UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
UNION ELECTRIC COMPANY	)	
d/b/a/ AmerenUE	)	Docket No. 52-037-COL
	)	
(Callaway Plant Unit 2)	)	

NRC STAFF ANSWER TO PETITION TO INTERVENE AND REQUEST FOR HEARING IN CALLAWAY PLANT UNIT 2 COMBINED CONSTRUCTION AND OPERATING LICENSE APPLICATION

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May 1, 2009

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Pursuant to Title 10, *Code of Federal* Regulations (10 C.F.R.) § 2.309(h)(1), the staff (Staff) of the Nuclear Regulatory Commission (NRC or Commission) hereby answers the April 6, 2009 "Petition to Intervene and Request for Hearing in Callaway Plant Unit 2 Combined Construction and Operating License Application" (Petition) that was filed by the Missouri Coalition for the Environment (MCE) and Missourians for Safe Energy (MSE; collectively "Petitioners") regarding the Union Electric Company d/b/a AmerenUE (Applicant) combined license application (COL Application or COLA) for Callaway Plant Unit 2. For the reasons set forth below, the Staff does not oppose the standing of MSE or MCE. Eleven contentions were proffered by Petitioners. The Staff opposes admission of ten contentions. The Staff opposes the remaining contention in part. Therefore, the Petition should be granted because Petitioners have established standing and have proffered an admissible contention.

BACKGROUND

On July 24, 2008 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML082140630), as supplemented by letters dated September 24, 2008 (ML082730080), November 14, 2008 (ML083360149), November 25, 2008 (ML083360148),

and February 25, 2009 (ML090710444),[1] the Applicant filed with the Commission, pursuant to Section 103 of the Atomic Energy Act of 1954 and 10 C.F.R. Part 52, Licenses, Certifications, and Approvals for Nuclear Power Plants, an application for a combined license (COL) for an evolutionary power reactor (US EPR) nuclear power plant at the existing Callaway Power Plant site located in Callaway County, Missouri (Callaway Plant Unit 2).

The Commission docketed the COL application as sufficient for Staff review on December 18, 2008. Union Electric d/b/a AmerenUE; Acceptance for Docketing of an Application for Combined License for Callaway Plant Unit 2 Nuclear Power Plant, 73 Fed. Reg. 77,078 (Dec. 18, 2008). On February 4, 2009, the NRC published a "Notice of Hearing and Opportunity to Petition for Leave to Intervene and Order Imposing Procedures for Access to Sensitive Unclassified Non-Safeguards Information [SUNSI] and Safeguards Information [SGI] for Contention Preparation on a Combined License for the Callaway Plant Unit 2." 74 Fed. Reg. 6064 (Feb. 4, 2009). By letter dated February 12, 2009, counsel for MCE requested additional time to apply for SUNSI and SGI access beyond the ten days afforded by the Notice of Hearing. That request was granted by the Secretary on March 9, 2009 (ML090680372).

Petitioners filed their Petition on April 6, 2009. On April 6, 2009, petitions were also filed by Missourians Against Higher Utility Rates, as well as by two Missouri state agencies: the Office of Public Counsel and the Missouri Public Service Commission.

Two important parts of the COL Application discussed extensively below are the Final Safety Analysis Report (FSAR) and Environmental Report (ER). The COL Application also incorporates by reference Revision 0 of the US EPR Design Certification Application, which was

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[1] This February supplement included Revision 1 to the COL Application for Callaway Plant Unit 2. This Revision was submitted on February 25, 2009, but was not made publically available on ADAMS until March 12, 2009. Thus, Petitioners may have used Revision 0 in drafting their contentions. In responding to the Petitions herein, the Staff will reference the current COL Application, Revision 1, unless otherwise noted.

submitted to the NRC by AREVA NP Inc. (Areva) on December 11, 2007.[2] This Application is the subject of NRC rulemaking under Docket No. 52-020.

DISCUSSION

Both Petitioners assert representational standing based upon their representation of one or more of their members who live within 50 miles of the Callaway site, conferring presumptive standing. Petition at 4. Jointly, the Petitioners have submitted eleven contentions. As explained below, the Staff does not oppose standing for MSE or MCE. The Staff opposes admission of ten contentions in whole and one contention in part.

I. LEGAL STANDARDS

A. Standing to Intervene

In accordance with the Commission's Rules of Practice:[3]

> [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:

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[2] Although Revision 0 of the US EPR Design Certification Application is still undergoing NRC review and is not yet a certified design, to avoid confusion with the COL Application it will be referred to herein as the DCD or EPR DCD.

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

> (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).

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) (citing *Duke Power Co. v. Carolina Envtl. Study Group, Inc*., 438 U.S. 59, 72 (1978), and quoting *Baker v. Carr*, 369 U.S. 186, 204 (1962)).

> 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."

Sequoyah Fuels, 40 NRC at 71-72 (quoting *Lujan v. Defenders of Wildlife*, 504 U.S. 505, 560-61 (1992) (citations and internal quotations omitted) and 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).

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. *See, e.g.*, *Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3

& 4), LBP-01-6, 53 NRC 138, 148 (2001).[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 & 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. 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 outcome of 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." *See, e.g.*, *Entergy Nuclear Operations Inc. and Entergy Nuclear Palisades, LLC* (Palisades Nuclear Plant), CLI-08-19, 68 NRC __ (slip op.

[4] The *Turkey Point* decision summarizes the development of this doctrine. *See Turkey Point*, LBP-01-6, 53 NRC at 147-48.

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

at 6-7) (Aug. 22, 2008). 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. *Palisades,* CLI-07-18, 65 NRC at 409; *Private Fuel Storage,* CLI-99-10, 49 NRC at 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)).[6]

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,

[6] 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.

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.[7]

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*

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[7] 10 C.F.R. § 2.309(f)(1)(i)-(vi). Section 2.309(f) includes the following requirements for 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:
>
> (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).

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 & 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 & 3), CLI-01-24, 54 NRC 349, 358 (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*. (Palo Verde Nuclear Generating Station, Units 1, 2, & 3), CLI-91-12, 34 NRC 149, 155-56 (1991). "Mere 'notice pleading' does not suffice."[8] *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.* (Palo Verde Nuclear Generating Station, Units 1, 2 & 3), LBP-91-19, 33 NRC 397, 400 (1991). The *Peach Bottom* decision requires that a contention be rejected if:

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[8] *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 a genuine dispute exists 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.

(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.

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

These rules focus the hearing process on real disputes susceptible to resolution in an adjudication. *See Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, & 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 & n.15 (2007) (citing *Millstone*, CLI-01-24, 54 NRC at 364).

II. STANDING

As discussed below, MCE and MSE have each asserted representational standing in this matter and have jointly filed eleven proposed contentions. Both groups allege representational standing, arguing a number of their members live within 50 miles of the proposed plant and each has suffered or will suffer a distinct and palpable harm that constitutes an injury in fact which can be traced to the proposed action and is likely to be redressed by a favorable decision. Petition at 4.

A. Standing of Missouri Coalition for the Environment

MCE asserts representational standing to intervene in this proceeding by stating that five of its members live within 50 miles of the Callaway site, that these members have demonstrated

an injury in fact, and that they have authorized MCE to represent them in this proceeding. Petition at 4. MCE has submitted declarations from: Charlie Toben, Donald R. Hayes, Susan Flander, Kathryn Love and Donald Love.[9]

In order to establish representational standing, an organization must demonstrate, among other things, that at least one of its members would otherwise have standing to participate in his or her own right and at least one of its members has authorized the organization to represent the member's interests. *See Palisades,* CLI-07-18, 65 NRC at 409. As set forth below, MCE has satisfied the representational standing requirements. MCE has provided declarations from five of its members, which are attached to the Petition, in support of its representational standing. All of these declarants have provided similar affidavits asserting that he or she is a member of MCE, lives within fifty miles of the Callaway site, and authorizes MCE to represent him or her in this proceeding. Petition at K. Love Decl. at ¶2 & 4, D. Love Decl. at ¶6 & 8, Flander Decl. at ¶2 & 4, Toben Decl. at ¶2 & 4, Hays Decl. at ¶2 & 4. In view of the foregoing, each of MCE's five members has established standing to intervene in his or her own right by satisfying the proximity presumption.[10]

MCE must also show that the interests that the organization seeks to protect are germane to its own purpose, and that neither its claim nor the requested relief requires an

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[9] *See* Petition Attachments (Declaration of Kathryn S. Love in Support of the Missouri Coalition for the Environment's Motion to Hold Docketing of Callaway COLA in Abeyance, (K. Love Decl.), Declaration of Donald M. Love in Support of the Missouri Coalition for the Environment's Motion to Hold Docketing of Callaway COLA in Abeyance (D. Love Decl.), Declaration of Susan Flander in Support of the Missouri Coalition for the Environment's Motion to Hold Docketing of Callaway COLA in Abeyance (Flander Decl.), Declaration of Charlie Toben in Support of the Missouri Coalition for the Environment's Motion to Hold Docketing of Callaway COLA in Abeyance (Toben Decl.), Declaration of Donald R. Hays in Support of the Missouri Coalition for the Environment's Motion to Hold Docketing of Callaway COLA in Abeyance (Hays Decl.)). The Staff notes that the titles of the attached declarations do not correspond with the Petition to Intervene. However, the Staff infers that the text of the declarations was intended to address the standing requirements in the instant proceeding.

[10] All address locations were confirmed to be within 50 miles of the proposed plant by using the mapping programs at http://maps.yahoo.com, http://maps.google.com and http://www.infoplease.com/atlas/calculate-distance.html.

individual member to participate in the action. *Palisades,* CLI-07-18, 65 NRC at 409. MCE describes itself as a nonprofit corporation which has

> a strong interest in protecting Missouri's environment, including advocating for the reduction of air pollution from electric utilities, ensuring that nuclear plants do not contaminate the environment, avoiding damage to water quality and the environment from nuclear, hydroelectric or pumped storage facilities, and advocating for all generating facilities to have as low an environmental impact as possible.

Petition at 3. This interest is germane to the interests of the members MCE seeks to protect, who state that:

> I am concerned that if the NRC grants Ameren's COLA, the construction and operation of the proposed nuclear power plant could adversely affect my health and safety and the integrity of the environment where I live. I am particularly concerned about the risk of accidental releases of radioactive material to the environment, and the potential harm to groundwater supplies and local surface waters.

K. Love Decl. at ¶3, D. Love Decl. at ¶7, Flander Decl. at ¶3, Toben Decl. at ¶3, Hays Decl. at ¶3. Because the five MCE declarants have established standing to intervene in their own right, and have authorized MCE, whose organizational interests are germane to those whom it would represent, to represent their interests in this proceeding, MCE has satisfied the standards for representational standing set forth in *Palisades,* CLI-07-18, 65 NRC at 409. Therefore, the Staff does not object to MCE's representational standing to intervene on behalf of its members.

B. Standing of Missouri Nuclear Weapons Education Fund, d/b/a Missourians for Safe Energy

MSE asserts representational standing to intervene in this proceeding by stating that seven of its members live within 50 miles of the Callaway site, these members have demonstrated an injury in fact, and they have authorized MSE to represent them in this proceeding. Petition at 4. MSE has submitted declarations from: Ruth Schaefer, Henry

Ottinger, Don Salcedo, Jane Bierdeman-Fike, Barbara Ross, Mark Haim, and Margot McMillen.[11]

In order to establish representational standing, an organization must demonstrate, among other things, that at least one of its members would otherwise have standing to participate in his or her own right and at least one of its members has authorized the organization to represent his or her interests. *See Palisades,* CLI-07-18, 65 NRC at 409. As set forth below, MSE has satisfied the Commission's representational standing requirements.

All of the seven declarants have provided similar affidavits asserting that he or she is a member of MSE, lives within 50 miles of the Callaway site, and authorizes MSE to represent him or her in this proceeding. Schaefer Decl. at ¶2 & 4, Ottinger Decl. at ¶2 & 4, Salcedo Decl. at ¶2 & 4, Bierdeman-Fike Decl. at ¶2 & 4, Ross Decl. at ¶2 & 4, Haim Decl. at ¶2 & 4, McMillen Decl. at ¶2 & 4. In view of the foregoing, each of MSE's seven members has established standing to intervene in his or her own right by satisfying the proximity presumption.[12]

MSE must also show that the interests that the organization seeks to protect are germane to its own purpose, and that neither its claim nor the requested relief requires an individual member to participate in the action. *Palisades,* CLI-07-18, 65 NRC at 409. MSE describes itself as a nonprofit corporation that has interests in educating the public on the need

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[11] *See* Petition Attachments (Declaration of Ruth Schaefer in Support of Missourians for Safe Energy's Petition to Intervene in Callaway Plant COLA (Schaefer Decl.), Declaration of Henry Ottinger in Support of Missourians for Safe Energy's Petition to Intervene in Callaway Plant COLA (Ottinger Decl.), Declaration of Don Salcedo in Support of Missourians for Safe Energy's Petition to Intervene in Callaway Plant Unit 2 COLA (Salcedo Decl.), Declaration of Jane Bierdeman-Fike in Support of Missourians for Safe Energy's Petition to Intervene in Callaway Plant Unit 2 COLA (Bierdeman-Fike Decl.), Declaration of Barbara Ross in Support of Missourians for Safe Energy's Petition to Intervene in Callaway Plant Unit 2 COLA (Ross Decl.), Declaration of Mark Haim in Support of Missourians for Safe Energy's Petition to Intervene in Callaway Plant Unit 2 COLA (Haim Decl.), Declaration of Margot McMillen in Support of Missourians for Safe Energy's Petition to Intervene in Callaway Plant Unit 2 COLA (McMillen Decl.)).

[12] All address locations were confirmed to be within 50 miles of the proposed plant by using the mapping programs at http://maps.yahoo.com and http://maps.google.com and http://www.infoplease.com/atlas/calculate-distance.html.

for energy efficiency to reduce pollution, reverse the degradation of air and water quality, and address global warming. Petition at 3. MSE also states that it advocates the use of renewable energy and has concerns about contamination of the environment from radiation and impacts on health and safety if Callaway 2 is constructed. *See id*. at 4.[13] These interests are germane to the interests of the members MSE seeks to protect, who state that:

> I am concerned that if the NRC grants Ameren's COLA, the construction and operation of the proposed nuclear power plant could adversely affect my health and safety and the integrity of the environment where I live. I am particularly concerned about the risk of accidental releases of radioactive material to the environment, and the potential harm to groundwater supplies and local surface waters.

Schaefer Decl. at ¶3, Ottinger Decl. at ¶3, Salcedo Decl. at ¶3, Bierdeman-Fike Decl. at ¶3, Ross Decl. at ¶3, Haim Decl. at ¶3, McMillen Decl. at ¶3. Because the seven MSE declarants have established standing to intervene in their own right, and have authorized MSE, whose organizational interests are germane to those whom it would represent, to represent their interests in this proceeding, MSE has satisfied the standards for representational standing set forth in *Palisades,* CLI-07-18, 65 NRC at 409. Therefore, the Staff does not object to MSE's representational standing to intervene on behalf of its members.

III. PETITIONERS' PROPOSED CONTENTIONS

A. Proposed Contention NEPA-1

> The COLA violates the National Environmental Policy Act by failing to address the environmental effects of the low-level radioactive wastes that will be generated and stored on-site in the absence of a licensed disposal facility or the ability to isolate the radioactive wastes from the environment. The ER must describe

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[13] MSE also states it is "concerned with nuclear weapons and their proliferation" and that "[n]uclear weapons and power are inextricably linked with each other." Petition at 4. Such general concerns regarding nuclear weapons and their proliferation cannot provide a basis for standing. *See US Dep't of Energy* (Plutonium Export License), CLI-04-17, 59 NRC 357, 364 (2004) (stating "the generalized institutional interest in minimizing danger from proliferation is insufficient to confer standing.") (internal citations omitted).

> how UE will store LLRW on-site and the environmental consequences of extended on-site storage unless it can show that another licensed disposal facility is available.

Petition at 5. Proposed Contention NEPA-1 asserts that the ER fails to discuss "the environmental impacts of on-site low-level radioactive waste (LLRW) storage beyond temporary storage prior to routine shipment." *Id.* Petitioners note that no facility in the US is licensed to accept LLRW for disposal from Missouri because the Barnwell facility in South Carolina was recently closed to Missouri and that if a future facility in Texas is opened, it will not accept waste from Missouri. *See id*. at 5-6.

Petitioners argue that Proposed Contention NEPA-1 is a contention of omission. *Id*. at 7. Petitioners assert that "[t]he basis for this contention is the absence of any discussion of important environmental impacts from on-site storage of radioactive waste for an indefinite period of time." *Id*. at 7. Petitioners also state that the allegedly omitted environmental effects are within the scope of NEPA because the Commission is required, under NEPA and its own regulations, to consider impacts "including unavoidable adverse effects and any ways to mitigate them." *See id*. Therefore, Petitioners argue Proposed Contention NEPA-1 is material to the NRC's licensing determination under Part 51. *See id.*

Finally, Petitioners argue that the basis for evaluating fuel cycle effects cannot be limited to Table S-3 because current facts "show a site-specific variance from the conditions assumed in Table S-3." *Id*. at 7-8 (citing *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 __ (slip op. at 64-66) (Mar. 24, 2009)). Petitioners state that Proposed Contention NEPA-1 is not an attack on Table S-3; rather Petitioners request that the analysis required by this table be supplemented. *Id.* at 8. Petitioners suggest that if 10 C.F.R. § 51.51 and Table S-3 foreclose the discussion of long-term, site-specific storage, then the "clear statutory mandate of NEPA would override them." *Id*. at 8.

Staff Response: The Staff opposes admission of Proposed Contention NEPA-1. This Proposed Contention is inadmissible because Petitioners fail to demonstrate that it raises an issues material to the NRC's licensing decision. *See* 10 C.F.R. § 2.309(f)(1)(iv). In addition, Proposed Contention NEPA-1 is also inadmissible to the extent that it challenges the Commission's regulation.

1. Proposed Contention NEPA-1 fails to satisfy 10 C.F.R. § 2.309(f)(1)(iv).

The regulation that applies to the environmental effects of LLRW is 10 C.F.R. § 51.51, in particular, Table S-3. *See Tennessee Valley Authority* (Bellefonte Nuclear Power Plant, Units 3 & 4), CLI-09-03, 69 NRC at __ (slip op. at 8-9) (Feb. 17, 2009) (citing *Virginia Electric & Power Co.* (Combined License Application for North Anna, Unit 3), LBP-08-15, 68 NRC __ (Aug. 15, 2008) (slip op. at 25)). Section 51.51 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 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 weighted 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 items omitted from the Table are subject to litigation in individual licensing proceedings. *Id.* However, as the Commission stated in *Bellefonte,* questions regarding environmental impacts of onsite low-level radioactive waste storage are "largely site- and design-specific, and appropriately decided in an individual licensing proceeding, *provided that* litigants proffer properly framed and supported contentions." *Bellefonte,* CLI-09-03,

69 NRC __ (slip op. at 11) (emphasis added).[14] Proposed Contention NEPA-1 is not a "properly framed and supported" contention, and therefore is not admissible. *See Bellefonte,* CLI-09-03, 69 NRC __ (slip op. at 11).

Here, Petitioners argue that Table S-3 cannot be the "sole discussion" for evaluating the effect of the fuel cycle "when facts on the ground show a site-specific variance from conditions assumed in Table S-3." Petition at 8 (citing *Calvert Cliffs,* LBP-09-04, 69 NRC __ (slip op. at 64-66)). Petitioners state that an offsite disposal facility is not currently available and will never be available or will not be available in the long-term. Petition at 5.[15] Petitioners state that the Applicant fails to assess the very-long term economic, safety, security and environmental consequences of storing Class B, C, and Greater-Than-Class C radioactive waste. *See id.* at 6.[16] The basis for this contention, as set forth by Petitioners, is the absence of a "discussion of important environmental impacts" from indefinite, onsite storage of LLRW. *Id.* at 7.

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[14] In the *Bellefonte* proceeding, the Commission reversed the Board's decision to admit a contention that stated that the Application failed to consider the environmental consequences of onsite storage of class B and C waste, where the Board relied on a decision from the *North Anna* Board. *See Bellefonte,* CLI-09-03, 69 NRC at __ (slip op. at 8-9)The Commission held that "the *Bellefonte* Board's adoption of this rationale from *North Anna* suffer[ed] from a flaw" because the contention at issue constituted a collateral attack on Table S-3. *See id.* at 9.

[15] Petitioners in *Calvert Cliffs* also argued that LLRW would remain on site indefinitely; however, the Board's decision only refers to waste generated during the license term, which is 40 years. *See Calvert Cliffs,* LBP-09-04, 69 NRC __ (slip op. at 61, 71, 74, 75); 10 C.F.R. § 52.104 ("A combined license is issued for a specified period not to exceed 40 years from the date on which the Commission makes a finding that acceptance criteria are met under § 52.103(g) or allowing operation during an interim period under the combined license under § 52.103(c)."). The Board stated that the applicant must demonstrate that it "will be able to store on-site the volume of LLRW that will be generated during the license term" because the application only discussed consequences of on-site storage and assumed off-site disposal would be available. *See* LBP-09-04, 69 NRC at (slip op. at 75).

[16] As the Board acknowledged in *Calvert Cliffs,* the closure of Barnwell does not affect disposal of Greater-Than-Class C waste because the federal government is responsible for disposing of this waste. *See Calvert Cliffs,* LBP-09-04, 69 NRC at __ (slip op. at 62-63) (internal citations omitted). Here, Petitioners reference a General Accountability Office (GAO) report and state that Greater-Than-Class C waste will "have to be managed on-site since DOE has not yet developed a disposal facility for that type of waste (Petition at 6), but Petitioners have not offered any facts or expert opinion to indicate that the government will not fulfill its responsibility to provide a disposal facility for this waste. *See Calvert Cliffs,* LBP-09-04, 69 NRC __ at (slip op. at 63). Therefore, portions of NEPA-1 challenging plans for disposal of Greater-Than-Class C waste are speculative and unsupported. *See* 10 C.F.R. § 2.309(f)(1)(v).

Petitioners do not, however, specifically identify any impact not covered in Table S-3 that should be considered here. *See* 10 C.F.R. § 2.309(f)(1)(iv). *See also PPL Susquehanna LLC* (Susquehanna Steam Electric Station, Units 1 & 2), LBP-07-10, 66 NRC 1, 24 (2007) (stating that the subject matter of an admissible contention "must impact the grant or denial of a pending license application."); *Nuclear Management Co.* (Monticello Nuclear Generating Plant), LBP-05-31, 62 NRC 735, 748-49 (2005) ("'Materiality' requires that the petitioner show why the alleged error or omission is of possible significance to the result of the proceeding. This means that there must be some significant link between the claimed deficiency and either health and safety of the public, or the environment").

Specifically, with respect to environmental contentions, the Commission has stated that in "NRC licensing hearings, petitioners may raise contentions seeking correction of significant inaccuracies and omissions in the ER. Our boards do not sit to 'flyspeck' environmental documents or to add details or nuances." *System Energy Resources, Inc.* (Early Site Permit for Grand Gulf ESP Site), CLI-05-4, 61 NRC 10, 13 (2005). NEPA analyses are subject to a "'rule of reason,' which frees the agency from pursuing unnecessary or fruitless inquiries." *Private Fuel Storage, LLC,* (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 139 (2004). NEPA only requires an analysis of reasonably foreseeable environmental effects, not those that are speculative. *See Dubois v. U.S. Dep't of Agric.,* 102 F.3d 1273, 1286 (1st Cir. 1996) (stating that "[r]easonable forecasting . . . is . . . implicit in NEPA", but "[a]n environmental effect would be considered 'too speculative' for inclusion in the EIS if it cannot be described at the time the EIS is drafted with sufficient specificity to make its consideration useful to a reasonable decision-maker.") (Internal citation omitted).

Petitioners fail to demonstrate that the issues raised in Proposed Contention NEPA-1 are material and "seek correction[] of significant inaccuracies and omissions . . . ." *See Grand Gulf ESP,* CLI-05-5, 61 NRC at 13. To support this contention, Petitioners refer to a 1998 GAO report discussing consequences of exposure to LLRW for a short period of time, Petitioners list

the radionuclides that are in both high level waste (HLW) and LLRW, and state, absent support, that LLRW will not be stored in the containment building, and therefore, "will not be as protected as other parts of the site." *See* Petition at 6-7 (citing GAO/RCED-98-40R Questions on Ward Valley at 99-52 (May 22, 1998) ("GAO Report")).

The GAO report referenced by Petitioners does not demonstrate that Proposed Contention NEPA-1 raises a material issue. To the contrary, this report discusses exposures to unshielded individuals in short time frames (approximately 20 minutes). *See* Petition at 7 (citing GAO report).[17] Petitioners do not provide any reasoned explanation or analysis to show why or how exposures of unshielded individuals in very short time frames is related to long-term, onsite storage such that it provides a basis for the admission of this contention. *See PPL Susquehanna LLC* (Susquehanna Steam Electric Station, Units 1 & 2), LBP-07-10, 66 NRC 1, 23 (2007) (citing *Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 204-05 (2003)) ("Simply attaching material or documents as a basis for a contention, without setting forth an explanation of that information's significance, is inadequate to support the admission of the contention.").

Similarly, Petitioners have not explained why or if storage of LLRW in areas other than the containment building may create significant environmental impacts. *See* 10 C.F.R. § 2.309(f)(1)(iv); *Monticello*, LBP-05-31, 62 NRC at 748-49. Nor do Petitioners explain why the comparison of radionuclides in HLW and LLW provides a basis for this contention. Nothing in the Commission's regulations requires LLRW to be handled and stored in the same manner as HLW.

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[17] Interestingly, the GAO report cited by Petitioners also states that the California Department of Public Health commented that focusing on hazards presented by *unshielded* Class C waste is *misleading* because the public will not be exposed to such material. According to the department, burial in an engineered trench at a depth ranging from 25 to 42 feet provides more than adequate shielding to protect the public. GAO Report at 52, *available at* http://archive.gao.gov/paprpdf2/160691.pdf.

Furthermore, the proffered basis of Proposed Contention NEPA-1 is mere speculation. Petitioners have speculated that onsite storage will be necessary; but Petitioners have not provided any support for their assumption that LLRW will have to be stored on site indefinitely because offsite disposal will never be available or will not be available for a long period of time, a term that is not defined by Petitioners. *See Muskogee*, CLI-03-13, 58 NRC at 203; 10 C.F.R. § 2.309(f)(1)(v).

Thus, Petitioners have provided no information to demonstrate that consideration of onsite, long-term storage of LLRW may be material to this proceeding. Therefore, because Proposed Contention NEPA-1 fails to meet the admissibility requirements of 10 C.F.R. § 2.309(f)(1)(iv), it should not be admitted.

2. To the extent that Proposed Contention NEPA-1 challenges Table S-3, it should not be admitted.

Petitioners state that "[i]f 10 C.F.R. §51.51 and Table S-3 were said to foreclose this latter discussion [site-specific effects of long-term storage], the clear statutory mandate of NEPA would override them." Petition at 8. To the extent that this is intended to challenge 10 C.F.R. § 51.51, it is barred from consideration in this proceeding by 10 C.F.R. § 2.335(a). *See also Bellefonte,* CLI-09-03, 69 NRC __ (slip op. at 9) (overturning a licensing board's decision to admit an environmental contention regarding LLRW because it was an impermissible attack on the Commission's regulation).

An attack on a Commission regulation is only permitted where a waiver is explicitly granted or an exception is made for a particular proceeding. 10 C.F.R. § 2.335(a), (b). The Commission has specified that "[t]he sole ground for petition of waiver or exception is that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation . . . would not serve the purposes for which the rule or regulation was adopted." 10 C.F.R. § 2.335(b). The Commission requires that any request for such waiver or exception "be accompanied by an affidavit that identifies . . . the subject

matter of the proceeding as to which application of the rule or regulation . . . would not serve the purposes for which the rule or regulation was adopted." *Id.* Additionally, "[t]he affidavit must state with particularity the special circumstances alleged to justify the waiver or exception requested." *Id.* Petitioners have failed to establish that they meet any of these requirements imposed by the Commission's regulations. Petitioners have not submitted an affidavit explaining why a waiver is appropriate nor have they established that application of 10 C.F.R. Part 51 to this particular proceeding would not serve the purpose for which the rule was adopted.

Therefore, to the extent Proposed Contention NEPA-1 constitutes an attack on a Commission regulation and a waiver or exception has not been granted, this contention should not be admitted. *See* 10 C.F.R. § 2.335; *Oconee*, CLI-99-11, 49 NRC at 334.

Consequently, for all the foregoing reasons, Proposed Contention NEPA-1 should not be admitted.

B. Proposed Contention SAFETY-1

> The COLA is incomplete because the FSAR fails to provide any site-specific discussion as to how UE will comply with NRC regulations governing storage of LLRW in the event an off-site waste disposal facility remains unavailable when Callaway 2 begins operations.

Petition at 8. Petitioners state that Proposed Contention SAFETY-1 is a contention of omission. *Id.* at 9. Petitioners argue that the FSAR fails to include a site-specific explanation for how LLRW will be managed in the event that an offsite disposal facility is not available when Callaway Plant Unit 2 begins operations. *Id*. Petitioners also assert that the FSAR fails to include information regarding the "site's capacity for long-term storage of an increasing volume of LLRW and the health impacts on UE employees of the presence of this waste and the handling, packaging and inspection of it during storage." *Id.* Petitioners state that the basis for this contention is 10 C.F.R. § 52.79(a)(3), which Petitioners argue requires that the purportedly missing information be included in the application. *Id.*

Petitioners refer to Section 11 of the FSAR, which incorporates by reference the US EPR DCD. *Id.* at 8 (citing FSAR at Section 11.4.3). The DCD states that an applicant who references the DCD will fully describe a process control program. *Id.* (quoting FSAR at 11.4-6). Specifically, the Application quotes the DCD, which provides that an applicant incorporating the DCD

> will identify the administrative and operational controls for waste processing process parameters and surveillance requirements which demonstrate that the final waste products meet the requirements of applicable federal, state, and disposal site waste form requirements for burial at a 10 C.F.R. Part 61 licensed low level waste (LLW) disposal site and will be in accordance with the guidance provided in RG 1.21, NUREG-0800, BTP 11-3, ANSI/NAD-55.1-1992 and Generic Letters 80-09, and 81-39.

Id. at 8 (quoting Application at 11.4-6). From this, Petitioners conclude that the Application assumes offsite disposal will be available. *Id.* at 9.

Petitioners state that because this contention "alleges a legal insufficiency in the COLA," it raises an issue within the scope of the proceeding. *Id*. Petitioners further assert that Proposed Contention SAFETY-1 "raises a genuine issue of law and fact" because "UE relies on generic documents and the EPR design certification as exempting it from any consideration of long-term, on-site storage and final disposal when in reality there is currently no disposal." *Id.* at 9-10. Finally, Petitioners argue that "reality must be acknowledged" and the FSAR "must consider the limited space available and the increased safety risks that arise from on-site storage." *Id.* at 10.

Staff Response: The Staff opposes admission of Proposed Contention SAFETY-1 because, as described below, it fails to meet the contention admissibility requirements set forth in 10 C.F.R. § 2.309(f)(1)(iv), (v), and (vi).

1. Proposed Contention SAFETY-1 does not raise a material issue of fact or law as required by 10 C.F.R. § 2.309(f)(1)(iv).

Petitioners argue that Proposed Contention SAFETY-1 is a contention of omission because the Application fails to provide a site-specific explanation for how it will manage LLRW

in the event that an offsite disposal facility is not available, and because the Application does not include a discussion regarding the site's capacity for long-term storage and the health impacts long-term, onsite storage may have on employees. Petition at 8-9. Petitioners claim that the omitted information is required to be included by 10 C.F.R. § 52.79(a)(3). *Id.* at 9.

Contrary to Petitioners' assertion, 10 C.F.R. § 52.79(a)(3) simply requires that an application include

> at a level of information sufficient to enable the Commission to reach a final conclusion on all safety matters that must be resolved by the Commission before issuance of a combined license . . . (3) The kinds and quantities of radioactive materials expected to be produced in the operation and the means for controlling and limiting radioactive effluents and radiation exposures within the limits set forth in part 20 of this chapter[.]

10 C.F.R. § 52.79(a)(3). The Staff's most recent guidance on interim LLRW storage, issued December 30, 2008, "specifies the information that NRC staff has determined should be included in a Construction and Operating License Application" and Appendix 11.4-A of the Standard Review Plan, NUREG-0800, "provides specific guidance to licensees for increasing on-site LLRW storage capacity." *See* RIS 2008-32, Interim Low Level Radioactive Waste Storage at Reactor Sites at 4 (Dec. 30, 2008) (ADAMS Accession No. ML082190768) (discussing Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants (Mar. 2007)). Nothing in the Commission's regulations or guidance indicates that a COL applicant is required to explain how long-term storage of LLRW will be handled in the event that an offsite disposal facility is unavailable. In fact, even the Licensing Board in the *Vogtle* COL proceeding acknowledged that "10 C.F.R. § 52.79(a)(3) does not explicitly speak to the long-term storage of LLRW or any amount of waste storage . . . ." *Southern Nuclear Operating Co.*

(Vogtle Electric Generating Plant, Units 3 & 4), LBP-09-03, 69 NRC __ (slip op. at 24) (Mar. 5, 2009).[18]

Petitioners have not provided any references or expert opinion to demonstrate that a COL applicant is required by the Commission's regulations to address long-term onsite storage, nor have they shown that the Commission's guidance regarding onsite storage of LLRW is inadequate. Moreover, Petitioners have not defined what "long term" means with regard to duration and capacity. Thus, Petitioners' assertions are insufficient to support the admission of this contention of omission because they have not shown that the allegedly missing information is required by the Commission's regulations. *See Pa'ina Hawaii, LLC* (Material License Application), LBP-06-12, 63 NRC 403, 414 (2006) (stating that a petitioner must show that information missing is required by the Commission's regulations). Furthermore, because Petitioners have failed to show that the allegedly missing information is required by the Commission's regulations, the contention does not raise an issue that is material to the decision that the NRC must make, such that "the subject matter of the contention . . . [would] impact the grant or denial of a pending license application." *See* 10 C.F.R. § 2.309(f)(1)(iv); *Susquehanna*, LBP-07-10, 66 NRC at 24.

To support this contention, Petitioners state that similar contentions have been accepted in two other COL proceedings. *See* Petition at 9 (citing *North Anna*, LBP-08-15, 68 NRC __ (slip op. at 21-32)[19]; *Southern Nuclear Operating Co.* (Vogtle Electric Generating Plant, Units 3

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[18] Despite the fact that the Board explicitly acknowledged that section 52.79(a)(3) did not address long-term onsite storage of LLRW, the Board nonetheless held that the applicant's plans for long-term LLRW storage was material to the *Vogtle* COL proceeding. *See Vogtle,* LBP-09-03, 69 NRC __ (slip op. at 24-25). An appeal of this decision is pending before the Commission. *See* Southern Nuclear Operating Company's Brief in Support of Appeal of LBP-09-03 (Mar. 14, 2009); NRC Staff Brief in Support of Appeal from LBP-09-03 (Mar. 14, 2009).

[19] In the *North Anna* COL proceeding the Board admitted a contention regarding LLRW the result of which was not appealed to the Commission. *See North Anna*, LBP-08-15, 68 NRC __ (slip op. at 20, 32).

& 4), LBP-09-03, 69 NRC __ (slip op. at 20-27) (Mar. 5, 2009)).[20] However, under Commission precedent, the fact that one licensing board has admitted a contention is not an adequate basis for admission of a similar contention in a different proceeding. Each licensing board has the responsibility for judging factual and legal disputes between parties. *See Sequoyah Fuels Corp. & General Atomics* (Gore, Oklahoma Site), CLI-95-16, 42 NRC 221, 225 (1995). While previous board decisions may have persuasive authority, the decisions of boards in prior, unrelated proceedings is not binding precedent. Therefore, Petitioners' reference to the decisions of previous boards is not sufficient to support the admission of Proposed Contention SAFETY-1. Furthermore, as the Commission stated in the *Bellefonte* COL proceeding, onsite storage of LLRW is "largely site- and design-specific, and appropriately decided in an individual licensing proceeding *provided that litigants and proffer properly framed and supported contentions*." *See Bellefonte,* CLI-09-03, 69 NRC at __ (slip op. at 11) (emphasis added). For the reasons discussed herein, Proposed Contention SAFETY-1 is not a properly framed and supported contention, and, therefore, should not be admitted.

Thus, because Petitioners have not supported the assertion that information regarding long-term, onsite storage of LLRW is required by the Commission's regulations and is material to the NRC's licensing decision, Proposed Contention SAFETY-1 fails to meet the requirements of 10 C.F.R. § 2.309(f)(1)(iv).

2. Proposed Contention SAFETY-1 is <u>not an admissible contention of omission</u>.

An admissible contention must show that a "genuine dispute exists with the applicant/licensee on a material issue of law or fact," identify either specific portions of, or alleged omissions from, the application, and provide supporting reasons for the petitioner's

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[20] The Commission reversed the Board's decision in *Bellefonte* to admit a similar contention, stating that the contention failed to meet the contention admissibility requirements set forth in section 2.309(f)(1). *See Bellefonte,* CLI-09-03, 69 NRC at __ (slip op. at 6-7).

position. 10 C.F.R. § 2.309(f)(1)(vi). A petitioner must submit more than "'bald or conclusory allegation[s]' of a dispute with the applicant," but instead "must 'read the pertinent portions of the license application . . . and . . . state the applicant's position and the petitioner's opposing view.'" *Millstone*, CLI-01-24, 54 NRC at 358 (citing Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,170-71 (Aug. 11, 1989)).

Here, Petitioners argue that Proposed Contention SAFETY-1 is a contention of omission because the Application fails to provide a site-specific explanation for how it will manage LLRW in the event an offsite disposal facility is not available. Petition at 8, 9. Also, Petitioners claim that the Application omits a discussion regarding the site's capacity for long-term storage and the health impacts onsite storage may have on employees. *See id.* at 9. Petitioners assert that this information is required by 10 C.F.R. § 52.79(a)(3). *Id.* Finally, Petitioners claim that AmerenUE improperly relies on generic documents and the EPR DCD to exempt it from considering long-term onsite storage of LLRW. *Id.* at 9-10.

Contrary to Petitioners' assertions, the Applicant has provided information regarding onsite storage of LLRW. As Petitioners note, the Application incorporates by reference the US EPR DCD. Petition at 8. *See also* Application at 11-1 (stating the U.S. EPR FSAR "is incorporated by reference with supplements . . ."). Section 11.4.1.2.1 of the DCD explains that LLRW storage is available onsite in one of two Radioactive Waste Processing Buildings. EPR DCD at 11.4-2 to 11.4-3. These buildings provide storage for approximately 550 drums of waste (200 higher activity drums and 350 low activity drums). This equates to storage space for "several years' volume of solid waste (excluding dry active wastes) resulting from plant operations." *Id.* at 11.4-3. The DCD also provides estimates for annual volumes of solid waste generated and shipped offsite resulting from plant operation and a summary of total annual activity from dry active waste in Table 11.4-1. *Id.* at 11.4-3 (referencing Table 11.4-1). Finally,

the DCD states that the solid waste management system is designed to meet RG [Regulatory Guide] 1.143 and NUREG-0800, BTP 11-3." *Id.* at 11.4-1.

Petitioners do not specifically reference any of these sections in Proposed Contention SAFETY-1, nor do Petitioners provide any information to suggest that these portions of the EPR DCD or Application are insufficient. *See* 10 C.F.R. § 2.309(f)(1)(v), (vi); *Millstone*, CLI-01-24, 54 NRC at 358 (stating that an "intervenor must do more than submit 'bald or conclusory allegation[s]' of a dispute with the applicant" to satisfy 10 C.F.R. § 2.309(f)(1)(vi) (internal citation omitted).[21] Furthermore, as described above, Petitioners have failed to provide support for the assertion that any additional purportedly missing information regarding long-term storage and capacity is required to be provided. Section 52.79(a)(3) simply requires that an application include the kinds and quantities of radioactive materials expected to be produced and the means of controlling and limiting effluents within the limits set forth in 10 C.F.R. Part 20. 10 C.F.R. § 52.79(a)(3). As this regulation indicates, the Commission does not dictate the duration and capacity for onsite LLRW storage that COL applicants must include nor does it require applicants to provide speculative plans based on the future availability or unavailability of an offsite disposal facility.

Similarly, Proposed Contention SAFETY-1 incorrectly states that the FSAR does not include a discussion of health impacts of onsite LLRW storage to employees. Petitioners fail to note that the EPR DCD, which is incorporated by reference into the Application, indicates that the solid waste management system, including onsite storage, "is designed to meet RG 1.143 and NUREG-0900, BTP 11-3" and General Design Criteria (GDC) 60, 61, and 63. EPR DCD at 11.4-1 to 11.4-2. RG 1.143 specifically states that "the design and construction of radioactive

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[21] Petitioners reference sections 11.4.3 and generally state that section 11 fails to provide required information. Petition at 8, 9. Petitioners do not, however, specifically reference or discuss the portions of the DCD that address the kinds of quantities of radioactive materials expected to be produced.

waste management systems . . . should provide assurance that radiation exposures to operating personnel and to the general public are as low as reasonably achievable." RG 1.143 at 1.14-3. Petitioners do not provide any facts, expert opinions, or references to indicate that the Applicant's proposed waste management program is not sufficient to protect operating personnel from long-term radiation exposure due to onsite storage of LLRW and that additional information is necessary. *See Muskogee,* CLI-03-13, 58 NRC at 203. Because Proposed Contention SAFETY-1 does not contain information to demonstrate that a genuine, material dispute exists with the Applicant regarding employee health and safety, it fails to meet the requirements of 10 C.F.R. § 2.309(f)(1)(vi).

For all of the foregoing reasons, Proposed Contention SAFETY-1 should not be admitted because it fails to raise a genuine, material dispute of fact or law and fails to show that the Application omits required information. *See* 10 C.F.R. § 2.309(f)(1)(iv), (v) and (vi).

C. Proposed Contention NEPA-2

> The ER is fatally deficient in its analysis of the effects of water pumping for the Callaway 2 plant on local groundwater and wetlands. Contrary to the report, groundwater is not confined to the vicinity but will migrate, and will not be adequately recharged due to the demands of Callaway 2; therefore the water table will fall and other users will be deprived of water.

Petition at 10. Proposed Contention NEPA-2, based upon the declaration by Dr. Robert E. Criss (filed with the Petition; ADAMS Accession No. ML090960708), alleges that the Applicant underestimates hydraulic conductivity, denies groundwater connectivity with surface water, and denies probable impacts of groundwater pumping on wetlands, springs, surface streams and wells. Petition at 10-11.

The Petitioners claim that the ER does not properly analyze the effects of the proposed plant's groundwater use, in that the Applicant overstates the ability of the area to recharge its water supply, creating a serious threat to existing groundwater users. *Id.* at 14.

Staff Response: Proposed Contention NEPA-2 is inadmissible for failure to comply with 10 C.F.R. § 2.309(f)(1)(iv), (v) and (vi).

Petitioners assert, without supporting facts, that AmerenUE's "anticipated production of nearly 100 MGD of groundwater from two huge collector wells in the Missouri alluvial aquifer is colossal . . . ." Petition at 14. Petitioners state that this production is "nearly 500 times larger than other nearby groundwater use in southern Callaway County." *Id.* However, the ER states that similar collector well systems have been constructed elsewhere along the Missouri River to produce large yields of water. ER at 2-87 (Rev. 0). Petitioners do not provide any facts or reasoned expert opinion to explain why the impacts of this collector system will be greater than similar systems. Furthermore, Petitioners do not provide any information to show that the proposed withdrawal is "nearly 500 times larger than any other groundwater use in [the] . . . County"; Petitioners do not indicate what groundwater use they are comparing to the proposed system. While Petitioners provide his declaration, Dr. Criss fails to provide a reasoned explanation for his conclusion that the collectors on the Missouri alluvial aquifer "represent[] a serious threat to existing groundwater users, because 15% of a huge number is also a huge number." Petition at 14-15. Again, Petitioners fail to identify any users or specific impacts, nor have they explained why the Applicant's conclusions regarding these impacts are flawed. Merely providing an expert does not satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(v) because "'an expert opinion that merely states a conclusion (e.g., the application is 'deficient,' 'inadequate,' or 'wrong') without providing a reasoned basis or explanation for that conclusion is inadequate because it deprives the Board of the ability to make the necessary, reflective assessment of the opinion . . . .'" *USEC Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 472 (2006) (internal citation omitted).

In addition, Petitioners' claim that there will be impacts from the proposed unit on public and private wells fails to raise a genuine dispute with the Applicant. *See* 10 C.F.R. § 2.309(f)(1)(vi). The NRC's pleading standards require a petitioner to read the pertinent

portions of the Application and supporting documents, including the FSAR and ER, state the applicant's position and the petitioner's opposing view, and explain why it has a disagreement with the applicant. *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 1 and 2) CLI-01-24, 54 NRC 349, 358 (2001) (*citing* Final Rule, 54 Fed. Reg. at 33,170 (Aug. 11, 1989)).

Here, the Application, in ER Section 5.2.1.3, states that:

> The model simulations suggest that the groundwater capacity required for Callaway Plant Units 1 and 2 can be met by the collector well system (3 collector wells pumping a combined 50,000 gpm (189,300 lpm)) within the parameter constraints reported from the pumping test results by Burns & McDonnell (Burns & McDonnell, 2008a). The model simulations also suggest that the potential impact to the alluvial and CJC [Cotter-Jefferson City] aquifers is minimal both under the simulated existing and 100-year drought conditions. The simulated drawdown and contributing recharge areas of the alluvial aquifer at the Callaway Site location are similar to the observed drawdown at the Kansas City Board of Public Utilities well field, which is a comparable collector well system that draws water from the Missouri River Alluvial Aquifer, and estimated contributing recharge areas from a USGS study of well fields in the Kansas City area. There is no anticipated impact to groundwater well users that have been identified in Section 2.3.2 as no users have been identified within the estimated contributing recharge areas.

Petitioners do not reference the Applicant's discussion of impacts. Having failed to reference the relevant portions of the Application, Proposed Contention NEPA-2 should not be admitted because of its failure to satisfy 10 C.F.R. § 2.309(f)(1)(vi).

Finally, Proposed Contention NEPA-2 does not raise a material issue. *See* 10 C.F.R. § 2.309(f)(1)(iv). Materiality requires Petitioners to "show why the alleged error or omission is of possible consequence to the result of the proceeding." *See Nuclear Management Co.* (Monticello Nuclear Generating Plant), LBP-05-31, 62 NRC 735, 748-49 (2005). Petitioners allege that the ER mischaracterizes site hydrology and concludes that the proposed project will result in "colossal" impacts and will pose a serious threat to nearby public and private wells. Petition at 14-15. However, the Commission has stated that in "NRC licensing hearings,

petitioners may raise contentions *seeking correction of significant inaccuracies and omissions* in the ER. Our boards do not sit to 'flyspeck' environmental documents or to add details or nuances." *System Energy Resources, Inc.* (Early Site Permit for Grand Gulf ESP Site), CLI-05-4, 61 NRC 10, 13 (2005). Here, as discussed above, Petitioners have failed to provide supporting facts or reasoned expert opinion to show that Proposed Contention NEPA-2 raises a significant issue that is material to the NRC's licensing decision. Simply asserting a proposed project may be colossal or may impose serious threats does not demonstrate materiality. Accordingly, NEPA-2 should be dismissed for failure to comply with 10 C.F.R. § 2.309(f)(1)(iv).

For the reasons discussed, Proposed Contention NEPA-2 should not be admitted for failure to comply with 10 C.F.R. § 2.309(f)(1)(iv), (v), and (vi).

D. Proposed Contention NEPA-3

> The Environmental Report is deficient under NEPA because it fails to discuss or analyze the incremental, cumulative impact of the filling of wetlands and encroachment on the flood plain when added to the impact of the filling of other wetlands and other losses of flood plain.

Petition at 16. Proposed Contention NEPA-3 alleges that the ER is deficient under NEPA for failure to analyze cumulative impacts to wetlands in the context of the loss of other wetlands in the region. *Id.* It also alleges that the ER says nothing about offsite wetlands impacts, and only considers cumulative impacts to onsite wetlands. *Id.*

The Proposed Contention recites a history of the Missouri River and adjoining wetlands and floodplains, stating that approximately 87% of Missouri's original 4.5 million acres of wetlands have been lost, and that 50% of the Missouri River's surface has been lost. *Id.* at 17-18. Petitioners state that "to say that the impacts are moderate or small without actually considering the impacts that went before — is the basis for this contention." *Id.* at 17.

Staff Response: The Staff opposes admission of Proposed Contention NEPA-3 with the scope proposed by the Petitioners, but agrees that it raises a question that may need to be addressed. The Staff disagrees with Petitioners' assertion that a cumulative impacts analysis

needs to look back over two centuries and the entire State of Missouri's wetlands to determine past impacts. *See* Petition at 17. Rather, a cumulative impacts analysis under NEPA considers

> the possibility that [a project's] impacts may combine in such a fashion that will enhance the significance of their individual effects. . . . In other words, cumulative impacts analysis considers whether the sum may be greater than its parts. Not all projects will have cumulative impacts. The impacts from separate actions or regions may simply not be 'environmentally inter-related.'

In re Hydro Resources, Inc. CLI-01-04, 53 NRC 31, 57-58 (2001). Furthermore,

> [c]umulative impacts are the impact on the environment which results from *the incremental impact* of the [proposed] action, when added to other past, present, and reasonably foreseeable future actions. Thus, a cumulative impacts analysis will consider whether the incremental impacts from an action will combine with preexisting environmental impacts in a fashion that will enhance the significance of their individual effects.

Hydro Resources, Inc. (P.O. Box 777, Crownpoint, NM 87313), CLI-06-29, 64 NRC 417, 422 (2006) (emphasis in original, internal quotation marks omitted.) Thus, neither the Applicant's ER nor the Staff's EIS needs to consider two centuries of impacts to the Missouri floodplain, except in the context of an increase in the proposed project's incremental impacts. Therefore, because such an exhaustive analysis is not required by the Commission's regulations, Petitioners' proffered basis for Proposed NEPA-3 does not raise a genuine dispute regarding a material issue of law or fact. *See* 10 C.F.R. § 2.309(f)(1)(vi).

The Licensing Board in *Calvert Cliffs* recently rejected a proposed contention that the applicant's ER needed to consider the cumulative "impact of 11 operational reactor units and two proposed additional nuclear power projects on the watershed of an already severely degraded and declining Chesapeake Bay whose recovery plan is currently in serious doubt . . . ." *Calvert Cliffs,* LBP-09-04, 69 NRC __ (slip op. at 39 (quoting Petition to Intervene)). In rejecting the contention, the Licensing Board cited CEQ guidance:

> 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. Agencies retain

> substantial discretion as to the extent of such inquiry and the appropriate level of explanation. *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 376-77 (1989). Generally, 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.

Id. at 41 (internal quotation omitted). The Board found that the existing and proposed reactors that Petitioners argued involved impacts cumulative to those of the proposed reactors at Calvert Cliffs were too distant for consideration in the Calvert Cliffs proceeding. Furthermore, the Board stated that "it would be inconsistent with NEPA's rule of reason to require that the cumulative impacts analysis individually analyze the effects of remote facilities absent a demonstration that such additional effort would lead to a different conclusion." *See id.* (internal citations omitted).

Similarly here, the cumulative effects that Petitioners would have considered are too remote temporally and spatially to necessitate consideration in the ER for Callaway Unit 2. Petitioners have provided information regarding historical losses of wetlands and floodplains dating back two centuries (Petition at 17-18), but Petitioners have failed to show how this supports their assertion that additional cumulative impacts analysis is necessary. *See Private Fuel Storage, LLC* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 180 (1998) (internal citation omitted) (stating that a petitioner must "provide documents or other factual information or expert opinion that set forth the necessary technical analysis to show why the proffered bases support its contention"). As stated above, nothing in the Commission's regulations requires such an exhaustive study of cumulative impacts.

Petitioners have failed to support their assertion, and the Staff opposes their claim that the ER or the Staff's EIS needs to contain an exhaustive history of the surrounding area. However, the Staff agrees that the cumulative impacts discussion in ER Section 10.5 does not discuss the cumulative impacts to wetlands. Therefore, Proposed Contention NEPA-3 is admissible as narrowed, because it meets the requirements of 10 C.F.R. § 2.309(f)(1)(i)-(vi).

E. Proposed Contention NEPA-4

> The ER is deficient in its discussion of alternatives because it overstates the need for power, understates the potential and overstates the cost of renewable energy and demand-side resources, and understates the costs of nuclear power. As a result it does not aid the Commission in its consideration of the costs and benefits of alternatives and violates NEPA.

Petition at 18. Petitioners argue that the Applicant's discussion of alternatives is deficient for a number of reasons. *See generally id.* at 18-27. Generally, Petitioners claim that the Applicant fails to adequately assess the costs of the proposed plant, "especially when compared to the alternatives of meeting the likely need for power through a modular plan . . . plus the construction of renewable energy facilities . . . ." *Id.* at 20. Petitioners divide this Proposed Contention into four parts: a.) Understated cost of Callaway 2; b.) Outdated forecast of need; c.) Deficient discussion of energy and renewable generation; and d.) Uranium supply and price. *Id.* at 18-26. Based on the discussions in these sections, Petitioners claim that "the cost-benefit assertions in the ER are heavily biased in favor of nuclear and against environmentally preferable alternatives of DSM [demand side management] and renewables." *Id.* at 27.

Petitioners argue that Proposed Contention NEPA-4 is material to the NRC's findings because 10 C.F.R. § 51.45(b)(3) requires a sufficiently complete discussion of alternatives. *Id.* at 19. To support this contention, Petitioners provide the declaration and curriculum vitae (C.V.) of Jim Harding. *See* Petition at 20 (referencing Declaration by Jim Harding in Support of Contention NEPA-4 on Need for Power and Alternatives (Harding Decl.); C.V. of Jim Harding). Mr. Harding's declaration states that he "supplied the information, expert opinion and most of the wording for Contention NEPA-4." Harding Decl. at ¶2.

Staff Response: For the reasons set forth below, the Staff opposes admission of Proposed Contention NEPA-4 for failure to meet the requirements of 10 C.F.R. § 2.309(f)(1). As discussed below, issues raised by Proposed Contention NEPA-4 are outside the scope of this proceeding. *See* 10 C.F.R. § 2.309(f)(1)(iii). In addition, many statements made by

Petitioners fail to raise a genuine dispute with the applicant, are not material to the NRC's licensing decision, and/or lack support. *See* 10 C.F.R. § 2.309(f)(1)(iv)-(vi). Before addressing the four topics identified in the Petitioners' Proposed Contention, two preliminary matters will be addressed: 1.) Petitioners' proffered expert and 2.) the scope of this proceeding.

First, the Staff notes that Petitioners have provided the expert opinion of Jim Harding to support this Proposed Contention. Mr. Harding states that he provided the information, opinions and most of the wording for this contention. Harding Decl. at 2. However, it is not clear which wording Mr. Harding supplied; Petitioners do not distinguish with references which statements were and were not made by Mr. Harding. Therefore, it is difficult to assess which opinions are his, and the bases for these opinions. Merely providing an expert does not satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(v) because "'an expert opinion that merely states a conclusion (e.g., the application is 'deficient,' 'inadequate,' or 'wrong') without providing a reasoned basis or explanation for that conclusion is inadequate because it deprives the Board of the ability to make the necessary, reflective assessment of the opinion . . . .'" *USEC Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 472 (2006) (internal citation omitted); *Entergy Nuclear Operations, Inc.* (Vermont Yankee Nuclear Power Station), LBP-04-28, 60 NRC 548, 560 n.16) (intervenor's use of an affidavit that is a wholesale endorsement of a pleading criticized because it "seriously undermines" a board's "ability to differentiate between the legal pleadings and the facts and opinions expressed by the expert."). As identified below, Proposed Contention NEPA-4 includes a number of conclusory and speculative statements that are not accompanied by a reasoned basis or explanation. Such statements, even if made by Mr. Harding, cannot support the admission of this contention.

Second, as Petitioners note, 10 C.F.R. § 51.45(b)(3) requires that the Commission consider alternatives that are "appropriate alternatives to [the] recommended course of action." Petition at 19 (citing 10 C.F.R. § 51.43(b)(3)). However, not every alternative is appropriate in an environmental analysis. Rather, the NRC will determine whether an alternative is

appropriate by looking at the stated purpose and goals for the proposed project. *See Citizens Against Burlington, Inc. v. Bussey,* 938 F.2d 190, 195 (D.C. Cir. 1991). Generally, the NRC will defer to the applicant's stated purpose and goals. *See* 68 Fed. Reg. at 55,190; *Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-05-29, 62 NRC 801, 806 (2005) (stating that "a reviewing agency should take into account the applicant's goals for the project") (internal citation omitted). *See also Bussey,* 938 F.2d at 199 ("An agency cannot redefine the goals of the proposal that arouses the call for action; it must evaluate the alternative ways of achieving its goals, shaped by the application at issue . . . ."). Therefore, alternatives considered under NEPA should be limited to those that can fulfill the applicant's stated purpose and goals. *See id.* at 195 (citing *City of Angoon,* 803 F.2d 1016, 1021 (9th Cir. 1986) ("When the purpose is to accomplish one thing, it makes no sense to consider alternative ways by which another thing may be accomplished"); *see also Vermont Nuclear Power Corp. v. Natural Resources Defense Council, Inc.* 435 U.S. 519, 551 (1978) (stating "the concept of alternatives must be bounded by some notion of feasibility"). As discussed further herein, although Petitioners argue that the Applicant's alternatives analysis is deficient, Petitioners have failed to identify an alternative that the applicant did not adequately consider or a feasible alternative that was not considered.

Like the limited scope of the alternatives analysis, the requirement to consider the economic costs of alternatives is also limited. As the Licensing Boards stated in *Shearon Harris* and *V.C. Summer*, the comparison of cost estimates are only relevant if an environmentally preferable alternative is identified. *See South Carolina Electric & Gas Co. & South Caroling Public Serv. Authority* (Virginal C. Summer Nuclear Station, Units 2 & 3), LBP-09-02, 69 NRC ___, (slip op. at 27) (Feb. 18, 2009) ("*V.C. Summer")*; Progress Energy Carolinas, Inc. (Shearon Harris Nuclear Power Plant, Units 2 & 3), LBP-08-21, 68 NRC ___, (slip op. at 25) (Oct. 30, 2008) (stating that "Commission precedent establishes that NEPA requires an applicant to

present a cost-benefit analysis . . . *only* where the Applicant's alternatives analysis indicates that there is an environmentally preferable alternative.") (emphasis in original).[22]

In *Shearon Harris,* the Board based its decision on *Consumers Power Co.* (Midland Plant, Units 1 & 2), which states that:

> [NEPA] requires us to consider whether there are environmentally preferable alternatives to the proposal before us. If there are, we must take the steps we can to see that they are implemented if that can be accomplished at a reasonable cost; i.e., one not out of proportion to the environmental advantages to be gained. But if there are no preferable environmental alternatives, such cost-benefit balancing does not take place.

Shearon Harris, LBP-08-21, 68 NRC __, (slip op. at 25) (citing *Midland,* ALAB-458, 7 NRC 155, 162 (1978)).[23]

Here, the Applicant considered DSM and a number of alternatives, including wind, geothermal, hydropower, solar power, wood waste and other biomass, municipal solid waste, energy crops, petroleum liquids, fuel cells, coal, natural gas, and integrated gasification combined cycle. ER at Sections 9.2.1., 9.2.2. The Applicant found that none of the alternatives were both viable baseload alternatives and environmentally preferable to the proposed project.

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[22] However, the Board in *Bellefonte* admitted a contention challenging cost estimates and comparisons. *See Tennessee Valley Authority* (Bellefonte Nuclear Power Plant Units 3 & 4)*,* LBP-08-16, 68 NRC at __ (slip op. at 66-69) (Sept. 12, 2008). The *Bellefonte* Board stated that because the applicant was a "federal entity for which there is no state public utility commission or other state agency that will undertake a cost/benefit analysis" and that the ER suggested a potential environmental alternative, therefore, cost considerations could be significant. *See* Memorandum and Order (Ruling Regarding Motion for Reconsideration) at 7-8 (Dec. 19, 2008). Here, the Applicant is not a federal entity and no reasonable environmentally preferable alternatives have been identified.

[23] Subsequent to the *Midland* decision, a board found that the *Midland* holding was limited to cost comparisons in the alternatives analysis and considered costs in the cost-benefits analyses. *See Public Serv. Co. of Oklahoma* (Black Fox Station, Units 1 & 2), LBP-78-26, 8 NRC 102, 162-63, *aff'd in part,* ALAB-573, 10 NRC 775 (1979), *aff'd in part and vacated in part,* CLI-08-8, 11 NRC 433 (1980). However, on review, the Appeal Board stated in dicta that the need for these considerations was doubtful "where there is a need for power from the plant and no preferable alternative from an environmental standpoint." ALAB-573, 10 NRC 775, 805 n.128. The Board in *Clinton* clarified that "cost would only come into the analytical balancing *if* the environmental impact balancing indicates that a reasonable alternative is environmentally preferable to the proposed project . . . ." *See Exelon Generation Co., LLC* (Early Site Permit for *Clinton* ESP)*,* LBP-05-19, 62 NRC 134, 179 (2005) (internal citations omitted) (emphasis in original).

See ER at Sections 9.2.1., 9.2.2, 9.2.3, & 9.2.4. Petitioners have not shown that one of the omitted alternatives is reasonable, nor have they identified an alternative that was not properly considered. Therefore, because a feasible environmentally preferable alternative has not been identified, a comparison of the costs of the proposed project and alternative generation is not material to the NRC's licensing decision and is outside the scope of this proceeding. *See* 10 C.F.R. § 2.309(f)(1)(iii), (iv).

Finally, the Commission's regulations regarding information that must be included in an ER do not specify what is adequate or sufficient. *V. C. Summer*, LBP-09-02, 69 NRC __ (slip op. at 20). Therefore, as the Board in *V.C. Summer* stated, "a contention asserting the inadequacy or insufficiency of the content of the ER cannot succeed as a challenge to an applicant's compliance with an Agency regulation so long as the ER reasonably addresses the topics that the Agency's regulations require . . . ." *Id.* Therefore, Petitioners have the burden to show that the applicant failed to reasonably consider information required by the regulations.

Each of the Proposed Contention's subsections, A-D, will be addressed in turn below in sections 1-4.

1. Understated Cost for Callaway Plant Unit 2

Here, Petitioners state that "the application must include an assessment of probable construction and operating costs, including annual cash flow, escalation and contingency estimates, and interest during construction." Petition at 20. In addition, Petitioners state that the Application should explain whether the proposed project will proceed in the event that construction work is not included in the rate base and whether the "current estimate involves substantial risk of cost escalation that is flowed through to retail customers." *Id.* at 20, 21. Furthermore, Petitioners assert that the Application should explain whether the utility and customers will bear the escalation and delay risk and should discuss financing risks due to the current economic environment. *Id.* at 21, 23. Finally, Petitioners state that the Application fails to discuss whether rate increases may endanger the future of its larger customers. *Id.* at 24.

Petitioners' assertions regarding proposed costs are unsupported, fail to raise a genuine dispute, and/or are not material to the NRC's licensing decision. *See* 10 C.F.R. § 2.309(f)(1)(iv), (v), and (vi). For example, Petitioners state the Integrated Resource Plan (IRP) levelized life cycle costs for the proposed unit "appear[s] to be substantially lower than current industry estimates." Petition at 21. *Id.* Specifically, Petitioners assert that the estimated costs for the proposed unit are below Duke Energy's current overnight cost estimate, and bids received by the Electric Energy Commission in South Africa. Petitioners do not, however, show that Duke Energy and South Africa's projected costs can be compared to those here. For example, costs can change due to plant design, the parts of construction included in the estimate, scale, construction schedules, and geographic location. Petitioners cannot simply refer to numbers and examples without setting forth their significance to the Proposed Contention and this proceeding. *See Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 & 3), LBP-04-15, 60 NRC 81, 89 (2004) (citing *Palo Verde*, CLI-91-12, 34 NRC at 155-56 ("A petitioner has the obligation to provide the analysis and expert opinion showing why its bases support its contentions . . . .").

Likewise, Petitioners refer to difficulties and failures that Dominion and Entergy had in reaching agreements on engineering, procurement, and construction contracts. Petition at 21-22. Again, Petitioners fail to show how the circumstances at Dominion and Entergy compare to AmerenUE such that these examples could be considered illustrative of the future situation at AmerenUE. Furthermore, Petitioners fail to explain how the referenced statements made by the Dominion spokesman regarding construction time of an ESBWR, which is an entirely different design from the proposed US EPR here, may indicate that the Applicant's analysis in the ER is deficient. Therefore, because Petitioners have failed to show how information regarding Dominion and Entergy is related to Callaway Plant Unit 2 and supports the Proposed Contention, Petitioners have failed to satisfy 10 C.F.R. § 2.309(f)(1)(v).

Similarly, Petitioners refer to the IRP and state that the "possibility of 3 percent escalation in cost during construction" should be "clarified and discussed in the context of numerous construction industry indices that show 8-14 percent real escalation per year in recent years, including data from American Electric Power and Cambridge Energy Research Associates." Petition at 22. Petitioners do not, however, provide a specific reference to indicate where the 8-14 percent escalation estimate can be found. *See Oconee*, CLI-99-11, 49 NRC at 337 (quoting *Public Service. Co. of New Hampshire* (Seabrook Station, Units 1 & 2), CLI-89-03, 29 NRC 234, 241 (1989) (stating the Commission "'expects parties to bear their burden and to clearly identify the matters on which they intend to rely *with reference to a specific* point'") (emphasis added). Furthermore, Petitioners fail to demonstrate how the estimated escalation cost is material, i.e., may have some significance to the decision the NRC must make. *See* 10 C.F.R. § 2.309(f)(1)(iv). *See also Monticello*, LBP-05-31, 62 NRC at 748-49 ("'Materiality' requires that the petitioner show why the alleged error or omission is of possible consequence to the result of the proceeding.").

Petitioners also assert that the application does not address financing risks given the current environment. Petition at 23. Petitioners refer to a presentation on November 13 by Stephen Maloney who stated that "long-term debt burdens will be expensive compared to recent history" and that "investments with seven-year payout will be about 2.6 times riskier than" shorter, one year investments. Petition at 23-24. Petitioners do not, however, explain how this presentation applies to or impacts the Applicant's consideration of alternatives, nor do Petitioners explain how this information supports their position that the cost-benefit assertions are biased in favor of nuclear energy. Furthermore, Petitioners do not quantify the impact the economic downturn may have on the analysis. *Compare* Petition at 23-24 *with V.C. Summer,*

LBP-09-02, 69 NRC __ (slip op. at 21 & n.80).[24] Finally, Petitioners do not refer to or provide support to indicate that those portions of the ER that consider various economic conditions are inadequate. *See* ER at 8.2.2.1, Tables 8.2.-7, 8.2-8. *See Millstone*, CLI-01-24, 54 NRC at 358 (petitioners cannot submit "'bald or conclusory allegation[s]' of a dispute with the applicant," they "must 'read the pertinent portions of the license application . . . and . . . state the applicant's position and the petitioner's opposing view.'") (internal citation omitted). Therefore, Petitioners' assertions regarding the Applicant's failure to consider financing risks in light of current economic conditions are unsupported and fail to raise a genuine dispute regarding a material issue. *See* 10 C.F.R. § 2.309(f)(1)(v) and (vi).

In addition, Petitioners assert that escalation in cost during construction should be considered, as should the potential for slippage in schedule and cost escalation based upon the experiences of Finnish and French projects. Petition at 22. Petitioners also state that the Application does not discuss "challenging supply chain issues for new US nuclear construction" and the impact this may have on cost escalation and delay. *Id.* at 23. To support this assertion, Petitioners reference details regarding a Finnish and a French project, along with two articles from *Nucleonics Week*, dated October 2008 and November 2008. *See id.* Petitioners do not, however, explain how the cost escalation issues at the Finnish and French projects relate to the proposed Callaway Plant Unit 2. Similarly, Petitioners fail to identify what the "challenging supply chain issues" are, and fail to explain how speculation regarding what Areva may or may not do in France is relevant to Callaway. Furthermore, Petitioners do not demonstrate how these issues are material to the finding the NRC must make, nor do they point to any regulatory

[24] A similar contention alleging that the Applicant failed to consider the current economic crisis in assessing the need for power was rejected by the Board in the *V.C. Summer* COL proceeding. *See V.C. Summer,* LBP-09-02, 69 NRC __ (slip op. at 21). There, the Board stated that the applicant considered different economic conditions in its ER and that the Petitioner did not provide any support to indicate that the applicant failed to "consider a sufficient economic impact, nor did Petitioner provide any analysis or definitive criticism of the applicants' analysis" or that the analysis "was improperly calculated . . . so as to be material to the outcome of the Agency's determination with regard to the license." *Id.*

requirement that would necessitate that costs and schedule information be addressed in the ER. In fact, in 2007, the Commission modified its regulations to exclude combined license applications from the requirement to specify the earliest and latest dates for completion of construction. *See* Licenses, Certifications, and Approvals for Nuclear Power Plants, 72 Fed. Reg. 49,352, 49,397 (Aug. 28, 2007).

In addition to challenging projected costs, Petitioners also seem to challenge the Applicant's business decisions. To the extent that Proposed Contention NEPA-4 challenges the Applicant's business decisions, this too is outside the scope of the proceeding. *See* 10 C.F.R. § 2.309(f)(1)(iii). For example, Petitioners assert that the Applicant should include information in its application regarding whether or not it will continue with construction in light of operating costs, cash flow, risk of cost escalation and financing, and delay. *See* Petition at 20-24. The Commission has stated that "'the NRC is not in the business of regulating the market strategies of licensees' or 'determin[ing] whether market conditions warrant commencing' operations, and that we leave to licensees the 'ongoing business decisions that relate to costs and profit.'" *Louisiana Energy Servs., L.P.* (National Enrichment Facility), CLI-05-28, 62 NRC 721, 726 (2005) (quoting *Hydro Resources, Inc.* (P.O Box 15910 Rio Rancho, NM 87174), CLI-01-04, 53 NRC 31, 48-49 (2001)). Petitioners have not pointed to any regulatory requirement mandating that this information be considered. Therefore, Proposed Contention NEPA-4 is not an admissible contention of omission; it also raises an issue that is outside the scope of this proceeding. *See* 10 C.F.R. § 2.309(f)(1)(iii), (vi).

Finally, Petitioners state that AmerenUE uses an overnight cost estimate for Callaway Plant Unit 2 which is redacted from the application. Petition at 20. Petitioners allege that the Application should describe how this redacted information can be shared. *Id.* However, Petitioners do not identity any regulatory requirement stating that this information needs to be included in the Application. Furthermore, as the Board explained in *Bellefonte,* Petitioners may file a request with the Board to issue a protective order to permit access to such information.

Bellefonte, LBP-08-16, 68 NRC __ (slip op. at 54, 69) (referencing 10 C.F.R. § 2.390). Here, Petitioners have not filed such a petition.

Therefore, for the reasons set forth above, Petitioners fail to show that the issues raised regarding the Applicant's projected costs and comparisons for Callaway Plant Unit 2 are material to the NRC's decision in this proceeding, raise a genuine dispute with the applicant, and/or support admission of this contention. 10 C.F.R. § 2.309(f)(1)(iv), (v), (vi). Accordingly, section A of Proposed Contention NEPA-4 cannot support the admission of this contention.

2. Outdated Need for Power

Section B likewise does not support admission of Proposed Contention NEPA-4 because it does not provide facts or a reasoned expert opinion, and does not raise an issue material to the findings the NRC must make. *See* 10 C.F.R. § 2.309(f)(1)(iv), (v). The need for power analysis has historically been equated "with the benefits of the proposed action" for the cost-benefit balance consideration. Nuclear Energy Institute; Denial of Petition for Rulemaking, 68 Fed. Reg. 55,905, 55,909 (Sept. 29, 2003) (internal citations to Appeal Board decisions omitted). Although a need for power analysis is required under NEPA,

> the Commission is not looking for burdensome attempts by the applicant to precisely identify future market conditions and energy demand, or to develop detailed analyses of system generating assets, costs of production, capital replacement ratios, and the like in order to establish with certainty that the construction and operation of a nuclear power plant is the most economical alternative for generation of power.

Id. at 55,910 (internal citation omitted). Furthermore, while NEPA requires a reasonable assessment of need for power, "the NRC does not supplant the States, which have traditionally been responsible for assessing the need for power generating facilities, their economic feasibility, and for regulating rates and services." *Id.* at 59,909. Forecast for need statements are only required to be "reasonable . . . in light of what is ascertainable at the time" the forecast is made. *Kansas Gas & Electric Co.* (Wolf Creek Generating Station, Unit 1), ALAB-462, 7 NRC 320, 328 (1978) (internal references omitted). *See also Clinton ESP*, LBP-05-19, 62 NRC at

166 *review den'd* CLI-05-29, 62 NRC 801 (2005), *aff'd sub nom. Envtl. Law & Policy Ctr. v. NRC,* 470 F.3d 676 (7th Cir. 2006) (stating that forecasts "must be 'judged on their reasonableness.'"). Finally, "the Commission has recognized that there may be multiple benefits to a proposed project" that must be considered in the cost-benefit balance and the Commission will consider "all reasonably foreseeable benefits of the proposed plant." *See* 68 Fed. Reg. at 55,909.

In section B of Proposed Contention NEPA-4, Petitioners claim that AmerenUE's projected need for power, increasing annually by 1.4% and 1.3%, is exaggerated. Petition at 24 (citing ER at 8-25, 8-43 to 8-44). To support this assertion, Petitioners refer to the U.S. Energy Information Administration (EIA) forecast for U.S. electric sales growth, which states that growth between 2007-2030 is only expected to be 1% per year. *Id.* at 24. Furthermore, Petitioners assert that many DSM measures can be achieved at a cost of 3 cents per kilowatt hour (kWh) or less. *Id.* Finally, Petitioners refer to a Columbia Tribune News article from March 1, 2009, and assert that the Applicant's load forecast is "largely irrelevant" because it "only intends to use 900MW of the 1600MW capacity of Callaway Unit 2 while the rest will be controlled by other utilities." *Id.*

Petitioners' assertions regarding AmerenUE's "exaggerated" need for power are not sufficiently supported. Petitioners refer to the EIA forecast for the entire United States from 2007-2030, but Petitioners do not explain how this forecast is relevant to the region-specific need for power between 2008-2020 for the proposed Callaway Plant Unit 2. Absent an explanation for how a country-wide forecast supports Petitioners' assertion regarding the adequacy of projected region specific needs, this reference cannot support the assertion that AmerenUE's need for power numbers are exaggerated. *See Millstone*, LBP-04-15, 60 NRC at 89 (citing *Palo Verde*, CLI-91-12, 34 NRC at 155-56). Similarly, because Petitioners do not provide a reference or expert opinion to show what DSM measures cost 3 cents/kWh, section B cannot support Proposed Contention NEPA-4. *See* 10 C.F.R. § 2.309(f)(1)(v); *Muskogee,* CLI-

03-13, 58 NRC at 203 (internal citation omitted). Furthermore, as discussed above, consideration of cost comparisons is outside the scope of this proceeding because no reasonable environmentally preferable alternatives to the proposed project have been identified by the Applicant or Petitioners. *See* 10 C.F.R. § 2.309(f)(1)(iii).

Similarly, Petitioners do not show why the fact that the Applicant intends to use only part of the capacity of Callaway Plant Unit 2 renders the forecast of need largely irrelevant or how this supports the assertion that the cost-benefit assertions in the ER are biased towards nuclear. *See* Petition at 24, 27. Petitioners do not demonstrate how or if this discrepancy is material to the NRC's licensing determination such that it would impact the decision to grant or deny the license application. *See* 10 C.F.R. § 2.309(f)(1)(iv). *See also Susquehanna*, LBP-07-10, 66 NRC at 24; *Grand Gulf ESP,* CLI-05-4, 61 NRC at 13 ("petitioners may raise contentions seeking correction of significant inaccuracies and omissions in the ER"). Moreover, Petitioners do not point to any facts or reasoned expert opinion to demonstrate that AmerenUE's load forecasts are unreasonable such that they may impede or preclude proper consideration of the impacts in the balancing of costs and benefits. *See Private Fuel Storage, LLC* (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 145 (2004) (internal citations omitted). Therefore, Petitioners' assertions regarding the Applicant's analysis of need for power in Section B cannot support the admission of Proposed Contention NEPA-4. *See* 10 C.F.R. § 2.309(f)(1)(v).

3. Deficient Discussion of Energy Efficiency and Renewable Generation

Petitioners argue that the "IRP is egregiously deficient in its assessment of some alternatives." Petition at 25. To support this assertion, Petitioners state that photovoltaic electricity costs were estimated to be a factor of five higher than the costs for a recent First Solar and Sunpower project. *Id.* (internal citations omitted). In addition, Petitioners note that Dow Chemical plans to sell solar roof shingles by 2011. *Id.* (internal citation to website omitted). Petitioners also assert that the Applicant puts unnecessary and unrealistic assumptions on

renewable energy. *Id.* Finally, Petitioners claim that a wind and solar combination can be used to make up 15 percent of the total generation, without serious cost or technical difficultly. *Id.* at 26 (citing Makhijani, *Carbon-Free and Nuclear-Free,* p. 168 (2007), *available at* www.ieer.org/carbonfree/CarbonFreeNuclearFree.pdf)).

None of these statements, however, provide a basis to support the admission of this contention. As discussed above, the cost of renewables are outside the scope of this proceeding because no reasonably environmentally preferable alternatives to the proposed project were identified, i.e. the alternatives cannot satisfy the purpose and goal of the proposed unit, which is to generate 1,600MWe of baseload power. *See* ER at 9-3.

In addition, Petitioners state that the Applicant assumes that renewables, such as solar, will be built on the Callaway site. *See* Petition at 25 (citing ER at 9-9 to 9-10). Contrary to Petitioners' assertion, the Applicant considered the viability of wind and solar energies for the entire AmerenUE service area; consideration of these alternatives was not limited to the Callaway site. With regard to wind, the ER states that there are no economical areas "within the AmerenUE *service territory"* and therefore, "wind is not considered to be a feasible alternative to the proposed nuclear plant at the Callaway site or within the AmerenUE service territory." ER at Section 9.2.2.1 (emphasis added). Similarly, with regard to solar power, the Applicant "look[ed] at the availability of solar resources in the AmerenUE service territory" and considered two collector types. *Id.* at Section 9.2.2.4. Like wind energy, the Applicant found that solar energy was not a feasible alternative to meet the baseload equivalence of 1,600 MWe net capacity for Callaway Plant Unit 2. *See id.* Petitioners have not shown, with facts or a reasoned expert opinion, that these analyses are flawed and that wind and/or solar technologies are a feasible alternative to the proposed project.

Furthermore, Petitioners do not provide any explanation as to why it is appropriate to compare costs of baseload generation power versus costs of intermittent power sources, such as solar. While Petitioners state that the distinction between baseload generation and

intermittent generation "is a myth," they do not explain what this means or the impact that it may or may not have on AmerenUE's analysis of alternatives. In addition, Petitioners do not explain how a reference to Dr. Makhijani's book stating that solar and wind energy may constitute up to 15% of total generation provides a basis for the admission of this contention. *See* Petition at 26. The page referenced by Petitioners discusses the potential of "wind energy resources in 12 Midwestern and Rocky Mountain states" and "[s]olar energy resources on just one percent area of the U.S." Makhijani at 168. Petitioners do not explain how this discussion relates to available wind and solar resources in the AmerenUE service territory. *See* 10 C.F.R. § 2.309(f)(1)(v).

In addition, Petitioners' assertions regarding the potential availability of Dow Chemical's future solar technologies cannot provide a basis to support admission of this contention. *See* Petition at 25. Unsupported speculative statements about what technologies may or may not be available in the future and the impact this may or may not have on energy needs and generation do not satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(v). *See Muskogee*, CLI-03-13, 58 NRC at 203. Moreover, Petitioners do not show or even allege that the availability of these technologies may render solar energy a feasible alternative for the AmerenUE service area.

Finally, Petitioners assert that AmerenUE should provide computer runs of alternative portfolios with "aggressive efforts on renewables and efficiency improvements, and are compliant with the state RPS." *Id.* at 25. Petitioners assert that the ER does not include a combination of DSM and renewables as an alternative to the proposed plant. *Id.* at 25.

The Applicant did, however, consider a number of alternatives in Chapter 9 of the ER, including solar, wind and DSM. The Applicant did not find that any of the alternatives considered were feasible. With Regard to DSM, the Applicant found, consistent with Commission findings, that it was not a feasible alternative for the additional baseload generation capacity that will be provided by Callaway Plant Unit 2. *See* ER at 9.2.2; *Clinton,* CLI-05-29, 62 NRC at 806 (stating DSM "is not a reasonable alternative that would advance the goals of the

Exelon project" to create baseload power). Furthermore, the Applicant acknowledges that alternatives may be possible but that "[a]ny alternative or combination of alternatives would be *required to generate the same baseload capacity*" as the proposed plant. ER at Section 9.2.3.3 (emphasis added). Combinations analyzed by the Applicant in the IRP are discussed in Section 8.4 of the ER. *See id*. Petitioners do not provide any information to demonstrate that their suggested combination alternative will provide sufficient energy to meet the purpose and goal of the proposed plant, i.e., 1,600 MWe. Furthermore, Petitioners do not reference the Applicant's combination alternatives analysis nor do they provide any facts or reasoned expert opinion to suggest that the Applicant's consideration of combination alternatives is flawed. *See* 10 C.F.R. § 2.309(f)(1)(vi). These bare, unsupported assertions cannot support the admission of this contention. *See Muskogee*, CLI-03-13, 58 NRC at 203.

Finally, Petitioners fail to provide any information to indicate that, if the requested computer runs using more aggressive efforts were generated, they might have a material impact on the analysis of feasible alternatives. *See Susquehanna*, LBP-07-10, 66 NRC at 24; *Monticello*, LBP-05-31, 62 NRC at 748-49 ("'Materiality' requires that the petitioner show why the alleged error or omission is of possible consequence to the result of the proceeding."). Therefore, because Petitioners fail to provide support to suggest that the proposed alternative is a reasonable means to generate 1,600 MWe of baseload power, section C of Proposed Contention NEPA-4 cannot support admission of the Proposed Contention. *See* 10 C.F.R. § 2.309(f)(1)(iv), (v), (vi).

4. Uranium Supply and Price

Petitioners assert that the Applicant does not consider the cost and economic recoverability of its fuel. Petition at 26. Petitioners refer to a Keystone Center report, and state that current global consumption of uranium "is substantially below production capacity . . . ." *Id.* However, Petitioners fail to provide any information regarding the report, e.g., author, title, date, and the referenced website, www.keystone.org, is to the Keystone Organization's website, not

to the report or even a list of publications. Petitioners cannot simply refer to a report without providing information on how to access it and without providing an analysis and supporting evidence as to why this report provides a basis to support the admission of this contention. *See Muskogee,* CLI-03-13, 58 NRC at 204.

Similarly, Petitioners reference statements made by a RBC Capital Markets analyst stating that the price of uranium is too low, which could impact future supply, and jeopardize new reactors because equity markets may be unwilling to fund exploration and development. Petition at 26-27 (citing Nucleonics Week, Sept. 25, 2008). Absent an explanation for how this prediction may impact Callaway Plant Unit 2, this individual's speculation regarding the future status of the uranium market cannot support the admission of this contention. *See Muskogee,* CLI-03-13, 58 NRC at 203. *See also Louisiana Energy Servs., L.P.* (Claiborne Enrichment Center), LBP-91-41, 34 NRC 332, 359 (stating that absent a showing for how a newspaper article was linked to Petitioner's contention, reference to the article was "too vague to support the contention.").

Therefore, section D of Proposed Contention NEPA-4 cannot support admission of this contention. *See* 10 C.F.R. § 2.309(f)(1)(v).

Conclusion: As explained above, Proposed Contention NEPA-4 should not be admitted for failure to comply with the Commission's contention admissibility requirements. First, considerations regarding costs comparisons, company business decisions and strategies, and alternatives that were not found to be feasible are not within the scope of this proceeding. *See* 10 C.F.R. § 2.309(f)(1)(iii). Furthermore, as identified above, many of the Petitioners' assertions fail to raise a genuine dispute regarding a material issue of law or fact because Petitioners fail to reference and take issue with specific sections of the ER or fail to show why an allegedly missing piece of omission is required by law. *See* 10 C.F.R. § 2.309(f)(1)(vi). In addition, Petitioners have failed to meet criterion (iv) because they have not shown that many of the issues raised are material to the findings the NRC must make such that they may impact the

grant or denial of a license. *See* 10 C.F.R. § 2.309(f)(1)(iv); *Susquehanna*, LBP-07-10, 66 NRC at 24 (internal citations omitted). Finally, Petitioners have failed to provide sufficient information to support conclusory and speculative assertions. *See* 10 C.F.R. § 2.309(f)(1)(v); *Muskogee,* CLI-03-13, 58 NRC at 203. Even if made by an expert, such statements cannot support the admission of this contention. *See USEC,* CLI-06-10, 63 NRC at 472.

F. Proposed Contention NEPA-5

> The ER is deficient in that it has not been supplemented to take into account the passage of Proposition C, the Renewable Energy Standard, which requires UE to supply 15% of its retail sales from renewable sources by 2021. Prop C must be considered in the ER because it materially affects UE's need for nonrenewable power and the available alternatives.

Petition at 27. Proposed Contention NEPA-5 alleges that the ER is deficient in that it does not consider the adoption of Proposition C, which "require[s] investor-owned electric utilities to generate or purchase electricity from renewable energy sources such as solar, wind, biomass and hydropower with the renewable energy sources equaling at least 2% of retail sales by 2011 increasing incrementally to at least 15% by 2021, including at least 2% from solar energy; and restricting to no more than 1% any rate increase to consumers for this renewable energy . . . ." Secretary of State, Missouri, "2008 Initiative Petitions Approved for Circulation in Missouri."[25]

The Proposed Contention goes on to allege that the adoption of Proposition C also changes the proposed project's need for power analysis because "[a] 15% renewable energy requirement will substantially offset the need for nonrenewable supply to satisfy projected load growth." Petition at 29. Lastly, the Petitioners allege that a "discussion of Prop C is necessary for a complete statement of the status of compliance with applicable state environmental quality standards required by § 51.45(d). *Id.*

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[25]Available at http://www.sos.mo.gov/elections/2008petitions/08init_pet.asp#2008031 (Accessed on April 17, 2009).

Staff Response: Proposed Contention NEPA-5 is inadmissible for failure to raise an issue within the scope of this proceeding, as required by 10 C.F.R. § 2.309(f)(1)(iii). Also, with the exception of one citation to 10 C.F.R. § 51.45(d), Proposed Contention NEPA-5 does not identify why allegedly omitted information is required in the application, as required by 10 C.F.R. § 2.309(f)(1)(vi). Lastly, alleged errors and omissions in Proposed Contention NEPA-5 do not raise any issues material to the NRC's licensing decision, and thus do not satisfy 10 C.F.R. § 2.309(f)(1)(iv). Therefore, Proposed Contention NEPA-5 should not be admitted.

1. Proposed Contention NEPA-5 raises issues outside the scope of this proceeding.

This Proposed Contention alleges that the ER is deficient for failure to reference and consider a recently adopted Missouri state law, the "Renewable Energy Standard [RES]," V.A.M.S. § 393.1020-1035 (2009). Compliance with the RES, however, is outside the scope of this proceeding; thus, Proposed Contention NEPA-5 is inadmissible.

In a recent Commission case affirming rejection of a similar claim, the Commission found that a licensing board "correctly explained that the NRC's adjudicatory process was not the proper forum for investigating alleged violations that are primarily the responsibility of other Federal, state, or local agencies." *PPL Susquehanna LLC* (Susquehanna Steam Electric Station, Units 1 and 2), CLI-07-25, 66 NRC 101, 105. Therefore, *a fortiori*, the NRC adjudicatory process is also not an appropriate forum to allege an applicant's potential future failure to comply with state law, as the Petitioners request here. *Id.*; *see also Hydro Resources, Inc.* (Coors Road, Suite 101, Albuquerque, NM 87120), CLI-98-16, 48 NRC 119, 121 (1998) ("[W]e direct the Presiding Officer not to adjudicate questions of Navajo, EPA, or state and local regulatory jurisdiction. Those bodies are responsible for determining whether to require a permit under their own law and for initiating appropriate enforcement action.").

The Proposed Contention concludes by stating in part that "[t]his contention is within the scope of the proceeding because an ER that is, through omission, inaccurate and misleading

results in a legally insufficient COLA." Petition at 29. However, as discussed above, compliance with state law and enforcement of state law is the province of state authorities. While the construction and operation of a nuclear power plant implicates the jurisdictions of several different federal, state and local agencies, the NRC adjudicatory process cannot hear issues outside the scope of its own jurisdiction. *See Susquehanna Steam Electric Station,* CLI-07-25, 66 NRC at 105.

Therefore, Proposed Contention NEPA-5, in alleging that the ER is deficient for failure to consider the recently enacted RES Missouri state law, is inadmissible for failure to raise an issue within the scope of this proceeding. 10 C.F.R. § 2.309(f)(1)(iii).

2. Proposed Contention NEPA-5 is inadmissible because it does not raise a genuine dispute with the Applicant, and does not state why information allegedly omitted in the ER is required.

The Petitioners claim that the ER is deficient because it does not reference or analyze the RES in its need for power, environmental quality standard compliance, and alternative action discussions. Petition at 28-29. However, the Petitioners have not cited to any requirement as to why the ER[26] needs to include the RES in its need for power discussion. While the Petitioners do cite to 10 C F.R. § 51.45(d) as requiring a list of the status of compliance with environmental quality standards, they do not explain how the RES falls into that category, or, even if applicable, how that alleged omission is relevant to the licensing decision that the NRC must make. Lastly, the Petitioners point to 10 C.F.R. § 51.45(b)(3) for the proposition that the RES is material to this proceeding, but the Proposed Contention does not reference any portion of the Applicant's alternatives analysis, let alone explain why it is

[26] The Staff does not take a position as to whether and to what extent the RES will be discussed in its EIS. The Staff is currently reviewing the Applicant's ER, and will make that decision through the issuance of its EIS.

insufficient, or where the RES should have been discussed, but was not. Therefore, Proposed Contention NEPA-5 is inadmissible for failure to satisfy 10 C.F.R. § 2.309(f)(1)(iv) and (vi).

The Petitioners claim that the ER is also deficient because the need for power analysis does not discuss the RES. Petition at 29. However, Petitioners point to no requirement why the ER's need for power statement should discuss this state law, in contravention of 10 C.F.R. § 2.309(f)(1)(vi) for contentions of omission. *See Id.* While the Petitioners reference two portions of the Applicant's need for power discussion in Chapter 8 of the ER, they do not explain where the RES fits into the Applicant's power demand, power supply, need for power analysis. *See also* NUREG-1555, "Standard Review Plan for the Environmental Review of Nuclear Power Plants," Section 8. Therefore, the claim that the ER's need for power analysis is deficient for failure to consider the RES is inadmissible.

The Petitioners also claim that the ER is deficient because compliance with the RES is not listed in the ER's 10 C.F.R. § 51.45(d) status of compliance statement. Petition at 29. That regulation provides in part that "[t]he environmental report shall also include a discussion of the status of compliance with applicable environmental quality standards and requirements including, but not limited to, applicable zoning and land-use regulations, and thermal and other water pollution limitations or requirements which have been imposed by Federal, State, regional, and local agencies having responsibility for environmental protection." The Petitioners, however, do not explain how the RES falls into the category of "environmental quality standards." The RES is a state law that requires increasing amounts of electrical generation from renewable energy sources. It appears inapposite to the sorts of standards discussed in § 51.45(d), such as zoning, land-use, and pollution requirements. However, even if the RES is a necessary inclusion for a 10 C.F.R. § 51.45(d) status of compliance statement, the Petitioners have not shown that such an alleged error or omission is material to the Commission's licensing decision, as required by 10 C.F.R. § 2.309(f)(1)(iv). *See Susquehanna Steam Electric Station, Units 1 and 2*, LBP-07-10, 66 NRC at 24 (July 27, 2007) ("To be admissible, the regulations

require that all contentions assert an issue of law or fact that is material to the outcome of a licensing proceeding, meaning that the subject matter of the contention must impact the grant or denial of a pending license application.")

Finally, the Petitioners claim that the ER is deficient in its failure to discuss the RES because 10 C.F.R. § 51.45(b)(iii) requires that a "discussion of alternatives shall be sufficiently complete to aid the Commission in developing and exploring, pursuant to section 102(2)(E) of NEPA, 'appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.'" However, the Petitioners make no reference whatsoever to the Applicant's alternatives discussion (found in Chapter 9 of the ER and constituting some 111 pages). Other than to claim that the ER should but does not contain a discussion of the RES, there is no reference at all to the alternatives discussion in the ER. This does not comply with 10 C.F.R. § 2.309(f)(1)(vi). Therefore, this Proposed Contention should not be admitted.

A petitioner is required to "provide sufficient information to show that a genuine dispute exists . . . includ[ing] references to specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief." 10 C.F.R. § 2.309(f)(1)(vi). Here, the claim that the ER is deficient because it does not reference the RES in its need for power, environmental quality standard compliance, or alternative action discussions does not satisfy this requirement. With respect to the alleged omission in the 10 C.F.R. § 51.45(d) status of compliance statement, even if required, the Petitioners have not shown why such an alleged omission is relevant to the Commission's licensing decision. Therefore, Proposed Contention NEPA-5 should not be admitted for failure to satisfy 10 C.F.R. § 2.309(f)(1)(iv) and (vi).

G. Proposed Contention NEPA-6

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

Petition at 30. Petitioners argue that the Commission's definition of construction in 10 C.F.R. § 50.10(a) "circumvents NEPA" because it allows applicants to perform activities such as excavation before an EIS is completed. *Id.* at 30. Petitioners assert that allowing applicants to perform "any act of construction" is illegal and deprives the public of its due process rights. *Id.* at 31. Petitioners claim that if construction activities are permitted prior to the completion of an EIS, then an "undeniable bias toward central baseload plant construction" is created and this "precludes substantive consideration of any other decentralized alternatives such as wind, solar, geothermal or energy conservation." *Id.* at 30. Finally, Petitioners assert that "[i]f UE were allowed to irretrievably commit to the project by investing in partial construction prior to completion of an EIS, then the NEPA process would be rendered meaningless. *Id.* at 32. Petitioners argue that "failure to follow the procedural requirements of NEPA . . . constitutes irreparable injury." *Id.* at 33 (internal citation omitted). Therefore, to avoid harm to the public's interest, Petitioners request that the Commission ensure that "no construction activity whatsoever" be undertaken before a final EIS is completed and a preferred alternative selected. *Id.* at 32.

Staff Response: The Staff opposes admission of Proposed Contention NEPA-6 because it is an impermissible attack on a Commission regulation and because it fails to satisfy the contention admissibility requirements in 10 C.F.R. § 2.309(f)(1).

1. Proposed Contention NEPA-6 is inadmissible because it is an impermissible attack on a Commission regulation.

Proposed Contention NEPA-6 impermissibly attacks the Commission's definition of construction in 10 C.F.R. § 50.10. *See* 10 C.F.R. § 2.335; *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, & 3), CLI-99-11, 49 NRC 328, 334 (1999) ("a petitioner may not demand an adjudicatory hearing to attack generic NRC requirements or regulations or to express generalized grievances about NRC policies."). Section 50.10 defines construction as:

> the driving of piles, subsurface preparation, placement of backfill, concrete, or permanent retaining walls within an excavation, installation of foundations, or in-place assembly, erection, fabrication, or testing, which are for:
>
> (i) Safety-related structures, systems, or components (SSCs) of a facility, as defined in 10 C.F.R. 50.2;
>
> (ii) SSCs relied upon to mitigate accidents or transients or used in plant emergency operating procedures;
>
> (iii) SSCs whose failure could prevent safety-related SSCs from fulfilling their safety-related function;
>
> (iv) SSCs whose failure could cause a reactor scram or actuation of a safety-related system;
>
> (v) SSCs necessary to comply with 10 C.F.R. part 73;
>
> (vi) SSCs necessary to comply with 10 C.F.R. 50.48 and criterion 3 of 10 C.F.R. part 50, appendix A; and
>
> (vii) Onsite emergency facilities, that is, technical support and operations support centers, necessary to comply with 10 C.F.R. 50.47 and 10 C.F.R. part 50, appendix E.

10 C.F.R. § 50.10(a)(1). Alternatively, activities excluded from this definition include, for example, site exploration, excavation, site clearing, grading, and building of service facilities. 10 C.F.R. § 50.10(a)(2). As the Commission explained, pre-construction activities like excavation, logging, clearing of land, and grading were specifically excluded from the definition of construction because the Commission does not have statutory authority to regulate these activities. Limited Work Authorizations for Nuclear Power Plants, 72 Fed. Reg. 57,416, 57,420

(Oct. 9, 2007). Construction is defined in accordance with the Commission's authority to regulate, which is limited to activities that have "an impact upon radiological health and safety or common defense and security." *See id.*

Nonetheless, Petitioners challenge section 50.10, arguing that this definition of construction circumvents NEPA because it allows activities such as excavation to take place before completion of a final EIS and selection of a preferred alternative. *See* Petition at 30. Petitioners request that, contrary to this rule, the Commission should ensure there are no construction activities, such as excavation, prior to the issuance of a final EIS. *See* Petition at 30, 33.

Such an attack on the Commission's regulations is only permitted where a waiver is explicitly granted or an exception is made for a particular proceeding. 10 C.F.R. § 2.335(a), (b). The Commission has specified that "[t]he sole ground for petition of waiver or exception is that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation . . . would not serve the purposes for which the rule or regulation was adopted." 10 C.F.R. § 2.335(b). The Commission requires that any request for such waiver or exception "be accompanied by an affidavit that identifies . . . the subject matter of the proceeding as to which application of the rule or regulation . . . would not serve the purposes for which the rule or regulation was adopted." *Id.* Additionally, "[t]he affidavit must state with particularity the special circumstances alleged to justify the waiver or exception requested." *Id.* Petitioners have failed to establish that they meet any of these requirements imposed by the Commission. Petitioners have not submitted an affidavit explaining why a waiver is appropriate nor have they established that application of 10 C.F.R. 50.10 to this particular proceeding would not serve the purpose for which the rule was adopted. *See* Petition at 30-33.

Therefore, because Proposed Contention NEPA-6 constitutes an attack on a Commission regulation, and a waiver or exception has not been granted, this contention should not be admitted. *See* 10 C.F.R. § 2.335; *Oconee*, CLI-99-11, 49 NRC at 334.

2. Proposed Contention NEPA-6 fails to meet the contention admissibility requirements in 10 C.F.R. § 2.309(f)(1)(iii)-(vi).

Proposed Contention NEPA-6 is also inadmissible because it fails to meet the contention admissibility requirements set forth in 10 C.F.R. § 2.309(f)(1)(iii), (iv), (v), and (vi). Here, Petitioners allege that the Commission's regulations circumvent NEPA and that the Commission should ensure that no construction activities occur before a final EIS is issued. Petition at 30. This Proposed Contention raises an issue outside the scope of this proceeding. *See* 10 C.F.R. § 2.309(f)(1)(iii). As set forth in the Commission's notice of opportunity for hearing, this proceeding is limited to consideration of AmerenUE's application for a COL. AmerenUE; Notice of Hearing and Opportunity to Petition for Leave to Intervene and Order Imposing Procedures for Access to Sensitive Unclassified Non-Safeguards Information and Safeguards Information for Contention Preparation on a Combined License for the Callaway Plant Unit 2, 74 Fed. Reg. 6064 (Feb. 4, 2008). Nowhere in this Proposed Contention do Petitioners mention AmerenUE's COL application. Rather, Petitioners generally attack a Commission regulation.

Similarly, Proposed Contention NEPA-6 does not meet the materiality requirements of 10 C.F.R. § 2.309(f)(1)(iv). In order for a contention to be admissible, issues raised "must be material to the grant or denial of the license application in question, i.e., they must make a difference in the outcome of the licensing proceeding so as to entitle the petitioner to cognizable relief." *Private Fuel Storage, LLC* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 179-80 (1998). As discussed above, Proposed Contention NEPA-6 generally challenges a Commission regulation but does not provide any information to demonstrate that the issue raised in Proposed Contention NEPA-6 is material to the NRC's decision to grant or deny AmerenUE's COL. *See* 10 C.F.R. § 2.309(f)(1)(iv).

In addition, Petitioners fail to provide any supporting facts or expert opinion to support its position. *See* 10 C.F.R. § 2.309(f)(1)(v). Petitioners assert, without supporting authority, that the conduct of any acts of construction is illegal and unconstitutional and that the NRC should ensure that no construction takes place prior to the issuance of a final EIS. Petition at 31, 33. Contrary to Petitioners' assertion, as the Commission explained, "the NRC does not possess statutory authority to regulate activities that do not have an impact upon radiological health and safety or common defense and security, and NEPA does not provide independent statutory authority to extend the agency's jurisdiction solely for the purpose of assuring that adverse environmental impacts are considered and mitigated." 72 Fed. Reg. at 57,420. The Commission cannot, as the Petitioners request, extend its jurisdiction to "private, preparatory actions, solely for the purpose of agency consideration of the environmental impacts." 72 Fed. Reg. at 57,420.

In addition, Petitioners allege that the commitment of resources to what the Commission defines as pre-construction activities circumvents the NEPA process. *Id.* at 32. Petitioners speculate that allowing an applicant to perform activities such as excavation before an EIS is completed is a "*de facto* selection of a central baseload nuclear power plant." *Id.* at 30. Petitioners do not, however, provide any facts or expert opinion to support these assertions as required by 10 C.F.R. § 2.309(f)(1)(v). Unsupported and speculative statements regarding possible future impacts from non-NRC regulated activities and the Commission's regulation of the NEPA process cannot support the admission of this contention. *Oyster Creek*, CLI-00-06, 51 NRC at 208.

Finally, Contention NEPA-6 does not demonstrate a material dispute with the application. Section 2.309(f)(1)(vi) requires a petitioner to provide sufficient information to demonstrate that a genuine dispute exists with the applicant *by referencing specific portions of the ER or Application*. 10 C.F.R. § 2.209(f)(1)(vi). Petitioners do not reference the Application or ER anywhere in Contention NEPA-6. *See* Petition at 30-33.

For the reasons set forth above, Proposed Contention NEPA-6 fails to meet the requirements of 10 C.F.R. § 2.309(f)(1)(iii)-(vi) and, therefore, should not be admitted.

H. Proposed Contention NEPA-7

> The applicant's Environmental Report has omitted adequate analysis of the various long-term environmental impacts of highly radioactive wastes that would be generated by Callaway Plant Unit 2, given the Areva Evolutionary Power Reactor's (EPR) high burn-up irradiated nuclear fuel.

Petition at 33. Petitioners state that an Early Site Permit (ESP) application pertaining to a US EPR design has never been filed, and, therefore, statements in the ER referencing conclusions regarding ESP applications are not applicable to this proceeding. *Id.* at 34 (quoting ER at Section 5.7.6). Petitioners also argue that because high burn-up fuel was not considered at the time the NRC created NUREG-0116, it, too, may not be applicable in this proceeding. *See id.* Thus, Petitioners argue that the Applicant improperly relies on NUREG-0116. *See id.* at 39. To support these assertions, Petitioners reference a report by Posiva, a Finnish nuclear utility. *See id.* at 35, 39 (citing Posiva, "Expansion of the Repository for Spent Nuclear Fuel Environmental Impact Assessment Report" (2008) (Posiva)).

In addition, Petitioners allege that AmerenUE has not adequately addressed the specific radionuclide composition of the high burn-up irradiated fuel and the potential environmental, health and safety impacts it may have. *Id.* at 35. Furthermore, Petitioners argue that AmerenUE's failure to adequately address thermal heat production and increased radioactivity content from high-burn up fuel means that its consideration of safety and security risks from onsite storage is also inadequate and flawed. *Id.* Petitioners list a number of risk scenarios and safety considerations that it claims should have been considered and conclude that the increased thermal content of high burn-up fuel could increase risk probabilities and accident consequences. *Id.* at 35-36. In addition, Petitioners raise numerous concerns regarding fuel canisters. *Id.* at 36-38. Petitioners suggest that the Applicant should be required to perform risk analyses specific to Areva high burn-up irradiated fuel. *Id.* at 36.

Petitioners state that the basis for Proposed Contention NEPA-7 is that the ER does not satisfy the requirements of 10 C.F.R. § 51.45 and does not take a "hard look" at environmental effects. *Id.* at 39. Petitioners argue that Proposed Contention NEPA-7 is within the scope of this proceeding because the ER is inaccurate and misleading, which renders the COL Application legally insufficient. *See id.*

Staff Response: The Staff opposes admission of Proposed Contention NEPA-7 because it fails to meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1) and because it is an impermissible challenge to the Commission's regulations.

1. Proposed Contention NEPA-7 is not an admissible contention of omission.

An admissible contention must show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact, identify either specific portions of, or alleged omissions from, the application, and provide supporting reasons for the petitioner's position. 10 C.F.R. § 2.309(f)(1)(vi). A petitioner must submit more than "'bald or conclusory allegation[s]' of a dispute with the applicant, but instead "must 'read the pertinent portions of the license application . . . and . . . state the applicant's position and the petitioner's opposing view.'" *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 & 3), CLI-01-24, 54 NRC 349, 358 (2001), *pet. for reconsid. denied*, CLI-02-01, 55 NRC 1 (2002) (citing Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,170-71 (Aug. 11, 1989)).

Here, Petitioners argue that without consideration of the information that they believe to be missing from the ER that document is not sufficiently complete and accurate to satisfy the requirements of 10 C.F.R. § 51.45, and that an ER that is incomplete and misleading results in a legally insufficient COL Application. Petition at 39. However, the information that Petitioners believe to be missing is, in fact, included in the ER. Table 5.7-1 at ER page 5-104 – 5-105, "NRC Table S-3 of Uranium Fuel Cycle Environmental Data (a) Compared to the U.S. EPR

Configuration (Normalized to Model LWR Annual Requirement (WASH-1248) or Reference Reactor Year (NUREG-0116))" and Tables 5-11-1 through 5.11-8, ER pages 5.11-150 through 5.11-157, furnish the information that Petitioners allege to be missing.

Also, Petitioners state that the basis of Proposed Contention NEPA-7 is that the ER does not satisfy the requirements of 10 C.F.R. § 51.45, which sets forth general requirements for Environmental Reports. In this regard, the Staff would point out that the specific environmental requirements for ERs at the combined license stage are in 10 C.F.R. § 51.50(c), which states "that each environmental report shall contain the information specified in 10 C.F.R. §§ 51.45, 51.51, and 51.52, as modified in this paragraph. For other than light-water-cooled reactors, the environmental report shall contain the basis for evaluating the contribution of the environmental effects of fuel cycle activities for the nuclear power reactor." The US EPR is a light-water-cooled reactor and, thus, need not meet environmental requirements beyond those set forth in 10 C.F.R. § 51.50(c). Petitioners' arguments to the contrary are not supported, and challenge NRC regulations. *See* 10 C.F.R. § 2.335.

For the foregoing reasons, Proposed Contention NEPA-7 is an inadmissible contention of omission and fails to raise a genuine, material dispute with the Application because Petitioners have failed to show that the Application does not include required information. Therefore, Proposed Contention NEPA-7 should not be admitted for failure to comply with 10 C.F.R. § 2.309(f)(1)(vi).

2. Proposed Contention NEPA-7 constitutes an impermissible attack on the Commission's regulations.

Petitioners' argument that NUREG- 0116, which supports Table S-3, is not applicable to this proceeding because it does not address the fuel that is planned for use in Callaway Plant Unit 2, is an attack on a Commission regulation; namely 10 C.F.R. § 51.51. An attack on a Commission regulation is not permitted in adjudicatory proceedings unless a waiver is explicitly granted or an exception is made for a particular proceeding. 10 C.F.R. § 2.335(a), (b). The

Commission has specified that "[t]he sole ground for petition of waiver or exception is that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation . . . would not serve the purposes for which the rule or regulation was adopted." 10 C.F.R. § 2.335(b). The Commission requires that any request for such waiver or exception "be accompanied by an affidavit that identifies . . . the subject matter of the proceeding as to which application of the rule or regulation . . . would not serve the purposes for which the rule or regulation was adopted." *Id.* Additionally, "[t]he affidavit must state with particularity the special circumstances alleged to justify the waiver or exception requested." *Id.*

Here, Petitioners have failed to establish that they meet any of these requirements. Petitioners have not submitted an affidavit explaining why a waiver is appropriate nor have they established that application of the Commission's regulation to this particular proceeding would not serve the purpose for which the rule was adopted.

Petitioners' argument concerning casks, both for transporting irradiated fuel away from the reactor and disposal casks, is also an attack on NRC regulations, namely Table S-4, 10 C.F.R. § 51.52, "Environmental Impact of Transportation of Fuel and Waste to and from One Light-Water-Cooled Nuclear Power Reactor," which specifically sets out those impacts. These arguments also attack Table S-3, 10 C.F.R. § 51.51. As discussed above with regard to Table S-3, such an attack is not permitted in adjudicatory proceedings absent a waiver pursuant to 10 C.F.R. § 2.335(a), (b).

Finally, Petitioners rely on statements in Posiva's "Environmental Impact Assessment" on expansion of its repository, which is an attachment to Petitioners' filing, for an assessment of the consequences of disposing of spent nuclear fuel "with a significantly higher discharge burn-up." Posiva at 137. Their concerns include defective canisters and "gaseous and or volatile radioactivity." However, as Petitioners note, Posiva acknowledges that "the results received from using the model have not been compared with experimental results, but the model is

believed to overestimate the share of immediately released isotopes. The increase in the quantity of released iodine would still not lead to exceeding the dose limits in the case of canisters with a manufacturing defect." Posiva at 137. Posiva's disclaimer undercuts Petitioners' concerns. In any event, Petitioners' attempt to discredit NUREG-0116 with the findings in the Posiva report is to no avail, as the Petitioners have not shown why the claims in the Posiva report (properly understood, as discussed above) are material to the licensing decision before the Commission. Therefore, Petitioners' assertion fails to meet the materiality requirements of 10 C.F.R. § 2.309(f)(1)(iv) and constitutes an attack on Commission regulations; a waiver or exception has not been granted. *See* 10 C.F.R. § 2.335; *Oconee*, CLI-99-11, 49 NRC at 334. Accordingly, for the reasons set forth above, Proposed Contention NEPA-7 should not be admitted.

I. Proposed Contention NEPA-8

> The COL must be held in abeyance pending the rulemaking on the Proposed Waste Confidence Decision and Proposed Temporary Spent Fuel Storage Rule because the license cannot be granted in compliance with NEPA nor with confidence in the ability to safely store spent fuel until those matters are resolved.

Petition at 40. In Proposed Contention NEPA-8, the Petitioners assert that Commission consideration of the Callaway COL Application must be held in abeyance pending rulemaking on the Waste Confidence Decision Update, 73 Fed. Reg. 59,551 (Oct. 9, 2008) (Waste Confidence Update) and the proposed rule, "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). The Petitioners claim that this is because the Commission cannot issue a combined license to the Applicant in compliance with NEPA prior to completion of the above rulemakings. Petition at 40-41. The Petitioners state that they do not seek to litigate their proposed contention in this individual proceeding, but that the Board should admit the contention and hold it in abeyance in order to avoid the necessity of a premature judicial

appeal if the case concludes before the NRC has completed the rulemaking proceeding. Petition at 41-42.

Staff Response: Proposed Contention NEPA-8 is inadmissible because it challenges ongoing, general rulemakings and existing rules. It is also outside the scope of this proceeding, and fails to provide a concise statement of the alleged facts or expert opinions that support the Petitioners' position on the issue. It likewise fails to show that a genuine dispute exists with respect to the application on a material issue of law or fact. *See* 10 C.F.R. § 2.309(f)(1). Consistent with the licensing board's recent order in *Bellefonte* (Ruling on Request to Admit New Contention) (April 29, 2009; ADAMS Accession No. ML091190393), Proposed Contention NEPA-8 should not be admitted.

1. The Proposed Contention is inadmissible because it challenges ongoing, general rulemakings and existing rules.

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 at 345 (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. Here, Petitioners make an argument challenging ongoing, general rulemaking proceedings. They even acknowledge that their contention raises generic issues. Petition at 41. Thus, if the Petitioners wish to take issue with the Commission's Waste Confidence Update and Temporary Storage positions, the proper venue is the rulemaking process, not the adjudicatory process. *See* 10 C.F.R. § 2.335; *see also Oconee,* CLI-99-11, 49 NRC at 345.

In addition, the Petitioners note that in letters to the Commission dated March 27, 2009, and March 31, 2009, they endorsed the February 6, 2009, comments submitted by several groups to the Commission regarding the proposed rulemakings (comments available at ADAMS Accession No. ML090680891; letters attached to the Petition available at ADAMS Accession Nos. ML090960721 and ML090960719.) If the Petitioners wish to make additional comments concerning the Commission's proposed rules, the proper forum for such comments is the rulemaking process, not this licensing proceeding. *See* 10 C.F.R. § 2.335.

Pursuant to 10 C.F.R. § 2.335, an NRC regulation may not be attacked in an adjudicatory proceeding unless the petitioner requests a waiver and meets the following standards for a waiver of, or exception to, the regulation:

> The sole ground for petition of waiver or exception is that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation (or a provision of it) would not serve the purposes for which the rule or regulation was adopted. The petition must be accompanied by an affidavit that identifies the specific aspect or aspects of the subject matter of the proceeding as to which the application of the rule or regulation (or provision of it) would not serve the purposes for which the rule or regulation was adopted. The affidavit must state with particularity the special circumstances alleged to justify the waiver or exception requested.

10 C.F.R. § 2.335(b). In explaining these standards in the *Millstone* license renewal proceeding, the Commission held, among other things, that a waiver or exception could only be appropriate if the alleged special circumstances were "'unique' to the facility rather than 'common to a large class of facilities.'" *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 560 (2005). Here, the Petitioners do not address the § 2.335 standards, and the issue they raise is not unique to the Callaway Application but, instead, represents a generic attack on current and pending generic regulations per the Petitioners' own claim. *See* Petition at 41-42. Very recently, the licensing board in the *Bellefonte 3 and 4* proceeding rejected an almost identical contention as an impermissible challenge to ongoing Commission rulemaking. *See Bellefonte* (Ruling on Request to Admit

New Contention) (April 29, 2009) *slip op*. at 12. Therefore, Proposed Contention NEPA-8 should not be admitted.

The Petitioners also state that they do not seek to litigate this contention in this proceeding, but request that "the contention should be admitted and held in abeyance in order to avoid the necessity of a premature judicial appeal . . . ." Petition at 41. However, the suggestion that the contention should be held in abeyance does not make it admissible, nor does it exempt it from the requirements of 10 C.F.R. § 2.309(f)(1).

2. Proposed Contention NEPA-8 is Inadmissible as it is Outside the Scope of this Proceeding.

Proposed Contention NEPA-8 "also seeks to enforce the requirement of [NEPA] that generic determinations under NEPA must be applied to individual licensing decisions and must be adequate to justify those individual decisions." Petition at 40. Petitioners claim that the Commission must finalize the Waste Confidence Update and Temporary Storage rules so that they can be applied to the Callaway COL Application. Petition at 41. However, licensing boards have repeatedly stated that the adjudicatory process is not the proper forum in which to attack the rulemaking process. *See* 10 C.F.R. § 2.335; *see also Pub. Serv. Co. of New Hampshire*, (Seabrook Station, Units 1 and 2), LBP-82-76, 16 NRC 1029, 1035 (1982) (citing *Peach Bottom*, ALAB-216, 8 AEC at 20-21).

The Petitioners cite little case law to support their argument that generic determinations under NEPA must be applied to individual licensing decisions, although they do cite *Baltimore Gas and Elec. Co. v. Natural Res. Def. Council*, 462 U.S. 87 (1983) for that proposition. Petition at 40-41. Contrary to what the Petitioners argue, this case does not stand for the proposition that the NRC would violate NEPA if it issued a licensing decision on the Callaway Plant Unit 2 proceeding prior to issuance of final Waste Confidence and Temporary Storage rules. The Court's decision states that:

> [a]s *Vermont Yankee* made clear, NEPA does not require agencies to adopt any particular internal decision-making 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. Thus, this Proposed Contention is outside the scope of *this* proceeding and is, therefore, inadmissible. *See* 10 C.F.R. § 2.309(f)(1)(iii). In any event, 10 C.F.R. § 2.335 precludes admission of proposed Contention NEPA-8 as a challenge to ongoing agency rulemaking.

3. Proposed Contention NEPA-8 is inadmissible because it fails to provide a concise statement of alleged facts or expert opinions which support the Petitioners' position and because it fails to provide sufficient information to show that a genuine dispute exists with the Applicant.

The Petitioners claim that Proposed Contention NEPA-8 is based in part on expert opinions of "Dr. Arjun Makhijani, President of the Institute for Energy and Environmental Research [IEER]" and "Dr. Gordon R. Thompson, Executive Director of the Institute for Resource and Security Studies [IRSS]." Petition at 45-46. However, the Petitioners do not rely upon these expert opinions to dispute any specific aspect of the Callaway Application. Nor do the Petitioners state how these expert opinions support their assertions that the Waste Confidence Update and Temporary Storage rules are inadequate. *See Id.* At 45-46. The Petitioners merely cite the existence of these expert declarations, but fail to show how these expert opinions form the basis for their argument. Instead, the Petitioners state:

> In support of this contention, MCE and MSE rely on the facts, expert opinion, and documentary resources set forth in the attached IEER Comments and Thompson Report. The IEER Comments and Thompson Report contain sufficient information to show that MCE and MSE have a genuine dispute with the Applicant and with the NRC . . . ."

Petition at 49. Nowhere does the proposed contention set out what the alleged facts or expert opinions that support the Petitioners' position on the issue are. Rather, all that the Petitioners

provide is an unsupported, bald conclusion. See *Tennessee Valley Authority* (Browns Ferry Nuclear Plant, Units 1 and 2), LBP-76-10, 3 NRC 209, 216 (1976). Likewise, Proposed Contention NEPA-8 does not provide sufficient information to show that these opinions create a genuine dispute with the Applicant on a material issue of law or fact. Therefore, consistent with the recent *Bellefonte* decision, Proposed Contention NEPA-8 should not be admitted as it fails to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi).

J. Proposed Contention MISC-1

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

Petition at 47. Proposed Contention MISC-1 alleges that there is "no complete, accepted and certified design" for the U.S. EPR, and that the NRC must therefore either delay a hearing on the Callaway Plant Unit 2 COL Application until a design certification rulemaking is complete, or hold an adjudicatory hearing on the entire application, including the contents of the EPR application for design certification. Petition at 50. According to the Petitioners, holding a hearing on the COL Application while the design certification application is pending "would deprive [them] of a fair and meaningful opportunity for a hearing on the Callaway Application, in violation of the Atomic Energy Act [AEA; 42 U.S.C. § 2011 et seq], the Administrative Procedure Act [5 U.S.C. § 1001 et seq], NEPA, and the NRC's own regulations. Petition at 47.

Petitioners state that the content of the EPR standard design "has yet to be established." *Id.* at 48. For this reason, the Petitioners claim that any hearing notice issued in this proceeding will fail to specify the "chief 'issues of . . . law' that must be included in the hearing notice," therefore violating the APA. *Id.* Further, the Petitioners allege that the NRC cannot comply with NEPA unless the Application includes "a certified reactor design that may be analyzed in context." *Id.* at 49. Finally, the Petitioners argue that there is no certainty that the Applicant will proceed with a reactor of an EPR design at all, and that this uncertainty represents a denial of the Petitioners' due process rights. *Id.*

Staff Response: Proposed Contention MISC-1 is inadmissible, as it represents an impermissible challenge to NRC regulations, it challenges established Commission policy and case law, and its due process claims represent an incorrect reading of applicable law.

The proposed contention challenges an NRC regulation, found in 10 C.F.R. § 52.55(c), which explicitly permits a combined license 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.[27] A 2008 *Federal Register* final policy 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); *Luminant Generating Co., LLC* (Comanche Peak Nuclear Power Plant, Units 3 & 4), (Order) (Apr. 27, 2009) (ADAMS Accession No. ML091170518). Finally, Commission policy complies with all applicable legal requirements and provides the Petitioners with the opportunity for a fair and meaningful hearing, and the NRC may determine generic issues in rulemaking, rather than through litigation in individual cases. *See Massachusetts v. NRC,* 522 F.3d 115, 119 (1st Cir. 2008).

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[27] 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 undergoing modification by amendment. Only one combined license application references a design that has been certified and that is not currently undergoing revision. *See* http://www.nrc.gov/reactors/new-reactors/col.html.

1. Proposed Contention MISC-1 represents an impermissible challenge to Commission regulations.

NRC regulations include 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 design for which a design certification application has been docketed but not granted." 10 C.F.R. § 52.55(c). Proposed Contention MISC-1 represents a direct challenge to the regulation itself and is therefore inadmissible. 10 C.F.R. § 2.335(a).

2. Proposed Contention MISC-1 violates Commission policy and 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; Proposed Contention MISC-1 does not challenge the general applicability of this approach. Examining this overall approach, which has been upheld in Federal courts over several decades,[28] is important in explaining the rationale behind NRC's policy with regard to standard design certifications. The purpose of using the rulemaking process for standardized design certifications 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.[29] 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.

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[28] *See, e.g.*, *Baltimore Gas & Elec. Co. v. NRDC*, 46 US 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."). S*ee 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).

[29] In the case of the US EPR design, the NRC has received four combined license applications that incorporate this standardized design for plants at Calvert Cliffs in Maryland, Bell Bend in Pennsylvania, Nine Mile Point in New York, and the Callaway site in Missouri.

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 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. 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). 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, if they are otherwise admissible. 73 Fed. Reg. at 20,972. Such contentions would eventually be dismissed if the final rule is adopted, but could become active litigation issues in the event that an applicant chose to proceed with an uncertified design (for example, if the design certification were delayed or denied). *Id.*

In Proposed Contention MISC-1, 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." Petition at 48. As stated above, standard design issues are resolved by rulemaking rather than adjudication not for convenience, but because they are generic to multiple facilities. The Commission's policy is to resolve generic

issues by means of general rules that are binding on all affected facilities, rather than to conduct multiple adjudicatory proceedings that might lead to contradictory results. When such a rulemaking is planned to resolve a class of issues, the Commission's policy is to direct interested members 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 contents of the EPR design "ha[ve] 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. Petition at 49. Despite the Petitioners' claims, however, there is no such ambiguity about the contents of the Callaway COL application or the EPR DCD. The first chapter of the Applicant's FSAR notes that it references the EPR design, a document with fixed content that is readily available to the public by way of the NRC's public web site or public document room.[30] Although the COL Application may be revised at a later date, either because of project-specific changes or because the Applicant decides to reference a subsequent version of the EPR, or even another standardized design,[31] there is no ambiguity regarding the content of the Application. 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. *Curators of the University of Missouri* (Byproduct License No. 24-00513-32; Special Nuclear Materials License No. SNM-

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[30] *See* Callaway Plant Unit 2 combined license application at: http://www.nrc.gov/reactors/new-reactors/col/callaway.html. Callaway Unit 2 FSAR, Chapter 1, available at ADAMS Accession No. ML090860223. The NRC's public document room is located at NRC headquarters in Rockville, MD. Further information, including hours and access information, can be found at http://www.nrc.gov/reading-rm/pdr.html.

[31] Should such changes occur, the Petitioners would have the opportunity to file late-filed contentions concerning the changes pursuant to Commission regulations found in 10 C.F.R. §§ 2.309(c) and (f)(1) and (2).

247), CLI-95-08, 41 NRC 863, 395 (1995) (The Commission has consistently held that an application may be modified or improved as the Staff's review goes forward).

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); *Comanche,* slip op. at 1. 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 for the Westinghouse Advanced Passive 1000 (AP1000) design certification amendment. The AP1000 has previously received a design certification, codified in 10 C.F.R. Part 52, Appendix D. Such proceedings are contemplated in the regulations and do not justify the remedy that the Petitioners request.

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 inconsistent with the AEA and APA, and that the NRC is limited to either postponing the adjudication on the Callaway Plant Unit 2 COL Application until it completes the rulemaking on the EPR design certification application, or to offer an adjudicatory hearing on the entire COL Application, including the EPR design certification application that is incorporated by reference into the COL Application. Petition at 50. Any other course of action, the Petitioners claim, would be a denial of the Petitioners' due process rights. *Id.* at 49.

These arguments misconstrue the Commission's statutory and regulatory obligations. NRC COL application and DCD review processes do not violate the Petitioners' due process rights. The Commission's Policy Statement on New Reactor Licensing complies with all applicable legal requirements, including those of the APA, the AEA, NEPA, the NRC's licensing regulations, and previous precedent.

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

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, G, and L.[32] The Petitioners have not disputed the availability of these two procedural approaches, nor have they disputed the broad NRC policy of resolving generic issues through rulemaking rather than adjudication, nor have they disputed 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, 52.55, 52.85. Proposed Contention MISC-1 is instead directed at a much narrower question – that of the status of a design certification application that has been docketed but for which no final rule has yet been issued. The APA itself contains no provisions that prohibit this policy, 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 is violated by the NRC's chosen DCD and COL application review processes. The Callaway Plant Unit 2 environmental review will be based on the proposed construction and operation of a nuclear power plant described in the Application,

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[32] The APA 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).

including the referenced EPR design. If the Applicant withdraws the Application, decides to proceed in the absence of a design certification rulemaking as a customized design, 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 Petitioners' 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 Callaway Application is not ambiguous and does not present any unique procedural problems that would prevent review 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. *Curators of the University of Missouri*, CLI-95-08, 41 NRC at 395.

Accordingly, the Staff disagrees with the Petitioners' claim that commencing the proceeding before the design certification is complete would be a denial of their 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. For these reasons, Proposed Contention MISC-1 should not be admitted.

K. Proposed Contention NEPA-9

> The ER is deficient for failing to address the potentially catastrophic environmental effects of a terrorist attack against the Callaway 2 plant.

Petition at 50. Petitioners argue that the ER is deficient because it fails to address the potential environmental effects from a terrorist attack against the proposed plant. *Id.* Proposed Contention NEPA-9 states that the Commission's position not to consider the potential environmental impacts of terrorist attacks is unreasonable. *Id.* at 52. Petitioners argue that the

NRC does not have "a reasonable basis to claim that the environmental impacts of terrorist attacks" are not required under NEPA. *Id.* at 52.

The basis for this contention, as stated by Petitioners, is AmerenUE's failure to include an analysis of direct, indirect, and likely cumulative impacts of the proposed action, including potential terrorist attacks. *Id.* at 52-53. Petitioners assert that this missing analysis is material to the Commission's findings because the environmental impacts of potential terrorist attacks "are among the most devastating imaginable." *Id.* at 53.

Staff Response: As set forth below, the Staff opposes admission of Proposed Contention NEPA-9 because Petitioners have failed to identify any basis for departing from Commission precedent regarding the need to consider potential environmental impacts from terrorist attacks. As discussed below, Proposed Contention NEPA-9 should be dismissed for failure to satisfy the contention admissibility requirements set forth in 10 C.F.R. § 2.309(f)(1)(iii), (iv), (v), and (vi).

Here, Petitioners challenge the Commission's policy regarding the need to consider potential environmental effects from a terrorist attack. Petitioners state that prior to 2001, the Commission did not require an assessment of the potential environmental impacts from a terrorist attack because attacks were not reasonably foreseeable. Petition at 50 (citing *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-01-35, 54 NRC 403, 446 (2001).[33] Petitioners assert that since the attacks on September 11, 2001, it is unreasonable not to consider the potential environmental impacts of a terrorist attack. *See*

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[33] The Board decision cited by Petitioners rejected the Staff's position that terrorist attacks need not be considered under NEPA because they are not foreseeable. *Savannah,* LBP-01-35, 54 NRC at 446. Therefore, the Board admitted Petitioners' contention stating that the "ER fails to analyze the foreseeable impacts of malevolent acts of terrorism and insider sabotage causing a beyond-design-basis accident." *Id.* at 444, 447 (internal citation omitted). The Board's decision to admit this contention was subsequently reversed and the Commission clearly stated that "the NRC has no obligation under NEPA to consider intentional malevolent acts." *Duke Cogema Stone & Webster* (Savannah River Mixed Fuel Oxide Fuel Fabrication Facility), CLI-02-24, 56 NRC 335, 338, 339 (2002).

Petition at 50. In addition, Petitioners assert that "actions taken by the NRC indicate that the agency may now believe attacks on nuclear facilities are reasonably foreseeable." *Id.* at 52. To support this contention, Petitioners refer to the Court of Appeals for the Ninth Circuit decision in *San Luis Obispo Mothers for Peace v.* NRC, 449 F.3d 1016 (9th Cir. 2006), *cert. denied* __ U.S. __, 127 S. Ct. 1124 (2007), which held that the Commission is required to analyze the environmental impacts of terrorist attacks in its NEPA review. *Id.* at 52.

However, as the contention recognizes, in response to the *Mothers for Peace* decision, the Commission stated that its intention is to conduct an analysis of potential environmental impacts from terrorist attacks only *where Ninth Circuit precedent binds the NRC* to do so. *See Oyster Creek*, CLI-07-08, 65 NRC at 126, 128-29. As Ninth Circuit precedent is not controlling in this proceeding on the Callaway COL Application, the Ninth Circuit's decision does not apply.

Petitioners submit that this policy to limit the Ninth Circuit's ruling only to instances where Ninth Circuit precedent is binding is unreasonable. Petition at 52. Petitioners do not, however, provide any support, other than generally stating the reasons set forth in *Mothers for Peace,* for why this policy should not be applied here, nor do Petitioners show that the allegedly missing information is required by law. *See* 10 C.F.R. § 2.309(f)(1)(vi). *See also Tennessee Valley Authority* (Bellefonte Nuclear Power Plant Units 3 & 4), LBP-08-16, 68 NRC __ (Sept. 12, 2008) (slip op. at 30) (holding a similar contention in the *Bellefonte* COL proceeding did not "present a genuine dispute regarding a material issue of law or fact") (internal citation omitted). Similarly, Petitioners assert that consideration of terrorist attacks is material because these impacts are "among the most devastating possible," but, have not provided support to demonstrate that this issue is material to this proceeding such that it would "impact the grant or denial of a pending license application." *See* 10 C.F.R. § 2.309(f)(1)(iv); *Susquehanna LLC*, LBP-07-10, 66 NRC at 24.

As the Licensing Board in the *Bellefonte* COL proceeding explained, "the Commission has made clear its position that a NEPA analysis is not the vehicle for exploring questions about

the potential for a terrorist attack upon a proposed nuclear facility . . . [and] [t]he board is in no position to reconsider these legal rulings by the Commission." *Bellefonte*, LBP-08-16, 68 NRC at __ (slip op. at 30) (citing *Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), LBP-07-3, 65 NRC 237, 269 & n.16 (2007)). Furthermore, the Commission has explained the fact that the NRC takes actions to address safety of nuclear facilities against the risk of terrorism does not mean that, in licensing proceedings, a review of the environmental impacts of terrorist attacks is also necessary under NEPA. *See, e.g., Amergen Energy Co.* (License Renewal for Oyster Creek Generating Station), CLI-07-08, 65 NRC 124, 130-31 (2007), *petition for review den'd New Jersey Dep't of Environmental Protection v. NRC,* No. 07-2271, slip op. at 7 (3rd Cir. filed Mar. 31, 2009) (internal citation omitted) (stating "precautionary actions to guard against a particular risk do not trigger a duty to perform a NEPA analysis"); *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-02-24, 56 NRC 335, 338-39 (2002).

Finally, Petitioners do not mention the recent decision from the Third Circuit Court of Appeals upholding the agency's position that NEPA "'imposes no legal duty on the NRC to consider intentional malevolent acts' because such acts are 'too far removed from the natural or expected consequences.'" *New Jersey Dep't of Environmental Protection*, slip op. (3rd Cir. filed Mar. 31, 2009) (quoting *Oyster Creek,* CLI-07-8, 65 NRC 124, 129 (2007) (internal citation omitted)). The Court also noted that "no other circuit has required a NEPA analysis of the environmental impact of a hypothetical terrorist attack." *Id.* at 26-27 (internal citations omitted).

Therefore, Proposed Contention NEPA-9 is inadmissible because it fails to raise an issue within the scope of this proceeding, that is material, and raises a genuine dispute. *See* 10 C.F.R. § 2.309(f)(1)(iii), (iv), & (vi). Furthermore, Petitioners have failed to provide any support to show that the Commission's policy regarding the need to consider the potential environmental effects from a terrorist attack should not apply to the instant proceeding. *See* 10 C.F.R. § 2.309(f)(1)(v).

CONCLUSION

For the reasons set forth above, the Staff submits that the Licensing Board should grant the Petition because Petitioners have established standing and have proffered an admissible contention.

Respectfully submitted,

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Dated at Rockville, Maryland
this 1st day of May, 2009

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
	)	
UNION ELECTRIC COMPANY	)	Docket No. 52-037-COL
d/b/a AmerenUE	)	
	)	
(Callaway Plant Unit 2)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of NRC STAFF ANSWER TO PETITION TO INTERVENE AND REQUEST FOR HEARING IN CALLAWAY PLANT UNIT 2 COMBINED CONSTRUCTION AND OPERATING LICENSE APPLICATION copies have been served upon the following persons by Electronic Information Exchange and electronic mail this 1st day of May, 2009:

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