UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
PROGESS ENERGY CAROLINAS, INC.	)	Docket Nos. 52-022 COL
	)	52-023 COL
	)	
(Shearon Harris Nuclear Power Plant,	)	
Units 2 and 3)	)	

NRC STAFF ANSWER TO "PETITION FOR INTERVENTION AND REQUEST FOR HEARING BY THE NORTH CAROLINA WASTE AWARENESS AND REDUCTION NETWORK

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INTRODUCTION

Pursuant to Title 10 of the *Code of Federal Regulations* (C.F.R.) § 2.309(h)(1), the staff of the Nuclear Regulatory Commission (Staff) hereby answers the North Carolina Waste Awareness and Reduction Network (NC WARN or Petitioner) "Petition for Intervention and Request for Hearing" (Petition) filed in the Shearon Harris Nuclear Power Plant combined license proceeding. For the reasons set forth below, the Nuclear Regulatory Commission (NRC or Commission) staff does not oppose NC WARN's standing to intervene, or its admission as a party to this proceeding; NC WARN has demonstrated representational standing and has submitted one admissible contention.

BACKGROUND

Progress Energy Carolinas, Inc. (PEC or Applicant) submitted an application dated February 18, 2008, for a combined license for two Westinghouse AP1000 nuclear power plants (Units 2 and 3) at the Shearon Harris site (Harris COLA), to be located in Wake County, North Carolina.

On June 4, 2008, a Notice of Hearing and Opportunity to Petition to Intervene for the Harris COLA was published in the Federal Register. *See* "Progress Energy Carolinas, Inc.; Notice of Hearing and Opportunity for Leave to Petition 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 Shearon Harris Units 2 and 3," 73 Fed. Reg. 31,899 (June 4, 2008).

On June 24, 2008, NC WARN filed a "Motion to Immediately Suspend Hearing Notice and Request for Expedited Consideration," seeking to suspend the Notice of Hearing because it believed that the Harris COLA was incomplete, pending Applicant responses to "data requests and other open schedule issues concerning Harris Lake and its water levels, alternative water sources, the impacts on aquatic species and transportation impacts," and until "[t]he Commission completes its certification of the AP1000 reactors, revision 16, and any resulting modifications are incorporated into the design and operational practices at the Shearon Harris Nuclear Power Plant . . . Units 2 and 3."

On July 23, 2008, the Commission issued a Memorandum and Order denying NC WARN's motion to suspend the hearing notice. *Progress Energy Carolinas, Inc.* (Shearon Harris, Units 2 and 3) CLI-08-15 slip op. (2008). As to NC WARN's first argument, the Commission rejected the position that the Harris COLA is incomplete, noting that Staff requests for additional information concerning the Harris COLA do not imply that the application is incomplete. Rather, when the Commission docketed the application, it was necessarily found to be sufficiently complete for review. The Commission also rejected NC WARN's second argument, that the hearing notice should be suspended pending completion of the AP 1000, Revision 16 (AP 1000 R16) design certification process, relying upon 10 C.F.R. § 52.55(c), which explicitly permits a COL application to reference an application for a certified design that has been docketed but not approved, further noting that a petitioner may generally not challenge Commission regulations in licensing proceedings. *See* 10 C.F.R. § 2.335(a) (2008). On August 4, 2008, NC WARN served the present Petition via electronic mail (e-mail) and U.S. mail. On August 6, 2008, the Petition was filed via the Commission's E-Filing system.[1, 2, 3]

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[1] As a preliminary matter, the Staff notes that this petition was not timely filed using the E-Filing system. The Commission's regulations require that documents filed in Commission adjudicatory proceedings are to be electronically transmitted through the E-Filing system. 10 C.F.R. § 2.302(a); 72 Fed. Reg. 49,139 (Aug. 28, 2007). This rule is applicable to new proceedings noticed on or after October 15, 2007. 72 Fed. Reg. 49,139. A participant can be exempt from electronic filing upon a finding of good cause by the Commission or presiding officer. 10 C.F.R. § 2.302(g)(3). The request for an exemption must be made with the first filing in the proceeding or after the first filing in the proceeding if the requestor shows that the interests of fairness so require. 10 C.F.R. § 2.302(g)(4). The E-Filing rule is not satisfied when a participant files by attaching the document to an e-mail. 72 Fed. Reg. at 49,144. E-mail does not (continued. . .)

DISCUSSION

In its Petition, NC WARN asserts that it has standing to intervene based upon its representation of several of its members, and in its own right. NC WARN proposes eleven contentions, which it summarizes as follows:

> a. The design and operating procedures are not in the COLA.
> b. Progress Energy's track record of fire violations at the existing Harris reactor is suspect.
> c. The COLA does not consider aircraft attacks and/or the impacts of fires from aircraft attacks.[4]
> d. The proposed Harris reactors depend on dangerous high-density spent fuel pools.
> e. Uranium is not a reliable fuel.
> f. Progress Energy has underestimated the cost of the proposed Harris reactors.
> g. The COLA does not address the carbon footprint of the reactor cycle.
> h. The COLA does not fully address the water requirements of the proposed reactors.
> i. The emergency planning for the proposed reactors is deficient.

(. . .continued)

suffice when one who wishes to intervene has not applied for, and been granted, an exemption from E-Filing. *See Dominion Nuclear Connecticut, Inc.* (Millstone Power Station, Unit No. 3) 2008 NRC LEXIS 76 (2008) (ADAMS Accession No. ML081070143). The Notice of Hearing for the Harris COLA specifically included the E-filing requirements. *See* 73 Fed. Reg. at 31899-31900. NC WARN's failure to follow the E-filing procedures is grounds for rejection of their petition. *See, e.g., Amergen Energy Co*. (Three Mile Island Nuclear Station, Unit 1), 2008 NRC LEXIS 80 (2008) (ADAMS Accession No. ML081550359) (The Secretary denied a petition to intervene for, among other reasons, failure to e-file).

[2] In addition to eleven contentions, NC WARN's Petition states that it "adopts its motion [to immediately suspend the hearing notice] and supplement by reference, and supported by Contention TC-1 below, herein requests that the Commission reconsider its Memorandum and Order." Petition at 7. To the extent that the above language constitutes a motion for reconsideration, it is lacking in several respects, and should be denied.

The Petition's caption makes no reference to a motion for reconsideration, as required. *See Duke Power Co.* (Cherokee Nuclear Station, Units 1, 2, and 3), ALAB-457, 7 NRC 70 (1978). Further, the Petition fails to include the required certification that the movant has made a sincere effort to contact other parties in the proceeding and resolve the issue(s) raised in the motion. *See* 10 C.F.R. § 2.323(b). Lastly, NC WARN has also failed to first request leave of the presiding officer to file such a motion, or to make a showing of compelling circumstances, as required by 10 C.F.R. § 2.323(e). Thus, to the extent that language in the Petition constitutes a motion for reconsideration of the Commission's decision denying NC WARN's motion to suspend the notice of hearing, the motion should be denied. The Staff will not respond further to this "motion" unless directed to do so by the Board or the Commission.

[3] On pages seven through eleven of the Petition, NC WARN discusses various aspects of the Atomic Energy Act (AEA, 42 *United States Code* (U.S.C.) § 2011 et seq.), the National Environmental Policy Act (NEPA, 42 U.S.C. § 4321 et seq.), and NRC regulations. Because NC WARN does not therein seek any relief, or address legal standards applicable to the present petition, the Staff will not address NC WARN's discussion unless directed to do so by the Board.

[4] While aircraft attacks and fires from aircraft attacks are coupled in the Petition's summary, they are later presented as two distinct proposed contentions, labeled TC-3 and TC-4. *See* Petition at 12, 24-33.

j. The problem of the disposal of high-level waste has not been resolved.

Petition at 2. As explained below, NC WARN has established standing to intervene, and has submitted one admissible contention. Accordingly, NC WARN may properly participate in this proceeding.

I. LEGAL STANDARDS

A. Standing to Intervene

In accordance with the Commission's Rules of Practice:[5]

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

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

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

Id.

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

> (i) The name, address and telephone number of the requestor or petitioner;
> (ii) The nature of the requestor's/petitioner's right under the [AEA] 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"

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

> 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. 555, 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 licensing 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 proposed plant. *See, e.g.*, *Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 148 (2001).[6] The Commission noted this practice with approval, stating that:

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

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

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

NRC staff submits that 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 would appear, in general, to apply to such applications. *See e.g. Virginia Elec. & Power Co., d/b/a/ Dominion Virginia Power and Old Dominion Elec. Coop.* (COL for North Anna Unit 3), LBP-08-15, slip op. at 8.

An organization may establish its standing to intervene based upon a theory of organizational standing (showing that its own organizational interests could be adversely affected by the proceeding), or representational standing (based upon the standing of its members). Where an organization seeks to establish representational standing, it must show that at least one of its members may be affected by the proceeding, it must identify that member by name and address and it must show that the member "has authorized the organization to represent him or her and to request a hearing on his or her behalf." *See, e.g.*, *Consumers Energy Co.* (Palisades Nuclear Power Plant), CLI-07-18, 65 NRC 399, 409 (2007); *Amergen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), LBP-06-07, 63 NRC 188, 195 (2006) (citing *GPU Nuclear Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 202 (2000)).

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 may 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)).

"Organizations seeking to intervene in their own right must satisfy the same standing requirements as individuals seeking to intervene. This is because an organization, like an individual, is considered a 'person' as we have defined that word in 10 C.F.R. § 2.4 and as we have used it in 10 C.F.R. § 2.309 regarding standing." *Palisades*, 65 NRC at 411. "For an organizational petitioner to establish standing, it must show either immediate or threatened

injury to its organizational interests or to the interests of identified members. An organization seeking to intervene in its own right . . . to establish organizational standing . . . must demonstrate a palpable injury in fact to its organizational interests that is within the zone of interests protected by the AEA or NEPA." *Crow Butte Res., Inc.,* (citations omitted; internal quotation marks omitted) (License Amendment for the North Trend Expansion Project), 2008 NRC LEXIS 31, 47-48 (2008).

B. Legal Requirements for Contentions

1. General Requirements

The legal requirements governing the admissibility of contentions are well established and are currently set forth in 10 C.F.R. § 2.309(f) of the Commission's Rules of Practice (formerly 10 C.F.R. § 2.714(b)).[7]

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

[7] In 2004, the Commission codified the requirements of former § 2.714, together with rules regarding contentions set forth in Commission cases, in 10 C.F.R. § 2.309. *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 Atomic Licensing 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.

case when the application is alleged to be deficient, the identification of such deficiencies and supporting reasons for this belief. *See* 10 C.F.R. § 2.309(f).[8]

Sound legal and policy considerations underlie the Commission's contention requirements. The purpose of the contention rule is to "focus litigation on concrete issues and result in a clearer and more focused record for decision." 69 Fed. Reg. at 2202; *see also Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519, 553-54 (1978); *BPI v. AEC*, 502 F.2d 424, 428 (D.C. Cir. 1974); *Phila. Elec. Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20 (1974). The Commission has stated that it "should not have to expend resources to support the hearing process unless there is an issue that is appropriate for, and susceptible to, resolution in an NRC hearing." 69 Fed. Reg. at 2202. The

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[8] Section 2.309(f) provides:

> (f) Contentions.
>
> (1) A request for hearing or petition for leave to intervene must set forth with particularity the contentions sought to be raised. For each contention, the request or petition must:
>
> (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) through (f)(2).

Commission has emphasized that the rules on contention admissibility are "strict by design." *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001), *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; *Ariz. Pub. Serv. Co. et al.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155-56 (1991). "Mere 'notice pleading' does not suffice." *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 requiring a would-be intervener to establish the basis of each proposed contention is: (1) to assure that the contention raises a matter appropriate for adjudication in a particular proceeding; (2) to establish a sufficient foundation for the contention to warrant further inquiry into the assertion; and (3) to put other parties sufficiently on notice of the issues so that they will know generally what they will have to defend against or oppose. *Peach Bottom*, ALAB-216, 8 AEC at 20-21; *Ariz. Pub. Serv. Co., et al.* (Palo Verde Nuclear Generating Station, Units 1, 2 and 3), LBP-91-19, 33 NRC 397, 400 (1991). The *Peach Bottom* decision requires that a contention be rejected if:

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

Peach Bottom, 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, and 3), CLI-99-11, 49 NRC 328, 334 (1999). For example, "a petitioner may not demand an adjudicatory hearing to attack generic NRC requirements or regulations or to express generalized grievances about NRC policies." *Id.* Specifically, NRC regulations do not allow a contention to attack a regulation unless the proponent requests a waiver from the Commission. *See* 10 C.F.R. § 2.335; *Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), *Entergy Nuclear*

Generation Co. (Pilgrim Nuclear Power Station), CLI-07-3, 65 NRC 13, 17-18 and n.15 (2007) (citing *Millstone*, CLI-01-24, 54 NRC at 364).

II. NC WARN HAS ESTABLISHED REPRESENTATIONAL STANDING

NC WARN claims to have representational standing to intervene in this proceeding by a demonstrated injury-in-fact to some of its members who have authorized it to represent them in this matter. Petition at 5 and Attachment to the Petition (Attachment) A. These individuals are: Elizabeth Anne Cullington, Beverly Ann D'Aquanni, Judith A. Elzinga, Gina Gaurisas-Wilson, Hugh B. Haskell, Judith Ann Hogan, Meribeth Lorrain Howlett, Patricia V. Long, Vernelle P. Long, Mark Edward Mintz, Gary Phillips, Audrey Bernier Schwankl, James Patrick Schwankl, Katherine P. Seaton, and Richard Wilson (collectively, NC WARN Declarants). Petition at 5.

In order to establish representational standing, an organization must demonstrate, among other things, that its members would otherwise have standing to participate in their own right and that at least one of its members has authorized it to represent the member's interests. *See Palisades*, CLI-07-18, 65 NRC at 409. NC WARN satisfies the representational standing requirement through each of the fifteen individuals named in the Petition. The NC WARN Declarants have provided virtually identical affidavits, each asserting that he or she is a member of NC WARN, lives within fifty miles of the Shearon Harris Nuclear site, and authorizes NC WARN to represent him or her in this proceeding. Attachment A.

NC WARN 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. The Petitioner describes itself as a "grassroots nonprofit organization using science and activism to reduce hazards to public health and the environment from nuclear power and other polluting electricity production." Petition at 3. This interest is germane to the interests of its members that NC WARN seeks to protect, where the NC WARN Declarants each stated that:

> [b]ased on the history of nuclear reactors to date, I believe that the proposed reactors are inherently dangerous. The construction of one or more new nuclear reactors so close to my home could pose a grave risk to my health and safety, and my economic well-being. I am deeply concerned that an accident could release

> radioactive material into the atmosphere or my drinking water, and if that were to occur, I could be killed or become seriously ill.

Attachment A. Because all of the NC WARN Declarants have established standing to intervene in their own right, and have authorized NC WARN, whose organizational interests are germane to those whom it would represent, to represent their interests in this proceeding, NC WARN has satisfied the standards for representational standing set forth in *Palisades*, CLI-07-18, 65 NRC at 409. Therefore, the NRC staff does not object to NC WARN's representational standing to intervene.[9]

III. NC WARN HAS SUBMITTED ONE ADMISSIBLE CONTENTION.

As discussed below, NC WARN has submitted one admissible contention. Because NC WARN has demonstrated representational standing and has submitted at least one admissible contention, NC WARN should be admitted as a party to this proceeding, limited to adjudication of the portion of Proposed Contention 7 concerning the stated cost of the proposed Units 2 and 3, compared to the proposed cost of the reactors at the Levy County, Florida site. None of the rest of NC WARN's contentions are admissible.

A. Proposed Contention 1 (TC [Technical Contention]-1): The COLA is incomplete because many of the major safety components and procedures at proposed Harris reactors are only conditional at this time. The COLA adopts by reference a design and operational procedures that have not been certified by the NRC or accepted by the applicant. Modifications to the design or operational procedures for the AP1000 Revision 16 would require changes in Progress Energy's application, the final design and operational procedures. Regardless whether the components are

[9] In addition to its claim of representational standing, NC WARN also claims to have organizational standing. Petition at 5. NC WARN describes itself as a "grassroots nonprofit organization using science and activism to reduce hazards to public health and the environment from nuclear power and other polluting electricity production." Petition at 3. This language, however, closely resembles the interest of the petitioners in *Palisades*, CLI-07-18, 65 NRC 399, where the Commission found an organization's stated interest to be overly broad, and that the petitioner was attempting to play the role of a "private attorney general," a purpose outside the protected zone of interests behind § 189 of the AEA for organizational standing. *Id.*, at 411-12. NC WARN also argues for organizational standing because its physical office is located within fifty miles of the proposed Harris site, and that it is concerned for the health and safety of its staff while at work. This, however, goes to representational standing through NC WARN's members; NC WARN does not appear to have demonstrated an interest *beyond* that of its members. They have thus failed to demonstrate an organizational injury or threatened injury-in-fact. Thus, it appears that NC WARN has not demonstrated organizational standing to intervene in its own right. As noted above, however, NC WARN has demonstrated its standing to intervene in this matter through representational standing.

> certified or not, the COLA cannot be reviewed without the full disclosure of all designs and operational procedures. Support for contention. The most significant elements of the proposed reactors, i.e. the design and operational practices, are lacking in the COLA. . . . The AP1000 DCD Revision 16 currently lists 172 separate documents concerning various aspects of the AP1000 reactor, totaling more than 6,500 pages. However, only 21 of those components appear to have been certified by the NRC and most of those rely on systems reflected in the remaining non-certified design and operational procedures. These documents contain Tier 1 information, i.e., components of the design that have been certified, and Tier 2 information, i.e. components that have not been certified as complying with Appendix D to 10 C.F.R. Part 52. . . . The Tier 2 components are not trivial, but run the gamut of containment, control room set up, seismic qualifications, fire areas, heat removal, human factors engineering design, plant personnel requirements, operator decision-making, alarms and piping. . . . The AP1000 revision 16 reactor is experimental in nature and has never been constructed even on a demonstration scale, increasing both the financial and safety risks. [Petition at 13-15.]

In Proposed Contention 1, NC WARN contends that critical information concerning the design and operation of the proposed reactors is lacking, *Id.* at 13, and that a significant portion of the reactor design as proposed in R16 is not certified by 10 C.F.R. Part 52, Appendix D, and remains experimental. *Id.* at 14-15. NC WARN concludes that "[t]he lack of information about the basic design and operating requirement for the AP1000 reactor Revision 16 will not allow a full and meaningful review." *Id. at* 17.

Staff Response: A contention that simply alleges that some matter ought to be considered does not provide the basis for an admissible contention. *See Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 246 (1993). A contention is inadmissible if it fails to contain sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact and does not include references to the specific portions of the application that a petitioner may dispute. *See Pacific Gas and Electric Co.* (Diablo Canyon ISFSI), CLI-08-01, 67 NRC 1, 8 (2008). For the reasons explained below, this contention is inadmissible because it is a challenge to current NRC regulations and it fails to demonstrate a material dispute with the Applicant.

1. Proposed Contention 1 challenges NRC regulations.

It is somewhat unclear what NC WARN wishes to litigate in this contention. NC WARN appears to believe that all portions of the design must be included in the COL application. *See* Petition at 16. As recently reaffirmed by the 1st Circuit, the NRC may determine generic issues in rulemaking rather than through litigation in individual cases. *See Massachusetts v. U.S.*, 522 F.3d 115, 119 (1st Cir. 2008). The NRC certifies generic nuclear reactor designs through rulemaking. Pursuant to the Commission Policy Statement on New Reactor Licensing Proceedings, a contention that raises an issue on a design matter addressed in the design certification application should be resolved in the design certification rulemaking proceeding, and not the COL proceeding. *See* Policy Statement, 73 Fed. Reg. 20,963, 20,972 (Apr. 17, 2008). Accordingly, in a COL proceeding in which the application references a docketed design certification application, the licensing board should refer such a contention to the Staff for consideration in the design certification rulemaking, and hold that contention in abeyance, if it is otherwise admissible. Upon adoption of a final design certification rule, such a contention should be denied. *See Id.* A petitioner is foreclosed from filing contentions regarding a previously certified design in a COL proceeding. *See* 10 C.F.R. § 2.335. Thus, NC WARN or any other petitioner is foreclosed from filing contentions regarding the previously certified AP1000 R15 design. *See* 10 C.F.R. Part 52, Appendix D.VI "Issue Resolution." To the extent that NC WARN is attempting to challenge either the previously certified design, or the Part 52 process which allows a COL applicant to reference a certified design, such a challenge is barred since the Petition does not comply with the procedure laid out in 10 C.F.R. § 2.335 for challenging regulations.[10]

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[10] Of course, if the design certification for the amended AP1000 is not complete when the COL review is completed, the license cannot be issued.

> A licensing board considering a COL application referencing a design certification application might conclude the proceeding and determine that the COL application is otherwise acceptable before the design certification rule becomes final. *In such circumstances, the license may not issue until the design certification rule is final,* unless the applicant requests that the entire application be treated as a 'custom' design.

Commission Policy Statement on Conduct of New Reactor Licensing Proceedings, Final Policy (continued. . .)

NC WARN also appears to misconstrue the two-tier rule structure. In the design certifications that have been certified thus far, the NRC has adopted a two-tier rule structure. The definitions for the two tier rule structure are included in the appendix to Part 52 which certifies the design. Appendix D to Part 52 contains the Design Certification Rule (DCR) for the AP1000 Design. *See* 10 C.F.R. Part 52, Appendix D. Tier 1 means:

> The portion of the design related information contained in the generic DCD that is approved and certified by this appendix (Tier 1 information). The design descriptions, interface requirements, and site parameters are derived from Tier 2 information. Tier 1 information includes;
> 1. Definitions and general provisions;
> 2. Design Descriptions
> 3. Inspections, tests, analysis, and acceptance criteria (ITAAC);
> 4. Significant site parameters; and
> 5. Significant interface requirements.

See 10 C.F.R. Part 52, Appendix D Section II, D.

Tier 2 means:

> The portion of the design-related information contained in the generic DCD that is approved but not certified by this appendix (Tier 2 information). Compliance with Tier 2 is required, but generic changes to and plant-specific departures from Tier 2 are governed by Section VIII of this appendix. Compliance with Tier 2 provides a sufficient, but not the only acceptable, method for complying with Tier 1. Compliance methods differing from Tier 2 must satisfy the change process in Section VIII of this appendix. Regardless of these differences, an applicant or licensee must meet the requirement in Section III.B of this appendix to reference Tier 2 when referencing Tier 1. Tier 2 information includes:
> 1. Information required by §§52.47(a) and 52.47(c), with the exception of generic technical specifications and conceptual design information;
> 2. Supporting information on the inspections, tests, and analyses that will be performed to demonstrate that the acceptance criteria in the ITAAC have been met; and
> 3. Combined license (COL) action items (COL license information), which identify certain matters that must be addressed in the site-specific portion of the final safety analysis report (FSAR) by an applicant who references this appendix. These items constitute information requirements but are not the only acceptable set of information in the FSAR. An applicant may depart from or omit these items, provided that the departure or omission is identified

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(. . .continued)

Statement, 73 FR 20,963, 20,972-73 (April 17, 2008) (emphasis added).

and justified in the FSAR. After issuance of a construction permit or COL, these items are not requirements for the licensee unless such items are restated in the FSAR.

4. The investment protection short-term availability controls in Section 16.3 of the DCD.

10 C.F.R. Part 52, Appendix D, Section II.E. As defined above, both Tier 1 and Tier 2 information have been approved by the NRC in Appendix D. NC WARN goes through a list of "components," objecting to the placement of these "components" in Tier 2, rather than Tier 1. *See* Petition at 14, 16. Tier 2 information includes all of the systems, structures and components of a design. *See* 10 C.F.R. Part 52, Appendix D, Section II.E, *citing* 10 C.F.R. § 52.47(a). Aspects of the systems, structures and components are included in Tier 1. For example, one of the cited examples by NC WARN of Tier 2 information is containment. The Containment System is described in Tier 2, Section 6.2 of the AP1000 Design Control Document (DCD). However, aspects of the containment system are also found in Tier 1, in Section 2.2.1. For example, one of several Tier 1 requirements related to the containment system for the AP1000 is that the "seismic Category I equipment identified in Table 2.2.1-1 can withstand seismic design basis loads without loss of structural integrity and safety function." *See* AP1000 R15 DCD, Tier 1, 2.2.1-1 Rev. 15.[11] The procedures for changes or departures from the DCD are different for Tier 1 and Tier 2 information. The procedures for changes or departures from the certified design are explained in Appendix D, Section VIII. To the extent that NC WARN wishes to challenge the structure of the AP1000 rule, this is an impermissible challenge to the regulations, and is thus inadmissible.

The Staff cannot determine what NC WARN means when it says "but of the 172 interconnected Westinghouse design documents, totaling more than 6,500 pages, only 21 of the components appear to have been certified by the NRC and most of those rely on systems reflected in the remaining, non-certified design and operational procedures." Petition at 14. On January 27, 2006, the NRC issued the final DCR for the AP1000 (R15), which was incorporated

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[11] Available at http://www.nrc.gov/reactors/new-licensing/design-cert/ap1000/dcd/Tier%201/Chapter%202/2-2_r15.pdf.

into agency regulations in Part 52, Appendix D. *See* 71 Fed. Reg. 4464 (Jan. 27, 2006). On January 18, 2008, the NRC docketed an application for an amendment to the AP1000 design certification rule.[12] NC WARN does not appear to take issue with any of the aspects of the revision to the AP1000 rule; it simply disputes the fact that the design certification rulemaking is not yet complete. As stated by the Commission in response to the Petitioner's motion to suspend the notice of hearing, "[a] specific provision of Part 52, however, allows applicants to reference a certified design that has been docketed but not approved [10 C.F.R. § 52.55(c)] and Petitioners may not challenge Commission regulations in licensing proceedings. [10 C.F.R. § 2.335(a)]." *See Progress Energy Carolinas* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-08-15, slip op. (2008). Proposed Contention 1 is a challenge to § 52.55(c) and is thus a challenge to Commission regulations. Since Petitioners are attempting to challenge a rule through this contention, and do not comply with the 10 C.F.R. § 2.335 procedure for bringing such a challenge, this contention is not admissible.

2. The Petitioners do not demonstrate a material dispute with the Applicant.

Contrary to NC WARN's premise, the review process for the AP1000 R16 DCD does not necessarily result in changes to individual COLAs. *See* Petition at 15. It is true that if the AP1000 R16 design is subsequently amended during its review in a way that would require the Harris COLA to be amended, PEC would need to revise its application. However, whether or not this will happen in the context of the R16 review is entirely speculative. "Contentions that are based on projected changes to a license, not currently before the NRC in any proceeding or application, are not sufficient to support admission of a contention. An NRC proceeding considers the application presented to the agency for consideration and not potential future amendments that are a matter of speculation at the time of the ongoing proceeding." *See Duke Energy Corp*, (McGuire Nuclear Station, Units 1 & 2 and Catawba Nuclear Station, Units 1 & 2), CLI-02-14, 55 NRC 278, 294 (2002). Thus, NC WARN does not demonstrate a genuine dispute

[12] The AP1000 R16 DCD does contain 172 separate files, which are available (in a non-proprietary version) on the NRC website at: http://adamswebsearch2.nrc.gov/idmws/ViewDocByAccession.asp?AccessionNumber=ML071580939 (ADAMS Accession No. ML071580939).

with the Harris COLA on a material issue of law or fact, and thus does not meet the requirements of 10 C.F.R. § 2.309(f)(1)(vi).

NC WARN's assertion that it is "impossible to conduct a . . . PRA [Probabilistic Risk Analysis] . . . [on] DCD Revision 16" is unfounded. Petition at 15. NC WARN's concern with the Severe Accident Mitigation Design Alternative (SAMDA) analysis is also unfounded. *See* Petition at 17. Section 7.3 of the Harris COLA ER provides current information on the Harris site-specific analysis by repeating the AP1000 SAMDA analysis for Harris site applicability. *See* Harris COLA ER, Chapter 7 (ADAMS Accession No. ML080600910). NC WARN has not identified any dispute with the Applicant's SAMDA analysis. Thus, Proposed Contention 1 is inadmissible, for failure to identify a dispute on a material issue of law or fact. 10 C.F.R. § 2.309(f)(1)(vi).

3. Conclusion.

Since Petitioners are attempting to challenge a rule, and have not identified a material dispute with the Applicant, this contention is inadmissible for failure to comply with 10 C.F.R. §§ 2.309(f)(1)(vi) and 2.335.

B. Proposed Contention 2 (TC-2): The event of a significant fire can lead to the loss of the operators' ability to achieve and maintain hot standby/shutdown conditions further resulting in significant accidental release of radiation and posing a severe threat to public health and safety. Given its track record of noncompliance of fire regulations at the existing Harris Unit 1, Progress Energy should not be granted a COL for the two proposed reactors. The existing Harris reactor has been out of compliance since at least 1992 with requirements to maintain the post-fire safe shutdown systems of the reactor that minimize the probability and effects of fires and explosions. Given Progress Energy's history of noncompliance at the existing Harris reactor, NC WARN anticipates similar noncompliance at the proposed Harris reactors.
Support for Contention. The risk from fire at nuclear plants has been quantified repeatedly by the NRC staff. . . . [t]his ongoing noncompliance with fire regulations at the existing Harris reactor is both a risk to that reactor and an additional risk to the proposed Harris reactors. [Petition at 18-19, 23]

NC WARN next asserts that PEC has a history of non-compliance with fire protection regulations at the existing Shearon Harris Nuclear Power Plant (Unit 1), and therefore, that PEC cannot be expected to operate the proposed reactors safely, in compliance with NRC fire protection regulations. NC WARN alleges fifteen plus years of non-compliance at Unit 1,

referring to NRC findings in a proceeding initiated by NC WARN. Petition at 21-22. NC WARN also cites to NRC Office of the Inspector General (OIG) and Government Accountability Office (GAO) reports allegedly critical of NRC fire protection regulation enforcement. Petition at 22-23.

NC WARN also takes issue with an assumption that the Applicant makes in its incorporation of the AP1000 R16 (DCD). There, the Petitioner alleges that Westinghouse, the designer of the AP1000, "postulates that only one fire is assumed to occur within the plant at any given time. This assumption is used in performing the safe shutdown evaluation. Given the risk of 'multiple spurious actuations,' this false assumption is not a reasonable basis upon which to assess risk for the AP1000 revision reactors." Petition at 23-24. NC WARN concludes by stating that, "as a matter of law, the decision on the COL for the proposed Harris reactors should be denied until the plant is fully in compliance with the fire regulations at its existing reactor." Petition at 24.

Staff Response: For the reasons discussed below, Proposed Contention 2 is not admissible, as it fails to conform with the requirements of 10 C.F.R. § 2.309(f), raises issues outside the scope of this proceeding, and seeks to challenge agency regulations.

1. NC WARN has failed to show that Proposed Contention 2, insofar as it concerns fire protection at Unit 1, is within the scope of this proceeding.

Proposed Contention 2 goes into great detail regarding the fire protection history of Unit 1, including PEC's alleged longstanding failure to comply with applicable fire protection regulations. The Petitioner believes that non-compliance at Unit 1 requires that "as a matter of law, the decision on the COL for the proposed Harris reactors should be denied until the plant is fully in compliance with the fire regulations at its existing reactor." Petition at 24. However, the Petitioner does not cite any law or for this proposition. Specific concerns about the safety of Unit 1, beyond its effects on the proposed reactors, are outside the scope of this proceeding. Critically, general fears or criticisms of past practices of the nuclear industry or the applicant are not appropriate bases for contentions. *See Wisconsin Electric Power Co.* (Point Beach Nuclear Plant, Units 1 and 2), LBP-81-55, 14 NRC 1017, 1026 (1981).

NC WARN makes no reference to the Harris COLA anywhere in the contention. Allegations directly concerning Unit 1 are outside the scope of this proceeding, as they do not

concern the application or the proposed reactors. An admissible contention must "be concrete and specific to the license application . . . [to] ensure that individual license applicants are not put into the position of defending the policies and decisions of the Commission itself." *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 130 (2004). Section 2.309(f)(1)(vi) requires an admissible contention to show that a genuine dispute exists with the applicant on a material issue of law or fact; including references to specific portions of the application that the petitioner disputes and the supporting reasons for each dispute. 10 C.F.R. § 2.309(f)(1)(vi). NC WARN has not done that here.

In a petition under 10 C.F.R. § 2.206, and during the Unit 1 license renewal proceeding, NC WARN has taken issue with fire protection at Unit 1. *See* Letter to Luis A Reyes, Executive Director for Operations, U.S. Nuclear Regulatory Commission, "Petition for Emergency Enforcement Action Pursuant to 10 C.F.R. §2.206 - Suspension of Operating License No. NPF-63 for Shearon Harris Nuclear Plant Until Recurring Fire Protection Issues are Brought Into Compliance;" (ADAMS Accession No. ML062830089), Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant, Unit 1), ASLBP 07-855-02-LR-BD01, 65 NRC 41 (2007). However, the Petitioner's dissatisfaction with the outcome of past proceedings does not permit it re-raise those issues here, especially given that this proceeding does not even directly concern Unit 1. *See Private Fuel Storage,* CLI-01-12, 53 NRC at 474-75. Similarly, a showing of PEC's failure to properly implement fire protection regulations at Unit 1 is not sufficient to challenge the current application. *See Northeast Nuclear Energy Co.* (Millstone Nuclear Power Station, Unit 3) 48 N.R.C. 149, 155-56 (1998). Again, an admissible contention must raise an issue *with the application that is the subject of this proceeding. Private Fuel Storage*, CLI-04-22, 60 NRC at 130. Therefore, Proposed Contention 2, insofar as it concerns fire protection violations at Unit 1, is outside the scope of this proceeding, and is thus inadmissible under 10 C.F.R. § 2.309(f)(1)(iii).

2. The "one fire assumption" in the AP1000 R15 and R16 DCDs has been endorsed by the Commission, and the Petitioner cites to no sources or expert opinion to sustain their position.

NC WARN also takes issue with a statement in the AP1000 R16 DCD that only "one fire is assumed to occur within the plant at any given time," citing the risk of "multiple spurious actuation." Petition at 23. The Petitioner, however, misunderstands the DCD, as well as its use of specific fire protection terminology. The "one [independently caused] fire assumption" is one that has been adopted by the Staff, endorsed by the Commission, and approved in the AP1000, R15 DCD (10 C.F.R. Part 52 Appx. D). AP 1000 DCD R15, Section 9A.2.7.1, p. 9A-5[13]. Critically, NC WARN cites to no facts or sources to sustain this contention; it is a bare conclusion in derogation of § 2.309(f)(1)(v).

The "one fire assumption" is part of the AP1000 R15 DCD (50 C.F.R. § 52 App. D). Appendix D provides in relevant part that:

> The Commission considers the following matters resolved . . . in subsequent proceedings for issuance of a COL . . . : 1. All nuclear safety issues except for the generic TS (technical specifications) and other operational requirements . . . .

10 C.F.R. § 52 App. D.VI.B. In its list of changes from R15 in the AP1000 R16 DCD, the section containing the "one fire assumption," § 9A.2.7.1, is unchanged. "List of Tier 2 Revision 1 Pages, AP 1000 Design Control Document" at p. xxxviii (ADAMS Accession No. ML071580321).[14] Thus, NC WARN's opposition to the "one fire assumption" in the AP1000 DCD constitutes a challenge to agency regulations. As noted above, generally, a petitioner in an individual adjudication cannot challenge generic decisions that the Commission has made in

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[13] Available at http://www.nrc.gov/reactors/new-licensing/design-cert/ap1000/dcd/Tier%202/Chapter%209/9-toc_r15.pdf

[14] As noted above, Westinghouse has applied for an amendment (R16) to the previously approved (R15) AP1000 design certification. For further discussion on the amendment process, see the Staff's discussion at pp. 15-21.

rulemaking. 10 C.F.R. § 2.335; *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-00-20, 52 NRC151, 166 (2000).[15]

Accordingly, as NC WARN has not cited to any expert opinion or source upon which it relies to challenge the "one fire assumption" in the AP1000 R15 or R16 DCDs, and has not stated a proper basis from which to challenge Commission regulations, Proposed Contention 2, insofar as it concerns the "one fire assumption," should not be admitted.

3. The Petition fails to demonstrate a genuine dispute with the application.

As noted above, those portions of Proposed Contention 2 concerning past fire protection performance at Unit 1, and the soundness of the "single fire assumption" are inadmissible. To the extent that Unit 1 has an effect upon safety on the proposed new units at the Harris site, PEC discusses multiple unit effects, including the effect of Unit 1, on the proposed reactors in Sections 2.2 (ADAMS Accession No. ML080640256) and 3.5.1.5 (ADAMS Accession No. 080640257) of part 2 of the application, the Final Safety Analysis Report (FSAR). The contention makes no reference to, nor raises any disagreement with the discussions in those sections. Therefore, Proposed Contention 2 does not raise a genuine dispute with the application; it does not comply with 10 C.F.R. § 2.309(f)(1)(vi).

4. Conclusion.

NC WARN has expressed concern about fire protection at both Unit 1 and the proposed reactors. Except insofar as they impact the proposed reactors, however, alleged violations of fire protection protocol at Unit 1 are not within the scope of this licensing proceeding. NC WARN's challenge to the "one fire assumption" is an improper challenge to agency regulations. NC WARN has failed to raise any genuine dispute with the application. Therefore, proposed contention two is not admissible, as it does not comply with 10 C.F.R. § 2.309(f)(1)(ii),(iv),(v),

[15] To attack a Commission rule, pursuant to 10 C.F.R. § 2.335, among other things, requires a *prima facie* showing that applying the rule would not serve the purposes of the rule and requires that the *prima facie* showing be based on "special circumstances with respect to the subject matter of the particular proceeding" as outlined in a supporting affidavit. NC WARN has made no such showing, nor provided such an affidavit.

and (vi), and because it is an impermissible attack on Agency regulations, in derogation of 10 C.F.R. § 2.335.

> C. Proposed Contention 3 (TC-3): Progress Energy's ER [Environmental Report] fails to satisfy NEPA because it does not address the environmental impacts of a successful attack by the deliberate and malicious crash of a fuel-laden and/or explosive laden aircraft and resulting severe accidents of the aircraft's impact and penetration on the facility. It is unreasonable for the NRC to dismiss the possibility of an aviation attack on the existing and proposed Harris reactors in light of the studies by the NRC that this is a real possibility that could have devastating results. Support for contention. NRC regulations for the implementation of the AEA provide that a nuclear power plant must be designed against accidents that are 'anticipated during the life of the facility.' . . . The potential for accidents caused by deliberate malicious actions and the resulting equipment failures is not only reasonably foreseeable, but is likely enough to qualify as a design-basis threat. [Petition at 24-25.]

In this proposed contention, NC WARN asserts that PEC's ER fails to satisfy NEPA because it does not contemplate environmental impacts from the intentional impact of an airplane into one of the proposed facilities. The Petition then cites to an article that argues that aircraft impacts at nuclear power plants are reasonably foreseeable, and should be considered Design Basis Threats (DBTs). Petition at 25. NC WARN also cites to a 1982 study that it claims states that all then planned and operational nuclear power plants in the United States would not withstand an aircraft impact. Petition at 26. NC WARN next discusses a recent decision from the United States Court of Appeals for the Ninth Circuit that required the Commission to analyze the environmental impacts of terrorist attacks in its NEPA review concerning the Diablo Canyon Power Plant Independent Spent Fuel Storage Installation. Petition at 29, *citing San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016, 1030-31 (C.A.9, 2006), *cert. denied*, 127 S.Ct. 1124 (2007). NC WARN concludes the contention by questioning the soundness of the passive emergency cooling system in the AP1000 DCD, and arguing that the Harris COLA "cannot be approved without a full study of the threat from aviation attacks . . . . The unpalatable likelihood of an intentional aircraft crash into a nuclear plant has to be considered and accounted for as a DBT." Petition at 30.

Staff Response: In Proposed Contention 3, the Petition raises two distinct issues concerning aircraft impacts. The first, which will be referred to as Part A, for convenience,

concerns NEPA and the incorporation of environmental impacts from terrorist attacks into PEC's ER and a Commission Environmental Impact Statement (EIS). The second, labeled Part B, for convenience, argues that aircraft impacts constitute a DBT, and that the proposed Harris reactors should be hardened against such attacks.

Part A of the proposed contention is not admissible, as it does not comply with the requirements of 10 C.F.R. § 2.309(f), in that it does not cite to supporting sources or expert opinions, and its request for reconsideration of past Commission decisions is impermissible. Part B of the proposed contention is also inadmissible, as it concerns an ongoing rulemaking, attacks Commission regulations, and likewise does not comply with the requirements of § 2.309(f).

1. Part A of proposed contention three is inadmissible because NC WARN identifies no proper basis for challenging past Commission decisions.

Primarily relying on *Mothers for Peace*, 449 F.3d 1016, NC WARN argues that the Harris COLA ER is incomplete because it does not contain a discussion of the environmental consequences of a terrorist attack on the proposed reactors. Petition at 24, 29. While the Commission has taken extensive measures to address the safety of nuclear power plants from terrorist attacks, it has maintained the position that it is not necessary to consider the environmental impacts of terrorist attacks under NEPA. *See, e.g., Amergen Energy Co.* (License Renewal for Oyster Creek Generating Station), CLI-07-08, 65 NRC 124, 130-31 (2007); *Private Fuel Storage*, CLI-02-25, 56 NRC at 343-45, 347-48; *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-02-24, 56 NRC 335, 339 (2002). Following *Mothers for Peace*, the Commission reiterated its view that NEPA does not require an analysis of the environmental impacts of terrorist attacks, and that it will abide by the Ninth Circuit's decision only where it is required to do so. *See Oyster Creek*, CLI-07-08, 65 NRC at 126, 128-29.

In its petition, NC WARN makes no argument as to why such an analysis is necessary under NEPA, nor does it cite to any sources or expert opinion that could justify reconsideration of the Commission's position; Part A constitutes little more than a bare statement in the contention itself that such analysis is required under NEPA, and a reference to the *Mothers for*

Peace case. *See* Petition at 24-30. As the Commission stated, the existence of the risk of terrorism does not mean that NEPA is an appropriate mechanism for analysis of those risks. *Savannah River MOX*, CLI-02-24, 56 NRC at 339. Thus, as Commission precedent makes quite clear, the Harris COLA ER need not consider the environmental consequences of a successful terrorist attack; Part A of Proposed Contention 3 therefore raises no genuine dispute with the application, is not within the scope of this proceeding, and is thus inadmissible under 10 C.F.R. § 2.309(f).

2. Part B of Proposed Contention 3 is inadmissible, as it concerns issues that are the subject of an ongoing rulemaking.

In Proposed Contention 3, NC WARN argues that, consistent with the findings Of NUREG-2859, "the proposed Harris reactors cannot be approved without of full study of the threats from aviation attacks and implementation of the SAMAs [Severe Accident Mitigation Alternatives] required to prevent or mitigate the impacts from those attacks." Petition at 30. 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.'" Oconee, 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)).[16] Proposed Contention 3 directly concerns an ongoing, general rulemaking proceeding. Under the proposed Aircraft Impacts Rule, licensees must:

> perform an aircraft impact assessment of the effects on the designed facility of the impact of a large, commercial aircraft. Based on the insights derived from that assessment, the application would have to include a description and evaluation of the design features, functional capabilities, and strategies to avoid or mitigate the effects of an aircraft impact, addressing core cooling capability, containment integrity and spent fuel pool integrity. The applicant would be required to describe how such design and other features avoid or mitigate, to the extent

[16] The Petition also makes references to 10 C.F.R. § 51.53(c)(3)(iv) as permitting the introduction of new and significant information concerning the scope of an environmental report. Petition at 25. However, as the Petitioner's quotation of that provision makes clear, it is applicable only to a license renewal proceeding. *See* Petition at 30.

> practicable, the aircraft impact effects with reduced reliance on operator actions.

Aircraft Impacts Rule, Proposed Rule, 72 Fed. Reg. at 56,288. If NC WARN wishes to take issue with Commission aircraft impact positions, the proper venue is the rulemaking process, not in this licensing proceeding. *See Oconee*, CL-99-11, 49 NRC at 345. Therefore, Part B of proposed contention three is not within the scope of this proceeding, and is inadmissible under 10 C.F.R. § 2.309(f)(1)(iv).

3. Part B of Proposed Contention 3 is inadmissible because it is an attack on current regulatory requirements, and it is not admissible under § 2.309(f).

In addition to challenging an ongoing rulemaking, Proposed Contention 3 should be rejected because it "presents an impermissible challenge to the Commission's regulations by seeking to impose requirements in addition to those set forth in the regulations." *Turkey Point*, LBP-01-6, 53 NRC at 159. NC WARN seeks to add additional requirements to the proposed Harris reactors beyond those specified in 10 C.F.R. Part 52, calling for prevention of "SAMAs . . . to mitigate or prevent the impacts [aircraft] attacks." Petition at 30. NC WARN cites to no provision of Part 52 or any other authority that requires the aircraft impact requirements for which it argues. To the extent that NC WARN's contention is also an attack on the AP1000 design as certified in Part 52, Appendix D, the contention is barred as an attack upon that regulation as well. *See* 10 C.F.R. § 2.335(a); *Oconee*, CLI-99-11, 49 NRC at 334. It is possible to attack Commission regulations, but only if the stringent requirements of 10 C.F.R. § 2.335 are satisfied, which NC WARN does not reference, let alone satisfy.

NC WARN makes no specific references to the Harris COLA in its argument for stricter standards for withstanding aircraft impacts, but only argues that reactors, as a general proposition, should be safer. *See* Petition at 30. In *Oconee*, the Commission 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." Oconee, CLI-99-11, 49 NRC at 334. In Part B of Proposed Contention 3, NC WARN cites to various sources that it believes support heightened standards for reactor hardness against aircraft impacts. However, beyond challenging existing and proposed Commission rules, as discussed above, NC WARN

does not take issue with any portion of the Harris COLA; NC WARN has articulated only a generalized grievance about NRC requirements and regulations. Accordingly, NC WARN has articulated no genuine dispute with the application, and Proposed Contention 3 is inadmissible under 10 C.F.R. § 2.309(f)(1)(vi).

4. Conclusion.

Proposed Contention 3 raises two issues related to aircraft impacts at the proposed Harris reactors. The first concerns the Harris COLA ER's failure to include environmental consequences from a terrorist attack, the second concerns the structural soundness of the proposed reactors to withstand such an impact, and mitigate the consequences from such an impact. The first claim is inadmissible because the Commission has addressed this precise issue recently, and has decided that, the *Mothers for Peace* case notwithstanding, for license actions at locations not within the Ninth Circuit's jurisdiction, an analysis of the environmental impacts of terrorist attacks is not required. *See Oyster Creek*, CLI-07-08, 65 NRC at 126, 128-29. As to the second part of NC WARN's proposed contention, concerning safety requirements, NC WARN may not challenge Commission regulations by seeking to impose safety requirements beyond those already in force, *Turkey Point*, LBP-01-6, 53 NRC at 159, nor may it raise an issue that is the subject of an ongoing rulemaking, Oconee, CLI-99-11, 49 NRC at 345, nor raise generalized grievances towards Commission positions without articulating a genuine dispute with the application, *Id.* at 334.

Therefore, Proposed Contention 3 is not admissible, as it fails to comply with 10 C.F.R. § 2.309(f)(1)(iii), (v), and (vi), and § 2.335.

D. Proposed Contention 4 (TC-4): The ER for the COL for the proposed Harris reactors fails to satisfy NEPA because it does not address a significant fire involving noncompliant fire protection features for both primary and redundant safe shutdown electrical circuits caused by a deliberate malicious action using a fuel laden and/or explosive-laden aircraft on the facility.
Support for contention. The proposed Harris reactors are required to comply with all existing NRC regulations regarding the physical protection of . . . circuitry . . . for post-fire safe shutdown. . . . The fire protection regulations are not designed for and are not adequate to deal with fires in multiple rooms easily result (sic) from an aircraft crash. [Petition at 31, 33.]

Proposed Contention 4 again raises concerns about the environmental consequences of an aircraft or other terrorist attack "involving noncompliant fire protection features for both primary and redundant safe shutdown electrical circuits." Petition at 31. The proposed contention states that the Harris COLA has "not been evaluated for fire and explosion resulting from a deliberate aircraft strike." *Id.* The Petition then references Unit 1's alleged non-compliance with fire-protection systems just as in Proposed Contention 2, and again asserts that such impacts should be considered DBTs. Petition at 31-32. Proposed Contention 4 then asserts that "[t]he aviation attacks of September 11, 2001, successfully destroyed both towers of the World Trade Center, the result of structural damage from fire induced by deliberately crashing aircraft into the structures. The structures protecting the electric circuits for the control operation of the safe shutdown systems at the existing Harris reactor and the proposed Harris reactors are similarly vulnerable." Petition at 32. The contention cites to a Union of Concerned Scientists (UCS) article that allegedly suggests that the AP1000 is less safe than other designs.[17] NC WARN concludes by stating that "[t]he COLA cannot be approved without a full study of the risks associated with fires and explosions caused by aviation attacks and implementation of the SAMAs required to prevent or mitigate those impacts." Petition at 33.

Staff Response: Proposed Contention 4 raises many issues already raised by NC WARN in Proposed Contentions 2 and 3 of the Petition. For the reasons set forth below, Proposed Contention 4 is inadmissible because it does not comply with the requirements of 10 C.F.R. § 2.309(f), as its discussion of Unit 1 is outside the scope of this proceeding, because reactor regulatory requirements for addressing an aircraft impact are the subject of an ongoing rulemaking, and because the proposed contention impermissibly attacks agency regulations.

[17] The webpage address for the cited article appears to be incorrect in the Petition. The article is available at http://www.ucsusa.org/assets/documents/global_warming/Nuclear-Power-in-a-Warming-World.pdf.

1. Proposed Contention 4 repeats many inadmissible arguments from Proposed Contentions 2 and 3.

In opposition to the admissibility of Proposed Contention 4, as to fire-protection at Unit 1, multiple-unit fire effects, NEPA consideration of the environmental impacts of terrorist attacks, and to classifying terrorist attacks as a DBT, the staff reasserts its arguments, stated in this answer regarding Proposed Contentions 2 and 3.

NC WARN's discussion of alleged fire-protection violations at Unit 1, Petition at 31, is identical to its discussion in Proposed Contention 2. *See* Petition at 21. This claim remains inadmissible, as it is outside of the scope of this proceeding. This proceeding concerns only the reactors proposed in the Harris COLA. *See* Staff Response to Proposed Contention 2, pp. 16-20, *infra*. NC WARN's multiple-unit fire effects argument, Petition at 32, similarly repeats its argument from Proposed Contention 2. *See* Petition at 23. This claim remains inadmissible, as multiple-unit effects are discussed in the Harris COLA in the FSAR in Sections 2.2 (ADAMS Accession No. ML080640256) and 3.5.1.5 (ADAMS Accession No. 080640257). NC WARN makes no specific reference to those discussions, and does not articulate any disagreement with the application. *See* Staff Response to Proposed Contention 2, pp. 16-20, *infra*.

NC WARN also repeats its argument for consideration of the environmental impacts of terrorist attacks under NEPA, Petition at 31, as it did in Proposed Contention 3. *See* Petition at 24. As noted above, the Commission has made its position on this issue quite clear; the Petitioner has articulated no proper basis to challenge that position. *See Oyster Creek*, CLI-07-08, 65 NRC at 126, 128-29; *see also* Staff Response to Proposed Contention 3, pp. 21-25, *infra*. NC WARN's argument that an intentional aircraft impact should be considered a DBT, Petition at 32, also repeats the same argument from Proposed Contention 3. *See* Petition at 25. As discussed above, NC WARN's argument concerns an ongoing Commission rulemaking. Further, it is a challenge to Commission regulations by arguing for additional requirements beyond those called for by the Commission. *See* Staff response to Proposed Contention 3, pp. 21-25, *infra*. Thus, none of the above four claims are admissible, and they should therefore be denied, as discussed in the Staff response to Proposed Contentions 2 and 3.

2. NC WARN's argument that the AP1000 R15 is unsafe constitutes an attack on agency regulations; NC WARN's argument that the AP1000 R16 is less safe than other designs is inadmissible because it does not comply with 10 C.F.R. § 2.309(f).

In Proposed Contention 4, NC WARN cites to a UCS article that questions the safety of new reactor designs, including the AP1000. Petition at 32-33. However, the article references the AP1000 R15 DCD as certified by the NRC in 10 C.F.R. §52 Appx. D. UCS, "Nuclear Power in a Warming World: Assessing the Risks, Addressing the Challenges," p. 55. Thus, NC WARN again impermissibly seeks to undermine Commission regulations by challenging a certified reactor design. *See Oconee*, CLI-99-11, 49 NRC at 334. Proposed Contention 4 also seems to take issue with the AP1000 R16 DCD, but does not do so specifically, nor does it cite to any source or expert opinion regarding its concerns as required by 10 C.F.R. § 2.309(f)(1)(v) and (vi). *See* Petition at 32-33.

In its decision denying NC WARN's motion to suspend notice of hearing on the Harris COLA, the Commission made clear that "issues concerning a design certification application should be resolved in the design certification rulemaking and not in a COL proceeding. When a contention is raised in a COL proceeding that challenges information in the design certification rulemaking, licensing boards 'should refer such a contention to the staff for consideration in the design certification rulemaking, and hold that contention in abeyance, *if it is otherwise admissible.*") Shearon Harris, Units 2 and 3, CLI-08-15 (emphasis added). Here, however, because Proposed Contention 4 challenges parts of the certified AP1000 R15 rule, it is an impermissible attack on agency regulations, s*ee* 10 C.F.R. § 52 Appx. D, and insofar as the contention challenges the AP1000 R16 DCD, it does not comply with § 2.309(f)(1)(v) or (vi).

3. Conclusion.

Proposed Contention 4 re-raises claims made in Proposed Contentions 2 and 3. Claims regarding fire-protection at Unit 1 are outside the scope of this proceeding, and reactor requirements for addressing an aircraft impact are the subject of an ongoing rulemaking, and are thus not properly addressed in this proceeding. *Oconee*, CLI-99-11, 49 NRC at 345. Concerning environmental impacts from terrorist attacks, hardness requirements against aircraft impacts, and challenges to the AP1000 R15 DCD, NC WARN is impermissibly attacking agency

regulations. *See Id.* at 334. Lastly, NC WARN's claims challenging the AP1000 R16 DCD do not satisfy 10 C.F.R. § 2.309(f)(v) or (vi), as NC WARN cites to no source or expert opinion in support of its allegations, and has not articulated any genuine dispute with any portion of the application, or the AP1000 R16 DCD.[18] Therefore, Proposed Contention 4 does not comply with § 2.309(f), and is not admissible.

E. Proposed Contention 5 (TC-5): The ER for the proposed Harris reactors fails to satisfy NEPA because it does not consider the potential impacts of a radiation release caused by high-density storage of highly-radioactive "spent" fuel in its spent fuel pools. The COLA indicates that spent fuel rods would be stored in two newly constructed cooling pools in buildings designed to withstand only weather-related impacts. The proposed high-density storage heightens the risk of catastrophic radiation releases due to accident or terrorism.
Support for contention. A loss-of-pool-coolant event resulting from accidental or intentional damage or collapse of the pool could have severe consequences and should be carefully examined. The proposed high-density spent fuel storage runs diametrically opposite the NAS's warning of "enormous potential consequences" associated with high density, water-filled cooling pools due to the likelihood of a self-propagating fire if cooling water is lost and spent fuel assemblies are exposed to air. The Westinghouse-designed storage pools for the proposed Harris reactors would pack spent fuel assemblies so close together that boron shields must be used to prevent nuclear reactions. [Petition at 33-35]

In Proposed Contention 5, NC WARN again raises concerns about safety and environmental aspects of terrorist attacks, this time as they relate to the proposed spent fuel storage pools for the proposed Harris reactors. Petition at 36. NC WARN believes that "under NEPA it is highly appropriate to consider whether the Commission continues to have a reasonable basis for expressing confidence that stored spent fuel is safe from terrorist attacks." *Id.*

Staff Response: Proposed Contention 5 should be denied since it is an attack on the previously certified AP 1000 R15 DCD. As discussed below, all of the issues raised by the Petitioners in this contention were resolved in the rulemaking proceeding on the AP1000 R15.

[18] However, as noted above, an otherwise admissible contention to the AP1000 R16 DCD cannot be considered by the licensing board, but rather must be held in abeyance for the AP1000 R16 DCD rulemaking. *See* Policy Statement, 73 Fed. Reg. at 20,972.

To the extent that Petitioners are challenging the ER, the contention does not comport with 10 C.F.R. § 2.309(f).

1. Petitioners may not challenge design issues resolved in Part 52, Appendix D.

The focus of the Petitioner's concern appears to be on the use of "high density" storage racks in the spent fuel pool. Petition at 34-35. However, the use of "high-density" storage racks in the spent fuel pool was approved by the Commission in 2005 as part of the AP1000 R15 DCR. *See* DCD Tier 2, 9.1.2, Rev. 15.[19] Similarly, Proposed Contention 5's challenge to the rack design, which includes neutron absorbing material, was also approved by the Commission in the AP1000 R15 DCR.[20] *See* AP1000 R15 DCD, 9.1.2.1. Petitioners complain that the spent fuel would be stored in "buildings designed to withstand only weather-related impacts." Petition at 34. Petitioners do not give a citation for this assertion. The building that stores the spent-fuel is a seismic category-1 building, and was also approved in the AP1000 R15 DCD. *See* AP 1000 R15 DCD, 9.1.1.2. The design of the building has not changed from R15 to R16. *See* AP1000 R16 DCD, Chapter 9 (ADAMS Accession No. ML071580464).

Issues that were included in the AP1000 R15 DCD are considered resolved for subsequent COL proceedings. *See* 10 C.F.R. Part 52, Appendix D, VI. Thus, a petitioner cannot challenge such provisions without seeking a waiver in accordance with 10 C.F.R. § 2.335. Petitioners did not seek a waiver of Appendix D. Since the contention challenges a rule of the Commission, namely the AP1000 R15 DCD, it is invalid, and must be dismissed.

2. Petitioners have not shown a genuine dispute with the Applicant.

To the extent that the Petitioners are attempting to challenge the Harris COLA ER, they have not demonstrated a genuine dispute with the Applicant, and thus have not complied with 10 C.F.R. § 2.309(f). The Petitioners do not specify portions of the ER with which they

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[19] Available at http://www.nrc.gov/reactors/new-licensing/design-cert/ap1000/dcd/Tier%202/Chapter%209/9-1_r15.pdf. *See Also NUREG 1793, Final Safety Evaluation Report Related to Certification of the AP1000 Standard Design at Chapter 9.1.*

[20] The Staff is assuming that by "boron shields" the Petitioners are referring to the neutron absorbing material discussed in the DCD. However, as discussed above, the neutron absorbing material exists in both R15 and R16 of the DCD. The wording of the discussion is somewhat different in R16.

disagree, in contravention of 10 C.F.R. § 2.309(f)(1)(vi). If they are alleging an omission to the ER that is required by law, they have not provided specific support for the requirement for the alleged omission. To the extent that Petitioners believe that an applicant's ER should discuss terrorism, as discussed in the Staff response to Proposed Contention 3, such a requirement is specifically precluded by Commission precedent. *See Oyster Creek,* CLI-07-08, 65 NRC at 128-29.

3. Conclusion.

Since NC WARN is attempting to challenge Appendix D of Part 52, and because it has not alleged a material dispute with the Applicant, this contention must be denied pursuant to 10 C.F.R. §§ 2.309(f)(1)(vi) and § 2.335.

F. Proposed Contention 6 (TC-6): The assumption that uranium fuel is a reliable source of fuel for the projected operating life of the proposed Harris reactors is not supported in the COLA submitted by Progress Energy.
Support for contention. The applicant fails to fully and credibly discuss the reliability of uranium fuel supply in the COLA when asserting that building new power reactors are a means of achieving a reliable and cost-effective supply of electricity. The cost of electricity generated from a power plant that has no fuel is effectively infinite, and therefore NC WARN's members as ratepayers are in grave risk of increased power costs if uranium fuel is unavailable. As taxpayers, NC WARN's members are also at risk of a major federal action to facility (sic) the uranium fuel at reactors in the United States that does not deliver its stated goals and for which they may have to pay significant costs. [Petition at 36-37].

NC WARN contends that "[i]t is incumbent upon Progress Energy to address these issues and to support the statements in its COLA which imply that uranium availability will be sufficient to service the proposed Harris nuclear reactors as part of the existing and proposed worldwide fleet of nuclear power reactors over the current periods of license." Petition at 38. Thus, NC WARN concludes, "[t]he COL is lacking because it does not address the reliability of uranium over the projected lives of proposed Harris reactors." *Id.*

Staff Response: Proposed Contention 6 argues that the Harris COLA is inadequate because it does not address the reliability of uranium fuel over the projected lives of the Harris reactors. Petition at 38. Proposed Contention 6, however, is inadmissible because it fails to raise a genuine issue with the application in that 1) the Harris COLA specifically addresses the

reliability of uranium over the projected lives of the proposed reactors, and 2) the source upon which the Petitioners rely cannot be read to stand for the proposition for which it is cited. Thus, Proposed Contention 6 should not be admitted because it does not comply 10 C.F.R. § 2.309(f)(1)(v) or (vi).

1. The Harris COLA addresses uranium reliability, contrary to the Petitioners' claim. NC WARN has failed to show a genuine dispute with the application.

NC WARN claims that "[t]he applicant fails to fully and credibly discuss the reliability of uranium fuel supply in the COLA . . . ." Petition at 37. The Petition does not go on to describe any perceived shortcomings in the Applicant's discussion. In PEC's ER, the Applicant states:

> 10.2.2.3 Uranium Fuel and Energy Consumption
>
> Irreversible and irretrievable commitments of resources during operation would consist primarily of the uranium used for fuel. A study of available uranium by the World Nuclear Association projects the availability of a 50-year supply of low-cost uranium. The World Nuclear Association study also projects that increased market prices will drive additional exploration and could result in a tenfold increase in available uranium (Reference 10.2-002[21]). The uranium used by the [Harris] units to produce nuclear power would be irretrievable, but would have a small impact on the long-term availability of uranium.

Harris COLA ER, Section 10.2.2.3 (ADAMS Accession No. ML080640100). It is not clear what NC WARN means when it characterizes PEC's discussion as failing to "fully and credibly" discuss the uranium fuel supply; PEC cites to the same source, the World Nuclear Association (WNA), as the Petitioners. At a minimum, NC WARN must identify a genuine dispute with the application, or, if it believes that the application fails to contain required information, identify what information is missing, and why it feels that the missing information is required. 10 C.F.R. § 2.309(f)(1)(vi). NC WARN has not done so, nor has it expressed any specific disagreement with the discussion in the Harris COLA ER. Therefore, NC WARN has failed to raise a genuine dispute with the Applicant as required by 10 C.F.R. § 2.309. Accordingly, Proposed Contention 6 is inadmissible.

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[21] PEC cites to "World Nuclear Association (WNA), 'Supply of Uranium,' Website, www.world-nuclear.org/info/inf75.html, accessed June 26, 2007."

2. The sources to which NC WARN cites cannot be read to stand for the proposition that uranium fuel supplies will be inadequate to permit reactor operation during the period of licensure.

NC WARN claims that "[w]orldwide, uranium consumption is approximately 67,000 metric tons per year; this has exceeded worldwide uranium production for some time. . . . [Sixty percent] of consumption is currently supplied by annual production; . . . leaving an annual shortfall of uranium to fuel the existing reactors of approximately 26,000 metric tons." Petition at 37. The document cited by NC WARN, however, does not suggest a global shortage of uranium fuel at all. Thus, as above, the Petitioner has failed to raise a genuine dispute with the application, and the Petitioner has failed to cite to expert opinion or other sources that support its contention. Accordingly, Proposed Contention 6 should not be admitted.

While the Petitioner does not need to prove its contention at the admissibility stage, *Private Fuel Storage*, CLI-04-22, 60 NRC at 139, sources or opinions cited by a petitioner as the basis for a contention are subject to scrutiny by the licensing board to determine whether, on their face, they actually support the facts alleged. *Virginia Electric and Power* (North Anna Unit 3), LBP-08-15 (2008) *citing* Dominion Nuclear North Anna, LLC (Early Site Permit for North Anna ESP Site), LBP-07-09, 65 NRC 539, 550 (2007). *See also Yankee Atomic Elec. Co.* (Yankee Nuclear Power Station), LBP-96-2, 43 NRC 61, 90 (1996), *rev'd on other grounds,* CLI-96-7, 43 NRC 235, 269 n.39 (subject of Board holding not raised for review). The recent *North Anna* case is of specific note. There, the petitioners used language almost identical to that used by NC WARN, including citations to the same WNA sources. There, the licensing board made clear that the petition "has not cited any document that, read as a whole, supports [the petitioner's] theory that uranium supplies will be insufficient to support the operation of North Anna 3 during its licensed period." *North Anna Unit 3*, LBP-08-15.

NC WARN's purported source for its uranium availability claim is a document from the WNA on uranium supply. *See* Petition at 37, n. 57.[22] That very website, in another document cited by the Petitioner, also states the following:

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[22] WNA, World Uranium Mining, available at http://www.world-nuclear.org/info/inf23.html.

> Current usage is about 65,000 [tons of uranium]/yr. Thus the world's present measured resources of uranium (5.5 [million tons]) in the cost category (sic) somewhat below present spot prices and used only in conventional reactors, are enough to last for over 80 years. This represents a higher level of assured resources than is normal for most minerals. Further exploration and higher prices will certainly, on the basis of present geological knowledge, yield further resources as present ones are used up.

WNA, "Supply of Uranium" (Mar. 2007). Available at http://www.world-nuclear.org/info/inf75.html. (Accessed August 19, 2008). The article further explains that:

> Without . . . estimates of uranium resource replenishment through exploration cycles, long-term supply-demand analyses will tend to have a built-in pessimistic bias (i.e. towards scarcity and higher prices) that will not reflect reality. Not only will these forecasts tend to overestimate the price required to meet long-term demand, but the opponents of nuclear power use them to bolster arguments that nuclear power is unsustainable even in the short term.

Id., http://www.world-nuclear.org/info/inf75.html?terms=Uranium+supply. (Accessed on August 19, 2008). NC WARN has done precisely what the article it cites predicts: it has used an analysis that does not "reflect reality" to argue that nuclear power is unsustainable in the short term. Accordingly, NC WARN has failed to provide expert opinion, or other sources to support Proposed Contention 6; and thus fails to satisfy 10 C.F.R. § 2.309(f)(1)(v).

3. Conclusion.

NC WARN asserts that the Harris COLA must, but does not contain a proper discussion of uranium fuel availability for the proposed operating life of proposed units 2 and 3. However, in § 10.2.2.3 of the Harris COLA ER, PEC does discuss uranium fuel availability, citing to a WNA article on the topic. NC WARN makes no specific mention to § 10.2.2.3 of the ER, nor does it dispute any specific claims made therein by the Applicant.

In support of its claim questioning uranium fuel availability, NC WARN cites to two WNA articles, one of which is the same article that PEC cites to in support of its claim that uranium fuel is abundantly available. The WNA documents do not support NC WARN's interpretation of them. While NC WARN is not required to prove facts at this point in this proceeding, it must provide sources and expert opinions in support its contentions. 10 C.F.R. § 2.309(f)(1)(v). Further, those sources must actually stand for the proposition for which they are cited. *Id.*,

North Anna Unit 3, LBP-08-15. Just as the Licensing Board found in *North Anna* concerning nearly identical language, Proposed Contention 6 does not raise a genuine dispute with the application, and does not properly cite to any sources or expert opinion. Thus, as required by 10 C.F.R. § 2.309(f)(1)(v) and (vi), Proposed Contention 6 should be denied.

> G. Proposed Contention 7 (EC [Environmental Contention]-1): In its COLA, Progress Energy grossly underestimates the costs and risk of the proposed Harris reactors and grossly overestimates the costs of their alternatives. The lack of a reasonable cost basis means there can be no reasonable analysis of comparative sources of energy generation, energy efficiency or other energy management strategies.
> Support for Contention. One of the fundamental deficiencies in the present ER is the lack of a realistic and up-to-date cost estimate for the proposed Harris reactors. The estimated cost of $2.2 billion per reactor estimates in the ER appear to be based on out-of-date reports that are now shown to be grossly below current estimates for reactors with the same design, including similar reactors proposed by Progress Energy in Levy County, Florida. . . . The NRC cannot accept the cost of a new AP1000 reactor and associated costs as described in the ER at only $2.2 billion, when the costs of the two proposed reactors in Levy County, albeit a greenfield site, have been submitted to the Florida Public Service Commission at a cost exceeding $16.5 billion. . . . In its COLA, Progress Energy has not addressed any of the substantive issues about the costs and risks, nor shown any of its analysis to support its decision to construct the proposed Harris reactors despite the costs and risks. In its estimates of the environmental costs, Progress Energy includes only the 192-acre footprint for the land use impact of the proposed reactors, omitting the thousands of acres to be flooded by increasing the size of the Harris Lake, the land taken for new transmission lines, relocated roads and bridges, and other infrastructure needs. [Petition at 38-42.]

Proposed Contention 7 asserts that PEC has underestimated the costs of the proposed reactors, Petition at 38, as well as the associated risk in undertaking the project. Petition at 41-42. NC WARN also believes that the footprint for the proposed reactors is grossly understated because it does not include the expansion of Harris Lake. Petition at 42. NC WARN concludes that "[u]ntil the costs and risks of the proposed Harris reactors and the alternatives are fairly and completely presented, the NRC staff will not be able to complete its EIS." Petition at 43.

Staff Response: Proposed Contention 7 is admissible, limited to a dispute with the Applicant regarding the cost of the AP1000 reactors at the Harris site, as compared to the costs at the Levy site. *See* Dominion Nuclear Connecticut (Millstone Unit 3), LBP-08-09, (2008)

(Boards commonly reformulate, or expressly limit contentions to focus them to the precise matters which are supported). The rest of the contention, regarding the size of land use impacts and the "substantive issues about the costs and risks," is inadmissible in that it fails to comply with the requirements of 10 C.F.R. § 2.309(f).

1. The dispute regarding the cost of the AP1000's is admissible.

NC WARN has provided a specific statement of an issue of fact to be raised or controverted, namely that "Progress Energy grossly underestimates the costs . . . of the proposed reactors," in accordance with 10 C.F.R. 2.309(f)(i). Petition at 38. In accordance with 10 C.F.R. 2.309(f)(1)(iii and iv) NC WARN identified that this issue was within the scope of the proceeding and material to the findings the NRC must make by noting that the Staff's EIS is required to include a cost-benefit analysis for the proposed reactors. Petition at 39.[23] NC WARN provided a concise statement of the alleged facts which support its position by showing the very different costs for a pair of the same AP 1000 reactors in the Levy County application, as estimated to the Florida Public Service Commission. Petition at 40. Thus, the contention is admissible as to the dispute over the proposed cost of the AP1000 reactors at the Harris site.

2. The rest of the contention is inadmissible for failure to demonstrate materiality under 10 C.F.R. § 2.309(f)(1)(iv).

In accordance with 10 C.F.R. 2.309(f)(1)(iv), a petitioner must show that its contention is material to the findings the NRC must make. In the instant case, NC WARN gives a laundry list of "risks" of building a new reactor. Petition at 41. This list includes such things as "the present cost estimates for nuclear reactors have increased exponentially. . . . The dates for bringing nuclear reactors online have been significantly delayed . . . . Wall Street investors have expressed serious concerns about the credit worthiness of companies that pursue new nuclear reactors." *Id.* NC WARN fails to demonstrate how any of these things represent a material dispute with the Applicant. A contention that simply alleges that some matter ought to be

[23] NC WARN incorrectly cited Council on Environmental Quality (CEQ) regulations for the proposition that a cost-benefit analysis was required. CEQ regulations do not bind the NRC. However, the NRC does, as a matter of policy, voluntarily take account of CEQ regulations, subject to certain conditions. *See* 10 C.F.R. § 51.10(a). The requirement to perform a cost-benefit analysis here is found at 10 C.F.R. § 51.45(c), and thus the NRC must perform such a cost-benefit analysis under its own rules.

considered does not provide the basis for an admissible contention. *See Rancho Seco Nuclear Generating Station*, LBP-93-23, 38 NRC at 246. General fears or criticisms of past practices of the nuclear industry or the applicant are not appropriate bases for contentions. *See Wisconsin Electric Power Co.* (Point Beach Nuclear Plant, Units 1 and 2), LBP-81-55, 14 NRC 1017, 1026 (1981). Since NC WARN fails to provide information to demonstrate a genuine dispute with the Applicant on a material issue with specific references to the application, as required by 10 C.F.R. § 2.309(f)(1)(iv) and (vi), this portion of the contention is inadmissible.

Similarly, NC WARN's objection to the 192-acre footprint for the application's land use impact analysis, and non-inclusion of the thousands of acres to be flooded by increasing the size of Harris Lake, Petition at 42, is inadmissible because NC WARN fails to demonstrate how the alleged error in the analysis is material to the licensing decision. In order for the contention to be admissible, a petitioner must provide an adequate explanation of how alleged deficiencies support its contention and provide additional information in support. *See Louisiana Energy Services, L.P* (Claiborne Enrichment Center), LBP-91-41, 34 NRC 332, 338-339 (1991). Here, the footprint estimates for other technologies, which the Petitioner does not dispute, estimate a wind farm with comparable generating capacity to occupy more than 1,600 acres for the turbines alone, Harris COLA ER, Section 9.2.2.1, and a similar solar power facility would require almost 70,000 acres, Harris COLA ER, Section 9.2.2.4. Accordingly, in the instant case, NC WARN has not shown how increasing the footprint of the reactor would alter the cost-benefit analysis in a material way, rendering this portion of its contention inadmissible.

NC WARN next asserts that "the costs, impacts, and requirements for the renewable energy alternatives are particularly inaccurate in the ER, with inflated land requirements for wind and solar, and unreasonable conclusions that the waste impacts of wind and solar are greater than that of a nuclear power plant." Petition at 42. Beyond this vague statement, NC WARN fails to produce any facts or expert opinion to support its position, in contravention of 10 C.F.R. § 2.309(f)(1)(v). Thus, this portion of the contention is also inadmissible.

3. Conclusion.

Proposed Contention 7 should be admitted, limited solely to the accuracy of the cost-estimate for the construction of the reactors at the Harris site. Claims in the contention concerning generalized matters without substantiation, and concerning land use estimates, are inadmissible for failure to comply with 10 C.F.R. § 2.309(f)(iv) or (v) and (vi) respectively.

H. Proposed Contention 8 (EC-2): Progress Energy fails to present evidence or analysis of the "carbon footprint," i.e., the atmospheric carbon generated by mining and fuel processing, the construction and operation, the long-term waste storage, associated with the proposed Harris reactors in its ER.
Support for Contention. Greenhouse gases rank among the top environmental concerns today. The release of greenhouse gases is part of any major construction operation – as the production of cement, steel, copper and other raw materials and components all contribute to what is generically called the "carbon-footprint" though more accurately, it could be referred to as the "greenhouse gas footprint." These emissions from many sources, in aggregate, are contributing to the destabilization of climate and could have catastrophic impacts. [Petition at 43.]

In Proposed Contention 8, NC WARN contends that the Harris COLA ER is inadequate because it does not analyze the environmental impacts of the proposed reactors for greenhouse gas emissions, which contribute to climate destabilization through both the reactor life-cycle and the uranium fuel cycle. Petition at 45. The Petitioner also cites to a report that suggests that for less accessible uranium deposits, greenhouse gas emissions in extracting them could be even higher. Petition at 45; *see* Smith and van Leeuwen, Nuclear Power - the Energy Balance, October, 2007. Available at http://www.stormsmith.nl. (Accessed on August 20, 2008). NC WARN concludes that "[t]he review of environmental impacts of the proposed Harris reactors is not complete until it analyzes the greenhouse gas emissions associated with the mining, processing, transportation, construction, operation, closure and waste disposal that would be a direct impact of the proposed Harris reactors." Petition at 45.

Staff Response: The NRC Staff opposes admission of Proposed Contention 6. As discussed below, the Petitioner fails to demonstrate the existence of a genuine factual dispute with the Applicant; PEC explicitly states estimated carbon dioxide emissions for the proposed reactors and corresponding fuel cycle in the Harris COLA ER. NC WARN also fails to provide a

concise statement of the facts that support its position. Accordingly, Proposed Contention 6 is not admissible because it fails to meet the requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi).

1. NC WARN does not identify a genuine dispute with the Applicant on a material issue of fact or law.

NC WARN argues that the Harris COLA ER does not "present evidence or analysis of 'carbon footprint,' i.e., the atmospheric carbon generated by mining and fuel processing, the construction and operation, the long-term waste storage, associated with the proposed Harris reactors . . . ." Petition at 43. NC WARN makes no specific references to the Harris COLA ER where it perceives inadequacies, but instead only asserts that PEC has "fail[ed] to present evidence or analysis of the 'carbon footprint . . . . ' *Id.*

In Chapter 9 of the ER, PEC compares the environmental consequences of nuclear power to other sources of electricity. In comparing the environmental consequences of a coal-fired electric power plant to the proposed nuclear plant, the ER states:

> Coal burning power systems have the largest carbon footprint of all the electricity generation systems analyzed. Conventional coal systems result in emissions of greater than 1000 gCO2eq/kWh [grams of carbon dioxide (CO_2) equivalent per kilowatt hour of electricity generated). This is approximately 200 times higher than the carbon footprint of a nuclear power generation facility *(about 5 gCO_2eq/kWh).*

Harris COLA ER Chapter 9 (ADAMS Accession No. ML080640099), Section 9.2.3.1.1, p. 9-25 (emphasis added).

In comparing the proposed plant to a natural gas-powered electric plant, the ER states:

> Current gas-powered electricity generation has a carbon footprint that is about half that of coal (about 500 gCO2eq/kWh), because gas has a lower carbon content than coal. This is approximately 100 times higher than the carbon footprint of a nuclear power generation facility *(about 5 gCO_2eq/kWh).*

Harris COLA ER Chapter 9, Section 9.2.3.2.1 (emphasis added). PEC's estimate for reactor lifecycle and uranium fuel cycle CO_2 emissions comes from a governmental publication of the United Kingdom (UK): Parliamentary Office of Science and Technology, "Carbon Footprint of

Electricity Generation," No. 268, October 2006.[24] According to this article, which "compares the life cycle CO_2 emissions of different electricity generation systems currently used in the UK,"

> "[n]uclear power generation has a relatively small carbon footprint (~5gCO_2eq/kWh) . . . . Since there is no combustion, (heat is generated by fission of uranium or plutonium), operational CO_2 emissions account for <1% of the total. Most emissions occur during uranium mining, enrichment and fuel fabrication. Decommissioning accounts for 35% of the lifetime CO_2 emissions, and includes emissions arising from dismantling the nuclear plant and the construction and maintenance of waste storage facilities.

Id. at 1, 3. This demonstrates that the Harris COLA ER contains a specific consideration of the carbon footprint for both reactor lifecycle and uranium fuel cycle relating to the proposed reactors. Accordingly, NC WARN has not articulated a genuine disagreement with the application.

2. NC WARN has not properly identified a specific source or expert opinion upon which it relies in support of Proposed Contention 6.

NC WARN claims that "a key limiting variable in the nuclear fuel cycle impacts on greenhouse gas emissions is the relative ease with which uranium is obtained – the harder the rock, the deeper the deposits, the greater the greenhouse gas emissions." Petition at 44, *cited as "*Smith and van Leeuwen, 'Nuclear Power -- Energy Balance,' newly updated in 2008. Available at www.stormsmith.nl/." That website is a table of contents for a multi-part report which totals over 250 pages, in addition to older versions of the report, and various other materials related to nuclear energy. *See* http://www.stormsmith.nl. Section 2.309(f)(1)(v) requires a "concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position on the issue . . . together with references to the *specific sources and documents* on which the requestor/petitioner intends to rely . . . ." (Emphasis added). Here, NC WARN has provided no such specific statement; it is not all clear upon which version, or what part or parts of the cited report NC WARN intends to rely.

Further, as discussed above, sources or opinions cited by a petitioner as the basis for a contention are subject to scrutiny by the licensing board to determine whether, on their face,

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[24] Available at http://www.parliament.uk/documents/upload/postpn268.pdf. (Accessed on August 20, 2008).

they actually support the facts alleged. *North Anna Unit 3*, LBP-08-15 (2008). While the citation NC WARN gives for their claim is simply "www.stormsmith.nl" without any further specificity, Petition at 44, at least some material on that website does not stand for the claim that "the harder the rock, the deeper the deposits, the greater the greenhouse gas emissions." *See Id.* For example, in section D of the report, in describing uranium extraction from phosphate rock, the report states:

> The process has high losses, partly due to reactions with hydrofluoric acid HF, needed in the extraction process. Reactions between HF and the organophosphorus compounds may yield very toxic organofluorophosporus compounds. In addition the formation of potent greenhouse gases is conceivable. *No data are available on these aspects*[.]

Smith and van Leeuwen, Energy Balance (emphasis added).[25] While the report seems quite concerned with different releases from the above process, it certainly does not claim that it releases greenhouse gases, or even that it is likely to. Rather, the report claims such a release is "conceivable," that no data are available on such a release, perhaps suggesting that further study is warranted. *Id.* This is a far cry from the Petitioner's assertion, which does not appear supported by the source that it cites. *See* 10 C.F.R. § 2.309(f)(1)(vi); *see also North Anna Unit 3*, LBP-08-15 (2008); *System Energy Resources, Inc.* (Early Site Permit for Grand Gulf ESP Site), CLI-05-4, 61 NRC 10, 13 (2005) (stating, in affirming a licensing board's rejection of a contention, "At 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").

3. Conclusion.

NC WARN claims that PEC must provide evidence and analysis of greenhouse gas emissions from the uranium fuel cycle and from reactor operations. PEC provides such data; NC WARN raises no specific dispute with the information provided in the Harris COLA ER. NC WARN cites to no specific sources or expert opinion that supports its claim that uranium fuel cycle projections for greenhouse gases are inaccurate; it is not all clear what specific material

[25] Available at http://www.stormsmith.nl/report20071013/partD.pdf, p. 51.

the Petitioner means to cite to. Further, at least part of the material at its anthological source does not support Proposed Contention 6. Therefore, Proposed Contention 6 does not comport with the requirements of 10 C.F.R. § 2.309(f)(1)(v) or (vi), and is therefore inadmissible.

I. Proposed Contention 9 (EC-3): The COLA does not identify the plans for meeting the water requirements for the proposed reactors with sufficient detail to determine if there will be adequate water during adverse weather conditions, such as droughts, and the environmental impacts for water withdrawals during both normal and adverse conditions.
Support for contention. The availability of cooling water is a significant constraint to the safe shutdown of the proposed reactors and without a clear plan on how the water will be provided, the COLA is incomplete. . . . [T]here are two significant areas in which the NRC staff declared the application to be incomplete – the environmental impacts caused by changing water levels at the Harris Lake and the intake on the Cape Fear River. . . . [T]hese two significant deficits in the COLA show that it does not satisfy the requirement for completeness of 10 C.F.R. § 2.101(a)(3). Annual temperatures in the Southeast region are increasing and are projected to continue to do so over a relatively short period of time. The applicant fails to fully analyze the following potential impacts of elevated water temperatures in the Harris Lake, and its watershed, and the Cape Fear River. . . . [T]he COL is deficient in the following: analysis of the additive and synergistic impacts on the local and downstream ecosystem . . . . The impact of warmed water on condenser . . . [and] reactor cooling. Evaluation of the impact of warmer . . . water . . . on . . . withdrawal, consumption and evaporation . . . impacts of the proposed water withdrawal from the Cape Fear River . . . [i]mpact of pollution in water… on the ecology of Harris Lake . . . a full analysis of the impact of reactor heat increasing the temperature in water on the other pollutants in the water . . . analysis of the impacts of reactors going off-line on overall power . . . impact . . . on regional grid stability . . . [and the] potential for extended drought locally. [Petition at 45-47.]

In Proposed Contention 9, the Petitioners argue that the Harris COLA does not identify how the proposed reactors will access sufficient quantities of cooling water during adverse weather conditions. Petition at 45-46. The contention then details several areas where the Petitioners feel that the Harris COLA is lacking, and concludes that "[t]he lack of detailed information about the impacts of water usage and temperature increases, renders the COLA incomplete. . . . Water at the reactors must be readily available at all times of the year, including summer low flow periods." Petition at 47-48.

Staff Response: As explained below, this contention is inadmissible for failure to comply with 10 C.F.R. § 2.309(f). It fails to identify any portion of the application with which it has a dispute in contravention of 10 C.F.R. § 2.309(f)(1)(vi) and is not supported by any facts or expert opinion in contravention of § 2.309(f)(1)(v). Thus, this contention should not be admitted to the proceeding.

1. The Petitioner fails to demonstrate that a genuine dispute exists with the Applicant on a material issue of law or fact.

Section 2.309(f)(1)(vi) requires that a petitioner provide "sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. This information must include references to specific portions of the application that the petitioner disputes and the supporting reasons for each dispute." *See* 10 C.F.R. § 2.309(f)(1)(vi). What is required is a minimal showing that material facts are in dispute, thereby demonstrating that an "inquiry in depth" is appropriate. *See Gulf States Utilities Co.* (River Bend Station), CLI-94-10, 40 NRC 43, 51 (1994). In the instant case, Petitioners fail to include any reference to the Harris COLA whatsoever. The contention alleges that the COLA does not identify plans for meeting the water requirements for the reactors with sufficient detail. Petition at 45. However, the Harris COLA states that it intends to raise the level of the reservoir, which will provide an estimated 17 ½ months of operation under drought conditions using water only in the Harris Lake. *See* Harris COLA ER, Section 2.3.1.2.1.6.2 (ADAMS Accession No. ML080600905); *see also* Harris COLA FSAR Section 2.4 (ADAMS Accession No. ML080600545). Petitioners neither reference this estimate, nor state any disagreement with it.

Petitioners do state a laundry list of concerns about warmer water. Petition at 46-47. At no point do Petitioners explain how their concerns about warming water relate to the ability of the reactor to obtain water. Moreover, the Petitioners fail to include any references to the portion of the Harris COLA with which they take issue. For example Petitioners allege that PEC should analyze the "impacts of the proposed water withdrawal from the Cape Fear River for the proposed Harris reactors on the other facilities and municipalities downstream that use the river for either or both water supply and wastewater discharge." Petition at 47. However, there is a discussion in the Harris COLA ER about the regional water supply model they intend to use.

See Harris COLA ER, Section 5.3.1.2 (ADAMS Accession No. ML080600908). Again, Petitioners neither reference this model, nor contest it.

Petitioners also allege, for example, that the impact of pollution in water on the area ecology needs to be analyzed. Petition at 47. However, Petitioners do not cite to, or take any issue with PEC's analysis of the estimated thermal plume from the proposed reactors on the ecology of the lake. *See* Harris COLA ER, Chapter 5, pp. 5-57 to 5-59 (ADAMS Accession No. ML080600908). Similarly, Petitioners apparently believe that the additional reactors will cause the temperature of the lake water to rise. However, Petitioners do not take issue with the Applicant's estimate that the difference between the plume and the ambient water temperature will be less than 0.5°F (degrees, Fahrenheit). *See* Harris COLA ER, p. 5-51 (ADAMS Accession No. ML080600908).

Since Petitioners fail to specify any portion of the application with which they have a dispute, they thus fail to demonstrate a genuine dispute with the Applicant on a material issue of law or fact. Therefore, this contention is not admissible for failure to comply with 10 C.F.R. § 2.309(f)(1)(vi).

2. Petitioners fail to provide a concise statement of the alleged facts or expert opinions which support their position.

Pursuant to 10 C.F.R. § 2.309(f)(1)(v), a petitioner is required to state the facts or expert opinions on which it intends to rely in support of its position. A contention that simply alleges that some matter ought to be considered does not provide the basis for an admissible contention. *See Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 246 (1993). In the instant case, Petitioners apparently believe that there will be a significant increase in water temperature either due to the proposed new units, or due to increasing temperatures in the Southeast. *See* Petition at 46. However, Petitioners fail to support either of these assertions with any facts or expert opinion.

Petitioners do cite to a Staff letter, although they badly mischaracterize what the letter actually states. The Petitioners allege that in this letter, the Staff identifies two areas in which the application is incomplete. Petition at 46. It is unclear to the Staff to what the Petitioners are referring, because the Staff does not interpret its April 17th letter in this way. *See* Letter to

James Scarola, dated April 17, 2008 (ADAMS Accession No. ML081070226). Moreover, even assuming *arguendo* that the Staff letter was in fact as Petitioner alleges, this would not be sufficient to support a contention. While a petitioner may use a Staff letter to support its contention, in order to for the contention to be admissible, the petitioner must provide an adequate explanation of how deficiencies allegedly identified in a Staff document supports the petitioner's contention. *See Louisiana Energy Services, L.O* (Claiborne Enrichment Center), LBP-91-41, 34 NRC 332, 338-339 (1991). Since Petitioners fail to show how the Staff acceptance letter provides support for their contention that the Harris COLA does not identify plans for meeting water requirements with sufficient detail, the contention is inadmissible.

3. Conclusion.

Proposed Contention 9 demonstrates neither a material dispute with the Applicant, nor is it supported by facts or expert opinions. Thus, it fails to comply with 10 C.F.R. § 2.309(f)(1)(v) and (vi), and is therefore inadmissible.

J. Proposed Contention 10 (EC-4): The area around the Harris site has changed considerably since the first reactor was constructed from dramatically increased populations and changing land uses. The ER does not provide an adequate analysis of the current populations and land use, and does not address the forecasted growth in the area. As a result, emergency planning that adequately protects the health and safety of the residents, students and workers around the proposed Harris reactors cannot be adequately accomplished.
Support for contention. Given the projected increases in population, and the resulting impacts of those people in the 10-mile emergency planning zone ("EPZ"), along with the changing land uses in the EPZ, the health and safety of those people cannot be protected during an accident. . . . The EIS needs to look realistically at significant population increases and changes in land use. . . . Of concern are the susceptible populations, i.e., children, women of childbearing age, senior citizens and nursing home residents who may have special difficulties in the event of an evacuation. . . . A baseline health study is essential in finding out the broadly-defined medical needs of these susceptible populations. [Petition at 48-50.]

Proposed Contention 10 argues that the population surrounding the proposed Harris reactors has changed markedly, and that the Harris COLA fails to properly account for a dramatically increased population. Petition at 48. NC WARN believes that "[t]he ER needs to examine the forecasted increase in vehicle use on the highways. . . .

The potential changes in this infrastructure could limit the ability for safe evacuation." Petition at 49. NC WARN also argues that the COLA must but does not contain a consideration of susceptible populations. Petition at 50-51. NC WARN concludes that the "proposed Harris reactors cannot be approved without a full study of the current and forecasted populations, including susceptible populations, and the ability of the evacuation plan to provide 'reasonable assurance' that all of these people will be provided adequat1e (sic) care in the case of an accident." Petition at 51.

Staff Response: As explained below, Petitioners have not demonstrated a genuine dispute with the Applicant in contravention of 10 C.F.R. § 2.309(f)(1)(vi). Petitioners have also failed to support their contention with facts or expert opinion in contravention of 10 C.F.R. § 2.309(f)(1)(v). Thus, Proposed Contention 10 is inadmissible.

1. Petitioners do not demonstrate a genuine dispute exists with the Applicant.

Pursuant to 10 C.F.R. 2.309(f)(1)(vi), a petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. The information is required to include references to a specific portion of the application that the petitioner disputes and the supporting reasons for each dispute. *See* 10 C.F.R. 2.309(f)(1)l(vi). Petitioners must make a showing that material facts are in dispute, thereby demonstrating that an "inquiry in depth" is appropriate. *Gulf States Utilities Co.* (River Bend Station, Unit 1), CLI-94-10, 40 NRC 43, 51 (1994). Particularly where a petitioner alleges that an entire plan is inadequate, they must specify how each portion of the plan is alleged to be inadequate. *See Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), LBP-82-75, 16 NRC 986, 993 (1982). In the instant case, Petitioners have failed to include any reference whatsoever to the emergency planning documents in the Harris COLA. For example, the Petitioners state that the population of the 10-mile Emergency Planning Zone (EPZ) has increased significantly since 1987. Petition at 48. The Harris COLA ER includes detailed population estimates and population projections for the area around the Harris site. *See* Harris COLA ER, Section 2.5.1. The Harris COLA FSAR includes a detailed discussion of population and population projections

for the area around the Harris site, as well. *See* Harris COLA FSAR, Section 2.1. The Petitioners do not identify any actual dispute with the Applicant.

Similarly Petitioners assert that "without a solid grasp on who will be living around the plant, the NRC and Progress Energy cannot prepare its emergency plans." Petition at 39. They then suggest that PEC should perform "a baseline health study" to look at susceptible populations. *Id.* Petitioners then cite to an affidavit they apparently attached to their May 18, 2007 request for a hearing in the Shearon Harris license renewal proceeding where a Dr. Wing submitted an affidavit stating that "in my opinion, the evacuation plan for the Shearon Harris nuclear plant must provide care for all persons around the plant, and make special provisions for the susceptible populations." *See* Petition at 49-50.

The emergency plans submitted by State and local governments in support of the Harris COLA provide for the identification of, and provisions for the evacuation of, special needs population groups.[26] In addition, as part of the Harris COLA, PEC submitted a detailed Evacuation Time Estimate (ETE) Report which included an extensive discussion of the evacuation of special populations. *See* ETE Report, Chapter 8 (ADAMS Accession No. ML080601106). Petitioners do not state any disagreement with these plans. The Petitioners' use of the Wing affidavit from their Petition for Hearing in the Shearon Harris license renewal proceeding is of absolutely no value, since it is Dr. Wing's opinion only as to Unit 1's emergency plan, with no consideration of the current COL application, or the emergency plans submitted with it. Thus, there is no genuine dispute with the Applicant regarding provisions in the emergency plans generally, or for special needs populations specifically, in derogation of 10 C.F.R. § 2.309(f)(1)(vi).

Petitioners next speculate that the surrounding roads are insufficient for evacuation due to increases in traffic. *See* Petition at 49, 51. The ETE Report included an extensive discussion of the estimated numbers of vehicles involved in an evacuation, along with considerations of the

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[26] State and Local Emergency Plans are not public documents. The Notice of Hearing for the Harris COLA provided procedures for interested parties to seek access to such documents, if needed, to prepare contentions. *See* Notice of Hearing, 73 Fed. Reg. 31,899 (June 4, 2008).

area population and road network. *See* ETE Report (ADAMS Accession No. ML080601099). Petitioners do not state any disagreement with the discussion in the ETE.
Thus, they have failed to identify a genuine dispute with the Applicant.

A contention is inadmissible when it fails to contain sufficient information to show that a genuine dispute exists with an applicant on a material issue of law or fact and does not include references to the specific portions of the application that Petitioners may dispute. *See Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-08-01, 67 NRC 1, 8 (2008). Since the Petitioners included no references whatsoever to the Harris COLA, Proposed Contention 10 fails to demonstrate that a genuine dispute exists, and is thus inadmissible.

2. Petitioners do not provide any expert opinion or facts for their contention.

Petitioners fail to provide any facts or expert opinion to support their position in contravention of 10 C.F.R. § 2.309(f)(1)(v). A contention that simply alleges that some matter ought to be considered does not provide the basis for an admissible contention. *Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 246 (1993). In the instant case, Petitioners only give vague speculative assertions, such as "a baseline health study is essential in finding out the broadly-defined medical needs of these susceptible populations," Petition at 49, or "the potential changes in this infrastructure *could* limit the ability for safe evacuation," *Id.* (emphasis added), to support its position that the emergency plan is inadequate. The only potential expert support they offered was a reference to an affidavit by Dr. Wing that was attached to the Petitioner's petition in another proceeding that concerned another reactor, though not attached to the Petition. Petition at 50-51. Petitioners fail to provide any explanation of how Dr. Wing's 2007 affidavit regarding the existing unit's emergency plan would have any relevance to the COL application for the proposed units. Attaching or referencing a document in support of a contention without any explanation of its significance does not provide an adequate basis for a contention. *See Fansteel, Inc.* (Muskogee, Oklahoma, Site), CLI-03-13, 58 NRC 195, 204 (2003). Thus, Petitioners have

failed to provide any factual or expert support for their contention, thus it is inadmissible pursuant to 10 C.F.R. § 2.309(f)(1)(v).

3. Conclusion.

Since Proposed Contention 10 fails to demonstrate any dispute with the Applicant on a material issue of law or fact, and is not supported by facts or expert opinion, it does not comply with 10 C.F.R. § 2.309 (f)(1)(v) or (vi), and it is thus inadmissible.

K. Proposed Contention 11 (EC-5): The COLA fails to evaluate whether and in what time frame the irradiated "spent" fuel generated by the proposed Harris nuclear reactors can be safely disposed. The ER does not contain any discussion of the environmental implications of the lack of options for permanent disposal of the irradiated fuel to be generated by the Harris site. Support for contention. The ER is deficient because it fails to discuss the environmental implications of the lack of options for permanent disposal of the irradiated fuel to be generated the proposed reactors if built and operated. While Progress Energy may have intended to rely in the COLA on the NRC's Waste Confidence decision issued in 1984 and most recently amended in 1999, that decision is inapplicable because it applies only to plants which are currently operating, not new plants. Even if *arguendo* the Waste Confidence Decision applies to COLs for new reactors, it should be reconsidered, in light of significant and pertinent unexpected events that raise substantial doubt about its continuing validity, *i.e*., the significant increase in cost estimates for the facility and the increased threat of terrorist attacks against targeted facilities in the United States. [Petition at 51-57.]

NC WARN indicates that the proposed contention is directed towards the environmental impacts of the proposed new reactors. Petition at 52. NC WARN argues that the Waste Confidence decision applies only to plants which are currently operating, not new plants. *Id.* at 53. NC WARN further asserts that the Commission has given no indication that it has confidence that repository space will be available for high level radioactive waste from new reactors licensed after December 1999. *Id.* at 53. NC WARN also claims that the Commission no longer has confidence in the likelihood that more than one repository will be licensed. *Id.* at 53. NC WARN argues further that the capacity of the proposed repository at Yucca Mountain, Nevada is too small to accommodate even the waste generated by currently operating reactors and cannot accommodate the waste that would be generated at new reactors. *Id*. at 54. NC WARN therefore believes that spent fuel may sit at the proposed reactor site for an indefinite period of time, *Id.* at 56, and concludes that "[t]he environmental impacts of such indefinite

[spent fuel] storage must be evaluated before a COL for the proposed Harris reactors can be granted." *Id*.

Staff Response: The NRC staff opposes admission of Proposed Contention 11, as it is an impermissible attack on the Commission's regulations. *See* 10 C.F.R. § 2.335; *Vermont Yankee* and *Pilgrim*, CLI-07-3, 65 NRC at 17-18 and n.15; *Millstone*, CLI-01-24, 54 NRC at 364; *see also Dominion Nuclear North Anna, LLC* (Early Site Permit [ESP] for the North Anna site), LBP-04-18, 60 NRC 253, 268-70 (2004) (holding inadmissible an essentially identical set of contentions in the North Anna ESP proceeding, as impermissibly challenging the NRC's regulations). As explained by the Board in the North Anna ESP proceeding, "[t]he matters the Petitioners seek to raise have been generically addressed by the Commission through the Waste Confidence Rule, the plain language of which states:

> [T]he Commission believes there is reasonable assurance that at least one mined geologic repository will be available within the first quarter of the twenty-first century, and sufficient repository capacity will be available within 30 years beyond the licensed life for operation of *any* reactor to dispose of the commercial high-level waste and spent fuel originating in such reactor and generated up to that time.

10 C.F.R. § 51.23(a) (emphasis added). Furthermore, when the Commission amended this rule in 1990, it clearly contemplated, and intended to include, waste produced by a new generation of reactors. *North Anna ESP Site*, LBP-04-18, 60 NRC at 269 (also *citing* 55 Fed. Reg. 38,474, 38,504 (Sept. 18, 1990) ("The availability of a second repository would permit spent fuel to be shipped offsite well within 30 years after expiration of [the current fleet of] reactors' [operating licenses]. The same would be true of the spent fuel discharged from any new generation of reactor designs."); *see also id.* at 38,501-04.).[27] Accordingly, Proposed Contention 11

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[27] Although NC WARN cites *Minnesota v. NRC*, 602 F.2d 412, 416-17 (D.C. Cir. 1979), to support their argument that the ER is deficient for failing to address the ultimate disposal of spent reactor fuel, Petition at 52, the reference is inapposite. In *Minnesota v. NRC*, the Court of Appeals for the D.C. Circuit remanded to the Commission the issue of ultimate disposal of spent fuel in a case involving two license amendments. *Minnesota,* 602 F.2d at 419. The D.C. Circuit, however, did not reverse the Agency's determination that the amendments should be issued. *Id.* at 418. Rather, the court held that the petitioners were not entitled to an adjudicatory proceeding on issues related to the disposal of spent fuel and that the NRC "could properly consider the complex issue of nuclear waste disposal in a 'generic' proceeding such as a rulemaking, and then apply its determinations in subsequent adjudicatory proceedings." *Id.* at 416. Since the NRC has engaged in the rulemaking envisioned by the D.C. Circuit in (continued. . .)

impermissibly attacks the Commission's regulations, and is thus inadmissible. *See North Anna ESP Site*, LBP-04-18, 60 NRC at 269.

Furthermore, with respect to NC WARN's request for reconsideration of the Waste Confidence Rule, that request also is not within the scope of this proceeding, and is an impermissible attack on the Commission's regulations. *See* 10 C.F.R. § 2.335; *Vermont Yankee* and *Pilgrim*, CLI-07-3, 65 NRC at 17-18 and n.15; *Millstone*, CLI-01-24, 54 NRC at 364; *North Anna ESP Site*, LBP-04-18, 60 NRC at 269. The Commission's rules provide as follows:

> [W]ithin the scope of the generic determination in [§ 51.23(a)], no discussion of any environmental impact of spent fuel storage in reactor facility storage pools or independent spent fuel storage installations (ISFSI) for the period following the term of the . . . reactor combined license . . . for which application is made, is required in any environmental report [or] environmental impact statement . . . prepared in connection with the issuance . . . of a combined license for a nuclear power reactor under [part 52].

10 C.F.R. § 51.23(b). Since no discussion of this matter is required in this proceeding pursuant to § 51.23(b), this aspect of Proposed Contention 11 is not within the scope of this proceeding; thus NC WARN fails to satisfy the contention requirements of 10 C.F.R. § 2.309(f)(1)(iii).

The Commission has provided litigants in an adjudicatory proceeding subject to 10 C.F.R. Part 2 the opportunity to request that a Commission rule or regulation "be waived or an exception made for the particular proceeding." 10 C.F.R. § 2.335(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." *Id.* 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

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(. . .continued)

the *Minnesota* decision, the reference to the case by the Petitioners is misplaced. In fact, the case envisions that the NRC would apply 10 C.F.R. § 51.23(a) in future proceedings such as the instant adjudicatory proceeding.

regulation was adopted." *Id.* Additionally, "[t]he affidavit must state with particularity the special circumstances alleged to justify the waiver or exception requested." *Id.*

NC WARN has failed to establish that it meets any of the requirements imposed by the Commission on litigants wishing that a rule be waived or an exception granted. *See* Petition at 51-54. NC WARN has failed to establish that application of the Waste Confidence Rule in this particular proceeding would not serve the purpose for which the rule was adopted. To the contrary, 10 C.F.R. § 51.23 reflects, on its face, that the rule was designed to dispense with the need for NRC adjudications to address the impacts associated with the ultimate disposal of spent fuel and high-level waste. This is precisely the function it has applied to the present proceeding.

In view of the foregoing, Proposed Contention 11 and its supporting bases raise an issue that is not within the scope of this proceeding, and it impermissibly seeks to challenge a Commission regulation. *See* 10 C.F.R. §§ 2.309(f)(1)(iii), § 2.335; *Vermont Yankee* and *Pilgrim*, CLI-07-3, 65 NRC at 17-18 and n.15; *Millstone*, CLI-01-24, 54 NRC at 364. Absent a showing of "special circumstances" under 10 C.F.R. § 2.335(b), which NC WARN has not made, this matter must be addressed through Commission rulemaking, and be found inadmissible here. *See North Anna ESP Site*, LBP-04-18, 60 NRC at 269-270.

CONCLUSION

In view of the foregoing, NC WARN has demonstrated representational standing, and its Petition to Intervene should be granted, limited to the portion of Proposed Contention 7 concerning the proposed cost of the Harris reactors, compared to the proposed cost of the reactors at the Levy County site.

Respectfully Submitted,

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
	)	
PROGRESS ENERGY CAROLINAS, INC.	)	
	)	Docket No. 52-022 and 520-23
	)	
(Shearon Harris Nuclear Power Plant, Units 2 and 3)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF ANSWER TO 'PETITION FOR INTERVENTION AND REQUEST FOR HEARING BY THE NORTH CAROLINA WASTE AWARENESS AND REDUCTION NETWORK'" has been served upon the following persons by Electronic Information Exchange this 29th day of August, 2008:

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