioners' interpretation of what NRC regulations currently *do* require or whether the contention is merely an argument for additional provisions the Petitioners think the

regulations *should* require. In a sense this does not matter. This lack of specificity in itself indicates a failure to meet those sections of 2.309(f)(1) that call for a “specific statement of the issue of law or fact to be raised” and of a basis for the contention. 10 C.F.R. § 2.309(f)(1)(i)-(ii). The Petitioners have also failed to demonstrate that the material they allege should be in the COLA is material to any decision the NRC must make, and has omitted any expert opinion or citation to sources and documents⁵² it intends to rely on to support its position on these issues. See 10 C.F.R. § 2.309(f)(iv)-(v). The contention is therefore inadmissible under the pleading requirements of 10 C.F.R. § 2.309(f)(1) and no further analysis is required. However, in the interest of fully addressing the Petitioners’ claims, a discussion of the issues raised by Contention 6 will follow.

To extent that the Petitioners intend the contention as a statement of what the regulations *should* require, it is clear that contentions challenging NRC regulations are, absent a waiver, inadmissible in adjudicatory proceedings. 10 C.F.R. § 2.335(a). The Commission has also stated that it is impermissible to use the adjudicatory process to impose requirements beyond what is required by applicable regulations. *Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1)*, CLI-97-12, 36 NRC 383, 394-95 (1987). Such contentions are also to be considered challenges to NRC regulations and are therefore inadmissible. *Id.* To the extent that the Petitioner intends Contention 6 to suggest specific requirements beyond what regulations currently require, it is a violation of 10 C.F.R. § 2.335(a) and should be rejected.

However, to the extent that Contention 6 is intended to present the Petitioners’ arguments as to what NRC regulations currently *do* require, it requires further discussion on an issue-by-issue basis. Each of the four broad issues the Staff has identified as part of this

⁵² At one point in its presentation, the Petitioners cite to “pertinent studies from Heidelberg University” and “studies by University of Toledo’s Lake Erie Center.” However, no other information identifying these studies is provided, and the studies themselves were not included with the Petitioners’ filing.

contention – water withdrawals and thermal emissions, water quality, fish kills, and consideration of the Maumee Bay and River – will be addressed below.

1. The Petitioners' concerns regarding to water withdrawals and overall impact of the thermal plume are unsupported and fail to challenge the analysis already present in the ER.

The Petitioners' assertion that water withdrawals from Lake Erie should be considered in relation to the volume of the lake's western basin, rather than in relation to the volume of the lake as a whole, is neither supported nor evident on its face. Although the Petitioners cite a section of the Application which notes that the western basin is "partially restricted from the rest of Lake Erie by a chain of barrier beaches and islands," Contentions at 67 (citing ER § 2.3.1.1), the Petitioners have not provided any information indicating that the flow of water between the western basin and the rest of the lake is impeded. Nor have they taken into account the Applicant's statement that the Detroit River, located to the north of the Fermi site, accounts for 80% of the total inflow into Lake Erie as a whole. ER at 2-60. The Petitioners have not provided information supporting the allegation that fluctuations in overall lake levels, whether due to short-term or long-term variation, would affect the availability of water in the western basin disproportionately. The Petitioners have therefore failed to provide sufficient support for their claim that water withdrawals should be considered in proportion to the volume of the western basin alone. See 10 C.F.R. § 2.309(f)(1)(v).

In contrast, the Petitioners' argument that thermal emissions from the Fermi 3 facility should be considered in relation to the western basin is self-evident on its face. However, the Petitioners have not cited to or otherwise addressed those parts of the ER that describe what the Applicant has already done regarding this issue. Chapter 5 of the ER, Environmental Impacts of Operations, already includes an extensive discussion of the projected impact of the thermal plume from Fermi 3 on the western basin. ER at 5-28 to 5-37. This discussion includes considerations raised by the Petitioners such as variations in lake depth, variations in ambient

lake temperature, and specific events such as seiches, as well as considerations not raised by the Petitioners such as currents and wind velocities. *Id.* at 5-31 to 5-34. In this part of the ER, the Applicant uses the CORMIX computer model to estimate the potential extent of the thermal plume from the Fermi 3 facility under various bounding conditions and concludes that the largest mixing zone of the thermal plume from the facility is predicted to be approximately 130 feet long and 226 feet wide. As a result of this analysis, the Applicant concludes that

[t]he predicted mixing zone affects a very small section of the western lake and was not predicted to impinge on the shore, interact with the cooling water intakes, or interact with the existing Fermi 2 outfall. The impacts of the Fermi 3 thermal discharge are expected to be SMALL, and no mitigation measures are warranted.

ER at 5-37. Although the Petitioners do cite to other parts of Chapter 5 in their discussion of Contention 6, they neglect this section entirely and therefore call for analyses that the Applicant has already performed. The Petitioners do not challenge the adequacy of the Applicant's analysis or the conclusions reached as a result. Similarly, the Petitioners have failed to cite to or dispute the Applicant's assessment of the environmental impacts of the cooling tower discharge plume on the western basin of Lake Erie. ER at 5-37 to 5-40. For this reason, this part of Contention 6 fails to demonstrate the existence of a genuine dispute with the Applicant on a material issue of fact or law. 10 C.F.R. § 2.309(f)(1)(vi).

2. The Petitioners' concerns related to water quality raise issues that are outside the scope of this proceeding and fail to challenge the Application.

Emissions associated with the Fermi 3 cooling tower that could affect water quality are regulated not under NRC regulations, but under the NPDES program established by Section 402 of the Federal Water Pollution Control Act (FWPCA, Clean Water Act, or CWA). 33 U.S.C. § 1342. In Michigan, NPDES permits are issued through the MDEQ. Chapter 5 of the ER describes of this requirement, saying that

[t]he water volume, water temperature and chemical composition are regulated by the MDEQ through the NPDES permit program. MDEQ regulates point sources discharging pollutants to ensure the protection and propagation of

aquatic organisms. Under regulations, the MDEQ is required to take into consideration the cumulative impacts of multiple discharges to the same body of water. Therefore, discharges from Fermi and other area facilities are included in the review and development of permit requirements (including measures to minimize any cumulative effects) for a new Fermi 3 and for subsequent renewals of permits for combined Fermi 2 and 3 operations.

ER at 5-207. NRC regulations require applicants to describe the status of compliance with all permits, licenses, approvals, zoning restrictions, and other restrictions places on facilities by Federal, state, regional, and local agencies with responsibility for environmental protection. 10 C.F.R. § 51.54(d). The Applicant has indicated its intent either to obtain a new NPDES permit from the MDEQ for Fermi 3 or to seek a modification of permit MI0037028, under which the existing Fermi 2 facility operates. ER at 1-6. As the Applicant notes, this permitting process already takes into account the cumulative impacts of emissions from other facilities that discharge into Lake Erie. *Id.* at 5-207.

The FWPCA specifically prohibits Federal agencies from imposing effluent limits in addition to those required by that statute. In particular, Section 511 of the FWPCA states that

Nothing in [NEPA] shall be deemed to –

(A) authorize any Federal agency . . . to review any effluent limitation or other requirement established pursuant to this Act or the adequacy of any certification under section 401 of this Act; or

(B) authorize any such agency to impose as a condition precedent to the issuance of any license or permit, any effluent limitation other than any such limitation established pursuant to this Act.

33 U.S.C. § 1371(c)(2). The NRC must analyze the environmental impacts of a project under NEPA, but it cannot “go behind” the effluent limits imposed by the EPA or relevant state agency under the FWPCA in order to impose effluent limits of its own.⁵³ Therefore, to the extent the

⁵³ See *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-366, 5 NRC 39, 52 (1977) (“This Commission still must consider any adverse environmental impact that would accrue from the operation of the facility in compliance with EPA-imposed [FWPCA] standards; but it cannot go behind either those standards or the determination by EPA or the state that the facility would comply with them.”); *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-78- 1, 7 NRC 1, 26 (1978) (“The

Petitioners would have the NRC second-guess allowable pollutant levels established by the MDEQ, see Contentions at 72, this contention is outside the scope of this proceeding.

The Petitioners' main concern appears to be thermal emissions as they relate to algae growth in the western basin of Lake Erie. Contentions at 70. Although the specific species that the Petitioners mention is not included in the ER, the Applicant does mention the potential for algae growth in connection with thermal emissions in Chapter 5 of the ER. ER at 5-47. The Applicant states that no harmful algae blooms have been detected as a result of Fermi 2 emissions, and adds that the plume from Fermi 3 will be far enough from the Fermi 2 discharge to prevent mixing and additive effects. *Id.* The DTE Monroe Coal Plant, which the Petitioners mention specifically, is even farther away. See Contentions at 70.

Because the Petitioners have not provided any information to contradict the Applicant's assertions regarding plume size and extent of environmental effects, they have no basis to challenge the Applicant's claims regarding the lack of interaction among plumes from various facilities. Furthermore, they have not provided any additional support for their claim that information found in the ER is outdated.⁵⁴ For these reasons, this aspect of Contention 6 fails to satisfy the support requirement of 10 C.F.R. § 2.309(f)(1)(v) and the requirement to demonstrate existence of a genuine dispute found in 10 C.F.R. § 2.309(f)(1)(vi). It should therefore be rejected.

relationship of EPA and this Commission in the present setting may be summarized thus: EPA determines what cooling system a nuclear power facility may use and NRC factors the impacts resulting from the use of that system into the NEPA cost-benefit analysis.”).

The Commission recently reaffirmed this position, noting that the legislative history of the Clean Water Act indicates that Congress “*specifically* intended to deprive the NRC’s predecessor agency (the Atomic Energy Commission) of [this] authority.” *Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc.* (Vermont Yankee Nuclear Power Station), CLI-07-16, 65 NRC 371, 377 & nn.19-20 (2007) (emphasis in original).

⁵⁴ As mentioned previously, the references the Petitioners give are insufficient to identify the documents they refer to, and the documents themselves are not attached to the Petitioners’ filing. See *supra* note 52.

3. The information the Petitioners request regarding fish kills is already present in the ER, and the Petitioners have not provided any support for their assertion that additional analyses must be performed.

Past studies of impingement and entrainment of fish at the Fermi 2 facility and at other plants on Lake Erie are presented in Chapter 5 of the ER. ER at 5-25 to 5-28. The data presented for Fermi 2 were collected in the early 1990s; however, the Petitioners have provided no information about any change in design or change in the aquatic ecosystem that would indicate that the results of the 1990s study are no longer representative. The Petitioners also ignore information in the ER that indicates no long-term changes in the local fish populations as a result of operating the Fermi 2 plant, and they do not challenge the methods the Applicant proposes to reduce impingement and entrainment at the Fermi 3 facility. See ER at 5-27. The Petitioners have therefore failed to demonstrate the existence of a genuine dispute with the Applicant, as required by 10 C.F.R. § 2.309(f)(1)(vi).

4. The Petitioners have provided no information to support their assertion that the ER must include a discussion of water quality impacts on the Maumee Bay and Maumee River.

The Petitioners assert that the Applicant must include a discussion of the impacts of the Fermi 3 on the Maumee Bay and Maumee River. As support for this assertion, the Petitioners provide only a reference to the ER's discussion of "the impacts on ground water at the Bass Islands." Contentions at 74. The Bass Islands are farther from the Fermi 3 site than the Maumee Bay and River, the Petitioners argue, and any analysis that is appropriate for a more distant site is also appropriate for a closer one. *Id.*

The Petitioners have not characterized the groundwater discussion in the ER accurately. The reference actually found in the ER is to the Bass Islands Group aquifer,⁵⁵ an underground

⁵⁵ As in Contention 5, the Petitioners seem to confuse the Bass Islands Group aquifer at the Fermi 3 site with other locations. Here the reference may be to the Bass Islands in Lake Erie, or to the nearby Bass Islands Aquifer at Catawba Island. See *supra* Section

aquifer that extends under the Fermi 3 site. ER at 5-14; see *also* FSAR at 2-465 to 2-466. For this reason, the Petitioners' reference to the Bass Islands does not support their claim regarding the need to extend the analysis to the Maumee Bay and River.

Because the extent of the plume from the Fermi 3 cooling system is likely to be measured in feet rather than miles, see *supra* Section III.F.1, there would appear to be little reason to extend the analysis of environmental impacts in the manner the Petitioners request. In any event, the Petitioners have not provided any such reason, and this part of Contention 6 also fails to demonstrate the existence of a genuine dispute on a material issue of fact or law. It is therefore inadmissible under 10 C.F.R. § 2.309(f)(1)(vi).

5. Other issues mentioned by the Petitioners do not meet the pleading requirements of 10 C.F.R. § 2.309(f)(1).

The Petitioners also mention several other issues in passing in their discussion of Contention 6. These include the impacts of the Fermi 3 facility on the drinking water supply for Toledo and Oregon, Ohio, Contentions at 74; control of mercury pollution from DTE's Monroe Coal Power Plant, *id.* at 75; the potential for a terrorist attack on the plant to affect water quality, *id.*; and inclusion of Toledo's water intake in the Applicant's environmental documents, *id.* at 76. Some of these are, on their face, outside the scope of this proceeding, and none of these topics are developed in any significant detail. For this reason, all fail to meet the pleading requirements of 10 C.F.R. § 2.309(f)(1).

G. PROPOSED CONTENTION 7
Routine operations of Fermi 3 will endanger workers and the public with radionuclide emissions.

Contention 7 states that "construction and operation of Fermi 3 will produce radioactive contamination which expose [sic] the workforce at the plant, and the general public, to increased risk of negative health effects." Contentions at 77. Although this contention includes many

III.E.2.b. In any event, the relevant references in the Application are to the aquifer at the Fermi site and not to these more distant locations.

different issues, it seems that the Petitioners' main concerns are planned venting of gaseous effluents, release of liquid effluents, and radiation doses to construction workers from the operating Fermi 2 facility. The Petitioners' secondary concerns appear to be emissions from the remainder of the nuclear fuel cycle and radioactive emissions from the burning of coal at nearby fossil fuel plants. Because the overall statement of Contention 7 is so general, and because the issues themselves are very different from one another, the discussion that follows will treat these issues as separate subparts of the contention rather than as bases for the broad, general contention. The Petitioners' reasoning for each subpart will be discussed under the heading for that subpart.

The Petitioners request the same list of remedies for all these potential sources of radiation: an evaluation by the Agency for Toxic Substances and Disease Registry (ATSDR) of the cancer rates near the plant; epidemiological studies, to be updated annually; exposure monitoring for workers; provision of two dosimeters per worker, one for review by the Applicant and one for review by the union; biannual worker screening for blood cancers and cancer markers; worker records kept in auditable form and available, collectively, to the public; provision of potassium iodide to workers and the public; cancer awareness and general education programs for the workforce and local communities; rejection of dilution as a practice for managing releases; adherence to effluent limits; and compliance with all regulatory standards, without waiver or exemption or relaxation of methodology. *Id.* at 88.

Staff Response: The Staff opposes admission of all subparts of Contention 7. The Petitioners' discussion of gaseous effluents is not supported by the citation they include and fails to demonstrate the existence of a genuine dispute with the Applicant. The discussion of liquid effluents repeats elements of Contention 5, but in less detail, and should be subsumed under that contention. The Petitioners' claim regarding the Applicant's projections of radiation doses to workers during construction of Fermi 3 fails to meet contention pleading requirements

and is an impermissible challenge to NRC regulations. Finally, all other issues raised in the contention are outside the scope of this proceeding and fail to meet the pleading requirements of 10 C.F.R. § 2.309(f)(1). Accordingly, Contention 7 should be rejected.

1. The Petitioners' arguments related to gaseous effluents are not supported by the citations it includes.

The Petitioners argue that Part 7 of the Application, the Departures Report, includes a provision for venting gaseous effluents containing radioactive material to the environment. Contentions at 77. According to the Petitioners, “[t]he ESBWR is by design, intended to vent radiological gaseous effluents.” *Id.* The Petitioners contend that this departure will result in radiation exposures to workers and members of the public. *Id.*

The NRC Staff opposes admission of this subpart of Contention 7 because the Departures Report in Part 7 of the Application simply does not say what the Petitioners allege that it says. The relevant Departure, EF3 DEP 9.4-1, indicates that the Fermi 3 facility uses the venting system described in Revision 5 of the ESBWR DCD rather than the system described in Revision 4. Revision 4 of the ESBWR design provides for venting the exhaust from the Heating, Ventilation and Air Conditioning (HVAC) systems for the reactor building, turbine building, fuel building, and radwaste building through the plant vent stack. Revision 5 of the ESBWR design provides for individual vents on the roofs of the reactor building, turbine building, and radwaste building. Departures Report at 2. Neither the Departures Report nor any of the FSAR subsections cited therein mention any increase in radioactive effluents in connection with this design change. Because the Petitioners have failed to identify any genuine dispute with the Application as it actually reads, this subpart of the contention does not meet the contention pleading requirements of 10 C.F.R. § 2.309(f)(1) and should be rejected.

It must be noted that those sections of Revision 5 of the ESBWR DCD that correspond to the COLA sections referenced in EF3 DEP 9.4-1 do discuss gaseous effluents. In particular, they discuss the ways in which HVAC venting systems may be used to contain and filter

radioactive material to prevent releases to the environment.⁵⁶ If the Petitioners have concerns related to these aspects of the ESBWR design, they may submit them as part of the design certification rulemaking. However, they have not submitted an admissible contention related to either the COLA or the design certification application at this time.

2. The Petitioners' discussion regarding liquid effluents is duplicative of material found in Contention 5 and should be subsumed under that contention.

In the subpart of Contention 7 that addresses liquid effluents, the Petitioners cite to the same RAI and response already discussed in relation to Contention 5. Contentions at 77-78; *see supra* Section III.E. The bulk of the Petitioners' treatment of this issue under Contention 7 consists of block quotations and does not add any additional arguments to those already presented in Contention 5. For this reason, this part of Contention 7 should be subsumed under Contention 5.

3. The subpart of Contention 7 that addresses occupational doses to construction workers fails to satisfy the pleading requirements of 10 C.F.R. § 2.309(f)(1) and represents an impermissible challenge to NRC regulations.

In this subpart of the contention, the Petitioners quote extensively from those sections of the Application that describe the radiation doses that Fermi 3 construction workers are likely to receive as the result of working in proximity to the operating Fermi 2 facility. Contentions at 79-84. According to the Application sections cited, construction workers could be exposed to radiation from direct radiation sources, from gaseous effluents, and from liquid effluents. The quoted sections of the Application project the following doses to an individual worker: 24.6 mrem per year above background radiation whole body dose from direct radiation sources, 1.6 mrem per year whole body dose and 10.4 mrem per year thyroid dose from gaseous effluents, and negligible doses from liquid effluents. *Id.* at 81-83 (citing ER §§ 4.5.3.1 to

⁵⁶ See ESBWR Design Control Document Tier 2, Revision 5 (May 2008), §§ 9.4.2, 9.4.3, 9.4.4, and 9.4.6, available at <http://www.nrc.gov/reactors/new-reactors/design-cert/esbwr/dc-review.html>.

4.5.3.3). These doses amount to 26 percent of the 100 mrem total effective dose equivalent limit applicable to members of the general public under NRC regulations. *Id.* at 84 (citing ER § 4.7.7.).

The Petitioners do not take issue with the method the Applicant uses to arrive at these projected doses, nor do they challenge the numbers themselves. Rather, they argue that “workers will be getting exposed to considerable radiation.” *Id.* at 84. The Petitioners argue that this is problematic because “Beir [sic] VII concludes that no exposure to radiation is without an associated risk. There is no safe level of exposure.” *Id.*

The NRC Staff opposes admission of this subpart of Contention 7 on the grounds that it does not include an explanation of the basis for the contention, a description of the alleged facts or expert opinion which support the Petitioners’ position, or information to show that a genuine dispute with the Applicant exists. Aside from a brief reference to the linear, no-threshold model in BEIR VII, Contentions at 84, the Petitioners advance no arguments that the construction worker doses mentioned in the Application are problematic. Nor do they argue that projected doses are calculated incorrectly. Of the approximately five pages of text supporting this subpart of the contention, all but two brief paragraphs are direct quotations from the Application. The Petitioners provide no analysis of the quoted material,⁵⁷ but rather disagree with the Application’s conclusions that projected worker doses are within the limits for members of the general public and that individual monitoring of construction workers is not required. *Id.* Given the brief nature of this presentation, there is simply no text that sets forth the contention’s basis, describes the alleged facts or expert opinion which support the Petitioners’ position, or shows that a genuine dispute with the Applicant exists. This essential information is missing, and this subpart of the contention therefore fails to satisfy the pleading requirements of 10 C.F.R.

⁵⁷ Presenting excerpts from documents without further explanation does not provide sufficient support for a contention. See *USEC, Inc. (American Centrifuge Plant)*, LBP-05-28, 62 NRC 585, 597 (2005), *aff’d* CLI-06-10, 63 NRC 451, 472 (2006).

§ 2.309(f)(1)(ii), (v), and (vii).

In addition, the radiation doses that the Petitioners challenge are well within the dose limit of 100 mrem established under NRC regulations for members of the general public.⁵⁸ This subpart of Contention 7 is therefore a challenge to NRC regulations and is inadmissible under 10 C.F.R. § 2.335(a). The pleading requirements of 10 C.F.R. § 2.309(f)(1), in particular the basis requirement, exist in part to ensure that the adjudicatory process is not used for improper purposes, for example for attacks on statutory requirements or NRC regulations.⁵⁹ In this subpart of Contention 7, the Petitioners appear to object to exposing construction workers to any radiation dose, even one that is only 26 percent of the regulatory dose limit for members of the general public. Because the radiation doses described in the Application are well within regulatory limits, this subpart represents a challenge to the relevant regulations and is inadmissible under 10 C.F.R. § 2.335(a).

4. The Petitioners' discussion of radioactive releases from the nuclear fuel cycle does not meet the pleading requirements of 10 C.F.R. § 2.309(f)(1).

As a secondary issue, the Petitioners argue that radioactive releases also occur at all stages of the nuclear fuel cycle, and that “[a]ccurate accounting of all radioactive wastes released to the air, water and soil for the entire reactor fuel chain production system is simply not available.” Contentions at 85. According to the Petitioners, “Fermi 3 would increase the risk that new uranium mining in the Great Lakes basin, such as at Eagle Rock near Marquette and the Keweenaw Bay Indian Community in Michigan’s Upper Peninsula, would go ahead.” *Id.*

⁵⁸ 10 C.F.R. § 20.1301(a)(1); see also 10 C.F.R. § 20.1003 (defining terms used in radiation protection standards and explaining how individual organ doses are weighted in calculating the committed effective dose equivalent and total effective dose equivalent).

⁵⁹ *General Public Utilities Nuclear Corp.* (Three Mile Island Nuclear Station, Unit 1), LBP-86-10, 23 NRC 283, 285 (1986) (citing *Philadelphia Electric Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20-21 (1974)).

The Staff opposes this subpart of Contention 7 because it does not include an issue that is within the scope of the proceeding or material to the decision the NRC must make on the Application, because it does not include a statement of the alleged facts or expert opinion that support the Petitioners' position, and because it does not show the existence of a genuine dispute with the Applicant. It therefore violates the contention pleading requirements of 10 C.F.R. § 2.309(f)(1)(iii)-(vi) and must be rejected.

The Staff notes that environmental impacts from the uranium fuel cycle are included in the ER under Chapter 5, Environmental Impacts of Operation. The Petitioners themselves refer to this chapter in their arguments related to Contention 11. *See infra* pp. 83-84. The Staff acknowledges that a properly argued and supported contention regarding fuel cycle impacts could fall within the scope of a COL proceeding if it challenged the ER in a permissible way.

The Petitioners, however, do not present such a challenge here. Rather, they mention potential increases in uranium mining, activities that are speculative at this point and outside the scope of any hearing on the Fermi 3 COLA. They do not mention the COLA in any way, and they do not provide any factual or expert support for their concerns regarding this issue. A contention that simply alleges that some general, nonspecific matter ought to be considered does not provide a basis for an admissible contention. *See Sacramento Municipal Utility District (Rancho Seco Nuclear Generating Station)*, LBP-93-23, 38 NRC 200, 246 (1993). For these reasons, this subpart of Contention 7 should be rejected.

5. Radioactive releases from fossil fuel plants in the area are outside the scope of this proceeding.

The Petitioners also argue that “[t]he NRC should address the additional radioactivity exposures caused by discharges from the burning of coal at Monroe County’s two fossil fuel plants.” Contentions at 86. The Petitioners also say that radiation monitoring should be installed at these two plants, and that “incremental changes caused by a new reactor should be evaluated.” *Id.*

This subpart of Contention 7 addresses issues far outside the scope of an NRC licensing proceeding. The coal-fired power plants in Monroe County are not licensed by the NRC, and their activities are not part of the Application currently under consideration. However, although the NRC does consider cumulative impacts when it prepares an EIS in connection with a license application, the Petitioners have not shown that the issue they mention is within the scope of this proceeding, nor that a genuine dispute exists on a material issue of fact or law. This subpart of the contention therefore fails to satisfy the pleading requirements of 10 C.F.R. § 2.309(f)(1)(iii), (iv), and (vi).

H. PROPOSED CONTENTION 8
Threatened and Endangered Species have not been properly mitigated.

In this contention, the Petitioners challenge the Applicant's analysis of threatened and endangered species at the Fermi 3 site and claim that the Applicant must consider alternatives to building at that site or, alternatively, must take action to mitigate any effects on threatened or endangered species. Contentions at 89-90. According to the Petitioners, there are four species of threatened or endangered animals and three species of threatened or endangered plants at the Fermi 3 site. *Id.* at 89. The Petitioners address only one species, however, and state that, "[b]ased on the review by the Wildlife Division of the Michigan Department of Natural Resources [MDNR] Petitioners have reason to believe that . . . 'going forward with the construction (of Fermi 3) would not only kill snakes but destroy the habitat in which they live and possibly exterminate the species from the area.'" *Id.*

As support for this contention, Petitioners have reproduced an email containing Michigan Department of Natural Resources' (MDNR) comments on the ER, which was sent to the NRC on February 9, 2009.⁶⁰ The Petitioners have also provided a one-paragraph excerpt from a

⁶⁰ *Id.* at 89-90 (citing Email from Lori Sargent, MDNR, to NRC (Feb. 9, 2009), ADAMS Accession No. ML090401014).

letter sent from USEPA, Region 5, to the NRC on February 9, 2009, offering recommendations regarding the scope of the EIS.⁶¹

Staff Response: This contention is inadmissible because it lacks factual or expert support and fails to raise a genuine dispute with the Applicant on a material issue of fact or law. 10 C.F.R. § 2.309(f)(1)(v)-(vi). 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.’” See *Duke Energy Carolinas, LLC* (Combined License Application for William States Lee III Nuclear Station, Units 1 and 2), LBP-08-17, 67 NRC ___, ___ (Sept. 22, 2008) (slip op. at 9) (quoting *Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003)).

The Petitioners’ claims that “inadequate mitigation has been considered” and that “[a]lternatives have not been given the requisite ‘hard look’” are vague and conclusory assertions that lack the required specificity for an admissible contention.⁶² 10 C.F.R. § 2.309(f)(1)(i). These general assertions also lack any factual or expert support and fail to raise a genuine dispute with the Applicant. *Id.* at § 2.309(f)(1)(v)-(vi).

The material presented in support of the contention consists of two statements taken from the EPA and MDNR comments. The first statement contains general guidance from the

⁶¹ Contentions at 90 (citing Letter from Kenneth A. Westlake, EPA Region 5, to Michael Lesar, NRC re: Fermi Nuclear Power Plant, Unit 3 – Notice of Intent and Scoping Request (Feb. 9, 2009), ADAMS Accession No. ML090650467). Another copy of this document, including a transmittal email from Anna Miller of EPA Region 5, is also available, ADAMS Accession No. ML 090401019.

⁶² Additionally, the obligation to take a “hard look” at environmental impacts under NEPA belongs to NRC, not the applicant. *Amergen Energy Co., LLC, et al.* (Oyster Creek Nuclear Generating Station), CLI-08-23, 68 NRC ___, ___ (Oct. 6, 2008) (slip op. at 18 n.64). Therefore any contention asserting that NRC has not taken a “hard look” at alternatives or mitigation is premature, since NRC has just begun its environmental review. Furthermore, the Petitioners’ assertion that threatened and endangered species have not been properly mitigated is immaterial, because NEPA does not require the agency to actually mitigate the environmental impact. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 359 (1989).

EPA concerning wetlands. Contentions at 89. The second statement echoes MDNR's concern that going forward with construction would kill snakes, destroy their habitat, and possibly exterminate the species from the area. *Id.* As explained below, the Petitioners provide no explanation or additional support for these statements other than the EPA and MDNR comments themselves. These comments do not provide adequate support for the Petitioners' claims.

The EPA statement regarding wetlands is merely "general guidance" that contains nothing specific to the Fermi 3 site or the ER. Therefore, this statement does not support the contention. The MDNR concern about Eastern fox snakes does relate to the Fermi 3 site; however, other than stating that their records indicate "a viable population of Eastern fox snake" at the Fermi 3 site, the MDNR comments do not provide any additional factual basis or explanation for the Petitioners' concerns.⁶³ The Petitioners do not provide any additional support for their claim that the Applicant's proposed actions will threaten the snake population, that the Applicant has failed to consider alternatives, or that the Applicant has failed to provide for mitigation at the site. Therefore, the Petitioners' concerns amount to "bare assertion" and "speculation" and are insufficient to support a contention. *Fansteel*, CLI-03-13, 58 NRC at 203.

The Petitioners also fail to raise a genuine dispute with Applicant on a material issue of fact or law. 10 C.F.R. § 2.309(f)(1)(vi). The Petitioners have not, as the contention admissibility rules require, identified specific sections of the ER which are in dispute or which lack required information. *Id.* Although the MDNR comments identify a discrepancy between pages 2-333 and 4-45 of the ER regarding the presence of the Eastern fox snake on the Fermi 3 site, this discrepancy is immaterial, because the Applicant did analyze the potential impacts of Fermi 3

⁶³ The Petitioners have not identified the author of the MDNR document as an expert. Even if they had done so, the opinion of a qualified and properly identified expert will not support a contention if the opinion lacks a reasoned basis or explanation. See *USEC, Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 472 (2006).

on the Eastern fox snake in Section 4.3.1.2.1 of the ER. ER at 4-45. MDNR's belief that going forward with construction would kill snakes, destroy their habitat, and possibly exterminate the species from the area does not raise a dispute with the Applicant, because these statements express general concerns and do not take issue with the specific plans that the Applicant sets forth in the Application. Similarly, MDNR's desire to see a plan for protection of the Eastern fox snake does not identify a deficiency or omission in the ER, and the Petitioners have not explained why such a plan is necessary. Therefore, the MDNR comments do not raise a genuine dispute.

Finally, the excerpt from the EPA comments does not raise a specific issue with regard to the Fermi 3 Application. As explained above, it contains only general guidance that is not specific to the Fermi 3 site. It is therefore insufficient to raise a genuine dispute.

I. PROPOSED CONTENTION 9

The Commission must require completion of an EIS and selection of a "preferred alternative" prior to authorizing any construction activity of any sort.

In Contention 9, the Petitioners challenge the NRC's Limited Work Authorization (LWA) rule, which is found in 10 C.F.R. § 50.10(d)(1). Contentions at 91. As the Petitioners note, this regulation permits a holder of an LWA to drive pilings; prepare the subsurface for construction; place backfill, concrete, or permanent retaining walls within an excavation; and install the foundation for later construction. *Id.* (citing 10 C.F.R. § 50.10(d)(1)). According to the Petitioners, this regulation circumvents NEPA because it allows a COL applicant to make "an irretrievable commitment to a large, baseload plant, probably nuclear-fired, long before the completion of an Environmental Impact Statement which seriously considers reasonable alternatives." *Id.* Allowing such a commitment, the Petitioners say, "manifests an undeniable bias toward central baseload plant construction and precludes substantive consideration of any other decentralized alternative." *Id.* According to the Petitioners, this "would deprive the public of the benefit of the procedural protections of federal law." *Id.* at 92.

Staff Response: The NRC Staff opposes admission of Contention 9. The Fermi 3 COLA does not include a request for an LWA. Such requests are to be found in Part 6 of COL applications, a part that is not used in the Fermi 3 COLA.⁶⁴ Perhaps because there is nothing about LWAs to dispute in the Fermi 3 COLA, Contention 9 does not even attempt to challenge the Application. Indeed, the Petitioners' discussion of Contention 9 does not mention the Application at all. For this reason, Contention 9 is outside the scope of this proceeding and immaterial to the decision the NRC must make on the Application. It also fails to include any information indicating a genuine dispute with the Applicant on a material issue of fact or law.

Furthermore, as has been noted several times in this pleading, contentions that challenge NRC regulations are barred from consideration in NRC adjudicatory proceedings by 10 C.F.R. § 2.335(a) and by Commission case law. Contention 9 is a direct challenge to the LWA rule found in 10 C.F.R. § 50.10(d)(1), and it is therefore inadmissible in this proceeding. It should therefore be rejected under the pleading requirements of 10 C.F.R. § 2.309(f)(1), as well as under the 10 C.F.R. § 2.335(a) prohibition on contentions challenging NRC regulations.

J. PROPOSED CONTENTION 10
Notification of First Nations bands was insufficient and violative of law and regulation.

In this contention, the Petitioners assert that the Staff failed to make certain notifications to various Native American or First Nation tribes that the Petitioners claim were required under "applicable treaties, laws, and regulations." Contentions at 96. The Petitioners assert that "it appears that the Staff failed to notify numerous Native American tribes, bands, and First Nations" about the "environmental scoping public comment opportunity" for Fermi 3 or "their right to intervene against Fermi 3." *Id.* According to the Petitioners, these tribes include the Walpole Island First Nation (WIFN), located 50 miles from the Fermi 3 site, along with several

⁶⁴ The Fermi 3 COLA is not unusual in this respect. Of the 17 COLAs currently pending before the NRC, only one – for the proposed Levy County plant in Florida – includes a request for an LWA.

other First Nations located in “southwestern Ontario” and “throughout the Great Lakes basin.”⁶⁵ Additionally, Petitioners state that “it is unclear that the NRC adequately notified . . . [certain] tribes in Michigan, Wisconsin, and Oklahoma of their rights to intervene with contentions against the licensing of Fermi 3” Contentions at 96. The Petitioners claim that sovereign Indian tribes “are granted automatic standing in NRC new reactor proceedings,”⁶⁶ but that “tribes cannot intervene, despite their automatic standing, if NRC fails to inform them of the proceeding along with their opportunity and right to petition for leave to intervene and submit contentions.” *Id.*

Although the Petitioners mention “numerous” Native American tribes and First Nations, the primary focus of this contention appears to be the WIFN. The Petitioners make several specific assertions regarding the environmental impacts of Fermi 3 on the WIFN. Contentions at 98-99. First, the Petitioners claim that WIFN will be negatively impacted by routine or accidental radiological or toxic chemical releases from Fermi 3 to the air and the water, as well as “thermal pollution.” *Id.* at 98. Second, according to Petitioners, WIFN and “many, perhaps all” of the other tribes mentioned by the Petitioners “likely have hunting and fishing rights, by

⁶⁵ *Id.* at 97. In addition to the WIFN, the Petitioners identify the following First Nations in southwestern Ontario: Moravian of the Thames (or Delaware of the Thames); Chippewas of the Thames, Oneida of the Thames, Caldwell (Potowatomi); Aamjiwnaang (Chippewa of Sarnia); Chippewas of Kettle and Stony Point, and Munsee-Delaware. Petitioners also identify the Serpent River First Nation of Ontario. The Petitioners do not provide any additional information concerning the locations of these First Nations with respect to the Fermi 3 site. There is therefore insufficient information in the Petitioners’ filing to indicate which, if any, of these groups might be able to present an argument for standing under the proximity presumption. See *Atlas Corp.* (Moab, Utah Facility), LBP-97-9, 45 NRC 414, 426-27 (1997), *aff’d* CLI-97-8, 46 NRC 21 (1997) (general statements regarding residence “near” or “in the vicinity” of a facility are insufficient to establish standing).

⁶⁶ The Petitioners do not cite a regulation that grants such “automatic standing.” Presumably, they refer to 10 C.F.R. § 2.309(d)(2), which states that a state, local governmental body, or affected Federally-recognized Indian tribe does not have to address the standing requirements for a facility *within its boundaries*. Otherwise, such entities must submit a petition that meets the requirements of 10 C.F.R. § 2.309. *Id.* Because the Fermi site is not within the boundaries of an Indian reservation, any Indian tribe seeking to intervene in this proceeding would have to demonstrate standing.

treaty . . . that would be implicated by Fermi 3.” *Id.* Finally, the Petitioners assert that Fermi 3 would have an adverse impact on fish, wild game, and migratory birds, thereby impacting the food supply of the WIFN. *Id.* The Petitioners argue that “[s]uch negative impacts certainly require NRC to notify [WIFN] of its right and opportunity to provide public comment . . . during the environmental scoping proceeding,” and ask that “[WIFN] and other affected First Nations not notified by NRC” receive sixty days to submit public comments and decide whether they wish to petition to intervene. *Id.* at 98-99.

As support for this contention, the Petitioners first state that NEPA requires the NRC to notify affected Native American tribes of pending significant proposals and actions and to interact with them in a sovereign to sovereign relationship pursuant to Executive Order 12898. Contentions at 97. The Petitioners then state that the NRC must, pursuant to 10 C.F.R. § 51.28(a)(5), invite “any affected Indian tribe” to participate in the environmental scoping process. The Petitioners also suggest that requirements for coordination and collaboration between the United States and Canada are “codified” in “binding legal arrangements” between the United States and Canada, such as the Boundary Waters Treaty.⁶⁷ Finally, the Petitioners cite several documents, including the Treaty with the Ottawa, etc., 7 Stat. 105 (Nov. 17, 1807), NEPA, the Council on Environmental Quality (CEQ) “Guidance on NEPA Analyses for Transboundary Impacts,” and two federal court cases to support their claim that “the Commission is obligated to notify the [WIFN] and other First Nations in Canada just as it must notify tribes located partly or wholly within the United States when there are transboundary impacts from a project.” Contentions at 99-100. To rectify the NRC Staff’s purported failures, the Petitioners “urge that these proceedings be waylaid the communication [sic] pending proper

⁶⁷ *Id.* at 99 (citing Treaty Between the United States and Great Britain Relating to Boundary Waters Between the United States and Canada, 36 Stat. 2448 (Jan. 11, 1909) (Boundary Waters Treaty)). The Petitioners do not explain what these “binding legal arrangements” are or how they apply to this proceeding.

notice and a chance to participate to the [WIFN],” and that any affected tribes in the United States be notified of their opportunity to intervene in this proceeding and be given sixty days to submit petitions to intervene. *Id.* at 101.

Staff Response: This contention is inadmissible because it is outside the scope of this proceeding, it is inadequately supported, and it fails to raise a genuine dispute with the Applicant on a material issue of fact or law.

The contention fails, in several respects, to meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1). First, the Petitioners’ claims on behalf of the WIFN and other tribes are not redressable by the Licensing Board, and therefore are outside the scope of the proceeding.⁶⁸ NRC licensing proceedings are limited to specific findings under the AEA and NEPA. Furthermore, the Commission has emphasized that “[t]he purpose and scope of a licensing proceeding is to allow interested persons the right to challenge the sufficiency of the *application.*” *Amergen Energy Co., LLC (Oyster Creek Nuclear Generating Station)*, CLI-08-23, 68 NRC ___, ___ (Oct. 6, 2008) (slip op. at 18) (emphasis added). Although the Staff’s review under NEPA is within the scope of the proceeding, *id.* at 18 n.64, the regulations clearly delimit the scope of NEPA contentions: “[o]n issues arising under [NEPA], the petitioner shall file contentions based on the *applicant’s environmental report,*” and new or amended contentions may be filed “if there are data or conclusions in the NRC draft or final environmental impact statement [EIS] . . . that differ significantly from the data or conclusions in the applicant’s

⁶⁸ In addition, the Staff notes that the Indian tribes and First Nations discussed in this contention did not submit petitions of their own or join in the Petition under consideration here. Furthermore, none of the Petitioners have provided documentation indicating that they are authorized to represent these tribes and First Nations. In NRC proceedings, organizations may not represent persons other than their members without express authorization to do so. See *Florida Power and Light Co.* (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329 (1989); *Long Island Lighting Co.* (Shoreham Nuclear Power Plant, Unit 1), LBP-77-11, 5 NRC 481, 483-84 (1977).

documents.” *Id.* Thus, in NRC licensing proceedings, admissible NEPA contentions are limited to issues arising from the Application or the NRC’s draft or final EIS.

Nothing in Contention 10 relates to the Application. Rather, the Petitioners focus solely on the alleged insufficiencies in the NRC Staff’s notice regarding the environmental scoping meeting and the opportunity to intervene in this proceeding.⁶⁹ Because such issues are not within the scope of the proceeding, the contention is inadmissible.

For similar reasons, the issues raised in the contention are not material to the decision that the NRC must make. See 10 C.F.R. § 2.309(f)(1)(iv). In order for an issue to be material, “the subject matter of the contention must impact the grant or denial of a pending license application.” *PPL Susquehanna LLC* (Susquehanna Steam Electric Station, Units 1 and 2), LBP-07-10, 66 NRC 1, 24 (2007). As discussed above, this contention does not relate at all to the Application; therefore, it is inadmissible.

Finally, pursuant to 10 C.F.R. § 2.309(f)(1)(vi), a petitioner must “provide sufficient information to show that a *genuine dispute exists with the applicant* on a material issue of law or fact.” In order to do so, a petitioner must cite specific portions of the Application that it disputes

⁶⁹ In addition to the deficiencies noted above, the Petitioners have also failed to demonstrate that the Staff’s notice was deficient. With regard to Indian tribes within the United States, notice published in the *Federal Register* provides constructive notice to all persons within the United States. 44 U.S.C. § 1508; *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 173 (1998). Therefore, any Indian tribe based in the United States cannot claim inadequate notice of either the scoping meeting or the opportunity for a hearing. The Petitioners have not pointed to any requirement in the AEA, NEPA, or the Commission’s regulations that the NRC notify parties outside the United States of an opportunity for a hearing.

With respect to the environmental scoping process and First Nations tribes in Canada, 10 C.F.R. § 51.1 expressly states that the environmental protection requirements of Part 51 “do not apply to . . . any environmental effects which NRC’s domestic licensing and related regulatory functions may have upon the environment of foreign nations.” Therefore, § 51.28(a) does not *require* the NRC staff to invite a First Nations tribe to participate in the environmental scoping process. This does not mean that the Staff would not accept comments from a First Nations tribe or any other person or entity from Canada who attended a scoping meeting or who provided written comments. Moreover, the Staff notes that scoping is a process, not a one-time opportunity; therefore, participation in the scoping process may be accomplished without attending the public scoping meeting.

or that fails to contain necessary information, and provide supporting reasons for the dispute or belief that information is lacking. 10 C.F.R. § 2.309(f)(1)(vi). Here, as mentioned above, this contention does not even mention the Application, much less raise disputes with it or identify omissions from it. Therefore, the Petitioners have failed to raise a genuine dispute with the Applicant and the contention is inadmissible.

K. PROPOSED CONTENTION 11
Spent fuel reprocessing is not an option.

In Contention 11, the Petitioners again take exception to Table S-3 of 10 C.F.R. § 51.51(b), which the Applicant cites and uses to calculate uranium fuel cycle impacts. Contentions at 103-04. The Petitioners object to this table on the ground that it does not include impacts from the spent fuel reprocessing for the recovery of plutonium. *Id.* According to the Petitioners “all commercial reprocessing in the world involves plutonium extraction and re-use.” *Id.* at 104. Therefore, the Petitioners conclude that Table S-3 is not sufficiently conservative. *Id.*

The Petitioners also state that spent fuel reprocessing is mentioned several times in the ER as an option for managing high level waste, and imply that policy issues related to reprocessing are therefore related to this proceeding. *Id.* at 103. According to the Petitioners, reprocessing is mentioned in section 5 of the ER, Environmental Impacts of Operation, in the subsection that addresses uranium fuel cycle impacts. *Id.* (citing ER at 5-140, 5-141, 5-144, & 5-149). The Petitioners note that the Application contains an explicit statement that the U.S. does not currently reprocess spent fuel and that only a “no recycle” option is considered in the ER. *Id.* (citing ER at 5-141). However, the Petitioners argue that Contention 11 should be admitted because the Applicant is a member of the Nuclear Energy Institute (NEI), which actively promotes spent fuel reprocessing, and because DTE has advocated reprocessing in past decades. Contentions at 103.

The Petitioners take a strong stand opposing spent fuel reprocessing for policy reasons. They argue that only a small fraction of the spent fuel that is reprocessed actually ends up as new reactor fuel, and that high-level radioactive waste still exists at the end of the process. *Id.* at 105. They also argue that reprocessing is expensive, results in environmental pollution, and increases the potential for nuclear weapons proliferation. *Id.* The Petitioners support their arguments with citations from documents by Arjun Makhijani and other authors, all published by the Institute for Energy and Environmental Research of Takoma Park, Maryland. *Id.* at 104-05. The Petition does not state whether or not Dr. Makhijani (or any other author cited) intends to participate as an expert witness on the Petitioners' behalf in any proceeding regarding this contention.⁷⁰

Staff Response: The Staff opposes admission of Contention 11. To the extent that the contention takes issue with Table S-3 of 10 C.F.R. § 51.51(b), it is a challenge to NRC regulations and therefore inadmissible in an adjudicatory proceeding. To the extent that Contention 11 challenges the Application's use of the table, or the reprocessing issue more generally, the Petitioners have failed to demonstrate that the topics raised are within the scope of the proceeding or material to the decision the NRC must make regarding the COLA, or to identify a genuine dispute with the Applicant on a matter of fact or law. The contention therefore fails to meet the pleading requirements contained in 10 C.F.R. § 2.309(f)(1) and must be rejected.

1. Contention 11 includes an impermissible challenge to NRC regulations.

To the extent that Contention 11 represents a challenge to the approach used to develop Table S-3 of 10 C.F.R. § 51.51(b), it is inadmissible in this proceeding. NRC regulations state

⁷⁰ In its presentation of Contention 2, the Petitioners state that Dr. Makhijani's declaration is attached to the contention filing. Contentions at 35. This declaration was not included with the other materials submitted on March 9, 2009. See *supra* note 26. It is not clear whether this missing document was meant to include material relevant to Contention 11 as well as Contention 2.

clearly that Commission regulations are not subject to challenge in adjudicatory proceedings conducted under 10 C.F.R. Part 2. 10 C.F.R. § 2.335(a). The Petitioners have not requested that 10 C.F.R. § 51.51 be waived, which would be the proper course if they believe that applying it in this specific proceeding would not serve the purposes for which the rule was adopted. See 10 C.F.R. § 2.335(b). If the Petitioners instead wish to seek changes to 10 C.F.R. § 51.51 more generally, the correct approach is to file a Petition for Rulemaking under 10 C.F.R. § 2.802.

2. Contention 11 fails to meet the pleading requirements of 10 C.F.R. § 2.309(f)(1).

The Petitioners' broad objections to spent fuel reprocessing as a waste management policy are outside the scope of this proceeding and immaterial to the decision the NRC must make regarding DTE's Application for a COL. The Application under consideration does not include any provision to reprocess spent fuel, and it does not rely on the existence of spent fuel reprocessing facilities elsewhere to support its conclusions on safety and environmental issues. The Petitioners themselves note that the Application considers only the "no recycle" option when evaluating the uranium fuel cycle impacts of the proposed Fermi 3 facility.

Contentions in NRC proceedings must fall within the scope of the issues specified in the *Federal Register* notice that provides for a hearing and an opportunity to intervene. See, e.g., *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), LBP-91-19, 33 NRC 397, 411-12 (1991). In the case of Fermi 3, the *Federal Register* notice specifies that "[t]he hearing will consider the application dated September 18, 2008, filed by Detroit Edison Company, pursuant to Subpart C of 10 CFR Part 52, for a combined license (COL)." 74 Fed. Reg. at 836. The scope of the proceeding therefore includes only those activities that the Applicant proposes to undertake under the license in question, and the decision the NRC must make covers only the Application mentioned in the notice. Because reprocessing is not a part of the COL Application and would not be undertaken under the COL if issued, it is outside the scope of this proceeding and unrelated to any decision on the Fermi 3 COLA.

More narrowly, the Petitioners have failed to identify a genuine dispute with the Applicant regarding those few references to reprocessing that do appear in the Application. The ER section cited by the Petitioners does use the word “reprocessing” in four different contexts: in a direct quotation from 10 C.F.R. § 51.51(a), in a description of the considerations underlying Table S-3 of 10 C.F.R. § 51.51(b), in a description of how Table S-3 is used to calculate radioactive effluents, and in footnotes drawn from NRC regulations that explain what is and is not included in Table S-3. Application at 5-140, 5-141, 5-144, & 5-149. All of these references appear to be part of the Applicant’s efforts to comply with the requirements of 10 C.F.R. § 51.51, and the Petitioners have not alleged that the Applicant’s compliance efforts are insufficient. Nor have they cited any other regulatory requirement that would require evaluation of uranium fuel cycle effects some other way.

The Petitioners have therefore failed to identify a genuine dispute with the Applicant regarding a question of fact or law. To the contrary, the Petitioners and the Applicant appear to be in broad agreement that spent fuel reprocessing is not to be relied upon in the Fermi 3 COLA. Detroit Edison’s activities in the 1950s and 60s, and its current membership in an association that represents the nuclear industry, do nothing to alter the contents of the Application under consideration here and do not generate a dispute that can be resolved in a hearing on the Application.

For these reasons, those aspects of Contention 11 that challenge reprocessing in general or the Fermi COLA fail to meet the pleading requirements of 10 C.F.R. § 2.309(f)(iii), (iv), and (vi). They should therefore be rejected.

L. PROPOSED CONTENTION 12

The emergency and radiological response plan is deficient.

Contention 12 is an omnibus emergency planning contention in which the Petitioners claim that there are seven distinct shortcomings to the emergency response plan for the Fermi site. First, the Petitioners allege that current capabilities for clearing roads in the winter are

inadequate and that the Applicant should be required to provide salt storage and additional snowplows to the Monroe County Road Commission. Contentions at 106-07. Second, the Petitioners request that the Emergency Planning Zone (EPZ) be extended to at least 50 miles from the Fermi 3 site, to include the cities of Detroit, Windsor (Ontario), Toledo, and Ann Arbor. *Id.* Third, the Petitioners claim that current evacuation routes are inadequate and must be expanded. *Id.* Fourth, the Petitioners claim that there is insufficient staffing in local law enforcement agencies to cope with an evacuation, and request additional personnel for the Monroe County sheriff's department. *Id.* Fifth, the Petitioners argue that the ER does not address the problem of whether the emergency evacuation plan for Fermi 2 will be feasible in light of the extra traffic anticipated during construction of the proposed Fermi 3 unit. *Id.* Sixth, the Petitioners claim that the Jefferson public school system lacks an adequate school bus fleet to evacuate all the students in the area in a single run, and requests additional school buses. *Id.* at 107. Finally, the Petitioners request that potassium iodide (KI) tablets be distributed within a 50-mile radius of the plant, along with instructions for emergency evacuation. *Id.*

Staff Response: All seven issues raised within Contention 12 are inadmissible because they, individually and collectively, fail to include the information required by the pleading requirements of 10 C.F.R. § 2.309(f)(1). Only one of the issues raised in the contention challenges the Application in any way, and this challenge is unaccompanied by any basis or any factual or expert support. The remaining issues fail to challenge the Application at all and therefore fail to demonstrate that a genuine dispute with the Applicant exists.

1. The fifth part of Contention 12, concerning traffic congestion due to the Fermi 3 construction workforce, is potentially within the scope of the proceeding but lacks the basis and support required by 10 C.F.R. § 2.309(f)(1).

Of all the issues mentioned in Contention 12, only the fifth – the problem of whether the emergency evacuation plan for Fermi 2 will be feasible in light of the extra traffic anticipated during construction of the proposed Fermi 3 unit – challenges the Application and therefore

potentially falls within the scope of this proceeding. The contention as pled includes a general statement of the issue of fact or law raised and makes reference to a specific part of the ER that the Petitioners wish to challenge. Specifically, the Petitioners mention Section 4.4.2.4.2, the section of the chapter on Environmental Impacts of Construction that covers transportation impacts. ER at 4-81 to 4-82.

In this ER section, the Applicant notes that the impacts of construction on transportation are likely to be MODERATE to LARGE and negative, and that mitigation activities will be required. *Id.* at 4-82. The Applicant therefore commits to performing a Level of Service analysis in cooperation with the Michigan Department of Transportation (MDOT) and the Monroe County Road Commission within one year of docketing of the Application. *Id.*

Although the Petitioners mention the Application, this part of Contention 12 nevertheless fails to meet the pleading requirements of 10 C.F.R. § 2.309(f)(1) for two reasons. First, the issue raised by the Petitioners is not supported by an adequate basis. The Petitioners quote material from the Application and then allege that there is no response to the potential traffic problems that the Applicant identified. Contentions at 106. However, the Petitioners make no reference to the plan to address the issue that the Applicant has described. They do not claim any specific deficiencies in it, nor do they point to any regulatory requirement that the Applicant provide information that it has not provided. To be admissible in NRC proceedings, a contention must be supported by one or more bases that allege the Applicant's noncompliance with applicable law. *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), LBP-82-106, 16 NRC 1649, 1656 (1982). Because it does not include such a basis, this part of Contention 12 does not meet the basis requirement of 10 C.F.R. § 2.309(f)(1)(ii) and should be rejected. Second, this part of Contention 12 also lacks any statement of the alleged facts or expert opinions supporting the Petitioners' position which the Petitioners intend to rely on at

hearing. Accordingly, this part of Contention 12 also fails to meet the support requirement of 10 C.F.R. § 2.309(f)(v) and should be rejected.

2. All parts of Contention 12 except the fifth are inadmissible because they fail to demonstrate the existence of a genuine dispute with the Applicant on an issue of fact or law.

All sections of the contention except the fifth one are clearly inadmissible because they do not challenge the Application in any way. Simply alleging that some general issues ought to be considered cannot be the basis for an admissible contention in an NRC proceeding.

Sacramento Municipal Utility District (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 246 (1993). Rather, petitioners in NRC proceedings must demonstrate – by factual evidence, expert testimony, or reference to statutory and regulatory requirements – that there is an inadequacy in a specific portion of the Application or that something specifically required by statute or regulations was not included.⁷¹ A contention that fails to meet this requirement thereby fails to demonstrate that a genuine dispute exists with the Applicant on a matter of fact or law, and it is therefore inadmissible under 10 C.F.R. § 2.309(f)(1)(vi). This objection applies to the first four issues raised by the contention, as well as to the sixth and seventh.

Most of the issues raised in Contention 12 that suffer from this shortcoming are also flawed in other ways. The first, related to snow removal, covers a normal service provided by state and local governments that is not the responsibility of the Applicant or the NRC. The state and local offsite emergency response plans for Fermi 2 have been reviewed by the Federal Emergency Management Agency (FEMA), according to the provisions of 10 C.F.R. § 50.47(a)(2), and FEMA has determined that there is reasonable assurance that the plans can be implemented. The Petitioners have not provided any information to suggest that the addition of the Fermi 3 unit would alter this conclusion. Similarly, the fourth and sixth issues – those

⁷¹ See *Florida Power and Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-90-16, 31 NRC 509, 515, 521 n.12 (1990) (citing 10 C.F.R. § 2.309(f)(1)(v)-(vi)).

related to law enforcement staffing and school buses – concern topics that are tested under biennial emergency response exercises that are required by 10 C.F.R. § 50.47(b)(14) and Part 50, Appendix E.IV.F.2. Past exercises have demonstrated that both the law enforcement staffing levels and school bus availability are sufficient to support an evacuation, and the Petitioners have not provided any information to suggest that the addition of another unit at the Fermi site would alter this conclusion.

The second and seventh issue raised, concerning the size of the EPZ and the distribution of KI tablets and emergency planning information within that zone, are challenges to NRC regulations and are therefore, as has been noted several times in this pleading, inadmissible in NRC adjudicatory proceedings. 10 C.F.R. § 50.33(g) and 10 C.F.R. § 50.47(c)(2) require the establishment of two different EPZs around a nuclear power plant site. The first has a radius of approximately 10 miles around the site and is called the plume exposure pathway EPZ, and the second has a radius of approximately 50 miles around the site and is called the ingestion pathway EPZ. 10 C.F.R. § 50.47(b)(10) and Part 50, Appendix E.IV.D.2 discuss the use of KI and the requirements for distributing emergency planning information within the 10-mile plume exposure pathway EPZ. However, KI distribution beyond the 10-mile EPZ is not necessary, and more effective protection can be achieved by evacuating potentially affected areas and preventing the consumption of contaminated food. The Commission has previously ruled on the issue presented here and has stated that arguments for an extension of the 10-mile plume exposure pathway EPZ to greater distances are a challenge to NRC regulations and therefore inadmissible in an adjudicatory proceeding. *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-87-12, 26 NRC 383, 394-95 (1987). For these reasons, this issue are inadmissible according to 10 C.F.R. § 2.335(a).

The third issue, concerning the capacity of local roads in the event of an evacuation, appears to have no other flaws beyond the failure to challenge the Application. However, this

failure is particularly troublesome in this case because the issue is covered extensively in Part 5 of the Application. This coverage, which totals more than 300 pages, includes an assessment the entire highway system within the EPZ and for some distance outside to record the characteristics of the roads. The Petitioners do not address any of the material in this Part. Nor do they provide any information of their own to contest the information that the Applicant presents. Rather, they assert without further elaboration that the roads are too narrow. Such an assertion cannot serve as the basis for an admissible contention.

M. PROPOSED CONTENTION 13

The identification, characterization and analysis of need, alternative to construction, and the mix of conservation and renewable energy sources is wholly inadequate and violated NEPA.

In Contention 13, the Petitioners argue that the Applicant's ER "is deficient; it does not contain complete data for meaningful understanding of the reasonable alternatives which NEPA enjoins lead agencies to assemble." Contentions at 109. According to the Petitioners, a lead agency must evaluate all alternatives rigorously and must not leave out any viable alternative. *Id.* at 110. The Petitioner asserts that the Applicant's alternatives analysis is flawed and does not meet the standards NEPA sets. *Id.* at 110-11. In particular, the Petitioners claim that the Applicant has underestimated the cost of the facility, has relied on an outdated argument regarding the need for power, has not provided an adequate analysis of the potential savings from energy efficiency measures, and has not provided an adequate consideration of renewable energy alternatives. *Id.* at 111-21.

The Petitioners support their claim that the Applicant has underestimated the cost of the facility with testimony from a pending rate case before the Michigan Public Service Commission (MPSC). Contentions at 111-12. The witness cited states that the MPSC has used an estimated construction cost of \$2,352 per kW. *Id.* at 112. According to this witness, an industry article published in 2007 included cost estimates of up to \$5,000-\$6,000 per kW, and another industry source from 2008 put the projected cost as high as \$8,000 per kW. *Id.* According to

the Petitioners, “[t]he more likely cost scenarios are missing from the [ER] and have direct implications for comparing the economics and relative environmental impacts of sustainable alternatives to nuclear.” *Id.* at 111.

The Petitioners also argue that the ER does not include new information on the condition of the economy in Michigan and the reduced need for power that is likely to result from the loss of economic activity in the state. *Id.* at 113. The Petitioners state that the Applicant’s assessment of the need for power was based on Michigan’s 21st Century Electric Energy Plan, a project completed by the MPSC at the state governor’s behest. *Id.* According to the Petitioners, this document is based on 2006 information which “forms the core data projections in the ER supporting endless growth in electrical consumption” and which “has been overtaken by history.” *Id.* The Petitioners assert that population declines and a loss of industry will result in a decreased need for power in the coming years. The Petitioners state that the Applicant itself now anticipates a drop in electricity use through 2013, and that both state and federal governments are revising estimates of electricity demand downwards. *Id.* at 114. According to the Petitioners, the ER should be revised to include this information. *Id.* at 116.

With respect to conservation and energy efficiency, the Petitioners argue that the Applicant has underestimated the energy savings available through energy conservation and demand-side measures. *Id.* at 116. In support of this argument, the Petitioners again refer to the testimony of a witness appearing in a rate case before the MPSC. *Id.* According to this witness, other states have passed legislation requiring energy conservation measures that lead to savings 10 to 20 times higher than those presented by DTE in the rate case. *Id.* at 117. The Petitioners also cite to a book by Dr. Arjun Makhijani which predicts that energy demand in the residential and commercial sectors can be reduced by 20 percent and that energy use by the industrial sector will drop by 1 percent per year between 2010 and 2050. *Id.* at 118. According

to the Petitioners, projections of demand reduction on this scale must be included in the ER, and the date at which new baseload capacity is needed “must be moved back.” *Id.* at 119.

With respect to the consideration of renewable energy sources, the Petitioners argue that the Applicant has omitted important facts related to the suitability of wind and solar power. *Id.* According to the Petitioners, the Applicant considers only options such as “100% wind power,” rather than “the coming mix of conservation, geothermal, wind, solar, and other innovations.” *Id.* at 120. The Petitioners argue that the Applicant’s analysis of solar potential is out of date and ignores new solar technologies. *Id.* at 120-21. For this reason, the Petitioners argue, the alternative analysis presented in the ER is inadequate. *Id.* at 121.

1. The Petitioners arguments related to facility costs are immaterial to this licensing action, lack adequate support, and fail to demonstrate the existence of a genuine dispute.

The first part of this contention asserts that the Applicant has underestimated the cost of Fermi 3. Petitioners assert that “the more likely cost scenarios are missing from the ER and have direct implications for comparing economics and relative environmental impacts of sustainable alternatives to nuclear.” Contentions at 111. The Petitioners also claim that the Applicant is “under fire” in a pending rate case for “grossly underestimating” the probable cost of Fermi 3. *Id.* As discussed below, these arguments are immaterial, lack adequate support, and fail to raise a genuine dispute with the Applicant.

First, the Petitioners’ assertion regarding the Applicant’s cost estimate is not material to the decision that the NRC must make in this COL proceeding. 10 C.F.R. § 2.309(f)(1)(iv). This contention asserts a violation of NEPA. Contentions at 109. In cases where an applicant has not identified an environmentally preferable alternative, neither NEPA nor the NRC’s regulations require the applicant to provide cost estimates in its ER. In the Shearon Harris COL proceeding, the licensing board rejected a similar contention that alleged, in part, that the applicant had grossly underestimated the costs of its proposed new reactors. *See Progress*

Energy Carolinas, Inc. (Shearon Harris Nuclear Power Plant, Units 2 & 3), LBP-08-21, 68 NRC ____, ____ (Oct. 30, 2008) (slip op. at 25). Citing Commission precedent, the *Shearon Harris* licensing board held that, “where the Applicant did not find any environmentally preferable alternative in its ER analysis, it was under no obligation to provide cost estimates in its ER analysis.”⁷² *Id.* at ____ (slip op. at 26). Thus, the board rejected the contention because “it relies on the faulty premise that NEPA, or [the NRC’s] implementation of NEPA, requires the Applicant to provide cost estimates in the ER. *Id.* In this case, the Applicant concluded that there is no environmentally preferable alternative to Fermi 3. ER at 9-32. The Petitioners have not disputed this conclusion or the Applicant’s discussion of cost-benefit balance.⁷³ Therefore, following the reasoning of the *Shearon Harris* board, the accuracy of its cost estimate is not material to the findings the NRC must make under NEPA.

Second, even if the contention was material, it is inadequately supported by fact or expert opinion. 10 C.F.R. § 2.309(f)(1)(v). The only support the Petitioners provide for their assertions that the cost of Fermi 3 cost has been underestimated is an excerpt of the testimony of Geoffrey C. Crandall, a private utility economist, in a Michigan Public Service Commission rate case. Contentions at 111-112. The Petitioners do not provide any further discussion or explanation of this excerpt. Merely providing information, without explaining its significance, is

⁷² The *Shearon Harris* Board explained that, under Commission precedent, “NEPA requires an Applicant to present a cost-benefit analysis (and therefore provide cost estimates) for nuclear power plants and facilities only where the Applicant’s alternatives analysis indicates that there is an environmentally preferable alternative.” LBP-08-21, 68 NRC at ____ (slip op. at 25) (emphasis in original) (citing *Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-458, 7 NRC 155 (1974)). The *Shearon Harris* Board concluded that an Applicant is not required to include cost data in its ER and, furthermore, “the question of whether or not the cost estimates used in the ER are inaccurate does not rise to the level of a failure to comply with NRC regulations.” *Id.* at ____ (slip op. at 26).

⁷³ The Applicant’s cost-benefit balance is in Section 10.4 of the ER. See ER at 10-26 to 10-32. As the *Shearon Harris* Board noted, NRC regulations encourage applicants to provide cost information in the ER, even though it is not mandatory that they do so. *Shearon Harris*, LBP-08-21, 68 NRC at ____ (slip op. at 26 n.25).

insufficient to support admission of a contention. *USEC, Inc. (American Centrifuge Plant)*, LBP-05-28, 62 NRC 585, 597 (2005), *aff'd* CLI-06-10, 63 NRC 451 (2006).

Finally, the information in the excerpt does not support the Petitioners' assertion. In the excerpt, the witness states that the estimated construction cost of a nuclear unit according to Michigan's 21st Century Electric Energy Plan is \$2352/kW, and expresses his opinion that this cost is "grossly understated" when compared with costs estimated in two unidentified industry articles. Contentions at 112. However, the witness's statements do not specifically address the *Applicant's* cost estimate for Fermi 3, which is \$3500 to \$4500/kWe. Application, Part 1 at 8. Furthermore, the Petitioners have not provided any meaningful basis for comparing the cost estimates referred to in the testimony with the Fermi 3 estimate,⁷⁴ nor have they provided any facts or expert opinion that contradict the Applicant's estimate. Therefore, the Petitioners' assertion is unsupported and should be rejected.

2. The Petitioners' assertion of an outdated need for power is immaterial, lacks adequate support, and fails to demonstrate the existence of a genuine dispute.

The Petitioners assert that the information on which the Applicant's need for power was based is outdated because it fails to account for the recent economic downturn. Contentions at 113. Specifically, the Petitioners state that the 21st Century Electric Energy Plan is based on data gathered in mid-2006, and that, since then, Michigan has experienced population loss, economic decline, and increased unemployment. *Id.* at 113-114. They also note that the economic outlook is dim because of the difficulties facing the automobile industry. *Id.* at 114. They assert that recent economic developments, along with various legislative and other initiatives geared toward renewable energy and energy efficiency, have affected expected electricity demand, and that the Application does not include or analyze this new information.

⁷⁴ The Petitioners have not, for instance, identified whether the estimated costs in Mr. Crandall's testimony were so-called "overnight" costs, or whether they include interest and escalation.

As discussed below, this basis is not material to a decision the NRC must make, lacks adequate factual or expert support, and fails to demonstrate a genuine dispute with the Applicant on a material issue of law or fact.

First, the Petitioners have not demonstrated that this assertion is material to a decision the NRC must make. A material issue is one that “impact[s] the grant or denial of a pending license application.” *PPL Susquehanna LLC* (Susquehanna Steam Electric Station, Units 1 and 2), LBP-07-10, 66 NRC 1, 24 (2007). The standard for judging the “need for power” is whether a forecast of demand is reasonable and additional or replacement generating capacity is needed to meet that demand. *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant, Units 1-4), ALAB-490, 8 NRC 234, 237 (1978). The determination of reasonableness must account for significant uncertainty that accompanies long-range forecasting of need for power.⁷⁵ Furthermore, recessions should not be given undue weight because of their transitory nature and the impossibility of predicting them. *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-422, 6 NRC 33, 91-92 (1977). The general rule for differences in demand forecasts is not “whether the utility will need additional capacity, but when.” *Carolina Power and Light Co.* (Shearon Harris Nuclear Power Plant, Units 1, 2, 3 and 4), CLI-97-5, 9 NRC 607, 609 (1997). Thus, the issue of need for power is only material to this licensing decision if the Petitioner asserts and adequately demonstrates that there is no need for power whatsoever in 2020, when Fermi 3 is projected to begin operations. Here, the Petitioners assert that the economic downturn has reduced the need for power, not that it has

⁷⁵ See *Carolina Power and Light Co.* (Shearon Harris Nuclear Power Plant, Units 1-4), CLI-97-5, 9 NRC 607, 609-610 (1997) (recognizing that the “long range forecasts are especially uncertain” because they are affected by a number of factors, including “the general state of the economy”); *Niagara Mohawk Power Corp.* (Nine Mile Point Nuclear Station, Unit 2), ALAB-264, 1 NRC 347, 365 (1975) (a two-year difference in predicted year of need was not statistically meaningful distinction because of substantial margin of uncertainty “inherent in any forecast of future electric power demands”).

eliminated the need. Therefore, the Petitioners' assertion regarding need for power is immaterial.

In addition, the need for power is "a shorthand expression for the 'benefit' side of the cost-benefit balance which NEPA mandates." *Seabrook*, ALAB-422, 6 NRC at 90. Thus, for a challenge to the need for power to be material to this COL proceeding, the Petitioners must show that the outcome of the Applicant's cost-benefit balance would be different. The Petitioners have not challenged the cost-benefit balance; therefore, their assertion is immaterial.

The Petitioners also fail to adequately support the assertion that the forecasted need for power is outdated. 10 C.F.R. § 2.309(f)(1)(v). In particular, the Petitioners have not provided facts or expert opinion indicating that the projected need in 2020, when Fermi 3 is scheduled to begin operating, is inaccurate. The Petitioners refer to a projected drop in demand from 2008 to 2013 that the Applicant filed in a recent rate case and assert that the Applicant has therefore "contradicted its COLA." However, the Petitioners do not specify what specific information in the Application has been contradicted, and how, if at all, the alleged contradiction would affect the Applicant's conclusion regarding the need for power in 2020. Moreover, the projection that the Petitioners refer to is only a five-year projection, whereas the Applicant's projection in the ER extends to 2025. ER at 8-7. Similarly, the newsletter excerpt provided by the Petitioners, Contentions at 115, indicates only a short term drop in electricity use that does not demonstrate that the Applicant's long-term projections are inaccurate. The Petitioners also refer to recently passed Public Act 295, and assert that the Application does not adequately address the provisions of this law. *Id.* But the Petitioners do not explain what this law includes or how, if at all, it would affect the Applicant's analysis of need for power.⁷⁶ Finally, the Petitioners'

⁷⁶ The Petitioners state that "Michigan's renewable portfolio statute calls for 10% renewable energy to be included in DTE's arsenal by 2015." It is unclear whether this refers to Public Act 295 or some other statute.

references to future mandates and actions that are “foreseen,” calls for reduction in energy usage and renewable energy initiatives, and possible national programs are all speculative at this point. *Id.* In summary, the Petitioners have provided only short-term or speculative information in support of their assertion that the Applicant’s long-range need for power analysis is outdated. Thus, the Petitioners’ conclusion that the “economic prognosis for Michigan, and consequent implications for energy usage and need have shifted sharply,” and that the Applicant has failed to account for this shift in its ER, Contentions at 115-116, is not supported.

Finally, the Petitioners’ claim that the need for power analysis is outdated also fails to demonstrate a genuine dispute on a material issue of law or fact. 10 C.F.R. § 2.309(f)(1)(vi). A contention that “fails directly to controvert some portion of the application, or that mistakenly asserts that the application does not address a relevant issue, may be dismissed.” *Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 247-48 (1993), petition for review declined, CLI-94-2, 39 NRC 91 (1994). The Petitioners do not controvert the Application because, contrary the Petitioners’ claim, the Applicant’s analysis of need for power accounts for the economic conditions in Michigan. The Applicant’s analysis, which is based on the MPSC’s 21st Century Electric Energy Plan, considers several uncertainties, including business cycles and uncertainty in economic conditions. See ER at 8-9; 8-25 to 8-27. This uncertainty analysis explicitly recognizes that the automobile industry is a “major uncertainty,” *id.* at 8-9, and includes the low-growth scenario cited by the Petitioners in their contention. Contentions at 114; ER at 8-9, 8-27, 8-34, 8-37. The forecast also accounts for estimated energy savings from energy efficiency and conservation measures. *Id.* at 8-27 to 8-29; 8-38. The planning period for the analysis extends to 2025, and the Applicant has indicated that commercial operation of Fermi 3 is anticipated to begin in 2020. ER at 8-7, 8-21. The Petitioners have not provided any facts or expert opinion to indicate that, in light of the

inherent uncertainties in predicting power needs, the long-range forecast of need is unreasonable.

3. The Petitioners' discussion of energy conservation does not meet the pleading requirements of 10 C.F.R. § 2.309(f)(1).

The Petitioners argue that the Applicant's discussion of energy conservation and demand-side management is "disingenuous" and must be supplemented with additional information that would lead to the conclusion that greater energy savings are possible. This part of Contention 13 is inadmissible because it does not meet the pleading requirements of 10 C.F.R. § 2.309(f)(1). In addition, a possible interpretation of this part of the contention places it outside the scope of this proceeding for reasons established in NRC and Federal case law.

a. *When considering alternatives to a proposed action, the NRC must take an applicant's goals into account.*

A licensing board in another COL case recently addressed and rejected a similar contention related to energy conservation. *South Carolina Electric & Gas Co. and South Carolina Public Service Authority* (Virgil C. Summer Nuclear Station, Units 2 and 3), LBP-09-02, 69 NRC ____, ____ (Feb. 18, 2009) (slip op. at 23). In so doing, the board in that case cited a lengthy excerpt from a Commission decision in the Clinton Early Site Permit case, in which the Commission emphasized that "a reviewing agency should take into account the applicant's goals for the project." *Id.* at n.86 (citing *Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-05-29, 62 NRC 801, 806 (2005)). The *Clinton* opinion in turn cites *Citizens Against Burlington v. Busey*, 938 F.2d 190 (D.C. Cir. 1991), a NEPA case which held that "[a]n agency cannot redefine the goals of the proposal that arouses the call for action; it must evaluate alternative ways of achieving *its* goals, shaped by the application at issue and by the function that the agency plays in the decisional process." *Citizens Against Burlington* at 199. This case goes on to say that "Congress did not expect agencies to determine for the applicant what the goals of the applicant's proposal should be." *Id.*

These decisions indicate that the goal of the NRC's NEPA review is to examine reasonable alternatives to the Applicant's proposal in light of the Applicant's stated goal, in this case to provide for baseload power generation as set forth in Michigan's 21st Century Electric Energy Plan. See ER at 9-4. The Applicant has presented its analysis of energy conservation and demand-side management program as they relate to this goal. *Id.* To the extent that the Petitioners disagree with this goal and wish the Applicant to pursue other goals, or to the extent that they simply disagree with the projections in the MPSC's 21st Century Electric Energy Plan, this part of Contention 13 is outside the scope of this proceeding and not material to the decision the NRC must make concerning the Fermi 3 COLA. However, to the extent that the Petitioners intend to challenge the Applicant's treatment of energy conservation within the context of this stated goal, the Petitioners' allegations require further examination to see if they meet the standards for an admissible contention.

- b. *Even considered within the context of the Applicant's goals, Contention 13 is inadmissible because it does not meet the pleading requirements of 10 C.F.R. § 2.309(f)(1).*

Even considered within the context of the Applicant's goal, Contention 13 is inadmissible as presented. The Petitioners assert that the discussion of energy conservation is insufficient, but they neither address the full extent of the material the Applicant presents nor provide any basis for their claim that the Applicant's materials are incomplete. Furthermore, they do not provide adequate support for any alternative projections regarding what demand-side management could accomplish. They therefore fail to demonstrate that the issue they raise with respect to the ER is material to the decision the NRC must make regarding the COLA, and the contention should be rejected for failure to meet the requirements of 10 C.F.R. § 2.309(f)(1)(ii) and (iv)-(vi).

The Petitioners base their discussion of the Applicant's energy conservation program on Section 9.2.1.3 of the ER, ER at 9-6 to 9-7, but the Petitioners do not characterize the

Applicant's discussion fully. The Petitioners cite the Applicant's projected peak demand reduction of 162 MWe after ten years' projected expansion of the existing air conditioner cycling program, but do not refer to other language in the ER indicating that this is in addition to the 255 MWe of existing program capacity and results in a total peak demand reduction of 417 MWe. ER at 9-6. Nor do the Petitioners mention the Applicant's claim that this is projected to be a reduction in the peak demand for electricity rather than in the baseload demand. *Id.* Because this program is aimed at managing peak demand, the Applicant claims that it "could only moderate load growth and slightly defer the need for additional baseload power, but not the need for Fermi 3." *Id.* Beyond the initial reference to 162 MWe, the Petitioners do not challenge this material and instead proceed to sections of the contention that set forth their preferred projections of the potential for energy efficiency. They do not point to any deficiencies in the Applicant's presentation or advance any arguments for why their projections are superior. For these reasons, the Petitioners have failed to supply a basis for this part of the contention or to demonstrate the existence of a genuine dispute with the Applicant as required by 10 C.F.R. § 2.309(f)(1)(ii) and (vi).

A large part of the support the Petitioners offer for this part of the contention is drawn from testimony in the aforementioned rate case before the MPSC, *see supra* pp. 95-99, which is not relevant to this proceeding, and the remainder consists of quotations drawn from a cited work by Dr. Arjun Makhijani. Contentions at 118. The quotations themselves present conclusory opinions regarding the potential for energy conservation to reduce the need for new power generation, and the Petitioners neither introduce any facts or analysis underlying these opinions nor proffer the author of the work cited as an expert witness.⁷⁷ "Bare assertions and speculation" do not provide adequate support for a contention in NRC pleadings. *GPU Nuclear,*

⁷⁷ Dr. Makhijani was listed as an expert witness for Contention 2, but the Petitioners did not submit the materials they listed under that contention. See *supra* note 26. It is not clear whether those materials also included information relevant to this contention.

Inc. (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 208 (2000). This part of the contention therefore fails to satisfy 10 C.F.R. § 2.309(f)(1)(v).

The pleading deficiencies described above lead to the conclusion that the Petitioners have failed to demonstrate that the issue they raised is material to the decision the NRC must make on the COLA. However, even if these deficiencies are disregarded, the materiality issue remains. Whether any proposed demand-side approach is better than an applicant's approach is immaterial from the NRC's perspective unless it could affect the agency's licensing decision. The benefit from demand-side management is reduced power need, so the materiality issues are the same as those that arise in connection with power need projections. *See supra* Section III.M.3.a. To affect the agency's licensing decision, the ER's estimate of potential demand side efficiencies would have to be off by such a magnitude as to effectively counterbalance the 1600 MWe of baseload generating capacity provided by the proposed Fermi 3 facility. A smaller difference would likely only temporarily increase the Applicant's reserve margin or, at most, would delay construction by a specified period. Such disputes are not material to the NRC's licensing decision.

4. The Petitioners' claims regarding renewable energy sources are unsupported and outside the scope of this proceeding.

The Petitioners's claim that the Applicant has given inadequate consideration to renewable energy – in particular solar and wind – suffers from many of the same deficiencies already mentioned in the previous discussions of the need for power and energy conservation. The Petitioners have failed to take the Applicant's goal – baseload power generation – into account when formulating alternatives they would prefer to see included in the ER. The Petitioners have also failed to challenge the analysis that the Applicant does present in the ER, including the Applicant's discussion of combinations of renewable energy sources. ER at 9-8 to 9-16. Finally, they have provided only the thinnest support for their claim that the ER is needs to be supplemented with additional information. Contentions at 119, 120-21. They have

therefore failed to demonstrate that this part of the contention is material to the licensing decision under consideration, and this part of the contention should be rejected.

The Petitioners assert that the Applicant's discussion of renewable energy sources in the ER is "factually unsupportable" and "lacking in objective, serious consideration of the wind and solar alternative as a consequence." *Id.* at 119-20. The Petitioners quote those sections of the ER that discuss the low capacity factors of wind and solar power and the resulting difficulties in using these methods to generate baseload power. *Id.* at 119-20 (citing ER §§ 9.2.2.1.1 and 9.2.2.1.2). According to the Petitioners, the discussion presented by the Applicant in these sections "fictionalizes the comparison" and represent "a stunning set of exaggerations and fictions." *Id.* at 119-120. However, the Petitioners do not claim that the Applicant's capacity factors are wrong, or that wind and solar technologies are appropriate for baseload generation. Rather, they appear to be arguing against construction of baseload facilities in general, and for a mix of conservation, renewable energy, and "innovations." Contentions at 120.

As described above, *see supra* Section III.M.3.a, the NRC evaluates an applicant's alternatives analysis in light of the stated goal of the project, in this case to provide for baseload power generation as set forth in Michigan's 21st Century Electric Energy Plan. See ER at 9-4. Within a framework determined by this goal, the alternatives analysis in the ER discusses a wide range of renewable and non-renewable energy sources. ER at 9-7 to 9-32. The Petitioners have not challenged the Applicant's materials as they relate to this goal, but rather appear to challenge the goal itself. This approach is outside the scope of an NRC licensing proceeding.

Furthermore, the support the Petitioners offer for their assertions is not adequate to support admission of the contention. With respect to wind, the Petitioners offer only another reference from the cited work by Dr. Makhijani, in this case an assertion that renewables can be used during off-peak times to generate ice which can then be melted for air conditioning.

Contentions at 119. This assertion is unsupported by facts or analysis, and the feasibility and possible impacts of using such a technology on a utility scale are not discussed. With respect to solar, the Petitioners offer two news stories describing new types of solar collectors. *Id.* at 120-21. As in the case of wind power, they do not discuss the feasibility and possible impacts of using these technologies on a utility scale, and they do not address the capacity factor issue that the Applicant identifies.

Similar contentions have been submitted and rejected in other COL proceedings, for the same reasons presented here. *Virgil Summer*, LBP-09-02, 69 NRC ____, ____ (Feb. 18, 2009) (slip op. at 24-25); *Tennessee Valley Authority* (Bellefonte Nuclear Power Plant Units 3 and 4), LBP-08-16, 68 NRC ____, ____ (Sept. 12, 2008) (slip op. at 43-44). Contentions that fail to present a genuine issue of fact or law, that lack adequate support, and that are immaterial to the NRC's licensing decision are inadmissible in NRC adjudicatory proceedings under the provisions of 10 C.F.R. § 2.309(f)(1)(iv)-(vi). This part of Contention 13 should therefore be rejected.

N. PROPOSED CONTENTION 14

The Environmental Report fails to identify and consider direct, indirect, and cumulative impingement/entrainment and chemical and thermal effluent discharge impacts of the proposed cooling system intake and discharge structure on aquatic resources.

Despite its heading, proposed Contention 14 deals both with the alleged effects of the proposed Fermi 3 cooling system on aquatic resources and with the human health effects of emissions from the cooling tower stacks. Contentions at 123, 130. It is possible that the Petitioners meant to submit these two parts as two separate contentions, and they are labeled 14a and 14b, respectively, in order to distinguish them in the discussion that follows.

In Contention 14a, the Petitioners claim that the Applicant must address four broad issues related to aquatic resources: water withdrawals from and thermal discharges to Lake Erie, toxic discharges that could harm ecosystems and contaminate drinking water, phosphorus

contamination and algae blooms, and prevention of impingement and entrainment in order to protect fisheries. Contentions at 123-24. The Petitioners support Contention 14a with approximately six pages of block quotations from the ER, presented without further analysis or commentary. *Id.* at 124-30.

In Contention 14b, the Petitioners claim that the Applicant has neglected to analyze the human health effects of emissions from the cooling tower stacks, in particular from disease-causing organisms and from residues of the substances used to kill these organisms in the cooling towers. Contentions at 130-31. According to the Petitioners, these organisms and substances are likely to be released from the cooling tower into the air and to cause breathing hazards, particularly in children and people with preexisting health problems. *Id.* at 131. The Petitioners also assert that these organisms and substances may have synergistic effects with smog, fog, and radioactive material released from the plant, and they allege that the Applicant has not considered such synergistic effects in the COLA. *Id.* at 130-31. The Petitioners support Contention 14b with approximately eight pages of block quotations from the ER, again presented without further analysis or commentary. *Id.* at 131-38. The contention ends with several paragraphs that appear to relate back to the liquid effluents discussion of Contention 14a, and with a request that the Petitioners' concerns be addressed by denying the COLA as submitted. *Id.* at 138-39.

Staff Response: The NRC Staff opposes both Contentions 14a and 14b, for broadly similar reasons. Both subparts of Contention 14 allege that certain issues may present problems and must be considered in the ER. Both then cite to the ER at length, in one case with the notation that the quoted ER sections "speak to" the Petitioners' concerns. The Petitioners do not attempt to link their statements about their two concerns with the lengthy block quotations they draw from the Application, or to provide a structured argument that meets the pleading requirements of 10 C.F.R. § 2.309(f)(1). Excerpts from documents presented

without any discussion of their significance are not sufficient to support admission of a contention. *USEC, Inc. (American Centrifuge Plant)*, LBP-05-28, 62 NRC 585, 597 (2005), *aff'd* CLI-06-10, 63 NRC 451, 472. In addition, Contention 14a covers material also discussed at much greater length as part of Contention 6.

1. All of the aquatic impacts mentioned in Contention 14a are also covered in greater detail in Contention 6.

The text of Contention 14a, exclusive of block quotations from the ER, consists of slightly more than one and a half pages. Contentions at 123-24. The four issues presented in this brief discussion – water use and thermal discharges, toxic discharges, phosphorus contamination and algae blooms, and prevention of impingement and entrainment – all appear at greater length in the Petitioners' presentation of Contention 6. *Id.* at 67-76. Because Contention 6 contains a more comprehensive treatment of the same issues, with respect to the same bodies of water, the NRC Staff presents its substantive discussion of these issues in its response to that contention. *See supra* Section III.F.

Contention 14a is duplicative of Contention 6. It does not include any issues that are not also found in Contention 6 and does not offer any new supporting material that is not also included in the earlier contention. For this reason, it should be subsumed under Contention 6 and the two treated as a single contention.

2. Contention 14B fails to meet the pleading requirements of 10 C.F.R. § 2.309(f)(1).

In their presentation of Contention 14B, the Petitioners list a number of disease-causing microorganisms that could be present in cooling towers at nuclear power plants. Contentions at 131. This list is quoted verbatim from the Application, specifically from section 5.3.4.1 of the ER. Indeed, the Petitioners include a block quote from the ER with identical language on the following page of their contentions document. *Id.* at 132. The Petitioners continue with an extremely long quotation from the ER, in which the Applicant discusses the potential health

effects of these organisms to both the general public and plant workers as a result of direct exposure to liquid water or to the cooling towers themselves. *Id.* at 133-35 (citing ER §§ 5.3.4.1.1 (Health Effects to Public) and 5.3.4.1.2 (Health Effects to Workers)). The Petitioners also present an extensive series of ER quotations related to thermal monitoring at the site. Contentions at 135-138. Nowhere do the Petitioners challenge the Applicant's assertion that human health impacts resulting from these organisms or the biocides used to control them are localized and SMALL. Rather, the Petitioners allege that the Applicant must also include a discussion of an additional exposure pathway, the stack emissions from the cooling towers. *Id.* at 130.

The Petitioners provide no support for their claim that this exposure pathway is likely to result in health impacts to members of the public. The Application includes an extensive discussion of the possible health effects of the relevant microorganisms, and the Petitioners include a block quotation of this entire discussion as a substantial part of their contention. Contentions at 131-35 (quoting ER at 5-52 to 5-55). However, although the Petitioners quote the material, they do not address the content of the Applicant's assertions. The Applicant claims that the Fermi 3 facility is not likely to contribute to the proliferation of disease-causing organisms in lake water because the thermal plume from the plant is small and because any temperature changes associated with the plume would be within regulatory limits. ER at 5-54. The Applicant also notes that diseases associated with these organisms are typically contracted by direct contact with the water as a result of swimming or other sports, and that there have been no outbreaks of waterborne diseases in the vicinity of Fermi 2 within the last 10 years. *Id.* The Applicant also describes the use of biocides to reduce the level of harmful microorganisms in the cooling towers at Fermi 2, and indicates that this program will be continued at Fermi 3. *Id.* at 5-55. The Applicant also states that use of biocides eliminates the need for workers to use respiratory protection when cleaning the cooling towers. *Id.*

Although disease-causing microorganisms have the potential to cause problems at nuclear power plants, the Applicant's discussion in the ER sets forth a number of reasons why they are not likely to be problems at Fermi 3. The Petitioners do not challenge any specific aspect of this discussion. Further, they do not explain why controlling harmful microorganisms at the source does not address their concerns. They include no information to support the assertion that microorganisms that do not harm workers at the cooling towers themselves might harm members of the public at much greater distances, and they do not cite to any regulation or other requirement that the Applicant consider the exposure pathway they describe.

In short, the Petitioners have omitted most of the information needed to plead an admissible contention in NRC proceedings. They do not provide a basis for their contention or demonstrate that its resolution is material to the decision the NRC must make on the COLA, they do not demonstrate the existence of a material dispute with the Applicant, and they do not provide the type of factual or expert support for their position that is necessary in NRC proceedings. Accordingly, Contention 14B fails to meet the pleading requirements of 10 C.F.R. § 2.309(f)(1)(ii), (iv), (v), and (vi), and it should be rejected.

CONCLUSION

In view of the foregoing, the various Petitioners have demonstrated representational or individual standing to intervene in this proceeding. They have also submitted one contention that is admissible in part. For this reason, their Petition should be granted.

Respectfully Submitted,

/Signed (electronically) by/

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Dated at Rockville, Maryland
this 3rd day of April, 2009

April 3, 2009

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))

NOTICE OF APPEARANCE FOR MARCIA CARPENTIER

Notice is hereby given that the undersigned attorney herewith enters an appearance in the above-captioned matter. In accordance with 10 C.F.R. § 2.314(b), the following information is provided:

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CERTIFICATE OF SERVICE

I hereby certify that copies of the NRC STAFF ANSWER TO PETITION OF BEYOND NUCLEAR, CITIZENS FOR ALTERNATIVES TO CHEMICAL CONTAMINATION, CITIZENS ENVIRONMENTAL ALLIANCE OF SOUTHWESTERN ONTARIO, DON'T WASTE MICHIGAN, SIERRA CLUB, COLAN KEITH GUNTER, EDWARD MCARDLE, HENRY NEWNAN, 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 FOR LEAVE TO INTERVENE IN COMBINED OPERATING LICENSE PROCEEDINGS AND REQUEST FOR ADJUDICATION HEARING, NOTICE OF APPEARANCE OF MARCIA CARPENTIER, and NOTICE OF APPEARANCE OF MARCIA J. SIMON have been served on the following persons by Electronic Information Exchange on this 3rd day of April, 2009:

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