

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

Before the Atomic Safety and Licensing Board

In the Matter of)	
)	Docket Nos. 52-022-COL
Progress Energy Carolinas, Inc.)	52-023-COL
)	
Shearon Harris Nuclear Power Plant,)	ASLBP No. 08-868-04-COL
Units 2 and 3)	

**Progress Energy's Answer Opposing
Petition for Intervention and Request for Hearing
By the North Carolina Waste Awareness and Reduction Network**

August 29, 2008

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I. Introduction

Progress Energy Carolinas, Inc. (“Progress”) hereby submits this answer (“Answer”) in opposition to the Petition for Intervention and Request for Hearing by the North Carolina Waste Awareness and Reduction Network (“Petition”) filed in this proceeding on August 4, 2008.¹ In its Petition, the North Carolina Waste Awareness and Reduction Network, Inc. (“NC WARN”) seeks to intervene in this proceeding and requests that the Nuclear Regulatory Commission (“NRC” or “Commission”) conduct a hearing regarding Progress’s Application for a combined construction permit and operating license (“COL” or “combined license”) for new Units 2 and 3

¹ In violation of 10 C.F.R. §§ 2.302(a) and 2.305(c), which requires filing and service of documents in Nuclear Regulatory Commission adjudicatory proceedings through the E-filing system, NC WARN filed and served the Petition by U.S. mail on August 4, 2008. NC WARN subsequently filed and served the Petition using the E-filing system on August 6, 2008, two days after the deadline for filing of petitions to intervene in this proceeding.

at the Shearon Harris Nuclear Power Plant (“Harris”) site.² The Petition should be denied because NC WARN has not proposed an admissible contention.

The Commission’s regulations and case law clearly set forth the requirements that a petitioner must satisfy in order to propose an admissible contention. In summary, NC WARN’s Petition blatantly fails to meet, and in most respects simply ignores, these requirements. As explained fully below, every proposed contention falls short of any number of the applicable standards. There are many glaring examples. For instance, although the Commission’s regulations require that a petitioner include references to specific portions of the Application that the petitioner disputes, Progress could not find one direct cite in the Petition to Progress’s Application (other than a reference to AP1000 DCD Rev. 16, incorporated by reference in Progress’s Application). Indeed, it does not appear that NC WARN has satisfied its “ironclad obligation” to read the Application, as in many instances NC WARN is simply wrong when it alleges that the Application fails to address a particular issue.

The Contentions include an extraordinary number of vague, conclusory, often incorrect, and unsupported statements. These statements fail to satisfy NC WARN’s obligation to specifically identify an issue of law or fact to be raised. They also amount to bald assertions that do not point to deficiencies in the Application, thereby failing to raise a genuine dispute on a material issue of law or fact. NC WARN often does not provide any facts or expert opinions supporting its positions. When it does attempt to rely on experts, NC WARN’s approach violates the pleading requirements. NC WARN routinely cites to lengthy documents without

² This Answer refers to the proposed new Units as “Harris” and the existing Unit at the site as “Harris Unit 1.” Progress’s COL application, which is quoted throughout this Answer, refers to the proposed new Units as the “HAR”.

providing specific page references or even attempting to demonstrate how those documents raise a dispute with the Application.

In addition, many of NC WARN's Contentions raise issues that are outside the scope of this proceeding. NC WARN impermissibly challenges Commission rules or regulations, and raises issues that are currently being addressed in Commission rulemaking proceedings. NC WARN also impermissibly uses this Petition as an opportunity to level collateral attacks on the AP1000 design, and attempt to re-litigate issues that NC WARN has previously, and unsuccessfully, raised before the Commission in this proceeding or in proceedings regarding Progress's Harris Unit 1.

As this Answer describes more fully below, the Commission's current pleading standards were designed to raise the threshold for the admission of contentions. The purpose of these intentionally strict admissibility requirements is to ensure that hearings, if required, would focus on concrete issues that are relevant to the proceeding and that are supported by some factual and legal foundation. Each of NC WARN's Contentions falls woefully short of reaching the required threshold. Accordingly, the Board should reject all of NC WARN's Contentions and deny its request for hearing.³

II. Background

This proceeding involves an application, submitted by Progress on February 19, 2008, for a combined license to construct and operate two Westinghouse AP1000 pressurized water

³ Progress notes that NC WARN is represented by John Runkle, counsel with considerable experience in NRC licensing proceedings, having represented a party in the Harris Unit 1 operating licensing proceeding and NC WARN in the Harris Unit 1 license renewal proceeding.

reactors at Harris (the “Application” or “COLA”).⁴ Harris is located in Wake County, North Carolina near New Hill. There is one existing nuclear reactor in operation at Harris, and the two AP1000s, which will be designated as Units 2 and 3, would be located adjacent to the existing Harris Unit 1.

The Application and this proceeding are governed by 10 C.F.R. Part 52. In particular, Subpart C of the Part 52 rules sets out the procedures and requirements applicable to the issuance of combined licenses.

The NRC promulgated its Part 52 regulations in 1989,⁵ and amended them in 2007,⁶ with the aim of enhancing the safety and reliability of nuclear power plants through standardization and early resolution of safety and environmental issues in licensing proceedings. See 53 Fed. Reg. 32,060, 32,061 (Aug. 23, 1988); 54 Fed. Reg. at 15,372, 15,373; 72 Fed. Reg. at 49,352. The Part 52 rules accomplish this aim through three principal regulatory processes: Early Site Permits (governed by Subpart A of Part 52), Design Certifications (governed by Subpart B), and Combined Licenses (governed by Subpart C). As the Commission explained:

Part 52 is intended to improve the licensing of nuclear power plants by the use of these procedural innovations. . . . Subpart A of Part 52 formalizes the early site approval process, allowing a prospective applicant to obtain a permit for one or more pre-approved sites on which future nuclear power stations can be located. Subpart B carries forward the standard design approval process . . . in much the same way, allowing a prospective applicant, vendor, or other interested party to obtain Commission approval of a design of a complete nuclear power plant or a major portion of such a plant. Subpart C establishes procedures for the issuance of a combined construction permit and conditional operating license. . . .

⁴ Harris Units 2 and 3 Combined License Application (Rev. 0, Feb. 18, 2008), transmittal letter available at ADAMS Accession No. ML080580078. Entire Application available at <http://www.nrc.gov/reactors/new-reactors/col/harris.html>.

⁵ 54 Fed. Reg. 15,372 (Apr. 18, 1989).

⁶ 72 Fed. Reg. 49,352 (Aug. 28, 2007).

This structure reveals the overall purpose of Part 52: to improve reactor safety and streamline the licensing process by encouraging standard designs and by permitting early resolution of environmental and safety issues related to the reactor site and design.

53 Fed. Reg. at 32,062.

The Commission's intent with this rulemaking is . . . to have a sensible and stable procedural framework in place for the consideration of future designs, and to make it possible to resolve safety and environmental issues before plants are built, rather than after.

54 Fed. Reg. at 15,373.

The Application exercises two of the regulatory improvements established in Part 52. First, the Application seeks a combined license. Second, the Application references a certified design, Appendix D to 10 C.F.R. Part 52 (71 Fed. Reg. 4,464 (Jan. 27, 2006) ("AP1000 DC Rule")). Aspects of the design certification covered by the AP1000 DC Rule have already been approved by the Commission and cannot be challenged in the COL proceeding. 10 C.F.R. § 52.63(a). The Application also references Westinghouse's application to amend the AP1000 DC Rule (through AP1000 Revision 16 ("AP1000 DCD Rev. 16")), and Westinghouse's associated technical report, both of which the NRC is currently reviewing.⁷ Application, Cover Letter at 1. The Commission has not yet issued an amendment to the AP1000 DC Rule to incorporate the AP1000 DCD Rev. 16. However, the Commission has stated:

We believe that 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.

Statement of Policy on Conduct of New Reactor Licensing Proceedings, CLI-08-07, 73 Fed. Reg. 20,963, 20,972 (Apr. 17, 2008).

⁷ The AP1000 Revision 16 Design Certification application may be found at <http://www.nrc.gov/reactors/new-licensing/design-cert/amended-ap1000.html> and at ADAMS Accession No. ML071580939.

The NRC Staff conducted a sufficiency review and, finding the Application acceptable for docketing, docketed the Application on April 17, 2008. 73 Fed. Reg. 21,995 (Apr. 23, 2008). On June 4, 2008, the NRC published a Notice of Hearing and Opportunity to Petition for Leave to Intervene and Order Imposing Procedures for Access to Sensitive Unclassified Non-Safeguards Information and Safeguards Information for Contention Preparation on a Combined License for the Shearon Harris Units 2 and 3 (“Hearing Notice”). 73 Fed. Reg. 31,899 (June 4, 2008).

On June 24, 2008, NC WARN filed a Motion to immediately suspend the Hearing Notice (“Motion to Suspend”) until Progress responded to Commission Staff data requests and the Commission completed its design certification review of AP1000 DCD Rev. 16.⁸ The Commission denied the Motion to Suspend on July 23, 2008, explaining that Commission Staff requests for additional information do not make an application incomplete. The Commission also reaffirmed its earlier holdings that NRC regulations allow for simultaneous NRC proceedings on (1) COL applications referencing a certified design that has been docketed but not approved; and (2) the design itself. Memorandum and Order, CLI-08-15, 67 N.R.C. ____, slip op. (July 23, 2008) (“CLI-08-15”).

On August 4, 2008, NC WARN filed its Petition now before the Board. The Petition includes a request for reconsideration of CLI-08-15 and proffers Contention TC-1 in support of that request. Petition at 7. As permitted by 10 C.F.R. § 2.345(b), Progress filed with the Commission a reply to NC WARN’s request for reconsideration (“Response to Reconsideration

⁸ Motion to Immediately Suspend Hearing Notice and Request for Expedited Consideration (June 24, 2008).

Request”).⁹ NC WARN filed a reply with the Board on August 19, 2008, and included the Commission in its distribution. On August 20, 2008, the Board issued a Memorandum and Order stating that the Motion for Reconsideration was before the Commission.¹⁰ A Motion for Reconsideration does not stay the effect of a decision. 10 C.F.R. § 2.345(c). Therefore, CLI-08-15 remains applicable to this proceeding.

III. The Petition Should Be Denied Because Petitioner Has No Admissible Contentions

To be admitted as a party in this proceeding, NC WARN must demonstrate standing and plead at least one admissible contention. 10 C.F.R. § 2.309(a). Progress does not challenge NC WARN’s standing to seek to participate in this proceeding, but submits that NC WARN has proffered no admissible contentions.

A. Standards For The Admissibility Of Contentions

1. Contentions Must Be Within The Scope Of The Proceeding

As a fundamental requirement, a petitioner must demonstrate that the issue raised in a contention addresses matters within the scope of the proceeding and is material to the findings the NRC must make. 10 C.F.R. §§ 2.309(f)(1)(iii) and (iv). Licensing boards “are delegates of the Commission” and, as such, they may “exercise only those powers which the Commission has given [them].” Public Service Co. of Indiana (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-316, 3 N.R.C. 167, 170 (1976) (footnote omitted); accord Portland General Electric Co. (Trojan Nuclear Plant), ALAB-534, 9 N.R.C. 287, 289-90 & n.6 (1979).

Accordingly, it is well established that a contention is not cognizable unless it is material to a

⁹ Progress Energy’s Response in Opposition to NC WARN Motion for Reconsideration (Aug. 14, 2008). Progress acknowledges that Contention TC-1 has been referred to this Board. Id. at 3. Progress further suggested that because the motion for reconsideration and Contention TC-1 were intertwined, for the sake of efficiency, it would be proper for the Commission to rule on Contention TC-1. Id. at 7-8.

¹⁰ Board Memorandum and Order (Concerning Administrative Matters) (Aug. 20, 2008).

matter that falls within the scope of the proceeding for which the licensing board has been delegated jurisdiction as set forth in the Commission's Notice of Opportunity for Hearing.

Marble Hill, ALAB-316, 3 N.R.C. at 170-71; see also Commonwealth Edison Co. (Zion Station, Units 1 and 2), ALAB-616, 12 N.R.C. 419, 426-27 (1980); Commonwealth Edison Co. (Carroll County Site), ALAB-601, 12 N.R.C. 18, 24 (1980).

2. Contentions May Not Challenge NRC Rules Or Issues In Rulemaking

It is also well established that a petitioner is not entitled to an adjudicatory hearing to attack generic NRC rules or regulations. 10 C.F.R. § 2.335; Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2 and 3), CLI-99-11, 49 N.R.C. 328, 334 (1999). “[A] licensing proceeding . . . is plainly not the proper forum for an attack on applicable statutory requirements or for challenges to the basic structure of the Commission’s regulatory process.” Philadelphia Electric Co. (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 A.E.C. 13, 20, aff’d in part on other grounds, CLI-74-32, 8 A.E.C. 217 (1974) (footnote omitted). Thus, a contention which collaterally attacks a Commission rule or regulation is not appropriate for litigation and must be rejected. Potomac Electric Power Co. (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 A.E.C. 79, 89 (1974).

Similarly, it is well established 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 N.R.C. at 345, quoting Douglas Point, ALAB-218, 8 A.E.C. at 85. This principle is particularly important in a COL proceeding in which the application references a design certification application under review. As the Commission has explained:

With respect to a design for which certification has been requested but not yet granted, the Commission intends to follow its longstanding precedent 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.’ . . . In accordance with these decisions, a licensing board should treat the NRC’s docketing of a design certification application as the Commission’s determination that the design is the subject of a general rulemaking. We believe that 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. 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.

CLI-08-07, 73 Fed. Reg. at 20,972 (citations omitted). The Commission recently affirmed this Statement of Policy in response to NC WARN’s Motion to Suspend. CLI-08-15 at 3-4.

3. Contentions Must Be Specific And Supported By A Basis, With Factual Information Or Expert Opinion Sufficient To Demonstrate A Genuine, Material Dispute

In addition to the requirements previously discussed, a contention is admissible only if it provides:

- a “specific statement of the issue of law or fact to be raised or controverted;”
- a “brief explanation of the basis for the contention;”
- a “concise statement of the alleged facts or expert opinions” supporting the contention together with references to “specific sources and documents on which the requestor/petitioner intends to rely to support its position on the issue;” and
- “[s]ufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact,” which showing must include “references to specific portions of the application (including the applicant’s environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner’s belief.”

10 C.F.R. §§ 2.309(f)(1)(i), (ii), (v) and (vi). The failure of a contention to comply with any one of these requirements requires dismissal of the contention. Arizona Public Service Co. (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 N.R.C. 149, 155-56 (1991).

These pleading standards governing the admissibility of contentions are the result of a 1989 amendment to 10 C.F.R. § 2.714, now § 2.309, which was intended “to raise the threshold for the admission of contentions.” Final Rule, Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168 (Aug. 11, 1989); see also Oconee, CLI-99-11, 49 N.R.C. at 334; Palo Verde, CLI-91-12, 34 N.R.C. at 155-56. The Commission has stated that the “contention rule is strict by design,” having been “toughened . . . in 1989 because in prior years ‘licensing boards had admitted and litigated numerous contentions that appeared to be based on little more than speculation.’” Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 N.R.C. 349, 358 (2001) (citation omitted). The pleading standards are to be enforced rigorously. “If any one of the requirements [now in 10 C.F.R. § 2.309(f)(1)] is not met, a contention must be rejected.” Palo Verde, CLI-91-12, 34 N.R.C. at 155 (citation omitted). A licensing board is not to overlook a deficiency in a contention or assume the existence of missing information. Id.

The Commission has explained that this “strict contention rule” serves multiple purposes, which include putting other parties on notice of the specific grievances being raised and assuring that full adjudicatory hearings are triggered only by those able to proffer at least some minimal factual and legal foundation in support of their contentions. Oconee, CLI-99-11, 49 N.R.C. at 334. By raising the threshold for admission of contentions, the NRC intended to obviate lengthy hearing delays caused in the past by poorly defined or unsupported contentions. Id. As the Commission reiterated in incorporating these same standards into the new 10 C.F.R. Part 2 rules,

“[t]he threshold standard is necessary to ensure that hearings cover only genuine and pertinent issues of concern and that issues are framed and supported concisely enough at the outset to ensure that the proceedings are effective and focused on real, concrete issues.” 69 Fed. Reg. 2,182, 2,189-90 (Jan. 14, 2004).

Under these standards, a petitioner is obligated “to provide the [technical] analyses and expert opinion” or other information “showing why its bases support its contention.” Georgia Institute of Technology (Georgia Tech Research Reactor, Atlanta, Georgia), LBP-95-6, 41 N.R.C. 281, 305, vacated in part and remanded on other grounds, CLI-95-10, 42 N.R.C. 1, aff’d in part, CLI-95-12, 42 N.R.C. 111 (1995). Where a petitioner has failed to do so, “the [Licensing] Board may not make factual inferences on [the] petitioner’s behalf.” Id., citing Palo Verde, CLI-91-12, 34 N.R.C. 149. See also Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), LBP-98-7, 47 N.R.C. 142, 180 (1998) (“Private Fuel Storage”) (a “bald assertion that a matter ought to be considered or that a factual dispute exists . . . is not sufficient;” rather, “a petitioner must provide documents or other factual information or expert opinion” to support a contention’s “proffered bases”) (citations omitted).

Further, admissible contentions “must explain, with specificity, particular safety or legal reasons requiring rejection of the contested [application].” Millstone, CLI-01-24, 54 N.R.C. at 359-60. In particular, this explanation must demonstrate that the contention is “material” to the NRC findings and that a genuine dispute about a material issue of law or fact exists. 10 C.F.R. §§ 2.309(f)(1)(iv), (vi). The Commission has defined a “material” issue as meaning one where “resolution of the dispute would make a difference in the outcome of the licensing proceeding.” 54 Fed. Reg. at 33,172 (emphasis added).

As the Commission observed, this threshold requirement is consistent with judicial decisions, such as Connecticut Bankers Association v. Board of Governors, 627 F.2d 245, 251 (D.C. Cir. 1980), which held that:

[A] protestant does not become entitled to an evidentiary hearing merely on request, or on a bald or conclusory allegation that . . . a dispute exists. The protestant must make a minimal showing that material facts are in dispute, thereby demonstrating that an “inquiry in depth” is appropriate.

627 F.2d at 251 (footnote omitted); see also Baltimore Gas & Electric Co. (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-14, 48 N.R.C. 39, 41 (1998) (“It is the responsibility of the Petitioner to provide the necessary information to satisfy the basis requirement for the admission of its contentions . . .”). A contention, therefore, is not to be admitted “where an intervenor has no facts to support its position and where the intervenor contemplates using discovery or cross-examination as a fishing expedition which might produce relevant supporting facts.” 54 Fed. Reg. at 33,171. The Rules of Practice bar contentions where petitioners have what amounts only to generalized suspicions, hoping to substantiate them later, or simply a desire for more time and more information in order to identify a genuine material dispute for litigation. Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2), CLI-03-17, 58 N.R.C. 419, 424 (2003).

Accordingly, under the Rules of Practice, a statement “that simply alleges that some matter ought to be considered” does not provide a sufficient basis for a contention. Sacramento Municipal Utility District (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 N.R.C. 200, 246 (1993), review denied, CLI-94-2, 39 N.R.C. 91 (1994). Similarly, a mere reference to documents does not provide an adequate basis for a contention. Baltimore Gas & Electric Co. (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 N.R.C. 325, 348 (1998).

4. Contentions Cannot Ignore Publicly Available Documentation Relating To The Licensing Request

The NRC's pleading standards require a petitioner to read the pertinent portions of the combined license application and supporting documents, including the Final Safety Analysis Report ("FSAR") and Environmental Report ("ER"), state the applicant's position and the petitioner's opposing view, and explain why it has a disagreement with the applicant. 54 Fed. Reg. at 33,171; Millstone, CLI-01-24, 54 N.R.C. at 358. Contentions must be based on documents or other information available at the time the petition is filed. 10 C.F.R. § 2.309(f)(2). Indeed, a petitioner

has an ironclad obligation to examine the publicly available documentary material pertaining to the facility in question with sufficient care to enable the petitioner to uncover any information that could serve as the foundation for a specific contention. Neither Section 189a of the Atomic Energy Act nor [the corresponding Commission regulation] permits the filing of a vague, unparticularized contention, followed by an endeavor to flesh it out through discovery against the applicant or Staff.

54 Fed. Reg. at 33,170 (quoting Duke Power Co. (Catawba Nuclear Station, Units 1 & 2), ALAB-687, 16 N.R.C. 460, 468 (1982), vacated in part on other grounds, CLI-83-19, 17 N.R.C. 1041(1983)). The obligation to make specific reference to relevant facility documentation applies with special force to an applicant's FSAR and ER, and a contention should be rejected if it inaccurately describes an applicant's proposed actions or ignores or misstates the content of the licensing documents. See, e.g., Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant, Units 1 and 2), LBP-82-119A, 16 N.R.C. 2069, 2076 (1982); Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), LBP-32-107A, 16 N.R.C. 1791, 1804 (1982); Philadelphia Electric Co. (Limerick Generating Station, Units 1 and 2), LBP-82-43A, 15 N.R.C. 1423, 1504-05 (1982).

If the petitioner does not believe that a licensing request and supporting documentation address a relevant issue, the petitioner is “to explain why the application is deficient.” 54 Fed. Reg. at 33,170; Palo Verde, CLI-91-12, 34 N.R.C. at 156. A contention that does not directly controvert a position taken by the applicant in the license application is subject to dismissal. See Texas Utilities Electric Co. (Comanche Peak Steam Electric Station, Unit 2), LBP-92-37, 36 N.R.C. 370, 384 (1992). An allegation that some aspect of a license application is inadequate does not give rise to a genuine dispute unless it is supported by facts and a reasoned statement of why the application is unacceptable in some material respect. Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-90-16, 31 N.R.C. 509, 521 & n.12 (1990).

As set forth below, none of NC WARN’s Contentions complies with the Commission’s standards.

IV. Discussion

A. Contention TC-1 (AP1000 Certification) Is Inadmissible

Contention TC-1 claims that “[t]he 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.” Petition at 13. Contention TC-1 is inadmissible because it does not state an issue of law or fact to be raised or controverted (contrary to 10 C.F.R. §2.309(f)(1)(i)), and because it does not identify in what way NC WARN believes the Application is incomplete. Furthermore, NC WARN is apparently challenging the NRC’s carefully considered rulemaking in 10 C.F.R. Part 52, including the Issue Resolution of the

AP1000 DC Rule. Therefore, Contention TC-1 also is an impermissible challenge to NRC regulations.

1. Contention TC-1 Is Not Admissible Because The Issue Raised Has Been Rejected By The Commission And It Fails To State An Issue Of Law Or Fact That Can Be Adjudicated

For the reasons Progress set forth in its Response to Reconsideration Request (incorporated by reference into this Answer), Contention TC-1 is inadmissible here. Contention TC-1 alleges that NC WARN “is forced to file contentions on designs and operation procedures that are ‘known unknowns.’” Petition at 7. NC WARN alleges that this supposed “problem” (*id.*) warrants reconsideration of CLI-08-15. NC WARN’s Motion to Suspend was based on the same argument that NC WARN now raises in Contention TC-1. In denying the Motion to Suspend, the Commission disagreed that NC WARN had identified a problem (CLI-08-15 at 4), a conclusion that NC WARN acknowledges even as it repeats its argument in Contention TC-1. Contention TC-1 reiterates NC WARN’s complaint that COLA and design certification reviews cannot proceed in parallel. This complaint is nothing more than a challenge to the Commission’s decision upholding the NRC regulation (10 C.F.R. § 52.55(c)) that allows such parallel reviews. CLI-08-15 at 3 & n.5. As this Board noted in its August 20, 2008 Memorandum and Order (at 2), a board cannot reconsider such a decision.¹¹ Therefore, Contention TC-1 fails to state an issue of law or fact that can be adjudicated in this proceeding.

¹¹ See also, e.g., Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-86-21, 23 N.R.C. 849, 871-72 (1986); Ohio Edison Co. (Perry Nuclear Power Plant, Unit 1), LBP-92-32, 36 N.R.C. 269, 283 (1992) (“The repose doctrine of law of the case acts to bar relitigation of the same issue in subsequent stages of the same proceeding”), aff’d on other grounds, City of Cleveland v. NRC, 68 F.3d 1361 (D.C. Cir. 1995) (footnote omitted).

2. **Contention TC-1 Is Inadmissible As It Is An Impermissible Challenge To NRC Regulations**

It is long-standing Commission policy that individual licensing adjudications are not an appropriate forum in which to attack generic NRC rules or regulations. 10 C.F.R. § 2.335. Contention TC-1 is inadmissible because it is a challenge to the carefully considered rulemaking in 10 C.F.R. Part 52 that addresses the design certification process. Contention TC-1 states: “Until major components are incorporated into the COLA for a full review, much of the interaction between the various components cannot be resolved.” Petition at 17. NC WARN apparently insists that the Application must contain the final design or it is otherwise incomplete. Petition at 16 (providing a laundry list of nine general categories of components and procedures that are in the AP1000 DC Rule and only incorporated by reference into the Application). Contention TC-1 concludes, “[r]egardless of whether the reactor components are certified or not at some time in the future, the COLA does not contain the necessary information on major design and operational components.” Petition at 17-18. Such a conclusion is a clear and impermissible challenge to 10 C.F.R. Part 52, as it asserts that applications must include design information, rather than just reference design information in a design certification rule or ongoing rulemaking. 10 C.F.R. § 2.335.

3. **The AP1000 Design Certification Documents Are Available For Public Review; Contention TC-1 Does Not Present A Specific Statement Of An Issue Of Fact To Be Controverted**

NC WARN’s alleged “problem” is non-existent. There is no support for NC WARN’s implication (see e.g., Petition at 13, 17) that AP1000 design information is not disclosed. The AP1000 design information is available in a transparent and public process¹² that

¹² While access to those few sections that contain proprietary and security information is restricted, individuals considering participating in this proceeding could have requested access. 73 Fed. Reg. 31,899 (June 4, 2008).

has been incorporated by reference into the Application. Response to Reconsideration Request at 5 n.8. All three documents that Progress incorporated by reference into the Application provide AP1000 design information and are publicly available.¹³ Through the design certification process, there is full disclosure of all design and operational procedures. Contrary to 10 C.F.R. § 2.309(f)(1)(i), NC WARN has not presented a specific statement of an issue of fact to be controverted.

First, the Application incorporates the AP1000 DC Rule by reference.¹⁴ The AP1000 DC Rule was approved by the NRC in 2006. Final Rule, AP1000 Design Certification, 71 Fed. Reg. 4,464 (Jan. 27, 2006). It is available from Westinghouse and the NRC (see 10 C.F.R. Part 52, App. D., § III.A) as well as on the NRC website. See <http://www.nrc.gov/reactors/new-reactors/design-cert/ap1000.html>. See also 73 Fed. Reg. at 31,900. This document covers fully the AP1000 design. As a final rule, it is subject to revision only by rulemaking. 10 C.F.R. § 52.63(a)(1). Therefore, there is no basis for NC WARN's assertion that the document is not publicly available or subject to change.

Second, the Application incorporates by reference Westinghouse's AP1000 DCD Rev.16 (ADAMS Accession No. ML071580939). AP1000 DCD Rev. 16 is available on the NRC website and can be located by multiple methods. 73 Fed. Reg. at 31,900. This document identifies (as a mark-up of the AP1000 DC Rule) the proposed changes that the amendment

¹³ NC WARN is concerned that Progress has not accepted the AP1000 design information. Petition at 13. The submittal of the Application incorporating the AP1000 DC Rule and AP1000 DCD Rev. 16 belies the accuracy of NC WARN's assertion. Furthermore, the relevance of Progress's acceptance is not clear, as the amended rule will apply to all applicants. 10 C.F.R § 52.63(a)(3). Lastly, as a theoretical matter, if Progress desired to not accept some aspect of the Final Rule, Progress can opt out by filing an exemption request. 10 C.F.R § 52.63(b)(1).

¹⁴ NC WARN confuses the AP1000 DC Rule with the AP1000 DCD Rev. 16. Petition at 13, n.19. In fact, these are two separate documents. To aid in review, Revision 16 contains a reissue of the AP1000 DC Rule, but the parts changed by Rev. 16 are shown by side bars on the appropriate pages.

application requests.¹⁵ Contrary to the assertions by NC WARN (Petition at 13), AP1000 DCD Rev. 16 is not conditional. Once approved by the NRC and incorporated by rulemaking, AP1000 DCD Rev. 16 will be applicable to all applicants referencing it. 10 C.F.R. § 52.63(a)(3). This amendment process fosters standardization. 72 Fed. Reg. at 49,368, 49,382, and 49,445. In addition, contrary to NC WARN's assertion (Petition at 15), AP1000 DCD Rev. 16 has been submitted by Westinghouse and is not subject to modification during the certification process without formal amendment.

Third, the Application incorporates by reference Westinghouse Technical Report APP-GW-GLR-134. AP 1000 DCD Impacts to Support COLA Standardization, Revision 3, ADAMS Accession No. ML080220389 ("TR-134"). TR-134 is a proffer of material that will be incorporated as Revision 17 into the amendment proposed by AP1000 DCD Rev. 16. As the NRC review of AP1000 DCD Rev. 16 progresses and the NRC identifies questions,¹⁶ some Westinghouse responses indicate that a further amendment to the AP1000 DC Rule is warranted to resolve these concerns. TR-134 provides marked up pages that show the changes that will be incorporated in Revision 17.¹⁷ TR-134 at 1. TR-134 is the link, identified in the Application, that shows that the alleged "problem" at issue in Contention TC-1 does not exist.¹⁸ As NRC

¹⁵ NC WARN correctly notes that AP1000 DCD Rev. 16 is made up of 172 documents on the NRC website.

Petition at 14. The material is voluminous because the proposed amendment is provided in context as a mark-up of the AP1000 DC Rule. The changes on Rev. 16 are shown by side bars and do not impact all of the pages.

¹⁶ The Commission specifically states that "[t]he mere fact the staff is asking for more information does not make an application incomplete." CLI-08-15 at 2.

¹⁷ The mark-up pages in TR-134 show revision side bars from AP1000 DCD Rev. 16. In other words, the side bars showing changes from AP1000 DC Rule are omitted.

¹⁸ TR-134 also provides a roadmap to determine the AP1000 design information for Harris Units 2 and 3 at any point in time. First, start with the material in the AP1000 DC Rule and AP1000 DCD Rev. 16 (for convenience, this material is provided on the same page in AP1000 DCD Rev. 16). This material, as discussed above, will not change throughout the process because the AP1000 DC Rule was issued by the NRC and Westinghouse has submitted AP1000 DCD Rev. 16. Second, determine if the current revision of TR-134 proffers any change to the material. At the time the Application was submitted, the current revision was TR-134 Rev. 3. At the time the Petition was submitted, Revision 5 of TR-134 was current (ADAMS Accession No. ML081850550). Revisions

review of AP1000 DCD Rev. 16 results in changes, Westinghouse updates TR-134 to show how the changes will be reflected in Revision 17. The changes in both AP1000 DCD Rev. 16 and TR-134 (Revision 17), when approved by the NRC, will be applicable to all AP1000 COL applicants. 10 C.F.R. § 52.63(a)(3). This implementation process fosters standardization. 72 Fed. Reg. at 49,382, 49,445.

NC WARN does not even cite, let alone dispute, the process described in TR-134. NC WARN simply alleges “there is now major disconnect between the certification of the AP-1000 Revision 16 reactor design and the COLA review.” NC WARN Reply to Progress Response to NC WARN Motion (Aug.19, 2008) at 5. NC WARN may perceive a disconnect because it did not consider the role of TR-134.

For the reasons stated above, Contention TC-1 must be rejected as contrary to the Commission’s decision in CLI-08-15, as a challenge to NRC regulations, and as failing to provide a specific statement of an issue of fact to be controverted, as required by 10 C.F.R. § 2.309(f)(1)(i).

B. Contention TC-2 (Track Record of Fire Violations) Is Inadmissible

NC WARN’s Contention TC-2 asserts that “[g]iven 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.” Petition at 18. This Contention is inadmissible and must be rejected because it is outside the scope of this proceeding, as it is little more than an effort to re-litigate settled issues raised by NC WARN in two separate proceedings before the Commission. See 10

of TR-134 are intended to apply to all applicants. TR-134 Rev. 5 at 1. This design information can then be compared to the material in the Application. It is this review that the Commission invited NC WARN to determine whether there were any deficiencies in the Application (CLI-08-15 at 2; Petition at 16). NC WARN has apparently failed to perform such a review.

C.F.R. § 2.309(f)(1)(iii). Contention TC-2 is also not material to this proceeding, and NC WARN does not take issue with any portion of the Application nor provide any support or basis for the Contention. For these reasons, a “genuine dispute” does not exist “with the applicant/licensee on a material issue of law or fact.” Contention TC-2, therefore, is not admissible. See 10 C.F.R. §§ 2.309(f) (1) (iii), (iv), (v), and (vi).

1. Contention TC-2 Is Not Within The Scope Of This Proceeding And Is An Impermissible Collateral Attack On Final Decisions In Other Commission Proceedings

Contention TC-2 is inadmissible because it is outside the scope of this proceeding. As discussed below, Contention TC-2 is little more than a replay of fire protection issues raised by NC WARN in (1) the Harris Unit 1 license renewal proceeding;¹⁹ and (2) a petition pursuant to 10 C.F.R. § 2.206 for NRC action at Harris Unit 1 (“2.206 Petition”).²⁰ NC WARN’s effort to re-litigate final decisions relating to Harris Unit 1 is an impermissible collateral attack on Commission decisions that have no relationship to the issuance of a COL for Harris Units 2 and 3.

NC WARN’s “support” for Contention TC-2 is a limited paraphrase of the support provided by petitioners (including NC WARN) for Contention TC-1 in the Harris Unit 1 license renewal proceeding. Compare Petition at 18-24 with NC WARN May 18, 2007 Petition at 19-24. NC WARN basically took Contention TC-1 from the Harris Unit 1 license renewal proceeding, updated references to a recently completed Government Accounting Office report,

¹⁹ NC WARN Petition for Leave to Intervene and Request for Hearing (May 18, 2007 (ADAMS Accession No. ML071430566) (“NC WARN May 18, 2007 Petition”).

²⁰ NC WARN Petition for Emergency Enforcement Action Pursuant to 10 CFR § 2.206 – Suspension of Operating License No. NPF-63 for Shearon Harris Nuclear Plant until Recurring Fire Protection Issues are Brought into Compliance (Sept. 20, 2006) (ADAMS Accession No. ML062640550) (“2.206 Petition”).

and dropped discussion of license renewal.²¹ NC WARN, however, makes no effort to show how the discussion from the Harris Unit 1 proceeding applies to Harris Units 2 and 3, especially given that Harris Units 2 and 3 are of a completely different design than Harris Unit 1. NC WARN appears to acknowledge this difference, as Contention TC-2 also adds one new three-sentence paragraph discussing AP1000 DCD Rev. 16. Petition at 23-24. NC WARN, however, makes no effort to tie any of the information previously submitted in the Harris Unit 1 license renewal proceeding (or in the Harris Unit 1 2.206 Petition) to information in the Application, likely because no such connection is possible.

For example, Contention TC-2 discusses the use of fire barrier systems at Harris Unit 1 to protect cables from fire damage. Petition at 19. Advanced designs like the AP1000 to be used at Harris Units 2 and 3, however, are expected to rely on physical separation by fire zones instead of fire barrier systems. See e.g., AP1000 DCD Rev. 16 at Tier 2, Section 19.59.6.2; Tr.²² . Indeed, the AP1000 provides a design commitment to use physical separation. See AP1000 DCD Rev. 16 at Tier 1, Tables 3.3-3 and 3.3-6(7); Tier 2, Section 8.3.2.4.2. A document that NC WARN references in the Petition provides this analysis.²³ However, Contention TC-2 itself does not specifically mention, let alone dispute, this AP1000 design commitment. Accordingly, NC WARN does not raise a genuine dispute with the Application.

NC WARN also asserts that noncompliance with fire regulations at Harris Unit 1 is an additional risk to the proposed Harris Units 2 and 3. Petition at 23. NC WARN provides no

²¹ License renewal was mistakenly referred to as “relicensing” in the NC WARN May 18, 2007 Petition. See also Petition at 3, 34 n.49.

²² Transcript of NRC Briefing on Fire Protection Issues, July 17, 2008 (ADAMS Accession No. ML082030647). See also Petition at 19 n.28.

²³ Petition at 19 n.28; see e.g., Tr. at 45; Tr. at 67-68 (testimony of R. William Borchardt concerning new reactor designs); Tr. at 76-77.

support for this vague and unsupported conclusory statement. As previously determined in the NRC evaluation of this issue in response to NC WARN's Harris Unit 1 2.206 Petition, compliance with fire regulations does not pose an increased risk at Harris Unit 1. Specifically, the NRC found:

The Director's Decision denies the Petitioners' requests due to the NRC staff's determination that [the Shearon Harris Nuclear Power Plant] is safe to continue operation. This determination is based on the availability of several levels of defense-in-depth in fire protection and the Licensee's efforts to transition to the new risk-informed, performance-based standards in 10 CFR 50.48(c). The Licensee is actively identifying and completing corrective actions, including plant modifications and reanalysis efforts associated with the new standards, and has in place compensatory measures to account for existing noncompliances.

NRC letter to J. D. Runkle, (June 13, 2007) (ADAMS Accession No. ML071500446) at 1 ("Runkle June 13, 2007 letter"). Moreover, even if NC WARN's assertion regarding noncompliance with fire regulations at Harris Unit 1 were true, which it is not, NC WARN makes no effort to tie that risk to Harris Units 2 and 3.

In fact, there is no reasonable concern that a fire at Harris Unit 1 could impact Harris Units 2 and 3. NC WARN has not shown any relationship between fire risk at Harris Unit 1 and Harris Units 2 and 3, nor is such a relationship plausible. It is not surprising that NC WARN does not allege a basis for how a fire at Harris Unit 1 could impact Harris Units 2 and 3, since the Application states that a fire at Harris Unit 2 is not considered a credible risk for Harris Unit 3 and vice versa.²⁴ Because the design of the AP1000 uses passive safety systems, a fire that is external to each plant (including one at Unit 1) is not a plausible safety concern for Harris Units 2 and 3. See FSAR Table 1.8-202, entries 9.5-2 and 9.5-3. NC WARN does not dispute this analysis. NC WARN, therefore, does not raise a genuine dispute with the Application.

²⁴ FSAR Table 9.5-201, entries 14 and 15.

NC WARN does briefly state correctly that the fire hazard analysis in the AP1000 DCD Rev. 16 assumes that only one fire occurs at any given time. Petition at 23. NC WARN then makes the vague and unsupported assertion that such an assumption is false. Petition at 24. It is true that the AP1000 DCD Rev. 16 fire hazard analysis assumes that only one fire occurs at a time. It would be unrealistic for a fire hazard analysis to assume that two or more simultaneous major fires will start at the same time, and it would be irrational for a fire hazard analysis to assume that no fires will start at all. There is no basis or support for NC WARN to assert that the one fire assumption is false.²⁵

Furthermore, NC WARN illogically states that, due to the risk of “multiple spurious actuation,” it is not reasonable for Progress to assume only one fire at a time when assessing fire risk for the AP1000 reactors. Petition at 23-24. If credible, NC WARN should address any concerns with the methodology for the AP1000 risk analysis in the AP1000 DCD Rev. 16 rulemaking and not the COL proceeding. See discussion of CLI-08-15, supra. In addition, fires are not initiated by spurious actuation; instead, fires cause spurious actuation through creating hot shorts. Because spurious actuation is a consequence, not a cause, of fires, there is no logical basis to claim that the risk of spurious actuation is related to the number of fires assumed to start. AP1000 DCD Rev. 16 addresses spurious actuation, including multiple spurious actuation where appropriate. AP1000 DCD Rev. 16 at Tier 2, App. 9A, Sections 9A.3.7.1.1 and 9A.3.7.1.2. This discussion in AP1000 DCD Rev. 16 on spurious actuation provides no logical basis to relate spurious actuation to assumptions about fire initiation. NC WARN does not dispute this analysis. NC WARN, therefore, does not raise a genuine dispute.

²⁵ See generally, Fire Protection for Nuclear Power Plants, Reg. Guide 1.189, § 1.2.

Aside from the one three-sentence paragraph regarding the AP1000 design that is described above, Contention TC-2 focuses on fire protection at Harris Unit 1, not the actual units (Harris 2 and 3) which are at issue in this proceeding. As Contention TC-2 acknowledges, fire protection issues regarding Harris Unit 1 were fully resolved in a Director's Decision (DD-07-03) on NC WARN's Harris Unit 1 2.206 Petition. Petition at 21, n.32. Furthermore, in response to an unauthorized filing requesting review of that decision, the Commission denied the request for formal review and the Director's Decision became final agency action on July 9, 2007. DD-07-03 (June 13, 2007) (ADAMS Accession No. ML071500403). Contention TC-2 is little more than a challenge to the final Director's Decision on the same issues in the Harris Unit 1 proceeding. Such a challenge is not permitted by NRC regulations.²⁶

As noted above, basically the same support proffered for Contention TC-2 in this proceeding was submitted by NC WARN as a proposed contention (Contention TC-1) in the Harris Unit 1 license renewal proceeding. Compare Petition at 18-24 with Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant, Unit 1) LBP-07-11, 66 N.R.C. 41, 66-69 (2007). In concluding Contention TC-1 was not admissible in the license renewal proceeding, the Board stated:

Our denial of Contention TC-1 does not necessarily mean, however, that issues relating to fire protection at the Shearon Harris plant can never be addressed by Petitioners in an adjudication proceeding. The Applicant's license amendment application regarding any proposed new fire protection program should produce an opportunity to petition to intervene in that license amendment proceeding and file contentions regarding any challenges Petitioners might have to the Applicant's new proposed fire protection program.

²⁶ Pursuant to 10 C.F.R. § 2.206(c), the decision became the final action of the Commission 25 days after the date of decision because the Commission did not institute a review of a decision within that time period. As the decision is more than a year old, appeal to a U.S. Court of Appeals is no longer timely. Fed. R. App. P. 15. NC WARN cannot collaterally attack the final Director's Decision and re-litigate it in this proceeding.

LBP-07-11, 66 N.R.C. at 75.²⁷ In light of the board’s dicta that the fire protection issue, if admissible in any adjudicatory proceeding, may be admissible in a proceeding specific to fire protection at Harris Unit 1, there is little reason to find that this Contention was properly submitted in this proceeding regarding Harris Units 2 and 3.

NC WARN concludes, “[a]s 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.”²⁸ Petition at 24. What is clear is that, as a matter of law, NC WARN cannot litigate fire protection at Harris Unit 1 in this proceeding, as the issues have been fully and finally decided in the Harris Unit 1 license renewal proceedings and in the Harris Unit 1 2.206 Petition proceeding, and are not relevant to the Application at issue here. Therefore, Contention TC-2 must be rejected as outside the scope of this proceeding. 10 C.F.R. § 2.309(f)(1)(iii).

2. Contention TC-2 Is Not Adequately Supported And NC WARN Has Not Provided References To Specific Sections Of The Application With Which It Takes Issue

Contention TC-2 is also inadmissible because it is not supported by a sufficient basis demonstrating a genuine dispute with the Application. As discussed above, admissible contentions must meet the pleading requirements in 10 C.F.R. § 2.309(f). Contention TC-2 does not even begin to meet those requirements.

²⁷ The license amendment regarding the fire protection program for Harris Unit 1 referenced by the Board was submitted in May 2008. Progress Energy letter to the NRC of May 29, 2008 (ADAMS Accession No. ML081560641).

²⁸ In Contention TC-1 filed in the Harris Unit 1 license renewal proceeding, the corresponding conclusion was, “Therefore, as a matter of law, the decision on the relicensing of the SHNPP should be denied until the plant is fully in compliance with the fire regulations.” NC WARN May 18, 2007 Petition at 25. See also Petition at 24. While perhaps providing limited insight about which “plant” NC WARN is referring to, the logic of the conclusion is even less persuasive in this proceeding, which does not relate to Harris Unit 1.

For example, NC WARN fails to provide a “concise statement of the alleged facts or expert opinions” supporting Contention TC-2 or references to “specific sources and documents on which the requestor/petitioner intends to rely to support its position on the issue,” as required by 10 C.F.R. § 2.309(f)(1)(v). NC WARN fails “to provide the [technical] analyses and expert opinion” or other information “showing why its bases support its contention.” Georgia Institute of Technology, LBP-95-6, 41 N.R.C. at 305. NC WARN references documents discussing Harris Unit 1 with no explanation of why technical issues at that plant apply to the different design planned for Harris Units 2 and 3. NC WARN also cites the Harris Unit 1 2.206 Petition and the Proposed Director’s Decision in its 10 C.F.R. § 2.206 Petition (see Petition at 21) although those documents in no way support NC WARN’s claims.²⁹ Indeed, none of the documents cited by NC WARN reference, or relate to, any portion of the Application or explain how the Application is deficient.

NC WARN discusses the Harris Unit 1 2.206 Petition by reference (Petition at 21 & n.32), contending, without support, that “[t]he problem at the existing Harris reactor has not been resolved.” Petition at 22. In purported support, NC WARN cites a superseded cover letter forwarding an NRC draft audit report of the progress that Harris Unit 1 was making in its transition to the risk-informed fire protection regulation.³⁰ NC WARN extracts a quote from the superseded cover letter stating that the NRC review team found that the Harris Unit 1 fire probabilistic risk assessment (“PRA”) was not complete. Petition at 22. In fact, the audit final report more fully states:

²⁹ It also has been superseded by DD-07-03.

³⁰ NC WARN incorrectly cites an NRC letter to Progress Energy dated March 10, 2008 that forwarded a draft audit report. That letter was explicitly superseded by the letter forwarding the final report. NRC letter to Progress Energy dated July 16, 2008 (ADAMS Accession No. ML081560501).

The NRC review team noted that the Harris Fire PRA is not yet complete – some tasks have yet to be started, and many areas are still in draft form. At the time of the onsite portion of the review, the Harris Fire PRA represented a scoping analysis, rather than a completed fire PRA. Very little detailed fire modeling has been done, the screening approach to identification of which areas could generate a hot gas layer appears extremely conservative, and the probability of spurious actuation in the model reviewed was assumed to be 1.0. This is significant since there were a large number of spurious actuations included in the model. The results of the PRA reviewed by the NRC staff were based upon a number of conservatisms. Further work is being done by the licensee to finalize the fire PRA and to reduce the excess conservatisms. For example, detailed circuit analyses are being done so that more realistic probabilities of spurious actuation can be assigned. However, it appeared to the NRC review team that a great deal of work will be required in order to achieve a usable fire PRA model. For these reasons, the NRC staff review of the Harris baseline fire PRA cannot be regarded as sufficient for determination of technical adequacy to support risk-informed applications. Additional review of the completed fire PRA will be necessary.

Harris Nuclear Plant Fire Probabilistic Risk Assessment Pre-Submittal Audit, May 2008 at 9 (ADAMS Accession No. ML080650420). In context, the material quoted by NC WARN in support of its claim provides no support for its assertion that “Progress Energy has continued to delay the resolution of the fire issue.” Petition at 22. The NRC pre-submittal audit was conducted about four months before Progress submitted a license amendment request to implement the transition to National Fire Protection Association Standard 805 (“NFPA 805”). Therefore, the two sentences quoted by NC WARN from a superseded cover letter do not provide any evidence supporting a claim that Progress has delayed in preparing the Harris Unit 1 fire PRA.

Furthermore, in context, the audit report’s conclusions also state that the licensee was performing further work³¹ and that additional effort is needed to reduce excess conservatisms in the analysis. As quoted above, the audit report conclusion is that additional NRC Staff review

³¹ Specifically, in another document cited by NC WARN (Petition at 19, n. 28), Progress (J. Donohue) testifies that it has spent considerable effort prior to submittal to address concerns from the pre-application audit. Transcript of NRC Briefing on Fire Protection Issues, July 17, 2008 (ADAMS Accession No. ML082030647) at 12.

of the completed Harris fire PRA would be needed before it would be sufficient for determining technical adequacy to support risk-informed applications. While reducing conservatism in the fire PRA analysis is important to make it more useful, completing a fire PRA is not a prerequisite to completing the transition to NFPA 805. NC WARN apparently misunderstands the regulations. Progress has submitted a license amendment request for compliance with NFPA 805. Progress letter to the NRC of May 29, 2008 (ADAMS Accession No. ML081560641); see also 10 C.F.R. § 50.48(c)(3). While the license amendment request includes a fire PRA, that fire PRA is an optional tool that licensees may submit in order to utilize risk-informed or performance-based alternatives to NFPA 805. 10 C.F.R. § 50.48(c)(4). Therefore, contrary to the implied assertion of NC WARN, completing work on a fire PRA so that it is a useful tool for risk-informed or performance-based decision-making is not a prerequisite to completing the transition to NFPA 805, but an option that maximizes the value of such a transition for the licensee. Furthermore, as noted above, the Harris fire PRA in any event was completed and submitted to the NRC in May of 2008.

NC WARN makes a vague and unsupported statement that, “[r]egardless of the effort to relax fire protection regulations under a new voluntary NFPA 805 regulatory scheme, the existing Harris reactor would remain in non compliance with both the current and new regulations indefinitely.” Petition at 22 (footnote omitted). The documents the Petition cites to attempt to support NC WARN’s claim that Harris Unit 1 will remain in non-compliance with fire protection regulation indefinitely in fact show that such compliance will be achieved by 2010. Accordingly, the two documents - a memorandum of July 15, 2008 from Chairman Klein to the NRC Inspector General and the transcript of a public meeting on fire protection on July 17, 2008 (Petition at 19 n.28 & 22 n.34) - do not provide any support for Contention TC-2. Specifically,

- In his memorandum of July 15, 2008, Chairman Klein discusses an issue with a type of fire-resistant cable wrap, Hemyc; states that the NRC did not definitively identify the issue until 2005; and commits that the issue will be resolved by December 1, 2008. NRC (Klein) memorandum to Inspector General (Bell) of July 15, 2008 at 1. Contrary to the assertion by NC WARN, this memorandum commits to achieving compliance on the Hemyc issue by the end of 2008 and provides no support for asserting indefinite noncompliance.
- The transcript of the July 17, 2008 public meeting discusses achieving closure of fire protection issues, including the Hemyc issue, resolution of reliance on operator manual actions, and over-reliance on interim measures while transitioning to NFPA 805, by 2010. Specifically:
 - The NRC Staff states that they expect to complete closure of fire-resistant cable wraps by the end of 2008. Tr. at 60.
 - The NRC Staff states that they expect to complete closure of reliance on operator manual actions by 2010. Tr. at 61.
 - When asked about closure of all items from the Inspector General and GAO reports on fire protection, the NRC Staff states that closure will be by 2010, “although many of the activities will be done well before that.” Tr. at 66.
 - The NRC Staff states that it has received license amendments on fire protection from two pilot plants, including Harris. Tr. at 63.
 - Even Jim Warren of NC WARN admits “Progress Energy predicts compliance of Harris in late 2010.” Tr. at 24.³²

Therefore, neither document NC WARN cites supports its argument that compliance with fire regulations will be an outstanding issue indefinitely at Harris Unit 1. In contrast, the documents show that this issue will come to closure by 2010, and that considerable effort and progress has been made towards that deadline. Furthermore, as stated above, compliance with fire regulations

³² Mr. Warren also states, “NRC admitted to me earlier, the staff, that it has no authority to prevent licensees from changing schedules shown in the LARs.” Tr. at 24. Regardless of whether such vague statements attributed to anonymous NRC staff are admissible for any point, the reliance of the Petition on this hearing transcript for proof of indefinite noncompliance is an example of the fallacy of petitio principii. While it is unclear what part of the hearing the Petition intends to cite (see Petition at 19 n.28 & 22 n.34 citing to a transcript to be issued in the future), Jim Warren of NC WARN is the sole witness whose testimony appears contrary to achieving closure of fire protection issues by 2010. See e.g., Tr. at 78 (R. William Borchardt discussing lessons learned from bringing the 25-year project to a close).

at Harris Unit 1, even if not resolved as alleged by NC WARN, is irrelevant to issuing a COL for Harris Units 2 and 3.

The other documents relied on by NC WARN for Contention TC-2 are NC WARN's Harris Unit 1 2.206 Petition, and assertions in that 2.206 Petition that involve only the current licensing basis of Harris Unit 1. Contention TC-2 makes an impermissible attack on the Commission's fire protection regulations and how the NRC enforces those regulations.³³ In the Final Director's Decision (and in the Proposed Director's Decision) on the 2.206 Petition, the Acting Director of the Office of Nuclear Reactor Regulation rejects all claims.³⁴ As discussed above, the Final Director's Decision can only be reviewed by the Commission on its own motion, and a Licensing Board does not have jurisdiction to review a Director's Decision on a Section 2.206 Petition.

Moreover, NC WARN is obligated to review the Application and point to specific portions that are either deficient or do not comply with the Commission's regulations. 10 C.F.R. § 2.309(f)(1)(vi). NC WARN has failed to do so with respect to this Contention. See Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2, Catawba Nuclear Station, Units 1 and 2), LBP-02-4, 55 N.R.C. 49, 80 (2002) (rejecting a fire barrier penetration seals contention). NC WARN does not try to relate any of the content of its 2.206 Petition to the Application, as required by Commission case law. See Millstone, CLI-01-24, 54 N.R.C. at 359-60 (Petitioner "must explain, with specificity, particular safety or legal reasons requiring rejection of the

³³ NC WARN is attacking the Commission's fire protection regulations and the Commission's approach to allow risk-based and performance-based fire protection at the licensee's option. See, e.g., Petition at 22.

³⁴ The DD provides:

The NRC denies the Petitioners' request for an order that would revoke the SHNPP operating license
The NRC appropriately exercised its enforcement discretion under the NRC's "Interim Enforcement Policy Regarding Enforcement Discretion for Certain Fire Protection Issues" (10 CFR 50.48(c)).

DD-07-03 at 19.

contested [application].”) Nor has NC WARN asserted that the alleged non-compliance with fire protection regulations described in its 2.206 Petition (and rejected by the NRC) constitutes a genuine dispute of fact regarding whether a COL for Harris Units 2 and 3 should be issued, as required by Commission case law. See, e.g., Calvert Cliffs, CLI-98-14, 48 N.R.C. at 41 (“It is the responsibility of the Petitioner to provide the necessary information to satisfy the basic requirements for the admission of its contentions....”); see also Private Fuel Storage, LBP-98-7, 47 N.R.C. at 180 (a “bald assertion that a matter ought to be considered or that a factual dispute exists . . . is not sufficient”; rather “a petitioner must provide documents or other factual information or expert opinion” to support a contention’s “proffered bases”). Furthermore, as discussed above, Contention TC-2’s one sentence conclusory assertion that noncompliance with fire regulations at Harris Unit 1 is a risk to Harris Units 2 and 3 (Petition at 23) does not even cite, much less contradict, the analysis to the contrary in the Application (See FSAR Table 9.5-201, entries 14 and 15).

In summary, for the reasons set forth above, Contention TC-2 is not material to this proceeding, and the resolution of the alleged dispute on the now pending Harris Unit 1 license amendment request on fire protection would not make a difference in the outcome of the COL proceeding on Harris Units 2 and 3. NC WARN has neither taken issue with the Application nor provided any support or basis for its Contention. Accordingly, a “genuine dispute” does not exist “with the applicant/licensee on a material issue of law or fact” and Contention TC-2 must be rejected. 10 C.F.R. § 2.309(f)(1)(iii), (iv), (v) and (vi).

C. Contention TC-3 (Aircraft Attacks) Is Inadmissible

NC WARN seeks to admit Contention TC-3³⁵ on the basis that the:

ER 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 [sic] the facility.

Petition at 24. This Contention is inadmissible because Westinghouse has voluntarily complied with a pending Commission rulemaking that addresses aircraft impacts for new nuclear power reactor designs, as part of Westinghouse's amendment to the AP1000 DC Rule in AP1000 DCD Rev. 16. Contention TC-3 is also inadmissible because the Commission has repeatedly held that terrorist attacks are not required to be analyzed as part of the Commission's NEPA review. Further, Contention TC-3 is beyond the scope of this proceeding to the extent that it is a collateral attack on the Commission's regulations or raises issues with respect to the design of Harris Unit 1. Moreover, Contention TC-3 is inadmissible because it otherwise fails to meet the standards for an admissible contention.

1. Contention TC-3 Is Inadmissible Because It Involves The Subject of A Rulemaking

Contention TC-3 seeks to litigate the design of the proposed Harris reactors with respect to the "resulting severe accidents of the aircraft's impact and penetration on [sic] the facility."

Petition at 24. Consideration of aircraft impacts on the design of the proposed reactors is

³⁵ Contention TC-3 is categorized by NC WARN as a "Technical Contention." However, the challenge is to the ER and whether it satisfies NEPA. NC WARN admits that it has so denominated its contentions in a "fairly arbitrary" manner. Petition at 12, n.18. "[M]ost of the contentions express overlapping concerns, so that an environmental contention has technical and safety concerns related to it, and vice versa." *Id.* Contentions T-C 3, TC-4, TC-5 and, perhaps, TC-6 appear to raise issues that challenge information that is submitted to allow the NRC Staff to prepare an EIS in compliance with NEPA and would be thereby more appropriately characterized as "Environmental Contentions." Licensing Boards in other proceedings have ordered potential intervenors to categorize their contentions precisely. *See, e.g.,* Memorandum and Order (Initial Prehearing Order), Bellefonte COL Docket No. 52-104 (ADAMS Accession No. ML081710142) (June 18, 2008) at 2-3. Contention EC-4 challenges the Harris Emergency Plan and does not raise environmental matters. Progress has undertaken to sort through and to address both safety issues and environmental issues included in these contentions.

currently pending before the Commission as a rulemaking. The Commission has long held that contentions may not raise issues that are being resolved in a rulemaking proceeding. See, e.g., Amergen Energy Co. (Oyster Creek Nuclear Generating Station), CLI-07-08, 65 N.R.C. 124, 133 & n.43 (2007); see also Oconee, CLI-99-11, 49 N.R.C. at 345; Sacramento Municipal Utility District (Rancho Seco Nuclear Generating Station), ALAB-655, 14 N.R.C. 799, 816 (1981); see also Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), ALAB-813, 22 N.R.C. 59, 86 (1985).

The Commission's current rulemaking would require designers of new nuclear power plants (e.g., applicants for standard design certification under 10 C.F.R. Part 52, and applicants for combined licenses under part 52 that do not reference a standard design certification, standard design approval, or manufactured reactor) to conduct an assessment of the effects of the impact of a large commercial aircraft on the nuclear power plant. 72 Fed. Reg. 56,287 (Oct. 3, 2007).

The proposed rule would require a beyond design basis threat assessment of the "effects on the designed facility of the impact of a large, commercial aircraft." This assessment

must be based on the Commission's specified aircraft characteristics used to define the beyond-design-basis impact of a large, commercial aircraft used for long distance flights in the United States, with aviation fuel loading typically used in such flights, and an impact speed and angle of impact considering the ability of both experienced and inexperienced pilots to control large, commercial aircraft at the low altitude representative of a nuclear power plant's low profile.

Proposed 10 C.F.R. § 52.500(b). 72 Fed. Reg. at 56,308.

Based on insights gained from the beyond DBT assessment,

the application must include a description and evaluation of the design features, functional capabilities, and strategies to avoid or mitigate the effects of the

applicable, beyond-design-basis aircraft impact. The evaluation of such design features, functional capabilities, and strategies must include core cooling capability, containment integrity, and spent fuel pool integrity. The application must describe how such design features, functional capabilities, and strategies avoid or mitigate, to the extent practicable, the effects of the applicable aircraft impact with reduced reliance on operator actions.

Proposed 10 C.F.R. § 52.500(c). Id.

These mitigative requirements

would require designers of new facilities to describe how the design features, functional capabilities, and strategies adopted based on the insights of the aircraft impact assessment avoid or mitigate the effects of the aircraft impact. Plant structures critical to maintaining facility safety functions should be designed, if practicable, such that an impact does not result in structural failure, and aircraft parts and jet fuel do not enter the structures. In circumstances in which an impact results in aircraft parts and jet fuel entering structures or affecting equipment, plant structures and layouts should be evaluated with respect to maintaining key safety functions by addressing equipment survivability following the entry of aircraft parts and jet fuel and key safety functions are accomplished notwithstanding the resulting internal damage resulting from structural loads, shock and vibration, and fire.

...

Because this proposed rule would apply to newly designed facilities before construction of the facility, the Commission expects that improvements can be made in the plant's design that have the same result as operator actions credited in operating plants. Thus, these designs should have reduced reliance, relative to current operating plants, on operator actions.

72 Fed. Reg. at 56,293. The evaluation would be part of Chapter 19 of the FSAR.

The proposed rule would further require that, in assessing the effect of the impact on core cooling capability, containment integrity, and spent fuel pool integrity, the

[e]valuation of the survivability of these functions should consider not only the key components, but also power supplies, cable runs, and other components that support these functions. The evaluation may take credit for the availability of both safety and non-safety equipment. The assessment should evaluate whether the structures containing equipment that provides needed functions are likely to be affected by the specified large, commercial aircraft impact. Factors to be

considered in the evaluation include the size and location of the structures and the presence of external impediments to impact.

72 Fed. Reg. at 56,292. The rule provides that several damage mechanisms be considered including: (1) local and global structural assessment, (2) shock assessment, and (3) fire assessment. Id.

On April 3, 2008, consistent with the proposed rule, Westinghouse voluntarily submitted the AP1000 Standard COL Technical Report Submittal of APP-GW-GLR-126, Revision 0, “Nuclear Island Response to Aircraft Impact” (ADAMS Accession No. ML0809802580) (“TR-126”) as part of its AP1000 DCD Rev. 16.³⁶

The proper venue for NC WARN to raise any concerns regarding TR-126 is in comments in the notice and comment phase of the rulemaking with respect to AP1000 DCD Rev. 16. 72 Fed. Reg. at 56,292. As the Commission noted in its statement of considerations of the proposed rule:

the adequacy of the impact assessment would not be a matter which may be the subject of a contention submitted as part of a petition to intervene under 10 CFR 2.309, ‘Hearing Requests, Petitions to Intervene, Requirements for Standing, and Contentions.’

Id. Accordingly, Contention TC-3 cannot be admitted.

2. Contention TC-3 Is Inadmissible Because Malevolent Acts Are Beyond The Scope Of The NRC’s NEPA Review

NC WARN asserts that the ER fails to satisfy NEPA by failing to assess 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

³⁶ See also TR-134 Rev. 5, which adds Appendix 19F to Chapter 19 of AP1000 DCD Rev. 16. This was voluntary because the AP1000 DC Rule was “grandfathered” from meeting the requirements of the rulemaking on aircraft impacts. See 72 Fed. Reg. at 56,290 & n.2.

penetration on the facility.” Petition at 24. However, longstanding Commission precedent holds that terrorist attacks are not to be considered as part of the NEPA analysis required for NRC licensing actions. See Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-02-25, 56 N.R.C. 340 (2002); Duke Cogema Stone & Webster (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-02-24, 56 N.R.C. 335 (2002); Pacific Gas & Electric Co. (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-03-1, 57 N.R.C. 1 (2003).

Following the Ninth Circuit’s decision in San Luis Obispo Mothers for Peace,³⁷ the Commission “reiterate[d] [its] longstanding view that NEPA demands no terrorism inquiry.” Oyster Creek, CLI-07-08, 65 N.R.C. at 126. The Commission has held that it will follow the San Luis Obispo Mothers for Peace decision only in those cases arising in the Ninth Circuit, but that it would continue to adhere to prior precedent in all other cases. Id. at 128-29. The Commission held that

The ‘environmental’ effect caused by third-party miscreants ‘is ... simply too far removed from the natural or expected consequences of agency action to require a study under NEPA.’” quoting Private Fuel Storage, CLI-02-25, 56 N.R.C. at 349). “[T]he claimed impact is too attenuated to find the proposed federal action to be the ‘proximate cause’ of that impact.” Private Fuel Storage, CLI-02-25, 56 N.R.C. at 349, citing Metropolitan Edison Co. v. People Against Nuclear Energy [460 U.S. 766, 772-75] (1983). See also Department of Transportation v. Public Citizen [541 U.S. 752, 767] (2004).

Oyster Creek, CLI-07-08, 65 N.R.C. at 129. The Commission further held:

Our prior precedents are consistent with Supreme Court NEPA doctrine. In two major decisions - Metropolitan Edison Co. v. People Against Nuclear Energy (1983) and Department of Transportation v. Public Citizen (2004) - the Court has said that a “reasonably close causal relationship” between federal agency action and environmental consequences is necessary to trigger NEPA; the Court

³⁷ San Luis Obispo Mothers for Peace v. NRC, 449 F.3d 1016 (9th Cir. 2006) (reversing Diablo Canyon, CLI-03-1), cert. denied sub nom. Pacific Gas & Electric Co. v. San Luis Obispo Mothers for Peace, 127 S.Ct. 1124 (2007).

analogized NEPA's causation requirement to the tort law concept of “proximate cause.”

[T]he Supreme Court has held, unconditionally, that the test is “required.” The Ninth Circuit's view notwithstanding, there simply is no “proximate cause” link between an NRC licensing action, such as (in this case) renewing an operating license, and any altered risk of terrorist attack. Instead, the level of risk depends upon political, social, and economic factors external to the NRC licensing process. It is not sensible to hold an NRC licensing decision, rather than terrorists themselves, the “proximate cause” of an attack on an NRC-licensed facility.

Oyster Creek, CLI-07-08, 65 N.R.C. at 129-30 (footnote omitted).

The Commission has recently denied two petitions for rulemaking, one filed by the Attorney General of the Commonwealth of Massachusetts and the other filed by the Attorney General for the State of California, presenting nearly identical issues and requests for rulemaking concerning the environmental impacts of the high-density storage of spent nuclear fuel in spent fuel pools (“SFPs”). 73 Fed. Reg. 46,204 (Aug. 8, 2008). In that denial, the Commission addressed whether a terrorist attack on a SFP is “reasonably foreseeable” and requires NEPA review during a license renewal. Id. at 46,210-11. In that context, the Commission stated that:

the NRC has determined that the environmental impacts of such a terrorist attack would not be significant, because the probability of a successful terrorist attack (i.e., one that causes an SFP zirconium fire, which results in the release of a large amount of radioactive material into the environment) is very low and therefore, within the category of remote and speculative matters.

Id. at 46,211. The Commission noted that, even if NEPA required the NRC to consider the impacts of a terrorist attack,

the NRC findings would remain unchanged. As previously described, the NRC has required, and nuclear power plant licensees have implemented, various security and mitigation measures that, along with the robust nature of SFPs, make the probability of a successful terrorist attack (i.e., one that causes an SFP zirconium fire, which results in the release of a large amount of radioactive material into the environment) very low. As such, a successful terrorist attack is within the category of remote and speculative matters for NEPA considerations; it is not “reasonably foreseeable.” Thus, on this basis, the NRC finds that the

environmental impacts of renewing a nuclear power plant license, in regard to a terrorist attack on an SFP, are not significant.

Id. The Commission's consistent holding that NEPA review of terrorist attacks is not required, and even if it were, such attacks are remote and speculative, requires that Contention TC-3 be rejected.

3. Contention TC-3 Is Inadmissible To The Extent That It Is A Collateral Attack On NRC Regulations

NC WARN seeks to attack the Commission's determination that an aircraft crash is a beyond design basis event: "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 ('DBT'), i.e., an accident that must be designed against under NRC safety regulations." Petition at 25 (footnote omitted). Such an attack on the adequacy of the NRC rules is prohibited by 10 C.F.R. § 2.335.

NC WARN's allegations that aviation attacks should be treated as design basis threats is a challenge to the NRC's rule at 10 C.F.R. § 73.1 defining the radiological sabotage against which a licensee must defend.³⁸

³⁸ Since September 11, 2001, the Commission has undertaken extensive efforts to enhance security at nuclear facilities. On February 25, 2002, the NRC issued an Order requiring nuclear plants to take steps to enhance security at nuclear power plants. See Order Modifying Licenses (Effective Immediately) (Feb. 25, 2002). On April 29, 2003, the NRC issued an Order requiring nuclear power plants to revise their physical security plans, security personnel training and qualification plans, and safeguards contingency plan to implement requirements beyond those set forth in 10 C.F.R. § 73.1. See Issuance of Order Requiring Compliance with Revised Design Basis Threat for Operating Power Reactors: Order Modifying Licenses (Effective Immediately) (Apr. 29, 2003). On November 2, 2005, the NRC issued a proposed rule to incorporate the supplemental Design Basis Threat requirements prescribed by its Order of April 29, 2003. See "Design Basis Threat," Proposed Rule, 70 Fed. Reg. 67,380 (Nov. 7, 2005). On January 29, 2007, the Commission voted to approve the revised final rule. Staff Requirements – Affirmation Session, regarding SECY-06-0219, Final Rulemaking to Revise 10 CFR 73.1, Design Basis Threat Requirements (Jan. 29, 2007). The final rule was published in the Federal Register on March 19, 2007. 72 Fed. Reg. 12,705 (Mar. 19, 2007) ("DBT Rule"). NC WARN is attempting to litigate, in this proceeding, its disagreement with the Commission's efforts and regulations concerning security at nuclear facilities. However, the Commission has long held that contentions may not raise issues that are being resolved in

These allegations also are barred by 10 C.F.R. § 50.13, which provides:

An applicant for a license to construct and operate a production or utilization facility, or for an amendment to such license, is not required to provide for design features or other measures for the specific purpose of protection against the effects of (a) attacks and destructive acts, including sabotage, directed against the facility by an enemy of the United States, whether a foreign government or other person, or (b) use or deployment of weapons incident to U.S. defense activities.

Contention TC-3 is a direct attack on this regulation by seeking to require Progress to protect against the effects of attacks and destructive acts by an enemy of the United States and must be rejected.

The Commission has recently reiterated the reason that aircraft attacks are excluded from design basis threats:

First, it is not reasonable to expect a licensee with a private security force using weapons legally available to it to be able to defend against such an attack. Second, such an act is in the nature of an attack by an enemy of the United States. Power reactor licensees are not required to design their facilities or otherwise provide measures to defend against such an attack, as provided by 10 CFR 50.13, “Attacks and Destructive Acts by Enemies of the United States; and Defense Activities.”

72 Fed. Reg. at 56,288. Moreover, aircraft attacks are currently addressed by regulatory means other than in the DBT Rule in 10 C.F.R. § 73.1. As the Commission explained:

By Order dated February 25, 2002 (Interim Compensatory Measures (ICM) Order), the Commission required all operating power reactor licensees to develop and adopt mitigative strategies to cope with large fires and explosions from any cause, including beyond design-basis aircraft impacts (67 FR 9792; March 4, 2002). The Commission has proposed incorporating the continuing requirement to provide for such mitigative measures in the NRC’s regulations in the proposed 10 CFR part 73 power reactor security requirements, specifically the proposed revisions to 10 CFR 73.55, “Requirements for Physical Protection of Licensed Activities in Nuclear Power Reactors Against Radiological Sabotage,” and Appendix C, “Licensee Safeguards Contingency Plans,” to 10 CFR part 73. If

a rulemaking proceeding. See, e.g., Oyster Creek, CLI-07-08, 65 N.R.C. at 133 & n.43; see also Oconee, CLI-99-11, 49 N.R.C. at 345.

these requirements, which are promulgated on the basis of adequate protection of public health and safety and common defense and security, are finalized, all current and future power reactors must satisfy them.

The current requirements, in conjunction with the currently proposed revisions to the security regulations in 10 CFR 73.55 and Appendix C to 10 CFR part 73, will continue to provide adequate protection of the public health and safety and the common defense and security.

Id. Because it is a collateral attack on the Commission's regulations, Contention TC-3 must be rejected.

4. Contention TC-3 Is Beyond The Scope Of This Proceeding To The Extent That It Raises Issues Related To Harris Unit 1

NC WARN asserts that it is "unreasonable for the NRC to dismiss the possibility of an aviation attack on the existing . . . Harris reactor[]" Petition at 24 (emphasis added). NC WARN does not refer to Harris Unit 1 anywhere in its discussion of Contention TC-3. To the extent that NC WARN may have intended to raise the design of the existing reactor within Contention TC-3, it is beyond the scope of this proceeding which does not involve Harris Unit 1, and must, therefore, be rejected. 10 C.F.R. § 2.309(f)(1)(iii).

5. Contention TC-3 Is Inadmissible Because It Does Not Meet the Commission's Pleading Requirements for Admissible Contentions

Contention TC-3 fails to meet the Commission's pleading requirements for admissible contentions as discussed in Section III of this Answer. Although NC WARN cites extensively from NUREG-2859, NC WARN does not allege how the environmental impacts of a "deliberate and malicious crash of a fuel laden and/or explosive laden aircraft" would differ from the environmental impacts of other, internally initiated reactor events and, therefore, has not demonstrated that a genuine dispute of fact exists. 10 C.F.R. § 2.309(f)(1)(vi). Further, NC WARN fails to explain how any of the language quoted from NUREG-2859 relates to the reactor

design for the proposed Harris reactors and thereby fails to meet the requirements of 10 C.F.R. § 2.309(f)(1)(v).

NC WARN's quote from a Union of Concerned Scientists' ("UCS") issue brief has nothing to do with the design of the proposed Harris AP1000 reactors. Nor does NC WARN explain how the issue brief relates to proposed Contention TC-3. NC WARN also refers to two documents referred to in the UCS issue brief – an October 2000, Technical Study of Spent Fuel Accident Risk at Decommissioning Nuclear Power Plants and a May 1, 2000 letter related to the Turkey Point Plant. Petition at 28. However, NC WARN provides less explanation of these sources than does the UCS issue brief, and NC WARN provides no basis to link the documents to any issue with the design of Harris as required by 10 C.F.R. § 2.309(f)(1)(v). Indeed, none of them – the UCS issue brief or the two documents cited therein – could relate to the design of the AP1000 with respect to an aircraft impact because they all predate AP1000 DCD Rev. 16. NC WARN has not provided any basis for there to be any genuine dispute, even if such were litigable in this proceeding, regarding the design of the AP1000 with respect to an aircraft impact. 10 C.F.R. § 2.309(f)(1)(vi).

NC WARN contends that “[s]pecific to this contention, the ability of the proposed Harris reactors to withstand aviation attacks has not been demonstrated in the COLA.” Petition at 29-30. However, this is also incorrect. The Application does address the effects of an aircraft impact by incorporation of the AP1000 DCD Rev. 16, which does demonstrate that the proposed Harris reactors can withstand aviation attacks. TR-126 addresses the “Nuclear Island Response to Aircraft Impact.” TR-126 concludes:

The assessment concludes that AP1000 can continue to provide adequate protection of the public health and safety with respect to aircraft impact as defined

by the NRC. The aircraft impact would not inhibit AP1000's core cooling capability, containment integrity, spent fuel pool integrity, or adequate spent fuel cooling based on best estimate calculations.

TR-126 at 54.

NC WARN has not met its "ironclad obligation" to examine all the relevant documentation (such as TR-126) relating to the Application. See Catawba, ALAB-687, 16 N.R.C. at 468. Indeed, NC WARN has not provided a specific statement as to how it believes TR-126 is insufficient, nor has NC WARN controverted any aspect of TR-126, which is a full study of the threats from aviation attacks. As such, NC WARN has failed to provide adequate support for admission of Contention TC-3. 10 C.F.R. § 2.309(f)(1)(v).

6. Contention TC-3 Is Inadmissible Because NC WARN's Severe Accident Mitigation Alternative Claim Is Not an Admissible Contention

NC WARN asserts:

10 C.F.R. 51.53 requires that the license renewal applicant consider alternatives to mitigate severe accidents if the staff has not previously evaluated SAMAs for the applicant's plant in an EIS or related supplement or in an environmental assessment. The purpose of this consideration is to ensure that plant changes, i.e., structural fortifications, hardening of vital safe shutdown systems and hardware, procedures and training, with the potential for improving severe-accident safety performance are identified and evaluated. The ER does not provide information that allows the NRC staff to consider reasonable alternatives for avoiding or reducing the environmental impacts of this class of threats and accidents.

Petition at 30 (emphasis added). However, this is not a license renewal application, it is a combined license application. NC WARN's statement is inapplicable to this proceeding.

Even if it were applicable, the claim is not an admissible contention because, as discussed above, (1) Westinghouse has voluntarily agreed to address the consideration of aircraft impacts

as part of AP1000 DCD Rev. 16 and any aircraft consideration is not litigable in this proceeding; and (2) terrorism is beyond the scope of a combined license application proceeding.

If an applicant does not have to include an analysis of the risk of a terrorist attack, perforce, the applicant does not have to analyze the mitigation of that risk. For the same reasons that terrorism is not within the scope of a combined license proceeding, a SAMA analysis of a terrorist attack is not within the scope of a combined license proceeding. The Commission summarized the inappropriateness of addressing terrorism in an environmental impact statement in McGuire, listing the following reasons:

- (1) the likelihood and nature of postulated terrorist attack are speculative and not “proximately caused” by an NRC licensing decision;
- (2) the risk of a terrorist attack cannot be meaningfully determined;
- (3) NEPA does not require a “worst case” analysis and such an analysis would not enhance the agency's decisionmaking process; and
- (4) a terrorism review is incompatible with the public character of the NEPA process.

McGuire, CLI-02-26, 56 N.R.C. at 365 (footnotes omitted). These same reasons apply with equal force to a SAMA analysis. “The ‘environmental’ effect caused by third-party miscreants ‘is . . . simply too far removed from the natural or expected consequences of agency action to require a study under NEPA.’” Oyster Creek, CLI-07-08, 65 N.R.C. at 129 (footnote omitted). It is far too removed for an analysis of mitigation alternatives. Therefore, NC WARN’s contention that a SAMA analysis of terrorist attacks must be included in an applicant’s environmental report is contrary to the Commission’s determination that terrorism is outside of NRC licensing proceedings and must be rejected.

(i) SAMA Analysis Is Limited To Reactor Accidents

The Commission has held that SAMAs apply only to reactor accidents:

The NRC customarily has studied reactor accidents and spent fuel accidents separately. For instance, our “Policy Statement on Severe Reactor Accidents Regarding Future Designs and Existing Plants,” discusses only reactor accidents and defines “severe nuclear accidents [as] those in which substantial damage is done to the reactor core whether or not there are serious offsite consequences.” 50 Fed. Reg. 32,138 (Aug. 1985) (emphasis added). Similarly, the various NRC studies on severe accidents typically focus upon potential damage to the reactor core of nuclear power plants.

Turkey Point, CLI-01-17, 54 N.R.C. at 22; see also Entergy Nuclear Generation Co. & Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), LBP-06-23, 64 N.R.C. 257, 291 (2006) (“... SAMAs apply only to reactor accidents . . .”). Contention TC-3 involves a “malicious attack” by aircraft. NC WARN provides no basis or supporting information regarding an aircraft attack causing, or having an impact on, a reactor accident.

(ii) NC WARN Has Failed To Meet The Threshold Necessary To Raise A SAMA Claim

In order for a petitioner to properly raise a SAMA claim, a petitioner must do more than use the term “SAMA.” A petitioner must: (1) “include references to specific portions of the application,” (2) provide “sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact.” PPL Susquehanna, LLC (Susquehanna Steam Electric Station, Units 1 and 2), LBP-07-04, 65 N.R.C. 281, 302-03 n.90 (2004). As in Susquehanna, NC WARN has failed to meet its burden to raise an admissible SAMA contention. NC WARN has not referred to any specific portion of the ER with which it takes issue. NC WARN merely asserts that “[t]he ER does not provide information that allows the NRC staff to consider reasonable alternatives for avoiding or reducing the environmental impacts of this class of threats and accidents.” Petition at 30. However, the assertion that a SAMA analysis has not

been conducted does not satisfy the pleading requirement for a challenge to Progress's SAMA analysis.³⁹ NC WARN is required to discuss, or challenge, specific input data for the Harris SAMA analysis. Susquehanna, LBP-07-04, 65 N.R.C. at 302-03 n.90. NC WARN, however, does not address how it contends a SAMA analysis of a "malicious attack" or an "aircraft crash" should be conducted, nor does NC WARN provide any supporting information to show that any genuine dispute with the Application exists. Moreover, a probabilistic risk assessment has been conducted for an aircraft crash with respect to the AP1000 DCD Rev. 16 and NC WARN has failed to address that analysis at all. In addition, NC WARN has failed to show how any of the documents it cites are related to the SAMA analysis conducted by Progress. NC WARN has also failed to explain how any information it has submitted would relate to a SAMA analysis of an "attack by the deliberate and malicious crash" of an aircraft, or what the mitigation alternatives would be for such a hypothetical aircraft attack. NC WARN has therefore failed to meet its threshold burden for an admissible SAMA contention. 10 C.F.R. §§ 2.309(f)(1)(v) and (vi).

D. Contention TC-4 (Aviation Attacks and Fires) Is Inadmissible

Contention TC-4, which does no more than repackage Contention TC-3 and certain aspects of Contention TC-2, is not admissible for the reasons previously discussed regarding those two Contentions. NC WARN seeks to admit Contention TC-4 on the basis that

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.

Petition at 31. Contention TC-4 is premised entirely upon the validity of Contention TC-3. "As described in Contention TC-3 above and incorporated herein, the potential consequences of a

³⁹ Indeed, a petitioner can always assert that an unlimited number of SAMAs have not been included or examined in an applicant's environmental report.

successful aviation attack on the proposed Harris reactors have not been evaluated for fire and explosion resulting from a deliberate aircraft strike.” *Id.* Contention TC-4 is inadmissible because (1) consideration of aircraft impacts has been voluntarily included in AP1000 DCD Rev. 16; (2) consideration of fires and explosions, including those from an aircraft crash is the subject of a rulemaking; (3) terrorist attacks are beyond the scope of an NRC licensing proceeding and beyond the scope of NEPA; and (4) Contention TC-4 is an impermissible collateral attack on the Commission’s regulations. Further, Contention TC-4 is inadmissible because it fails to meet the standards for an admissible contention.

1. Contention TC-4 Is Inadmissible Because It Involves The Subjects Of Rulemakings

Contention TC-4, similar to Contention TC-3, is seeking to litigate the design of the proposed Harris reactors with respect to the potential effects of an aircraft impact on the reactor. Petition at 31. For the reasons set forth in Section IV.C.1 above which demonstrate that Contention TC-3 is inadmissible, Contention TC-4 also is inadmissible. The consideration of aircraft impacts will be voluntarily addressed in the AP1000 DCD Rev. 16 and cannot be litigated in this proceeding.

Moreover, the Commission has pending before it a current rulemaking on power reactor security that includes proposed requirements regarding licensee procedures for responding to notifications of potential aircraft threats and for the mitigation of the loss of large areas of their facilities due to large fires or explosions. 71 Fed. Reg. 62,664 (Oct. 26, 2006). A Supplemental proposed rule was published earlier this year. 73 Fed. Reg. 19,443 (Apr. 10, 2008):

Proposed 10 C.F.R. § 50.54(hh) provides:

(1) Each licensee shall develop, maintain and implement procedures that describe how the licensee will address the following areas if the licensee is notified of a potential aircraft threat:

- (i) Verification of the authenticity of threat notifications;
- (ii) Maintenance of continuous communication with applicable entities;
- (iii) Notifications to all onsite personnel and applicable offsite response organizations;
- (iv) Onsite protective actions to enhance the capability of the facility to mitigate the consequences of an aircraft impact;
- (v) Measures to reduce visual discrimination of the site relative to its surroundings or individual buildings within the protected area;
- (vi) Pre-staging and dispersal of equipment and personnel, as well as rapid reentry of onsite personnel and offsite responders into site protected areas; and
- (vii) Recall of site personnel.

(2) Each licensee shall develop and implement guidance and strategies intended to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities under the circumstances associated with loss of large areas of the plant due to explosions or fire, to include strategies in the following areas:

- (i) Fire fighting;
- (ii) Operations to mitigate fuel damage; and
- (iii) Actions to minimize radiological release.

73 Fed. Reg. at 19,450. The proposed 10 C.F.R. §50.54(hh) would require new applicants for, and new holders of, operating licenses under Part 50 and combined licenses under Part 52

to develop and implement procedures that would employ mitigating strategies similar to those now employed by current licensees to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities under the circumstances associated with loss of large areas of the plant due to explosions or fire. The requirements described in the proposed § 50.54(hh) relate to the development of procedures for addressing certain events that are the cause of large fires and explosions that affect a substantial portion of the nuclear power plant, and are not limited or directly linked to an aircraft impact. The rule contemplates that the initiating event for such large fires and explosions could be any number of design basis threat or beyond design basis threat events. In

addition, the NRC regards the proposed § 50.54(hh) as necessary for reasonable assurance of adequate protection to public health and safety and common defense and security; this is consistent with the NRC's designation of the orders on which § 50.54(hh) is based as being necessary for reasonable assurance of adequate protection.

...

Proposed § 50.54(hh) focuses on ensuring that the nuclear power plant's licensees will be able to implement effective mitigation measures for large fires and explosions including (but not explicitly limited to) those caused by the impacts of large, commercial aircraft.

Id. at 19,447-48. Thus, the rulemaking fully addresses any aspects of Contention TC-4 that are not already addressed by AP1000 DCD Rev. 16, and Contention TC-4 must be rejected because it is the subject of a rulemaking proceeding. See also Section IV.C.1 above.

2. Contention TC-4 Is Inadmissible Because Malevolent Acts Are Beyond The Scope Of NEPA Review

Contention TC-4, similar to Contention TC-3, is premised entirely upon "a deliberate malicious action using a fuel-laden and/or explosive-laden aircraft on the facility." Petition at 31. For the reasons set forth in Section IV.C.2 above, demonstrating that Contention TC-3 is inadmissible, Contention TC-4 also is inadmissible. Terrorist acts are beyond the scope of NEPA review and beyond the scope of a license renewal proceeding.

3. Contention TC-4 Is Inadmissible To The Extent That It Is A Collateral Attack On NRC Regulations

Because it is premised upon Contention TC-3 and Contention T-2, Contention TC-4 is inadmissible because it also raises issues beyond the scope of a COL proceeding. Contention TC-4 is an attack on the Commission's regulations regarding, among others, design basis threat, as discussed in regard to Contention TC-3 in Section IV.C.3 above.

4. Contention TC-4 Is Beyond The Scope Of This Proceeding To The Extent That It Raises Issues Related To Harris Unit 1

NC WARN asserts that “the existing Harris reactor has been in violation of NRC regulations since at least 1992 and is not currently in regulatory compliance with the requirements for post-fire protection of reactor safe shutdown systems.” Petition at 31. To the extent that NC WARN may have intended to raise the current status of “the existing Harris reactor” within Contention TC-4, it cannot do so (1) because the existing reactor’s procedures for mitigating fires and explosions is subject to a pending rulemaking as described in Section IV.D.1 above; (2) for the reasons set forth in this Answer’s response to Contention TC-2; and (3) it is beyond the scope of this proceeding, which does not involve the existing reactor at the Harris site.

5. Contention TC-4 Is Inadmissible Because It Does Not Meet The Commission’s Specificity Requirements For Admissible Contentions

Contention TC-4 relies on the bases set forth in Contention TC-2 and Contention TC-3. Because each of those Contentions fails to meet the Commission’s pleading standards as previously discussed, Contention TC-4 also fails to meet the Commission’s pleading standards. See Section IV.B.2 and IV.C.5 above.

6. Contention TC-4 Is Inadmissible Because Petitioner’s Severe Accident Mitigation Alternative Claim Is Not An Admissible Contention

NC WARN contends that, as with Contention TC-3, “[i]n its review of the COL, the NRC is required to consider alternatives to mitigate severe accidents if the staff has not previously evaluated SAMAs for the applicant’s plant in an EIS or related supplement or in an environmental assessment.” Petition at 33. Contention TC-4 is premised on Contention TC-3 and provides no additional information to show that a genuine dispute exists with the Applicant

on a material issue of law or fact. For the reasons set forth in Section IV.C.6, above, Contention TC-4 is inadmissible.

E. Contention TC-5 (High Density Spent Fuel Pools) Is Inadmissible

NC WARN's Contention TC-5 raises both a safety issue ("The proposed high-density storage [of spent nuclear fuel in spent fuel pools] heightens the risk of catastrophic radiation releases due to accident or terrorism") and a challenge to the adequacy of Progress's ER ("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"). Petition at 33-34. Contention TC-5 does not plead either an admissible safety or environmental contention in this proceeding.

Because the design of the auxiliary building, the spent fuel pools, spent fuel storage racks, spent fuel pool make-up water systems, spent fuel pool cooling water systems, and design basis accidents are all addressed in the AP1000 DC Rule and the AP1000 DCD Rev. 16 rulemaking, the safety issue raised in Contention TC-5 is outside of the scope of this COLA proceeding. Furthermore, the allegations regarding safety issues are not supported with adequate facts or adequate expert opinion, and allegations that go to the gravamen of NC WARN's concerns are not material or are not the subject of a genuine dispute under the NRC regulations. The Application's ER and the EIS that will be prepared by the NRC need not consider environmental impacts from the postulated "release of radiation from [spent fuel pool] loss-of-coolant fires and/or terrorist attacks," because, as the Commission has found in a number of proceedings, such postulated events at nuclear plants are remote and speculative, and because

NC WARN provides no basis or facts or expert opinion to support an allegation otherwise with respect to the AP1000 design.

1. Contention TC-5 (Safety Allegations) Is Not Within The Scope Of This Proceeding

Contention TC-5 is inadmissible because it is outside the scope of this proceeding.

Contention TC-5 is classified as a “Technical Contention.”⁴⁰ NC WARN challenges the design of the AP1000 spent fuel storage, which provides for “high-density storage” allegedly in “two newly constructed cooling pools in buildings designed to withstand only weather-related impacts” with “boron shields” that “inhibit the flow of air around the assemblies.” Petition at 33-36. NC WARN argues in favor of “low-density” spent fuel storage for five years with transfer after five years into “hardened dry storage separated by berms or bunkers.” Petition at 34-35.

Initially, Progress notes that NC WARN misrepresents the design of the auxiliary building in which the spent fuel pools will be located. Spent fuel will not be stored in buildings “designed to withstand only weather-related impacts.” NC WARN’s assertions regarding the design of the auxiliary building (part of the nuclear island structures) are completely inconsistent with the detailed description in Section 9.1 (cited by NC WARN),⁴¹ Section 3.3, and Appendix 3H of AP1000 DCD Rev. 16.

The nuclear island structures include the containment (the steel containment vessel and the containment internal structure) and the shield and auxiliary

⁴⁰ Petition at 12 n.18. Contention TC-5 nevertheless begins with a direct challenge to the adequacy of the ER: “The ER for the proposed Harris reactors fails to satisfy NEPA because it does not consider the impacts of a radiation release caused by high-density storage of highly-radioactive ‘spent’ fuel in spent fuel pools.” Petition at 33-34. As with Contention TC-3 and Contention TC-4, Progress has attempted to parse Contention TC-5 to separate what is a challenge to the technical design and what is a challenge to the adequacy of the information in the ER, and will address each separately.

⁴¹ Petition at 35 n.52. Document 166 is Spent Fuel Storage and Handling (ADAMS Accession No. ML071580931) and Document 37 is the General Plant Description (ADAMS Accession No. ML071580797). Note that NC WARN does not otherwise cite to the Application.

buildings. The containment, shield and auxiliary buildings are structurally integrated on a common basemat which is embedded below the finished plant grade level. . . . The auxiliary building is reinforced concrete and houses the safety-related mechanical and electrical equipment located outside the containment and shield buildings.

. . .

The nuclear island structures, including the critical sections listed in Table 3.3-7,⁴² are seismic Category I and are designed and constructed to withstand design basis loads, as specified in the Design Description, without loss of structural integrity and the safety-related functions. The design bases loads are those loads associated with:

- Normal plant operation (including dead loads, live loads, lateral earth pressure loads, and equipment loads, including hydrodynamic loads, temperature and equipment vibration);
- External events (including rain, snow, flood, tornado, tornado generated missiles and earthquake); and
- Internal events (including flood, pipe rupture, equipment failure, and equipment failure generated missiles).⁴³

NC WARN's allegation regarding the design of the auxiliary building is belied by simply reading the AP1000 DC Rule. The design of the auxiliary building and the spent fuel pools⁴⁴ are settled in the AP1000 DC Rule and are not subject to challenge.⁴⁵ Issues settled by the AP1000 DC Rule are not subject to challenge in a subsequent COLA proceeding. 10 C.F.R. § 52.63(a)(1).

NC WARN's only reference to the Application in Contention TC-5 is to AP1000 DCD Rev. 16 at 9.1.2.2.1, which describes the spent fuel rack design. Issues with regard to the spent fuel racks will be addressed and resolved in ongoing rulemaking on the AP1000 DCD Rev. 16 and are not subject to litigation in this COLA proceeding. CLI-08-07, 73 Fed. Reg. at 20,972.

⁴² The auxiliary building structures are included in Table 3.3-7 to the AP1000 DCD Rev. 16.

⁴³ AP1000 DCD Rev. 16 at Tier 1, Section 3.3 at 3.3-1 to 3.3-2.

⁴⁴ Section 9.1 of the AP1000 DC Rule also discusses the design of the spent fuel pool, which is consistent with the Commission's recent discussion of spent fuel pools at all existing nuclear plants as "extremely-robust structures designed to safely contain the spent fuel discharged from a nuclear reactor under a variety of normal, off-normal, and hypothetical accident conditions." 73 Fed. Reg. at 46,206.

⁴⁵ AP1000 DCD Rev. 16 denominates changes from the AP1000 DC Rule by revision side bars in the margin.

The Commission recently affirmed this Statement of Policy in response to NC WARN's motion to immediately suspend the hearing notice in this proceeding. CLI-08-15 at 3-4. According to the Commission, if NC WARN otherwise pleads an admissible contention, the Board shall "refer such a contention to the staff for consideration in the design certification rulemaking, and hold that contention in abeyance" pending adoption of a final design certification rule. CLI-08-07, 73 Fed. Reg. at 20,972.

Thus, as to matters addressed in the AP1000 DC Rule, Contention TC-5 is inadmissible because it is a challenge to the rule and is outside the scope of this proceeding. As to matters addressed in the ongoing AP1000 DCD Rev. 16 rulemaking, Contention TC-5 is still not admissible, and must be either held in abeyance or dismissed on other grounds.

2. Contention TC-5 (Safety Allegations) Is Not Supported By Adequate Facts Or Adequate Expert Opinion And Raises Issues About Which There Is Not Genuine Dispute Or Which Are Not Material To The Decision On The Application

In support of Contention TC-5, NC WARN cites to a 1999 report by Dr. Gordon Thompson submitted previously in support of a challenge to expanded spent fuel storage at Harris Unit 1,⁴⁶ a 2005 National Academy of Science report,⁴⁷ and a 2003 report by Alvarez, et al.⁴⁸ There is no citation to a page, or a calculation, or a specific opinion. In contrast "petitioners are expected 'to clearly identify the matters on which they intend to rely with reference to a specific point.'" Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), LBP-04-15, 60 N.R.C. 81, 89 & n.26 (2004). NC WARN has not met this obligation. "[A] petitioner may not simply incorporate massive documents by reference as the basis for a

⁴⁶ Petition at 34 n.50.

⁴⁷ Petition at 35 n.51.

⁴⁸ Petition at 36 n.54.

statement of his contentions.” Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), CLI-89-03, 29 N.R.C. 234, 240-41 (1989). Here, we have cites to lengthy reports with no specific analysis or direction to a specific page or section in the reports.

The only citation to Thompson’s 1999 report, filed in opposition to spent fuel pool expansion at Harris Unit 1, is for the proposition that Harris Unit 1 has four spent fuel pools and an assertion with respect to the cesium 137 contained in the spent fuel stored in Harris Unit 1. Petition at 34 & n.49. The discussion of the number of spent fuel pools, the spent fuel stored therein, and radioactive isotopes contained in the spent fuel in Harris Unit 1 is not germane to the spent fuel storage design of the Harris AP1000. There is no citation to a specific page or opinion of the Thompson report that is relevant to the spent fuel storage design at Harris Units 2 and 3. Contrary to 10 C.F.R. § 2.309(f)(iv), nothing in NC WARN’s discussion of spent fuel stored in Harris Unit 1 is material to the findings the NRC must make in approving issuance of the Harris Units 2 and 3 COL. The 1999 Thompson report is cited for no other purpose.

NC WARN cites to the 2005 National Academy of Sciences report generally for the proposition that low-density spent fuel storage is a “safer storage methodology” and boron shields used for criticality control in high-density fuel storage “increase the likelihood of fire if the pools are drained of cooling water, because they would inhibit the flow of air around the assemblies.” Petition at 35 & n.51. The 2005 report is also cited for the proposition that “spent fuel pools at commercial nuclear power plants in the United States are less well protected structurally than reactor cores,” and “typically contain inventories of medium and long-lived radionuclides that are several times greater than those in individual reactor cores.” Petition at 36 & n.55.

There is no specific point or page in the 2005 report to which we are directed. The fact that there might be a design of spent fuel storage other than high-density racks, which might be less susceptible to a fire in the event the spent fuel pool is drained of cooling water, is not a matter of genuine dispute. Neither the fact that fuel in the reactor vessel has additional structural protection as compared to spent fuel in the spent fuel pool, nor the fact that the inventory of certain radionuclides at some point will be greater in the spent fuel pool than in the reactor core, is a matter of genuine dispute. Petition at 36 & n.55. These facts do not raise a challenge to the safety of the Harris AP1000 spent fuel storage design. Nowhere does NC WARN challenge the capability of the redundant systems supporting spent fuel storage as described in the AP1000 DC Rule, as amended by AP1000 DCD Rev. 16, to provide reasonable assurance of public health and safety even in the event of a design basis accident. Contrary to 10 C.F.R. § 2.309(f)(vi), nothing in NC WARN's discussion of the 2005 National Academy of Sciences report challenges the safety of the Harris AP1000 spent fuel storage design and raises a matter in genuine dispute on a material issue relating to the Application.

Finally, NC WARN cites to the Alvarez, et al. 2003 report for the proposition that "high-density [spent fuel] storage is intended solely for the economic benefit of the applicant, low-density racking requires approximately twice the amount of pool space as does high-density racking for the same inventory of spent fuel." Petition at 35-36 & n.54. Assuming arguendo that this statement were true, which it is not, it once again it does not challenge the design of the Harris AP1000 spent fuel pools to safely store spent nuclear fuel. Contrary to 10 C.F.R. § 2.309(f)(vi), nothing in NC WARN's discussion of the Alvarez, et al. 2003 report challenges the safety of the Harris AP1000 spent fuel storage design and raises a matter in genuine dispute on a material issue relating to the Application.

NC WARN prefers low-density spent fuel storage to reduce the risk of radiation releases due to a reactor accident or terrorism. NC WARN states that 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. Petition at 34. As support, NC WARN cites CLI-01-11 (53 N.R.C. 370 (2001)), a Commission decision affirming the licensing board's findings in a license amendment proceeding that authorized expansion of spent fuel pool storage with high-density rack design at Harris Unit 1.⁴⁹ The Commission specifically affirmed the board's finding that the accident postulated in that case by an intervenor that could theoretically result in a fire with severe consequences was remote and speculative with a probability of occurrence of once in five million reactor years (2.0E-07). CLI-01-11, 53 N.R.C. at 387.⁵⁰ The Commission recently discussed with approval the findings and decision in the Harris Unit 1 proceeding in denying a petition for rulemaking by the attorney generals of Massachusetts and of California. 54 Fed. Reg. at 46,210.

NC WARN has not challenged the Application to suggest that the probability of a loss-of-pool-coolant event for the Harris AP1000 is greater than that for Harris Unit 1. Indeed, the initiating event for a postulated loss-of-pool-coolant and spent fuel pool fire is suggested by NC WARN to be either an "accident or terrorism." Petition at 34. NC WARN has not challenged the PRA for the AP1000 passive safety design that has calculated the core damage frequency at 2.31E-07 and the large release frequency at 1.95E-08. AP1000 DCD Rev. 16 at Tier 2, Table 19.59-17. This compares with the NRC Safety Goal of 1E-04 for core damage frequency and

⁴⁹ NC WARN mistakenly refers to a "relicensing amendment." Petition at 3, 34 n.49.

⁵⁰ Pet. for review denied, sub nom, Orange County, NC v. NRC, 47 Fed. App'x. 1 (D.C. Cir. Sept. 19, 2002).

1E-06 for large release frequency and the typical current pressurized water reactor core damage frequency of 6.7E-05 and large release frequency of 5.3E-06. Id.

NC WARN does not address the information in the Application, which shows the probability of a loss-of-pool-coolant event necessarily is even less for the Harris AP1000, and thereby even more remote and speculative, than that found for Harris Unit 1. Contrary to 10 C.F.R. § 2.309(f)(vi), nothing in NC WARN's discussion of Contention TC-5 alleges a particular accident scenario that could lead to a loss-of-pool-coolant and the spent fuel pool fire that NC WARN argues would be prevented by low-density spent fuel pool storage. Thus, Contention TC-5 does not raise a matter in genuine dispute on a material issue relating to the Application. Contrary to 10 C.F.R. § 2.309(f)(v), no facts are presented nor expert opinion marshaled to support an accident or other initiating event of a loss-of-pool-coolant event and fire that challenges the safety goals to which the NRC is committed in reviewing the design of the Application to assure public health and safety.

In summary, NC WARN's preference for low-density spent fuel storage does not rise to the level of an admissible contention. Contention TC-5 fails to comply with 10 C.F.R. § 2.309(f)(1)(iv), (v) and (vi).

3. Contention TC-5 (NEPA Allegation) Argues For Consideration Of Impacts Of Remote And Speculative Events Not Required By NEPA And Commission Precedent And Is Not An Admissible Contention

Ignoring precedent and without any legal analysis whatsoever, NC WARN asserts that the Application's ER "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." Petition at 33-34. The justification presented by NC WARN, as discussed in detail

in the sections immediately above, is simply that the “proposed high-density storage heightens the risk of catastrophic radiation releases due to accident or terrorism.” *Id.* at 34. The only other mention of NEPA comes just before the conclusion: “As discussed in Contentions TC-3 and TC-4 above, 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.” Petition at 36.

With respect to accidents, this issue was litigated in connection with the Harris Unit 1 spent fuel pool expansion licensing amendment, as acknowledged by NC WARN. Petition at 34, n.49. The contention admitted in that proceeding involved a very specific seven-step accident scenario resulting in a postulated spent fuel pool fire, which was found by the board to be too remote and speculative to require consideration of impacts in an EIS. CLI-01-11, 53 N.R.C. at 388. As discussed above, here NC WARN has done no more than assert that the ER is lacking because the potential impacts of radiation releases were not considered. There is no postulated accident scenario alleged with specificity, basis, facts or expert opinion.

The intervenor (Orange County) in the Harris Unit 1 spent fuel pool expansion proceeding argued on appeal that a broader contention should have been admitted. Here NC WARN is attempting to have admitted a similar general allegation that impacts of spent fuel pool loss-of-coolant fires should be considered in the ER. In the Harris Unit 1 proceeding, the Commission affirmed the board’s refusal to admit such a general contention:

At the contentions stage of this litigation, Orange County offered no specific causes for spent fuel pool accidents other than the seven-step scenario admitted by the Board. Orange County cannot now transform vague references to potential spent fuel pool catastrophes into litigable contentions. See Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 N.R.C. 328, 333-35

(1999) (NRC's "strict contention rule" requires "detailed pleadings.").

CLI-01-11, 53 N.R.C. at 390. Similarly, the Commission decision denying the petition for rulemaking of the attorneys general of Massachusetts and California, which challenged the Commission's generic EIS for renewal of nuclear plant licenses, rejected the attorneys general's argument that the NRC should "require any NRC licensing decision that approves high-density pool storage of spent fuel at a nuclear power plant, or any other facility, must be accompanied by a plant specific EIS that addresses the environmental impacts of high-density pool storage of spent fuel at that nuclear plant and a reasonable array of alternatives for mitigating those impacts." 73 Fed. Reg. at 46,205. The analysis in the denial of the petition for rulemaking refers to the Commission's decision in CLI-01-11. *Id.* at 46,210. Thus, the occurrence of a severe reactor accident causing a spent fuel pool fire "falls within the category of remote and speculative matters." *Id.* NEPA does not require consideration of impacts that are remote and speculative. San Luis Obispo Mothers for Peace v. NRC, 751 F.2d 1287, 1300-01 (D.C. Cir. 1984), rehearing en banc granted on other grounds, 760 F.2d 1320 (D.C. Cir. 1985), aff'd en banc, 789 F.2d 26, cert. denied 479 U.S. 923 (1986).

With respect to terrorism, Commission precedent is discussed supra in detail in Progress's responses to Contentions TC-3 and TC-4. In short, the Commission has ruled in several contexts that NEPA does not require the Commission to conduct a terrorism analysis. See Private Fuel Storage, CLI-02-25; Savannah River, CLI-02-24 (construction permit); Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-26, 56 N.R.C. 358 (2002) (license renewal); Dominion Nuclear Connecticut, Inc. (Millstone Power Station, Unit 3), CLI-02-27, 56 N.R.C. 367 (2002) (license amendment proceeding to expand spent fuel pool storage capacity).

NC WARN has neither alleged a foreseeable probability for a terrorist attack nor provided legal support for ignoring Commission precedent. As the Commission stated recently in denying a petition for rulemaking by the attorneys general of Massachusetts and California:

[F]ollowing the terrorist attacks of September 11, 2001, the NRC has required that nuclear power plant licensees implement additional security measures and enhancements the Commission believes have made the likelihood of a successful terrorist attack on [a spent fuel pool] remote

[T]he NRC has required, and nuclear power plant licensees have implemented, various security and mitigation measures that, along with the robust nature of [spent fuel pools], make the probability of a successful terrorist attack (i.e., one that causes [a spent fuel pool] zirconium fire, which results in the release of a large amount of radioactive material into the environment) very low. As such a successful terrorist attack is within the category of remote and speculative matters for NEPA considerations; it is not “reasonably foreseeable.” Thus, on this basis the NRC finds that the environmental impacts of renewing a nuclear power plant license, in regard to a terrorist attack [on a spent fuel pool], are not significant.

73 Fed. Reg. at 46,211. While this proceeding does not involve renewal, the analysis applies equally, if not more forcefully, to new nuclear plants that will meet even more stringent requirements for plant security. As noted above, NEPA does not require consideration of impacts that are remote and speculative. 73 Fed. Reg. at 42,607.

F. Contention TC-6 (Reliability of Uranium Fuel) Is Inadmissible

NC WARN’s Contention TC-6 states that “[t]he 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.” Petition at 36-37. This Contention is inadmissible because: (1) it lacks adequate support, contrary to 10 C.F.R. § 2.309(f)(1)(v); and (2) it does not provide sufficient information to demonstrate a genuine dispute with the applicant on a material issue of law or fact, contrary to 10 C.F.R. § 2.309(f)(1)(vi).

1. Contention TC-6 Lacks Adequate Support

NC WARN's "support" for this Contention is inadequate to meet the NRC's admissibility requirements. The only data NC WARN relies upon to support this Contention are two World Nuclear Association ("WNA") web pages.⁵¹ These web pages, however, directly contradict the Contention. NRC precedent makes it clear that, when determining whether a contention is admissible, licensing boards are required to "carefully examine[]" documents that are provided by petitioners to support a contention to determine whether they "supply an adequate basis for the contention." See, e.g., Dominion Nuclear North Anna, LLC (Early Site Permit for North Anna ESP Site), LBP-04-18, 60 N.R.C. 253, 265 (2004) ("North Anna ESP"). A document offered by a petitioner as the basis for a contention must be scrutinized by this Board both as to those portions that support the petitioner's assertions and those that do not. See, e.g., Yankee Atomic Electric Co. (Yankee Nuclear Power Station), LBP-96-02, 43 N.R.C. 61, 90 & n.30 (1996). See also id. at 88-89 (rejecting a contention where the document referenced by petitioner on its face failed to establish a disputed material issue).

While NC WARN relies on WNA web pages to supposedly show that uranium is not a reliable fuel source for Harris, those very web pages demonstrate exactly the opposite point. For example, the first web page cited by NC WARN concludes that "the world's present measured resources of uranium (5.5 Mt) in the cost category 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."⁵² The web page adds: "uranium is ubiquitous on the Earth. It is a metal approximately as common as tin or zinc and it is a

⁵¹ www.world-nuclear.org/info/inf75.html?terms=uranium+supply; www.world-nuclear.org/info/inf23.html.

⁵² www.world-nuclear.org/info/inf75html?terms=uranium+supply (emphasis added).

constituent of most rocks and even of the sea.”⁵³ Similarly, while NC WARN cites to historical data on the WNA web page in an attempt to argue that future uranium production may not be adequate, the very web page on which NC WARN relies also explains that, although between 1985 and 2005 there was very little uranium exploration, “the significant increases in exploration effort that we are now seeing could readily double the known economic resources.”⁵⁴ Indeed, the web page adds that, based on experience with other metal minerals, “a doubling of price from present levels could be expected to create about a tenfold increase in measured resources, over time, due both to increased exploration and the reclassification of resources regarding what is economically recoverable.”⁵⁵

The second web page cited by NC WARN also directly contradicts the Contention. In an attempt to show that uranium production will be unable to support future demand, NC WARN cites historical mine production figures from 2004 to 2006 that appear on the web page. Petition at 37. First, by only citing figures on the web page from 2004 through 2006, NC WARN conveniently has omitted the fact that the web page on which it relies also shows that mine production increased from 2006 to 2007.⁵⁶ Second, and more significantly, the web page adds that mine production will be substantially increased over time, through the addition of new mines such as those in Canada and Australia:

Canada has two major mines likely to come into production in 2011: Cameco’s Cigar Lake underground mine is being developed for 2011 start-up. It will truck ore for treatment at McClean Lake and Rabbit Lake mills, 70km away, eventually to produce 7000tU/yr. Areva’s Midwest mine is smaller, with ore being milled at McClean Lake nearby, to produce 2200 tU/yr. With these operating, Canadian output could substantially be concentrated at two mills: McClean Lake producing

⁵³ Id.

⁵⁴ Id.

⁵⁵ Id.

⁵⁶ www.world-nuclear.org/info/inf23.html.

about 7800tU and Key Lake 7000 tU per year, with about 3300 t/yr coming from Rabbit Lake.

In Australia, there are plans to triple the uranium output of Olympic Dam, to about 12,700 tonnes U per year, and two smaller ISL mines are due to start production by about 2010.

With the recovery of uranium prices since about 2003, there is a lot of activity in preparing to open new mines in many countries.⁵⁷

Accordingly, the specific web pages on which NC WARN solely relies do not support – and in fact contradict – NC WARN’s Contention that there will be insufficient uranium supplies for Harris. This Contention, therefore, should be rejected as inadequately supported.

Faced with a nearly identical contention proposed by a petitioner who relied upon the same WNA web pages cited in the Petition by NC WARN, the board in the North Anna Unit 3 COL proceeding earlier this month concluded that the petitioner in that case failed to raise an admissible contention because the web pages did not support the petitioner’s claim that worldwide uranium supplies would be inadequate in the long term. Dominion Virginia Power (Combined License Application for North Anna Unit 3), LBP-08-15, 68 N.R.C. ____, slip op. (Aug. 15, 2008) (“North Anna COL”). The board in that case examined the entire WNA web pages – not just those sections cited by the petitioner – including statements regarding the amount of available uranium resources and reports regarding increased production similar to those quoted in this Answer. The North Anna 3 Board refused to admit the contention, finding that the web pages, read as a whole, did not support the petitioner’s theory that uranium supplies will be insufficient to support future operation of the proposed plant. The Board should reach a similar conclusion here, and decline to admit Contention TC-6 because it is not adequately supported as required under the NRC’s regulations. 10 C.F.R. § 2.039(f)(i)(v).

⁵⁷ Id.

2. Contention TC-6 Fails To Raise A Genuine Material Dispute

Contention TC-6 also claims that Progress fails to “fully and credibly discuss the reliability of uranium fuel supply in the COLA.” Petition at 37. NC WARN adds that Progress should “address these issues” and “support the statements in its COLA which imply that uranium availability will be sufficient to service the proposed Harris nuclear reactors.” Petition at 38. Contrary to NC WARN’s claims, Progress has sufficiently addressed these issues and provided adequate support. In ER Section 10.2.2.3, Progress shows that, based on data available at the time the Application was filed, the WNA was projecting the availability of a 50-year supply of low-cost uranium. ER at 10-36.⁵⁸ ER Section 10.2.2.3 also states that, according to WNA’s projections, increased market prices will drive additional exploration that could result in a tenfold increase in available uranium. Id. Thus, ER Section 10.2.2.3 concludes that the uranium used by Harris “would have a small impact on the long-term availability of uranium.” Id.

NC WARN fails to even reference ER Section 10.2.2.3, or cite to any other section of the Application that NC WARN disputes in Contention TC-6. That failure alone is another basis for rejecting the Contention. As 10 C.F.R. § 2.309(f)(1)(vi) states, each contention “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” Contention TC-6 fails to make any such specific references, much less dispute the substance of the relevant statements in ER Section 10.2.2.3. For these reasons, Contention TC-6 fails to raise a genuine dispute with the applicant on a material issue.

⁵⁸ Since the time Progress filed the Application, as noted above, the WNA has revised its web page to project an 80 year supply of low-cost uranium.

G. Contention EC-1 (Underestimation Of Costs) Is Inadmissible

Contention EC-1 states that “Progress Energy grossly underestimates the costs and risks of the proposed Harris reactors and grossly overestimates the costs of their alternatives. The lack of a reasonable cost basis means that there can be no reasonable analysis of comparative sources of energy generation, energy efficiency or other energy management strategies.” Petition at 38. This Contention is inadmissible because, contrary to 10 C.F.R. § 2.309(f)(1)(iv), it fails to demonstrate that the issue raised is material to the findings the NRC must make to support the action involved in the proceeding. The Contention also is inadmissible because it lacks sufficient support (contrary to 10 C.F.R. § 2.309(f)(1)(v)) and does not raise a genuine dispute with a material issue of fact or law (contrary to 10 C.F.R. § 2.309(f)(1)(vi)).

1. Progress’s Application Contains Current Confidential Cost Information Regarding Harris; Nevertheless, The Economic Cost Of Harris Is Not Material To The NEPA Analysis That The NRC Must Perform In This Proceeding

In this Contention, NC WARN claims that “[o]ne of the fundamental deficiencies in the present ER is a lack of a realistic and up-to-date cost estimates for the proposed Harris reactors.” Petition at 39. NC WARN argues that the \$2.2 billion per reactor estimate in the Harris ER is not in line with current estimates for other reactors of a similar design. Id.

As an initial matter, Progress notes that the \$2.2 billion per unit construction cost estimate set forth in ER Section 10.4.2.2 was based on four published studies of overnight capital costs for construction of new nuclear plants that, at the time the Application was filed, were believed to be the most authoritative publicly available documents on the subject because of the breadth and depth of their analyses. ER at 10-72. For purposes of estimating costs for the public portion of its ER, Progress analyzed those published studies, concluded that they tended to

support an overnight capital cost estimate of \$2000 per kW (indeed, as the Application states, that cost was at the “high-end” of the studies’ estimates⁵⁹), and multiplied that amount by the projected output of Harris to arrive at the \$2.2 billion per unit estimate.

In Part 1 of the Application, however, Progress submitted as proprietary information more up-to-date, Harris-specific, cost estimates. Progress sought confidential treatment of that information because Progress is currently involved in commercially-sensitive negotiations with the supplier of its nuclear plant. As explained in the affidavit that is attached to Progress’s Application, public disclosure of that financial information “would allow Progress’s contractors, vendors and competitors to understand [Progress’s] competitive position and schedule prior to securing the related contracts and services or pricing competitive services.”⁶⁰ That confidential information is available to the Commission, and was available for NC WARN’s review when NC WARN was preparing its Contentions.⁶¹ Therefore, to the extent the Commission needs to consider the economic cost of Harris in preparing its EIS, Progress has provided information in Part 1 of the Application that is more Harris-specific and current than the publicly available information included in the ER.

In addition, the ER contains a detailed analysis of potential alternatives to Harris. It discusses at length the costs and benefits of such alternatives, including (a) the no-action alternative (ER Section 9.1); (b) energy alternatives that do not require generating capacity (such as initiating conservation measures, reactivating or extending the service life of existing plants, and purchasing power from other utilities or power generators) (ER Section 9.2.1); and (c) energy alternatives that do require new generating capacity (such as wind, geothermal,

⁵⁹ ER at 10-73.

⁶⁰ Affidavit of James Scarola (Feb. 18, 2008) at 1.

⁶¹ See Notice of Hearing, 73 Fed. Reg. 31,899.

hydropower, solar power, wood waste (and other biomass), municipal solid waste, energy crops, petroleum liquids, fuel cells, coal, natural gas, integrated gasification combined cycle, and a combination of alternatives) (ER Section 9.2.2). The ER also contains a detailed discussion of the cost-benefit balance for Harris (ER Section 10.4), as well as a 16-page table showing such costs and benefits (ER Table 10.4-1). ER Section 9.1 concludes that the no-action alternative would restrict the ability of Progress to provide safe, reliable baseload power within North Carolina and South Carolina to meet projected demand. ER at 9-2 to 9-3. And ER Section 9.2 concludes that none of the examined new generation alternatives are environmentally preferable to Harris. ER at 9-33. NC WARN does not challenge either of these conclusions.

Because the ER found that no alternative was environmentally preferable to Harris, the precise amount of projected costs for Harris is not material in this proceeding. While the Commission's regulations indicate that economic "benefits" are among the matters to be "weighed" in COL proceedings,⁶² Commission decisions establish that the economic costs of a proposed project should only become part of the Commission's NEPA analysis if the environmental balancing that must be performed shows that a reasonable alternative is environmentally preferable to the proposed project. According to the NRC, NEPA

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

⁶² 10 C.F.R. § 51.107.

Consumers Power Co. (Midland Plant, Units 1 and 2), ALAB-458, 7 N.R.C. 155, 162 (1978) (first emphasis in original; second emphasis added); See also Virginia Electric & Power Co. (North Anna Nuclear Power Station, Units 1 and 2), ALAB-584, 11 N.R.C. 451, 458 (1980).

In short, “NEPA requires [the NRC] to look for environmentally preferable alternatives, not cheaper ones.” ALAB-458, 7 N.R.C. at 168. Thus, the NRC leaves matters regarding cost reasonableness of a proposed project “to the business judgment of the utility companies and to the wisdom of the State regulatory agencies responsible for scrutinizing the purely economic aspects of proposals to build new generating facilities.” Id. at 162-63. Utility companies and State regulatory agencies, not the NRC, are “the true experts in this area.” Id. at 168. The NRC adds:

in other words, neither NEPA nor any other statute gives us the authority to reject an applicant’s proposal solely because an alternative might prove less costly financially. Monetary considerations come into play only in the opposite fashion, i.e., if an alternative to the applicant’s proposal is environmentally preferable, then we must determine whether the environmental benefits conferred by that alternative are worthwhile enough to outweigh any additional cost needed to achieve them.

Id. at 163 n.25.

The NRC has reiterated this point more recently in the slightly different context of an Early Site Permit proceeding. Citing the Midland decision quoted above, the Commission found that “cost would only come into the analytical balancing if the environmental impact balancing indicates that a reasonable alternative is environmentally preferable to the proposed project.” Exelon Generation Co., LLC (Early Site Permit for the Clinton ESP Site), LBP-05-19, 62 N.R.C. 134, 179, aff’d, CLI-05-29, 62 N.R.C. 801 (2005), aff’d sub nom., Envtl. Law & Policy Ctr. v. N.R.C., 470 F.3d 676 (7th Cir. 2006) (emphasis in original) (footnote omitted).

For these reasons, while the Application does contain confidential, Harris-specific cost estimates, since the ER shows there are no environmentally preferable alternatives to Harris, the amount of the Harris cost estimate is immaterial to the NEPA analysis to be performed in this proceeding. Accordingly, Contention EC-1 should be rejected as failing to raise a material issue.

2. Contention EC-1 Lacks Sufficient Support

Contention EC-1 is also inadmissible because, contrary to 10 C.F.R. § 2.309(f)(1)(v), it does not include facts or expert opinions supporting the Contention.

In Contention EC-1, NC WARN baldly asserts that “nuclear generation is a highly risky venture,” and then, without elaboration, lists nine supposed “risks” of nuclear power that are discussed in a presentation unrelated to Harris. Petition at 40-41. A conclusory assertion stating that nuclear generation is “highly risky” is nothing more than a statement “that simply alleges that some matter ought to be considered,” which does not provide a sufficient basis for a contention. Rancho Seco, LBP-92-23, 38 N.R.C. at 246.

In addition, nothing in the presentation cited by NC WARN can be said to support Contention EC-1. The nine “risks” cited by NC WARN (a number of which NC WARN itself says are related to Contentions other than EC-1) are taken from a document that NC WARN states was presented to the New York Society of Security Analysts in June of 2006, but that NC WARN has not clearly identified.⁶³ This document appears to have been created well before the Application was filed, so it is not clear how it can possibly support a claim that the Application

⁶³ Petition at 41, n.63. It is not clear exactly what document NC WARN is referring to in its footnote 63, or who actually authored the document. Progress was able to obtain two documents with the title cited in footnote 63. The cover page of one of the documents states that it is a “Synopsis of Presentations” by Peter Bradford and David Schlissel, and other states that it is “Based in Part on Presentations By” Bradford and Schlissel. The first document has no date, and the second document is dated January 2007; but footnote 63 of the Petition says the presentation was given in June of 2006. Contrary to Commission requirements, NC WARN has not clearly identified the document on which it relies to support this contention. Millstone, LBP-04-15, 60 N.R.C. at 89.

underestimates the costs and risks of Harris. The document makes no reference to Harris. Indeed, there is no indication that its authors have reviewed the Application, much less identified a deficiency in it. NC WARN makes no attempt to tie the “risks” cited from the document to matters that NC WARN disputes in the Application. For these reasons, contrary to 10 C.F.R. § 2.309(f)(1)(v), NC WARN has provided no fact or expert opinion supporting its claim in Contention EC-1 that the Application underestimates Harris’s costs and risks.

Contention EC-1 also claims that “the costs, impacts and requirements for renewable energy alternatives are particularly inaccurate in the ER, with inflated land requirements for wind and solar and unreasonable conclusions that waste impacts of wind and solar are greater than that of a nuclear power plant.” Petition at 42. These allegations fail to support the Contention. NC WARN nowhere explains how in its view (1) the ER’s costs, impacts and requirements regarding renewable energy alternatives are “particularly inaccurate;” (2) the ER’s land requirements for wind and solar are “inflated;”⁶⁴ and/or (3) the ER has reached “unreasonable conclusions” regarding waste impacts of wind and solar. NC WARN provides absolutely no facts or expert opinions supporting these claims. Indeed, these are exactly the type of “bald assertions” that the NRC has found are insufficient to support a contention. See Private Fuel Storage, LBP-98-7, 47 N.R.C. at 180.

⁶⁴ The most NC WARN says in this regard is that Progress improperly estimated land use requirements for solar power by relying on land requirements for flat plate or photovoltaics, rather than land requirements for solar thermal plants. Petition at 42. However, Progress did not in its analysis consider land use requirements for solar thermal plants because, as the Application states, concentrating solar power plants perform efficiently in high-intensity sunlight in arid and semi-arid regions of the world, which do not include North Carolina. ER Section 9.2.2.4.1 at 9-15.

3. Contention EC-1 Does Not Raise A Genuine Dispute With Respect To A Material Issue Of Fact Or Law

Contention EC-1 also is inadmissible because it fails to include “references to specific portions of the application” that NC WARN disputes, as required under 10 C.F.R. § 2.309(f)(1)(vi). For example, as discussed above, NC WARN makes the generic statement that nuclear generation is “highly risky,” and cites nine such supposed “risks.” NC WARN, however, does not specifically reference any section of the Application that NC WARN disputes as creating such risks. Similarly, although NC WARN claims that (1) the ER’s costs, impacts and requirements regarding renewable energy alternatives are “particularly inaccurate;” (2) the ER’s land requirements for wind and solar are “inflated;” and (3) the ER has reached “unreasonable conclusions” regarding waste impacts of wind and solar, NC WARN does not reference specific sections of the Application that contain these supposed inaccuracies, inflated numbers and unreasonable conclusions. Accordingly, these accusations do not raise genuine disputes regarding material issues of fact and law as required under 10 C.F.R. § 2.309(f)(1)(vi).

Contention EC-1 also alleges that Progress’s Application fails to contain certain information. This allegation does not raise a material dispute. As described below, in every case where an omission is alleged, Progress has indeed provided the supposedly missing information. Clearly, NC WARN has not satisfied its “ironclad obligation” to examine the Application, including the ER. 54 Fed. Reg. at 33,170. See Millstone, CLI-01-24, 54 N.R.C. at 358.

NC WARN states that Progress’s environmental cost estimates regarding impact on land use “omit[] 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 42. Contrary to NC WARN’s claims, however, Progress did not omit these items from its analysis of Harris’s environmental costs. In fact:

- With respect to flooding of the lake, ER Section 10.1.1 specifically notes the unavoidable adverse impacts on land that will be inundated by the proposed increase in the water level of the Harris Reservoir (ER at 10-4); ER Table 10.1-1 lists the impact of the proposed water level increase as an unavoidable adverse economic impact (ER at 10-8); ER Section 10.2.1.1 discusses the long-term changes in land use that will be associated with the increase in the water level of the Harris Lake and the related environmental impacts (ER at 10-31); ER Section 10.3.1.1 describes how increasing the level of the lake will impact use of the surrounding land by changing it from forested areas to shoreline (ER at 10-45); and Table 10.4-1, which summarizes the costs and benefits of the proposed project, states that the lake flooding will result in an environmental enhancement by providing additional recreational opportunities (ER at 10-85). The ER, therefore, considers the environmental/land use costs associated with increasing the size of the Harris Lake.
- With respect to new transmission lines, ER Section 10.1.1 specifically notes the unavoidable adverse impacts on land use that will result from the potential construction of new transmission lines (ER at 10-4); ER Table 10.1-1 lists the impact on land use from potential construction of new transmission lines as an unavoidable adverse economic impact (ER at 10-8); ER Sections 10.2.1.1, 10.3.1.8, and 10.3.2.7 discuss how the new transmission lines will impact land usage (ER at 10-29 to 10-30, 10-49 and 10-57); and ER Table 10.4-1 notes, as

a “cost,” that new transmission lines will conservatively require expanding existing transmission corridors by an additional 100 feet in width, but that utilizing the Harris site for the new plants actually has an environmental benefit over the other alternative sites, since existing transmission lines and corridors would be used and expanded (ER at 10-85 & 10-86). The ER, therefore, considers the environmental costs associated with new transmission lines.

- With respect to relocated roads and bridges and other infrastructure, ER Section 10.1.1 notes the unavoidable adverse impacts on land use that will result from construction and improvements to area roads and bridges and construction of infrastructure associated with Harris (ER at 10-4); ER Table 10.1-1 lists the impact on land use of construction of new structures and new roads and bridges as an unavoidable adverse impact (ER at 10-8); ER Sections 10.3.1.1, 10.3.1.2, 10.3.1.3, 10.3.2.2, and 10.3.3 all address the environmental impacts on land use of roads, bridges, and other infrastructure (ER at 10-44, 10-45, 10-46, 10-55, 10-61 & 10-62). The ER, therefore, considers the environmental costs associated with the construction of roads, bridges and other infrastructure.

NC WARN also alleges that “[t]he ER in large part ignores the positive benefits of energy efficiency, cogeneration, purchased power and alternative energy sources to reduce or meet the reduced energy demand.” Petition at 42. This statement is simply wrong. As the discussion below indicates, the ER actually carefully addresses each of these issues.

- With respect to energy efficiency, ER Section 8.2.2.2 contains a detailed discussion of Progress’s current program to encourage energy efficiency and reduce peak demand. ER Section 8.2.2.2 also discusses how, in June of 2007, Progress announced a goal of displacing 2000 MW of power generation through demand side management and energy efficiency programs. ER at 8-21. That Section describes Progress’s “plans to implement aggressive residential, commercial, and industrial energy-efficiency programs” and to evaluate their viability in further reducing electricity demand. ER at 8-22. Indeed, Progress recognizes that “[t]he additional reductions in future electricity demand growth through energy efficiency could push the need for new power plants further into the future.” Id. In addition, Section 9.2.1.1 of the Application further discusses conservation measures, including energy efficiency, as an alternative to Harris. ER at 9-4 to 9-6. ER Section 8.2.2.2 and ER Section 9.2.1.1 conclude, however, that increased energy efficiency will not eliminate the need for additional future baseload generation. Accordingly, it is simply incorrect for NC WARN to claim that the ER in large part ignores the benefits of energy efficiency.
- With respect to purchased power, contrary to NC WARN’s claims, the ER does consider purchased power, including power purchased from cogeneration, as an alternative source of energy. ER Section 8.3.3 states Progress’s prediction that approximately sixteen percent of its capacity will be derived from purchased power from 2008 until 2022. ER at 8-31. ER Section 9.2.1.3 specifically considers purchasing power from other utilities or power

generators as an alternative. That Section discusses the regulatory requirements under which Progress is required to purchase electricity from small production facilities or cogeneration plants, and concludes that “[d]ue to the limited number of small production facilities or cogeneration plants and the limitations on output from those facilities, the purchase of electricity from these sources is not a viable alternative for baseload capacity.” ER at 9-7. In addition, ER Table 9.2-1 lists Progress’s wholesale purchase power commitments (including from co-generation), and ER Section 9.2.1.3 notes that Progress is negotiating a 150-MWe purchase power contract for the 2010-2019 timeframe. However, ER Section 9.2.1.3 concludes that purchasing power from other sources is not competitive and would not meet the needs that Harris would meet. Finally, ER Section 9.2.1.3 adds that, due to the lack of electricity available for import from nearby states, “purchasing power from other utilities or power generators is a less attractive option than the construction of new nuclear units at HAR.” ER at 9-7. Once again, NC WARN is simply incorrect when it asserts that the ER in large part ignores purchased power as an option.

- With respect to alternative energy sources, it is abundantly clear that, contrary to NC WARN’s claims, the ER does not in large part ignore alternative energy. ER Sections 9.2.2 to 9.2.3 devote at least 25 pages to a discussion of such alternatives, including wind, geothermal, hydropower, solar power, wood waste (and other biomass), municipal solid waste, energy crops, petroleum liquids, fuel cells, coal, natural gas, integrated combined cycle, and

a combination of alternatives. ER at 9-8 through 9-33. ER Section 9.2.2 analyzes each of these options in detail and evaluates whether they are viable alternatives from a wide range of perspectives. It is not necessary for Progress to discuss the specifics of that analysis here, when it is clear on its face that NC WARN is simply wrong in claiming that the ER largely ignores alternative energy sources.

Accordingly, because the Application includes in detail the information that NC WARN alleges was omitted or largely ignored, Contention EC-1 is inadmissible under 10 C.F.R. § 2.309(f)(1)(vi) because it fails to show that a genuine dispute exists with the applicant on a material issue of fact or law.

H. Contention EC-2 (Carbon Footprint) Is Inadmissible

NC WARN's Contention EC-2, which alleges that Progress fails to analyze in its ER the "carbon footprint" associated with the proposed reactor, is inadmissible. NC WARN claims that:

The COLA needs to include an analysis of the emission of greenhouse gases in the entire cycle, i.e., mining uranium ores, transporting those ores and processing into fuel, production of raw materials and components, transporting these materials and components, the processes to construct, operate and close the proposed Harris nuclear reactors, and transporting and disposing of radioactive wastes.

Petition at 44. Contention EC-2 makes four allegations related to addressing the environmental impacts of CO₂ emissions from: (1) the uranium fuel cycle – including fuel and waste transportation; (2) site construction – including the production and transportation of raw materials and components; (3) plant operation; and (4) decommissioning. *Id.* For clarity, in the discussion below, Progress addresses Contention

EC-2 as made up of four sub-issues, addressing first the general arguments applicable to all four sub-issues, followed by a discussion specific to each of the four sub-issues.

1. Contention EC-2 Generally Lacks Factual or Expert Support

Contention EC-2 lacks factual support for its assertions and conclusions concerning the significance of greenhouse gas emissions and therefore fails to meet the requirements of 10 C.F.R. § 2.309(f)(1)(v). The contention identifies no specific dispute with the Application other than to argue that the ER should contain a carbon footprint analysis. However, a “bald assertion that a matter ought to be considered or that a factual dispute exists . . . is not sufficient;” rather, “a petitioner must provide documents or other factual information or expert opinion” to support a contention’s “proffered bases.” Private Fuel Storage, LBP-98-7, 47 N.R.C. at 180 (citations omitted). NC WARN has the obligation to show that omissions from the Application are significant. See System Energy Resources, Inc. (Early Site Permit for Grand Gulf ESP Site), CLI-05-4, 61 N.R.C 10, 13 (2005). NC WARN, however, has not proffered any support for an argument that a carbon footprint analysis is appropriate or significant with respect to the Application or that any significant impacts have not been disclosed in the ER. Accordingly, this Contention fails to meet the requirements of 10 C.F.R. § 2.309(f)(1)(v).

In support of Contention EC-2, NC WARN offers two citations. NC WARN cites a presentation by Dr. James Hansen for the assertion that greenhouse gases contribute to climate change. Petition at 43. The Hansen document cited in Contention EC-2 is not a report and includes no technical expert analysis that is related, even generally, to nuclear power. In fact, the Hansen document is a presentation discussing the existence of global warming. A petitioner cannot satisfy its burden to provide support for its contention by merely referencing a document

without including analysis showing that it provides factual support for that contention. See USEC, Inc., (American Centrifuge Plant), LBP-05-28, 62 N.R.C. 585, 597 (2005).

Contention EC-2 also cites, without reference to a page or chapter or explanation as to how it supports its contention, a report by Jan Willem Storm van Leeuwen for the assertion that “a key limiting variable in the nuclear fuel cycle impacts on greenhouse gas emissions is the relative ease with which uranium is obtained... .” Petition at 44. However, “a petitioner may not simply incorporate massive documents by reference as the basis for a statement of his contentions.” Seabrook, CLI-89-03, 29 N.R.C. at 240-41. In fact, “petitioners are expected to clearly identify the matters on which they intend to rely with reference to a specific point.” Millstone, LBP-04-15, 60 N.R.C. at 89 & n.26. The van Leeuwen report cited by NC WARN is in excess of 300 pages and includes analysis on an extensive list of issues related to nuclear power. Contention EC-2 does not specify what exactly NC WARN intends to rely upon in this lengthy document. As such, Contention EC-2 is inadmissible since NC WARN has failed to meet its burden to support its contention pursuant to 10 C.F.R. § 2.309(f)(1)(v).

2. There Is No Legal Basis For Contention EC-2

It is well-established that “a contention must have a basis in fact or law” Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Unit 3), LBP-02-5, 55 N.R.C. 131, 141 (2002). Contention EC-2 appears to allege that, without a carbon footprint analysis, the ER is incomplete. Progress’s Application addresses carbon emissions where required by Commission regulations, as shown below. However, the detailed carbon footprint analysis sought by NC WARN is not required by NEPA, NRC regulations or NRC guidance, and NC WARN has provided no basis for contending that such details are required by applicable law. An admissible contention “must explain, with specificity, particular safety or legal reasons

requiring rejection of the contested [application].” Millstone, CLI-01-24, 54 N.R.C. at 359-60. NC WARN has done little more than claim that the “carbon footprint” should be studied more. Such generic exhortations for additional study do not provide a basis for a contention.

NEPA requires Federal agencies, as part of their decision-making process, to consider the environmental impacts of actions under their jurisdiction.⁶⁵ The NRC promulgated regulations to implement NEPA’s requirements – 10 C.F.R. Part 51. The NRC’s Environmental Standard Review Plan (“ESRP”) provides guidance to the NRC Staff on implementing the provisions of 10 C.F.R. Part 51.⁶⁶ Nothing explicit or suggested in NEPA, the NRC’s implementing regulations in Part 51, or the ESRP requires Progress to analyze the carbon footprint of the proposed reactors. Moreover, NC WARN points to no provision in NEPA, 10 C.F.R. Part 51, or the ESRP that calls for an evaluation of the carbon footprint of a proposed licensing action. Accordingly, NC WARN has provided no legal basis for contending that such an analysis is required.

3. Contention EC-2 Subissue 1– Uranium Fuel Cycle: Progress Fails To Include An Analysis Of The Carbon Footprint For The Uranium Fuel Cycle Of The Proposed Reactors

a. NC WARN Is Prohibited From Collaterally Attacking 10 C.F.R. § 51.51(b), Table S-3

NC WARN’s Contention EC-2 subissue 1 (“EC-2.1”) must be rejected because it is outside the scope of this proceeding and is a prohibited challenge to 10 C.F.R. § 51.51(b), “Table of Uranium Fuel Cycle Environmental Data” (“Table S-3”). NC WARN claims that Progress’s ER does not address the emission of greenhouse gasses in the uranium fuel cycle. The ER, however, does address this issue. ER Section 5.7, “Uranium Fuel Cycle Impacts,” references

⁶⁵ 42 U.S.C. § 4332(2)(C)(i).

⁶⁶ See Standard Review Plans for Environmental Reviews for Nuclear Power Plants, NUREG-1555 (Oct. 1999).

Table S-3. The Commission developed Table S-3 to generally address the need to consider the environmental effects of the uranium fuel cycle. Table S-3 summarizes and codifies the Commission’s assessment and determinations for evaluating the environmental effects of the uranium fuel cycle, including gaseous emissions and electricity consumed as part of the fuel cycle. NRC regulations clearly state that a contention that challenges an NRC rule is outside the scope of the proceeding: “[e]xcept as provided in paragraphs (b), (c), and (d) of this section, no rule or regulation of the Commission . . . is subject to attack by way of discovery, proof, argument, or other means in any adjudicatory proceeding subject to this part.” 10 C.F.R. § 2.335(a).⁶⁷ NC WARN bases much of Contention EC-2.1 on issues associated with the environmental effects of the uranium fuel cycle.⁶⁸ The Commission’s Table S-3 is the basis for evaluating the contribution of the environmental effects of the uranium fuel cycle, including, but not limited to, mining, milling, enrichment, and transportation of waste. 10 C.F.R. § 51.51(a). The Commission’s regulations address the issue NC WARN seeks to litigate; therefore, NC WARN’s Contention is a prohibited attack on Commission regulations and is inadmissible in this proceeding.

b. NC WARN Has Not Sought A Waiver Of 10 C.F.R. § 51.51(b), Table S-3

The Commission’s regulations clearly state that petitioners may only challenge NRC rules and regulations in adjudicatory proceedings by submitting a petition for a waiver to permit the challenge. 10 C.F.R. § 2.335(a). Sections 2.335(b)-(d) establish the procedure by which a party may make its request for waiver or exception. “The sole ground for petition of waiver or

⁶⁷ See Peach Bottom, ALAB-216, 8 A.E.C. at 20-21.

⁶⁸ “The COLA needs to include an analysis of the emission of greenhouse gasses in the entire cycle, i.e., mining uranium ores, transporting those ores and processing into fuel...” Petition at 44. “The many transportation links in the uranium processing steps, i.e., mining, milling, conversion, enrichment, re-conversion, and fuel fabrication, . . . have not been analyzed . . .” Id. at 44-45.

exception is that the special circumstances with respect to the subject matter of the particular proceeding are such that the application or the rule or regulation...would not serve the purposes for which the rule or regulation was adopted.” Id. A request for such waiver or exception must “be accompanied by an affidavit that identifies...the subject matter of the proceeding as to which application of the rule or regulation...would not serve the purposes for which the rule or regulation was adopted.” Id. Additionally, “[t]he affidavit must state with particularity the special circumstances alleged to justify the waiver or exception requested.” Id. Even though NC WARN states that the review of the environmental impacts of the proposed Harris reactors is not complete until Progress analyzes the greenhouse gas emissions associated with the uranium fuel cycle, such a request falls far short of meeting any of the requirements for seeking a waiver of a rule, as set out in 10 C.F.R. §§ 2.335(b)-(d).

Even if intended as a waiver request, Contention EC-2.1 fails to meet the affidavit requirement in Section 2.335:

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

10 C.F.R. § 2.335(b). This affidavit should contain enough proof for the Board to determine whether the petitioner has made a prima facie showing for a waiver. Harris, LBP-82-119A, 16 N.R.C. at 2073. Further, “[i]ntervenors should be aware that as a practical matter, in most cases, a petition for a waiver of a rule under [§ 2.335] will involve a substantial investment in time and effort.” Id. No affidavit with any such specificity or proof was provided to support a waiver in this proceeding.

Further, if Contention EC-2.1 were intended to constitute a waiver request, it does not and cannot satisfy the standards for a waiver. In this regard, 10 C.F.R. § 2.335(b) provides:

The sole ground for petition of waiver or exception is that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation (or a provision of it) would not serve the purposes for which the rule or regulation was adopted.

10 C.F.R. § 2.335(b) (emphasis added). The “special circumstances” required cannot be merely alleged and must be set forth “with particularity.” Harris, LBP-82-119A, 16 N.R.C. at 2073. In order to establish special circumstances that would support a waiver, the petitioner “must allege facts not in common with a large class of facilities that were not considered, either explicitly or by necessary implication, in the rulemaking proceeding for the rule sought to be waived.”

Private Fuel Storage, LBP-98-7, 47 N.R.C. at 238 (citing Public Service Co. of New Hampshire (Seabrook Station Units 1 and 2), CLI-89-20, 30 N.R.C. 231, 235 (1989)) (emphasis added).

Here, NC WARN’s contention generally references the transportation of spent nuclear fuel, uranium mining, and uranium reprocessing. Petition at 44. As such, NC WARN fails to allege “facts not in common with a large class of facilities.” Private Fuel Storage, LBP-98-7, 47 N.R.C. at 238. In addition, such a broad request does not and cannot meet the standard in 10 C.F.R. § 2.335(b).

4. Contention EC-2 Subissue 2 – Construction: Progress Fails To Include An Analysis Of The Carbon Footprint For Construction Of The Proposed Reactors

a. Contention EC-2 Subissue 2 Fails To Show That A Genuine Dispute Exists With The Applicant On A Material Issue Of Law Or Fact And Is Void Of Support For Its Assertions

Contention EC-2 subissue 2 (“EC-2.2”) fails to state an admissible contention because it (1) does not directly controvert a position taken by Progress in the Application; and (2) does not

provide any support for its dispute with the ER. Contention EC-2.2 thereby fails to meet the requirements of 10 C.F.R. § 2.309(f)(1)(vi) and (v) and is inadmissible.

Contention EC-2.2 is inadmissible because it fails to directly controvert a position taken by Progress in the Application, as required by 10 C.F.R. § 2.309(f)(1)(vi). To satisfy the burden to provide factual support, the basis for each contention must contain “references to the specific portions of the [ER]. . . .” 10 C.F.R. § 2.309(f)(1)(vi). Contention EC-2.2 alleges that Progress fails to present evidence or analysis of the carbon footprint for site construction associated with the proposed Harris reactors in its ER. See Petition at 43. NC WARN fails to cite to any portion of the Application, which, as explained below, addresses emissions associated with construction.

The ER addresses construction emissions and their environmental impacts. For example, ER Section 4.4.1.2 addresses environmental impacts of construction on air quality, “[d]uring construction activities at the HAR Site, controls will be implemented to mitigate potential air emissions from construction sources.” ER at 4-101. “Air emissions from construction sources” include “[e]xhaust from personal vehicles and construction equipment,” both of which emit carbon dioxide and other greenhouse gases. ER at 4-100.

A small increase in air emissions will occur during timber removal and Harris site preparation activities required for the Harris Reservoir perimeter, transmission corridors, pipeline corridor, and/or installation of the intake structure and pumphouse. . . . Given current timber management operations, the minor timber clearing around Harris Reservoir and along the transmission and pipeline corridors will have a short-term SMALL and negligible impact on overall air quality in the immediate area.

. . .

Clearing around Harris Reservoir would be phased over time. This would minimize the potential for air emissions at any given time. In addition, because most of the areas would be cleared before constructing HAR 2 and HAR 3, the potential for interaction with air emissions from other construction activities would be minimized.

. . .

Overall, construction-related activities will result in SMALL impacts to overall air quality. . . . Air quality impacts are anticipated to be short in duration and, therefore, would result in temporary adverse impacts. No long-term indirect or cumulative impacts to air quality are anticipated from construction-related activities.

ER at 4-100 to 4-102.

NC WARN fails to directly controvert these sections of the ER or any other applicable portions of the Application. NC WARN has a duty to read the ER, state in its contention Progress's position, and state its own opposing view. See Millstone, CLI-01-24, 54 N.R.C. at 358. Instead, NC WARN merely alleges that the review of environmental impacts is incomplete until there is a carbon footprint analysis. Petition at 45. Claiming that something ought to be studied, without more, is not a valid basis for a contention. NC WARN did not meet its duty in Contention EC-2.2 to reference the specific portions of the ER that it is challenging and, therefore, Contention EC-2 is inadmissible in accordance with 10 C.F.R. § 2.309(f)(1)(vi).

The basis for each contention must also contain "specific sources and documents for which the petitioner intends to rely to support its position on the issue." 10 C.F.R. § 2.309(f)(1)(v). NC WARN fails to provide any support for its assertion. If NC WARN does not agree with the analysis in the ER, then its contention must at least explain why. Palo Verde, CLI-91-12, 34 N.R.C. at 156. See Exelon Generation Co. (Early Site Permit for Clinton ESP Site), LBP-04-17, 60 N.R.C. 229, 240 (2004). Instead of providing supporting reasons for its dispute with the ER's analysis of the environmental impacts of construction, the Contention merely opines about the harmful affects of atmospheric carbon dioxide on global warming and the carbon dioxide emissions associated with the uranium mining process. To the extent that Contention EC-2.2 references expert reports – only two instances, as discussed above – those

reports do not address the impacts of carbon emissions from nuclear plant construction activities. Since NC WARN provides no supporting rationale for its dispute with the ER, Contention EC-2.2 fails to meet the requirements of 10 C.F.R. § 2.309(f)(1)(v).

b. Contention EC-2.2 Fails To Raise An Issue That Is Material To The Findings The NRC Must Make In This Proceeding

In addition to failing to offer any support for its claims, Contention EC-2.2 also fails to raise an issue that is material to the findings that the NRC must make in this proceeding, contrary to 10 C.F.R. § 2.309(f)(1)(iv). NC WARN does not explain how a carbon footprint analysis for the production of raw construction materials and components is material to the licensing determinations to be made by the NRC in this proceeding, including the agency's findings under NEPA.⁶⁹ On the other hand, as described below, Progress has shown in the Application that an analysis of the carbon emissions associated with producing raw materials and components cannot make a difference in the outcome of this licensing proceeding.

Chapter 10 of the ER evaluates the irretrievable environmental commitments resulting from Harris, including construction materials. Based on a U.S. Department of Energy study⁷⁰ which estimates the raw materials necessary to construct a new reactor,⁷¹ Progress finds that the construction of Harris does not significantly increase the global production of concrete, rebar, cable, or piping:

⁶⁹ The Commission has defined a "material" issue as meaning one where "resolution of the dispute would make a difference in the outcome of the licensing proceeding." 54 Fed. Reg. at 33,172 (emphasis added).

⁷⁰ Application at Ref. 10.2-001; U.S. Department of Energy, "Application of Advanced Construction Technologies to New Nuclear Power Plants," September 2004.

⁷¹ "[E]ach new reactor would require approximately 9356.6 cubic meters (m³) (12,239 cubic yards [yd³]) of concrete, 2818.6 metric tons (3107 tons) of rebar, 2,743,200 m (9,000,000 ft.) of cable, and 83,820 m (275,000 ft.) of piping." ER at 10-36.

[T]he amount of materials that would be irretrievably committed to the project should be insignificant in relation to the availability of these materials on the national or global market.

ER at 10-36 (emphasis added). Whether or not a significant global increase in the production of raw materials and components could lead to a measurable or significant increase in greenhouse gas emissions, as stated in the ER, construction of Harris does not significantly affect the global production of raw materials and components. As such, processing raw materials and manufacturing components for Harris cannot generate a significant increase in greenhouse gas emissions. An analysis of the carbon footprint is therefore not material, since the production of raw materials and components and will not make a difference in the outcome of this licensing proceeding.

Given that the construction of Harris would not significantly affect the production of raw materials and components or the resulting greenhouse gas emissions, a carbon footprint analysis cannot produce any meaningful new information that would make a difference in the outcome of the licensing proceeding. NC WARN does not dispute this information in the Application. As such, NC WARN fails to raise an issue that is material to the findings that the NRC must make, contrary to 10 C.F.R. § 2.309(f)(1)(iv).

Furthermore, the basis for each contention must also contain “the supporting reasons for each dispute” 10 C.F.R. § 2.309(f)(1)(vi). NC WARN fails to provide any reasons supporting its assertion that the carbon footprint of raw material and component production will have an effect on the Commission’s decision. Bald and unsupported allegations do not establish the existence of a genuine material dispute. Private Fuel Storage, LBP-98-7, 47 N.R.C. at 180.

5. Contention EC-2 Subissue 3 - Operations: Progress Fails To Include An Analysis Of The Carbon Footprint For Operations Of The Proposed Reactors

a. Contention EC-2 Subissue 3 Fails To Show That A Genuine Dispute Exists With The Applicant On A Material Issue Of Law Or Fact

Contention EC-2 subissue 3 (“EC-2.3”) is inadmissible for two reasons. First, it fails to provide sufficient information to show that a genuine dispute exists with Progress on a material issue of law or fact, pursuant to 10 C.F.R. § 2.309(f)(1)(vi). Second, Contention EC-2.3 fails to provide adequate support for its assertion, contrary to 10 C.F.R. § 2.309(f)(1)(v).

To satisfy the burden to provide factual support, the basis for each contention must contain “references to the specific portions of the [ER]....” 10 C.F.R. § 2.309(f)(1)(vi). Contention EC-2.3 alleges that Progress fails to present evidence or analysis in the ER of the carbon footprint as a result of Harris operations. See Petition at 43. NC WARN, however fails to reference any of the sections of the Application that address emissions associated with Harris operations.

The ER addresses operations’ emissions and their environmental impact as required by the ESRP. The ESRP states that an ER should include a discussion of gaseous emissions (see, e.g., Section 5.8.1). In doing so, however, the ESRP calls for an assessment of the direct physical impacts of construction-related activities and plant operation on the community.⁷² There is no requirement to attempt to address the more tenuous potential affects on global warming as a result of CO₂ emissions. A proper assessment considers odors, vehicle exhaust, dust, and other non-radiological emissions within the context of applicable air quality standards

⁷² See ESRP at 5.8.1-3.

for gaseous pollutants (based on consultation with Federal, State, regional, and local agencies).⁷³

The Harris ER contains this information. Table 3.6-1 in ER Section 3.6.3.2.5 (Annual Emissions) lists the annual emissions from the intermittent use of diesel generators and the diesel-driven fire pumps for the two Harris units, while Table 3.6-2 lists the annual hydrocarbon emissions from the associated diesel fuel oil storage tanks for the Harris units.⁷⁴ ER Section 3.6.3.2.5 further states that,

No source of gaseous emissions other than the diesel generators and the diesel fire pumps is planned for the site. According to information presented in NUREG-1555, these emissions constitute a small additional atmospheric loading in comparison with these emissions from the stationary fuel combustion and transportation sectors in the United States.

ER at 3-143 (emphasis added). Because the ER contains the information called for by the ESRP, Progress complied with the NEPA guidance as promulgated by the NRC.

In addition to the ER Section 3.6.3.2.5 discussion of Annual Emissions as part of the Plant Description, the ER addresses operation emissions and their environmental impacts. For example, Chapter 10 of the ER addresses the environmental consequences of the proposed action:

When the HAR is in operation, atmospheric emissions other than water vapor will be minimal. . . . Air emissions from HAR during normal operation of the facility are not expected to have a significant or measurable impact on local or regional meteorological conditions; therefore, there will be no irreversible atmospheric or meteorological commitments.

ER at 10-34. Chapter 10 also contains the Benefit-Cost Analysis.

Given concerns in the state about climate change and carbon emissions, the HAR serves an important environmental benefit need by reducing carbon emissions in the state. When the plant becomes operational, the HAR will add needed power in

⁷³ For example, the ESRP cites 29 C.F.R. § 1910, “Occupational and Health Standards,” with respect to noise, dust, and air pollution, and 40 C.F.R. §§ 50-90 as related to National Primary and Secondary Air Quality.

⁷⁴ ER at 3-144 to 3-145.

state without generating significant amounts of new carbon, compared to a coal-fired generating plant.

ER at 10-71. Table 10.4-1 compares carbon emissions from the proposed reactors at four different sites.⁷⁵ The table explicitly states, “Nuclear: No Carbon Emissions” for proposed reactors at each of the four sites. ER at 10-80. NC WARN does not address and does not dispute the fact that the proposed Harris units will reduce carbon emissions for future electricity production.

The ER directly addresses carbon emissions resulting from operating activities. NC WARN fails to directly controvert any applicable portion of the Application. NC WARN has a duty to read the environmental report, state in its contention Progress’s position, and its opposing view. See Millstone, CLI-01-24, 54 N.R.C. at 358. Instead, NC WARN merely alleges that the review of environmental impacts is incomplete until there is a carbon footprint analysis. Petition at 45. Claiming that something ought to be studied is not a valid basis for a contention. NC WARN does not meet its duty in Contention EC-2.3 to reference the specific portions of the ER. Therefore, the contention is inadmissible in accordance with 10 C.F.R. § 2.309(f)(1)(vi).

The basis for each contention must also contain “specific sources and documents for which the petitioner intends to rely to support its position on the issue.” 10 C.F.R. § 2.309(f)(1)(v). NC WARN fails to provide any supporting reasons for its assertion. Such bald assertions are inadmissible. Private Fuel Storage, LBP-98-7, 47 N.R.C. at 180. If NC WARN does not agree with the analysis in the ER, then its contention must at least explain why. Palo Verde, CLI-91-12, 34 N.R.C. at 156. See Early Site Permit for Clinton ESP Site, LBP-04-17, 60 N.R.C. at 232. As discussed above, the two citations to expert reports provide no support for

⁷⁵ The four alternate sites include (1) Proposed Harris Site, (2) Brunswick Site, (3) H.B. Robinson Site, and (4) Marion County Site.

Contention EC-2.3, since neither reference discusses carbon emission as a result of plant operation. Accordingly, NC WARN has not provided any supporting rationale for its dispute with the ER. Therefore, NC WARN has not met its duty in Contention EC-2.3 to provide supporting reasons for each dispute in accordance with 10 C.F.R. § 2.309(f)(1)(vi).

b. Contention EC-2.3 Fails To Raise An Issue That Is Material To The Findings That The NRC Must Make

In addition to failing to demonstrate the existence of a genuine dispute on a material issues of law or fact, Contention EC-2.3 fails to raise an issue that is material to the findings that the NRC must make, contrary to 10 C.F.R. § 2.309(f)(1)(iv). NC WARN does not explain how the carbon footprint analysis it seeks is material to the licensing determinations to be made by the NRC in this proceeding, including the agency's findings under NEPA.⁷⁶ On the other hand, Progress has shown that an analysis of the carbon emissions associated with the proposed reactors will not make a difference in the outcome of this licensing proceeding.

Chapter 9 of the ER evaluates the alternatives to the proposed action. As part of the analysis, Progress reviews possible energy resources that could be used as alternatives to the proposed units.⁷⁷ The analysis concludes:

Based on environmental impacts . . . neither a coal-fired, nor a gas-fired power generation facility, nor a combination of alternatives, including wind and solar power generation facilities, would provide an appreciable reduction in overall environmental impacts relative to a nuclear plant.

⁷⁶ The Commission has defined a “material” issue as meaning one where “resolution of the dispute would make a difference in the outcome of the licensing proceeding.” 54 Fed. Reg. at 33,172 (emphasis added).

⁷⁷ The evaluation includes (a) purchasing electric power from other sources to replace power that would have been generated by the Harris; (b) combining new generating capacity and conservation measures; (c) alternatives that do not require new generating capacity including energy conservation and demand-side management; and (d) alternative energy supplies such as wind, geothermal, oil, natural gas, hydropower, solid wastes, coal, photovoltaic cells, solar power, biomass, and any reasonable combination of these.

ER at 9-33. In coming to this conclusion, ER Section 9.2.2 says that a nuclear power generation facility like Harris produces CO₂ on the order of 5 gCO₂eq/kWh. In comparison, “[c]onventional coal systems result in emissions of greater than 1000 gCO₂eq/kWh. This is approximately 200 times higher than the carbon footprint of a nuclear power generation facility.” ER at 9-25 (emphasis added). Similarly, “[c]urrent gas-powered electricity generation has a carbon footprint that is about half that of coal (about 500 gCO₂eq/kWh) This is approximately 100 times higher than the carbon footprint of a nuclear power generation facility.” ER at 9-28 (emphasis added). Reference 9.2-032 in ER Section 9.2.2 also addresses the carbon emissions of nuclear power stations like Harris:

Nuclear power generation has a relatively small carbon footprint (~5gCO₂eq/kWh). Since there is no combustion, (heat is generated by fission of uranium or plutonium), operational CO₂ emissions account for <1% of the total.

ER at Ref. 9.2-032.⁷⁸ The Chapter 9 evaluation of alternatives estimates the carbon footprint for the proposed Harris reactors and finds that the operational CO₂ emissions are de minimis. NC WARN neither addresses nor disputes the information presented in the Application. A carbon footprint analysis will not produce any meaningful new information that would make a difference in the outcome of this licensing proceeding. Accordingly, NC WARN fails to raise an issue that is material to the findings that the NRC must make, contrary to 10 C.F.R. § 2.309(f)(1)(iv).

⁷⁸ Parliamentary Office of Science and Technology, “Carbon Footprint of Electricity Generation,” No. 268 at 3, October 2006. Available at www.parliament.uk/documents/upload/postpn268.pdf (emphasis added).

6. Contention EC-2 Subissue 4 - Decommissioning: Progress Fails To Include An Analysis Of The Carbon Footprint For Decommissioning Of The Proposed Reactors

NC WARN Fails Show A Genuine Dispute Exists Pursuant To 10 C.F.R. § 2.309(f)(1)(vi) And To Provide Adequate Support Pursuant To 10 C.F.R. § 2.309(f)(1)(v)

Contention EC-2 subissue 4 (“EC-2.4”) is inadmissible because it (1) fails to directly controvert a position taken by Progress in the Application; and (2) does not provide any support for its dispute with the ER. Contention EC-2.4 fails to provide sufficient information to show that a genuine dispute exists with the Applicant on a material issue of law or fact pursuant to 10 C.F.R. § 2.309(f)(1)(vi). Contention EC-2.4 also fails to provide adequate support for its assertions pursuant to 10 C.F.R. § 2.309(f)(1)(v).

To satisfy the burden to provide factual support, the basis for each contention must contain “references to the specific portions of the [ER]...” 10 C.F.R. § 2.309(f)(1)(vi). NC WARN alleges in Contention EC-2.4 that “[t]he COLA needs to include an analysis of the emission of greenhouse gases in the entire cycle” including the process to “close” Harris. Petition at 43. NC WARN fails to recognize that the ER actually does address the environmental impacts of decommissioning.

The Application incorporates the NRC’s generic environmental impact statement (“GEIS”) for facility decommissioning.⁷⁹ ER at 5-180. ER Section 5.9.1 states that the

NRC’s GEIS on decommissioning of nuclear facilities was written to provide an analysis of environmental impacts from decommissioning activities that can be treated generically so that decommissioning activities for commercial nuclear power reactors conducted at specific sites will be bounded, to the extent practicable, by this and appropriate previously issued environmental impact statements.

⁷⁹ Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities, NUREG-0586 (1988)

ER at 5-180. Section 4.3.4 (Air Quality) of Supplement 1 to the GEIS (“Supp. 1”), directly addresses the environmental impact of carbon emissions.⁸⁰ Supp. 1 plainly states that decommissioning activities could have potentially adverse impacts, including the “degradation of air quality caused by emissions (e.g., NOx, CO, and hydrocarbons) from internal combustion engines” Supp. 1 at 4-16. Accordingly, Supp. 1 includes an evaluation of environmental impacts from greenhouse gas emissions. “Air-quality impacts of transportation of workers to and from the site are caused by emissions from the vehicles” and when compared to construction and operation, “emissions from vehicles and fugitive dust associated with traffic is expected to decrease during the decommissioning period.” Id. at 4-17. Supp. 1 further states that,

[F]ire suppression and refrigeration systems may contain greenhouse gases. The quantities of these gases at a nuclear plant are generally small in comparison with the quantities of greenhouse gases released hourly by a fossil-fuel combustion plant used for heating or power generation. The impacts of ozone-depleting and greenhouse gases are global rather than local. Therefore, it is unlikely that releases of ozone-depleting or greenhouse gases during decommissioning of any nuclear power plant will be detectable or destabilize the environment.

Id. at 4-18.

There will also be emissions from heavy equipment at concrete batch plants and vehicles used to transport concrete from the concrete batch plant to the entombment site. The likely impacts of these emissions will be smaller than those from dust.

Id. at 4-19. Finally, Supp. 1 finds that the “impacts of decommissioning on air quality are neither detectable nor destabilizing” and therefore “the staff makes the generic conclusion that the impacts on air quality are SMALL.” Id. at 4-20.

The ER directly addresses carbon emissions resulting from decommissioning activities.

In this case, NC WARN again fails to directly controvert any applicable portion of the

⁸⁰ Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities, Supplement 1, NUREG-0586, Supplement 1, Vol. 1 (2002).

Application. NC WARN has a duty to read the ER, state in its contention Progress's position, and its opposing view. See Millstone, CLI-01-24, 54 N.R.C. at 358. NC WARN does not dispute what is contained in the Application or the GEIS, it simply alleges that the information is not present and that the Application is incomplete. Petition at 45. Insisting that something ought to be studied is not a valid basis for a contention. NC WARN does not meet its duty in Contention EC-2.4 to reference the specific portions of the ER. That Contention, therefore, is inadmissible under 10 C.F.R. § 2.309(f)(1)(vi).

Moreover, NC WARN fails to provide any supporting reasons for its assertion. The basis for each contention must also contain "specific sources and documents for which the petitioner intends to rely to support its position on the issue." 10 C.F.R. § 2.309(f)(1)(v). See Private Fuel Storage, LBP-98-7, 47 N.R.C. at 180. If NC WARN does not agree with the analysis in the ER, then its Contention must at least explain why. Palo Verde, CLI-91-12, 34 N.R.C. at 156. As discussed above, the two citations to expert reports provide no support for Contention EC-2.4. Neither reference discusses carbon emission as a result of plant decommissioning. NC WARN does not meet its duty in Contention EC-2.4 to provide supporting reasons for each dispute in accordance with 10 C.F.R. § 2.309(f)(1)(v). For this additional reason, Contention EC-2.4 is inadmissible.

I. Contention EC-3 (Water Requirements) Is Inadmissible

Contention EC-3, which alleges that the Application is incomplete for failing to address certain water related issues, is inadmissible. The Contention reads:

The COLA does not identify the plans for meeting the water requirements for the proposed Harris 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.

Petition at 45. The Contention further claims that the NRC found the COLA incomplete.

Petition at 46. NC WARN supports its Contention by generally claiming that regional temperatures are increasing, causing increased water temperatures in the Cape Fear River and the Harris Reservoir. Petition at 46. The Petition goes on to offer a list of analyses Progress should include in the ER or the FSAR. The issues raised by NC WARN are hard to follow as they jump from thermal discharge impacts to effects of warmer water on plant cooling, to water consumption, to effects of reactor heat on pollutants in the water, to grid stability. NC WARN urges that, if these analyses are not included, then the Application “does not satisfy the requirement for completeness of 10 C.F.R. § 2.101(a)(3).” Petition at 46. Contention EC-3 should be dismissed because it is completely unsupported, fails to establish the existence of a genuine dispute on a material law or fact, and addresses issues not within the scope of the proceeding, contrary to 10 C.F.R. § 2.309(f)(1)(v), (vi), and (iv).

1. Contention EC-3 Fails To Cite Any Section Of The Application

As a threshold matter, Progress notes that the text of Contention EC-3 is nearly identical to the text of “contention three” filed by the Blue Ridge Environmental Defense League (“BREDL”) in the William States Lee Units 1 and 2 (“WSL”) COL application proceeding.⁸¹ NC WARN, however, does not show how another petitioner’s contention in a different COL proceeding is germane to Harris. Moreover, BREDL identified very specific portions of the WSL COLA in its petition.⁸² NC WARN deleted these citations from BREDL’s contention three, but did not identify any relevant sections of the Harris Application. “Cut and paste”

⁸¹ Petition for Intervention and Request for Hearing by the Blue Ridge Environmental Defense League (Jun. 27, 2008) (ADAMS Accession No. ML081820001) at 14 (“BREDL Petition”).

⁸² See BREDL Petition at 16-19.

allegations from a different proceeding, with no discussion of the Harris Application, fail to state a contention that approaches the admissibility requirements of 10 C.F.R. § 2.309(f)(1)(iv).

2. The Application Is Not Incomplete And Has Been Accepted For Review And Docketing By The NRC Staff

NC WARN's allegation that the Application is incomplete is both incorrect and beyond the scope of this proceeding. As a threshold matter, the NRC Staff did not declare the Application to be incomplete. As part of its Motion to Suspend, NC WARN raised issues relating to NRC Staff communications with Progress regarding water usage by the proposed Harris reactors. Motion to Suspend at 5. NC WARN again raises this issue in Contention EC-3. NC WARN states that “[o]n June 24, 2008, NC WARN moved to indefinitely postpone the hearing notice in this docket on the bases that the COLA was incomplete because [of] the lack of information on water (see Contention EC-3 below)” Petition at 7. Contention EC-3 goes on to state that:

In its initial review of the COLA for the proposed Harris reactors, the NRC staff recognized the deficiencies in the COL regarding the impacts of water withdrawal. As shown in the letter accepting the application, there are two significant areas in which the NRC staff declared the application to be incomplete – the environmental impacts caused by changing levels at Harris Lake and the intake on the Cape Fear River. By themselves, these 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).

Petition at 46 (emphasis added) (footnote omitted). However, as the Commission's decision in CLI-08-15 denying the Motion to Suspend points out:

“The NRC staff did not state the application was incomplete or that they were unable to establish a review schedule. In fact, in the April 17, 2008 letter, the NRC staff docketed the application, thus finding that the application was sufficient enough to commence review. Subsequently, in a May 16, 2008 letter, the NRC staff established a schedule for reviewing the Shearon Harris COL application. The mere fact that the staff is asking for more information does not make an application incomplete.”

CLI-08-15 at 2 (emphasis added). Despite CLI-08-15, NC WARN proffers the very same assertions from its Motion to Suspend as the basis for Contention EC-3. As indicated by the Commission, the NRC Staff did not state that the Application was deficient or incomplete. “In short, ‘the NRC staff’s mere posing of questions does not suggest that the application [is] incomplete.’” Oconee, CLI-99-11, 49 N.R.C. at 336 (citing Calvert Cliffs, CLI-98-25, 48 N.R.C. at 349).

NC WARN also alleges that the Application is not complete for purposes of 10 C.F.R. § 2.101(a)(3) because Progress did not set forth a “clear plan” regarding how cooling water will be provided. Petition at 46. That regulation provides as follows:

If the . . . Director [of the NRC Staff’s] Office of New Reactors . . . determines that a tendered application for a construction permit or operating license for a production or utilization facility, and/or any environmental report required pursuant to subpart A of part 51 of this chapter . . . are complete and acceptable for docketing, a docket number will be assigned to the application or part thereof, and the applicant will be notified of the determination.

10 C.F.R. § 2.101(a)(3). Based on the clear language of this regulation, the Commission delegated to the NRC Staff the authority to determine whether an application is complete for docketing purposes. Consistent with the regulation’s plain language, the issue of whether an application is complete for docketing is not within the scope of an adjudicatory proceeding. Nuclear Management Company, LLC (Monticello Nuclear Generating Plant), LBP-05-31, 62 N.R.C. 735, 743 (2005) (“[t]he completeness of [an application] is not a matter that this Board should, or can, decide . . . [as the] decision whether to accept the [application] for docketing is made by the NRC Staff, and that decision is not subject to review by this Board.”) (citing New England Power Co. (NEP, Units 1 & 2), LBP-78-9, 7 N.R.C. 271, 280 (1978)). Moreover, the “NRC does not ‘violate[] any clear legal duty by proceeding first to docket [an application] and

thereafter to request additional information.”” Oconee, CLI-99-11, 49 N.R.C. at 336 (quoting Concerned Citizens of Rhode Island v. NRC, 430 F. Supp. 627, 634 (D. R.I. 1977)).

Accordingly, NC WARN’s challenge to the Application as incomplete, notwithstanding the NRC Staff’s requests for information, is outside the scope of this proceeding. 10 C.F.R. § 2.309(f)(1)(iii).

3. Contention EC-3 Is Inadmissible Because It Fails To Raise A Material Dispute Regarding The ER’s Assessment Of The Adequacy Of Water Supplies

NC WARN establishes no issue of material fact pertaining to the adequacy of the water supply for Harris. Contrary to NC WARN’s allegation in Contention EC-3, the ER provides a comprehensive assessment of the water supply from the Harris Reservoir with make-up water from the Cape Fear River. The ER provides the data and information necessary to assess water-related impacts as identified in NUREG-1555, Environmental Standard Review Plan, including ER Sections 5.2 (Water-Related Impacts); 5.2.1 (Hydrologic Alterations and Plant Water Supply); and 5.2.2 (Water-Use Impacts). See also ER Sections 3.3, 3.4, and 4.2. Section 5.2.1 of the ER compares the plant water needs to the available water supplies. The ER concludes that the available water supply from the Cape Fear River is adequate to meet the plant make-up water needs for the proposed Harris reactors. ER at 5-25.

NC WARN’s Contention EC-3 does not controvert or provide any basis to dispute the adequacy of the Harris Reservoir and the Cape Fear River as the sources of make-up water for evaporative losses from wet cooling towers. It identifies no error in Progress's assessment of either the amount of increased water capacity of the Harris Reservoir required for the proposed reactors or the amount of water from the Cape Fear River that will be required to fill and maintain the required Harris Reservoir level for normal operations. NC WARN does not claim

that the water quantity from the Harris Reservoir or the Cape Fear River would be either more severely impacted or impacted in a different way than discussed in the ER from the operations of Harris. Thus, contrary to the requirements of 10 C.F.R. § 2.309(f)(1)(iv), NC WARN establishes no issue of material fact pertaining to the adequacy of the water supply for the proposed reactors.

4. Contention EC-3 Is Inadmissible Because It Lacks Adequate Factual, Documentary And Expert Support, And Fails To Raise An Issue of Material Fact Regarding Water Temperatures

Contention EC-3 fails to meet the requirement of 10 C.F.R. § 2.309(f)(1)(v) to provide “references to the specific sources and documents on which the petitioner intends to rely to support its position on the issue.” NC WARN alleges that “[a]nnual temperatures in the Southeast region are increasing and are projected to continue to do so over a relatively short period of time.” Petition at 46. According to NC WARN, as a result of this situation, the Harris Reservoir and the Cape Fear River will experience “elevated water temperatures.” *Id.* at 46. Contention EC-3 offers no support, expert testimony, or affidavits in support of its claims of annual temperature increases or elevated water temperatures. Such an unsupported assertion is insufficient to support an admissible contention; rather, “a petitioner must provide documents or other factual information or expert opinion” to support a contention’s “proffered bases.” Private Fuel Storage, LBP-98-7, 47 N.R.C. at 180.

Moreover, NC WARN establishes no issue of material fact pertaining to the matter of temperature increases and water levels. Its allegations make no reference to ER Section 2.7 (Meteorology and Air Quality), which addresses General Climate,⁸³ Local Meteorology,⁸⁴ and includes extensive analysis and data addressing temperatures at and near Harris. Nor does NC

⁸³ ER at 2-433.

⁸⁴ ER at 2-443.

WARN take issue with ER Table 2.3-49, which offers a summary of the temperature data taken from actual monitoring stations at the Harris Reservoir between 1990 and 2004. NC WARN also fails to consider ER Section 2.3.3.1.1 (Cape Fear River), which has an in-depth discussion of water quality, including historical water temperatures dating as far back as 1968.

NC WARN's Contention EC-3 does not controvert or provide any basis to dispute the adequacy of Progress's analysis regarding the average annual temperature in the region or the seasonal temperature water variance. It identifies no error in the assessment of water quality or method of collecting water temperature data for use in the Application. NC WARN fails to contravene the information provided in the Application. Such vague, unsupported claims of "elevated water temperatures" or "increasing temperatures" are insufficient bases for a contention. Finally, NC WARN has not explained how "elevated water temperatures" would be material to the adequacy of water supplies or the environmental impacts of water withdrawal. NC WARN has alleged no issue of material fact, and Contention EC-3 is inadmissible.

5. NC WARN's Assertions (a) Through (j) Regarding Water Temperatures Lack Adequate Factual, Documentary, and Expert Support, And Fail To Establish The Existence Of A Genuine Dispute On A Material Fact Or Law

The Petition alleges ten bases for NC WARN's claim that Progress failed to analyze potential impacts from elevated water temperatures in the Harris Reservoir and the Cape Fear River, as well as the associated impacts of prolonged periods of drought. As shown below, the arguments presented in NC WARN's claims "(a)" through "(j)" are inadmissible because they either lack adequate factual support or fail to establish the existence of a genuine dispute on a material fact or law, contrary to 10 C.F.R. §§ 2.309(f)(1)(v) and (vi), respectively. Further, many of NC WARN's claims in (a) through (j) are premised on NC WARN's entirely

unsupported claim of increasing surface water temperatures through thermal discharges. For this additional reason, those claims lack adequate support and should be rejected.

Progress intends to utilize a closed-cycle re-circulating cooling system. That system consists of natural draft cooling towers and will utilize the Harris Reservoir to supply make-up water. In closed-cycle systems, the cooling water is re-circulated after the waste heat is removed by dissipation to the atmosphere, usually by circulating the water through large cooling towers. Because the predominant cooling mechanism associated with closed-cycle systems is evaporation, most of the water used for cooling is consumed and is not returned to a water source. As a result, many of NC WARN's claims that allege thermal discharge impacts are irrelevant to this proceeding.

As summarized below, NC WARN's claims (a) through (j) lack proper factual support, fail to establish the existence of a genuine dispute of material law or fact, and, above all, do not apply to the re-circulating water cooling system design to be utilized at Harris.

a. Claim (a)

NC WARN contends that the Application fails to analyze "the additive and synergistic impacts on the local and downstream ecosystem from the reactor thermal discharge on water in Harris Lake, which is already elevated in temperature." Petition at 46. As discussed above, however, in a closed-cycle re-circulating cooling system the only source of thermal discharge water is from the blowdown pipe into the Harris Reservoir.

ER Section 5.3.2.1 (Thermal Description and Physical Impacts) describes the impacts on the Harris Reservoir as a result of discharges from the blowdown pipe in accordance with the guidance set forth by NUREG-1555. The ER describes the mixing zone for cooling tower

blowdown, comparing winter and summer months; maximum discharge temperatures as compared to the ambient Harris Reservoir temperatures; and a mathematical model of temperature distributions and a physical model of the discharge plume and flow rates caused by the heated discharge. The ER finally concludes:

Because the HAR site is located on a large reservoir system that will provide sufficient heat rejection capacity for two new units, plant operation is not expected to have significant thermal impacts to aquatic/marine ecology and water quality.

ER at 5-53 (emphasis added). NC WARN does not dispute any of these analyses or conclusions and fails to point to any particular deficiency in the Application. This claim is inadmissible because it fails to show that a genuine dispute exists with the Application pursuant to 10 C.F.R. § 2.309(f)(1)(vi).

b. Claim (b)

NC WARN contends that Progress fails to analyze the “impact of warmed water on condenser cooling” and the “loss of efficiency in power production due to loss of effective condensation of steam used to generate power.” Petition at 46-47. As support, NC WARN states that “nuclear reactors around the world in increasing numbers. . .have gone to low-power...due to loss of effective condensation of steam used to generate power.” *Id.* at 47. NC WARN cites to TVA’s Browns Ferry nuclear reactor in 2007 as an example, but offers no further information to support its claim that “increasing numbers” of nuclear reactors have gone to low-power production.

Again, NC WARN raises an issue not applicable to Harris’s closed-cycle re-circulating cooling system. NC WARN’s reliance on Browns Ferry is inapposite to the point for which it is cited. Browns Ferry, unlike Harris, uses a once-through circulating water system to dissipate heat from the main turbine condensers. Water is drawn from the Tennessee River by the plant

intake system and is discharged back to the river. In addition, Browns Ferry currently has four mechanical draft cooling towers which can be operated to assist in heat dissipation (helper mode) primarily during summer hot weather periods. NC WARN's apparent claim that similarly warmed water would affect condenser cooling at Harris is mistaken.

Furthermore, to the extent that this vague assertion is challenging the thermal performance of the AP1000's main condensers, this basis contradicts Section 10.4.1 of Tier 2 of the AP1000 DC Rule (Main Condensers), which specifies the design and performance parameters for the condensers. Accordingly, NC WARN's challenge to these aspects of the AP1000 design is outside the scope of the proceeding.⁸⁵ Furthermore, NC WARN fails to explain its basis for claiming that any of the design and performance parameters in AP1000 DCD Rev. 16 Section 10.4.1 of Tier 2 would somehow be exceeded based on purportedly elevated water temperatures. NC WARN provides nothing more than a speculative, conclusory assertion that these parameters might be exceeded.

Moreover, the relationship between the availability of cooling water and plant operation is addressed in Section 2.4.11 of the FSAR (Low Water Considerations) and Section 5.3.1.1 of the ER (Hydrodynamic Descriptions and Physical Impacts). Contention EC-3 does not dispute the details of these analyses or provide any information suggesting that the consideration of its unspecified temperature increases would materially alter the conclusions in these sections. An allegation that some aspect of a license application is "inadequate" or "missing" does not give rise to a genuine dispute unless it is supported by facts and a reasoned statement of why the application is unacceptable or incomplete in some material respect. See Turkey Point, LBP-90-16, 31 N.R.C. at 521 & n.12.

⁸⁵ See 10 C.F.R. § 52.63(a)(5); 10 C.F.R. Part 52, App. D, § VI.B.

In addition, NC WARN provides no basis, facts, or expert opinion, and cites no applicable NRC requirements or regulations in support of its assertion that the impact of hypothetically elevated cooling water temperatures on condenser cooling is in any way material to the findings the NRC must make in this proceeding. NC WARN also fails to provide any information supporting its vague and speculative claim that “loss of efficiency” would somehow materially impact any analysis in the Application.⁸⁶ Therefore, this element of Contention EC-3 should be rejected as beyond the scope of this proceeding and as impermissibly vague, unsupported, and immaterial, contrary to 10 C.F.R. 2.309(f)(1)(iii), (iv), (v), and (vi).

c. Claim (c)

NC WARN contends that Progress should have provided an “evaluation of increasingly warmed water on reactor cooling” in the Application. Petition at 46. Harris, however, will not draw water from the Harris Reservoir for once-through cooling. Thus, “increasingly warmed water” cannot affect reactor cooling.

Moreover, beyond this short sentence, NC WARN provides no additional support or clarification of this issue. NC WARN makes no claim and cites no support as to how “increasingly warmed water” would have any material impact on reactor cooling. This is a perfect example of a petitioner making bald assertions that a matter ought to be considered or that a factual dispute exists. Private Fuel Storage, LBP-98-7, 47 N.R.C. at 80. Therefore, this aspect of Contention EC-3 should be rejected as inadequately supported and containing

⁸⁶ See Arizona Public Service Co. (Palo Verde Nuclear Generating Station, Units 1, 2 and 3), LBP-82-117A, 16 N.R.C. 1964, 1992-94 (1982), aff’d ALAB-713, 17 N.R.C. 83 (1983). In rejecting a contention challenging the adequacy of the plant’s supply of condenser water, the Appeal Board noted that “although an insufficient supply of condenser cooling water might necessitate a reduction in power levels (and perhaps total reactor shutdown), it would not pose a safety threat.” ALAB-713, 17 N.R.C. at 84 n.2. From a NEPA perspective, the Licensing Board found that “there is no legal basis for refusing Palo Verde its operating licenses merely because some environmental uncertainties may exist in Palo Verde’s future coolant supply.” LBP-82-117A, 16 N.R.C. at 1992.

insufficient information to demonstrate the existence of a genuine dispute on a material fact, contrary to 10 C.F.R. § 2.309(f)(1)(v) and (vi).

d. Claim (d)

NC WARN urges Progress to evaluate the effects of “warmer ambient water temperatures on total [water] withdrawal, consumption and evaporation.” Petition at 46. NC WARN is at least required to proffer sufficient information that “the Applicants are sufficiently put on notice so that they will know at least generally what they will have to defend against or oppose, and that there has been sufficient foundation assigned to warrant further exploration of [the] contention.” Kansas City Gas & Electric Co. (Wolf Creek Generating Station, Unit 1), LBP-84-1, 19 N.R.C. 29, 34 (1984). “A contention that simply alleges that some general, nonspecific matter ought to be considered does not provide the basis for an admissible contention.” Rancho Seco, LBP-93-23, 38 N.R.C. at 246.

In this case, NC WARN yet again proffers no citation, document, or expert testimony whatsoever to support this broad, generic concern. See Fansteel, Inc. (Muskogee, Oklahoma, Site), CLI-03-13, 58 N.R.C. 195, 203 (2003) (A contention will be ruled inadmissible “if the petitioner has offered no tangible information, no experts, no substantive affidavits, but instead only bare assertions and speculation”) (citations omitted). Claim (d) is completely devoid of any specific information regarding the very broad topics of “total [water] withdrawal, consumption and evaporation.” Further, NC WARN does not point to how “increasingly warmer” water could potentially affect the water withdrawal, consumption and evaporation. As such, this Contention fails to meet the requirements of 10 C.F.R. § 2.309(f)(1)(v).

e. Claim (e)

NC WARN contends that the Application fails to 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. As with the other claims, claim (e) is inadmissible for failing to “provide sufficient information to show that a genuine dispute exists with the [applicant] on a material issue of law or fact,” pursuant to 10 C.F.R. § 2.309(f)(1)(vi). NC WARN fails to explain how water withdrawal from the Cape Fear River could affect facilities and municipalities downstream beyond those impacts already addressed in the ER.

Sections 2.3.2.1 and 2.3.2.2 of the ER (Surface Water Use for HAR 2 and HAR 3 and Surface Water Use, respectively) provide a description of upstream and downstream water users that could be impacted by Harris operations. In addition, ER Section 5.2.2.2.1 (Downstream Water Availability Impacts) addresses the impact of operating Harris on those current and future water users. A contention that does not directly controvert the Application is inadmissible. 10 C.F.R. § 2.309(f)(1)(vi). NC WARN fails to controvert, let alone address in any way, the conclusions of the description of regional water users or the analysis in the ER of potential impacts to the upstream or downstream water users.

Claim (e) lacks any factual support, either references to specific documents or to expert opinion, showing that withdrawal of water from the Cape Fear River would materially alter the clearly described impacts to upstream or downstream water users contained in the ER. Thus, this allegation consists only of vague, unsupported and inadequate claims, contrary to 10 C.F.R. § 2.309(f)(1)(v) and (vi).

f. Claim (f)

Claim (f) is beyond the scope of this proceeding. According to NC WARN, Progress should have considered the “impact of pollution in water at warmer temperatures on the ecology of the site and also down-stream.” Petition at 47. This claim is perversely vague. NC WARN does not allege that Harris will be responsible for pollution in the water. As such, an analysis of the effects of pre-existing pollution in supposedly warmer water is not an environmental impact within the scope of this proceeding. Environmental reports need only address the impact of the proposed action on the environment. 10 C.F.R. § 51.45. Accordingly, claim (f) is beyond the scope of this proceeding.

As discussed above, in the closed-cycle re-circulating cooling system, the only source of thermal discharge water is from the blowdown pipe into the Harris Reservoir. ER Section 5.3.2.1(Thermal Description and Physical Impacts) describes the impacts on the Harris Reservoir as a result of discharges from the blowdown as discussed in connection with claim (a) supra,

because the HAR site is located on a large reservoir system that will provide sufficient heat rejection capacity for two new units, plant operation is not expected to have significant thermal impacts to aquatic/marine ecology and water quality.

ER at 5-53 (emphasis added). NC WARN does not dispute any of these analyses or conclusions and fails to point to any particular deficiency in the Application. NC WARN does not provide any basis for an impact on pollution of the blowdown into the Harris Reservoir. This claim is inadmissible because it fails to show that a genuine dispute exists with the Application pursuant to 10 C.F.R. § 2.309(f)(1)(vi).

g. Claim (g)

NC WARN claims that Progress should have considered the “impact of reactor heat increasing the temperature in water on the other pollutants in the water, including implications

for the food chain.” Petition at 47. This claim is, above all, vague as NC WARN fails to explain or specify what type of “pollutants” it believes should have been considered as part of Progress’s ER. NC WARN also fails to identify the specific ecology or food-chain that could be adversely impacted by Harris discharges. See Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 N.R.C. 138, 156-57, aff’d, CLI-01-17, 54 N.R.C. 3 (2001) (rejecting a contention alleging impacts to threatened and endangered species because the contention failed to identify any particular species of concern). Commission regulations do not permit the admission of such vague, unsupported contentions. See Catawba, ALAB-687, 16 N.R.C. at 468.

Similarly, NC WARN fails to provide any support for its claim that its requested “full analysis” of the impact of hypothetically warmer water in combination with other unspecified pollutants would have materially different impacts than those that are already described in the ER. ER Section 2.4.2 discusses aquatic habitats and fishery resources, and provides details regarding aquatic species that could potentially be impacted by operation of Harris. ER Section 3.6 (Nonradioactive Waste Management Systems) describes chemical discharges from Harris and provides detailed evaluation of the effects of chemical and biocide effluents from nonradioactive waste systems. ER Section 5.3.2.2 (Discharge System – Aquatic Ecosystems) describes the potential for chemical discharges to impact habitats, resources, species, and the means of minimizing such impacts. The ER concludes that these effects are limited and are not expected to have any significant impact on aquatic organisms. ER at 5-58 to 5-60. NC WARN does not dispute – or even mention – any of these analyses or conclusions.

NC WARN provides no support for its assertion that some further unspecified “full analysis” of aquatic impacts is required, pursuant to 10 C.F.R. § 2.309(f)(1)(v). Petition at 47.

Moreover, NC WARN fails to: (1) contravene the ER's existing, specific discussions or conclusions concerning aquatic habitats, fishery resources, aquatic species, or chemical discharge impacts; or (2) provide any factual information or expert opinion of its own disputing the ER's discussion of these subjects, pursuant to 10 C.F.R. § 2.309(f)(1)(vi).

h. Claims (h) and (i)

NC WARN claims that "elevated cooling water temperatures" will require Harris to go to "low-power or off-line," thus impacting "overall power and reliability, customers, and regional grid stability" and therefore should be evaluated. Petition at 47. NC WARN provides no further elaboration regarding any alleged impacts to overall power, reliability, customers, or regional grid stability.

Yet again, NC WARN raises an issue not applicable to Harris's closed-cycle re-circulating cooling system. The proposed Harris reactors will utilize re-circulated water for condenser cooling. NC WARN's assertion that Harris would somehow have to shutdown due to "elevated cooling water temperatures" is unsupported and faulty because the AP1000 units do not rely on the Harris Reservoir or the Cape Fear River to perform a safety function.⁸⁷

Further, NC WARN fails to explain how grid stability associated with speculative curtailments of power from Harris due to water temperature constraints are material to findings NRC must make in this proceeding pursuant to 10 C.F.R. § 2.309(f)(1)(iv). Although the ESRP calls for a COL applicant to estimate the frequency and duration of water supply shortages, it does not require the information sought by NC WARN. ESRP at 5.2.1-3.

Section 8.2.2 of Tier 2 of the AP1000 DCD Rev. 16 requires that Progress perform a grid

⁸⁷ ER at 2-16. ("Under conditions of Harris Reservoir failure, HAR 2 and HAR 3 will use a passive core cooling system to provide emergency core cooling without the use of active equipment such as pumps and AC power sources. Use of the Auxiliary Reservoir will not be required to provide emergency cooling water for HAR 2 and HAR 3.")

stability analysis, but only for the limited purpose of verifying that the reactor coolant pump (“RCP”) will receive power from the grid for at least three seconds following a turbine trip, as assumed in the accident analyses. Section 8.2.2 of the FSAR (Grid Stability) describes the evaluation that Progress performed to confirm that the transmission system remains stable and supports RCP operation for at least three seconds following a turbine trip.

NC WARN does not cite to or claim that any of the above information in the FSAR is deficient in any way, contrary to 10 C.F.R. § 2.309(f)(1)(vi). In fact, NC WARN fails to reference any relevant documentary material to support its claim that impacts to overall power reliability, grid stability, and customers should be evaluated differently. Accordingly, NC WARN fails to demonstrate the existence of a genuine dispute of material fact regarding its concerns on these issues, contrary to 10 C.F.R. § 2.309(f)(1)(vi).

As discussed previously, NC WARN fails to specify how any of the condenser design and performance parameters in the AP1000 DCD Rev. 16 would somehow be impacted by purportedly “elevated cooling water temperatures.” Petition at 47. NC WARN provides nothing more than a speculative, conclusory assertion that such parameters could be exceeded. Absent a reference to documentary support or expert opinion to the contrary, these claims must be rejected in accordance with 10 C.F.R. § 2.309(f)(1)(v).

i. Claim (j)

NC WARN claims that the “potential for extended drought locally” will “exacerbate” the issues raised in the preceding claims to this Contention. Petition at 47. NC WARN fails to cite the applicable sections of the ER addressing drought, including Sections 2.3 (Water), 2.3.1.2.1.6 (Droughts), 2.3.1.2.1.6.1 (Hypothetical Operation of HNP and HAR under Low Flow Conditions), 2.3.1.2.1.6.2 (Hypothetical Operation of HNP, HAR 2, and HAR 3 without Makeup

Water from the Cape Fear River), 2.3.2 (Water Use), 5.2.1 (Hydrologic Alterations And Plant Water Supply), 5.2.2.1 (Fresh Water Streams), 5.2.2.1.2 (Water Quality), and 5.2.3 (Additional Impact Analysis Methods). Despite its failure to address any one of the applicable ER Sections, NC WARN persists in its claim that the Application's analysis of drought conditions is inadequate. Petition at 46-47.

NC WARN does not provide support for its claim that “the potential for extended drought locally . . . would exacerbate” the issues related to elevated water temperatures. Id. at 47 (emphasis added). Without any tangible information, expert opinion, or affidavits that support its claims, there is not adequate support for this Contention and, therefore, it should be dismissed. See Fansteel, CLI-01-13, 58 N.R.C. at 204. NC WARN fails to provide support for its bald assertion that the potential for an extended drought will “exacerbate” the previously discussed impacts related to increasing surface water temperatures. Petition at 47. Accordingly, NC WARN's claims related to drought are unsupported and should be dismissed as contrary to 10 C.F.R. §§ 2.309(f)(1)(v) and (vi).

Furthermore, Contention EC-3 and claim (j) are predicated on NC WARN's misunderstanding of Harris water usage during drought conditions. During high river flow periods, Harris will use higher withdrawal rates from the Cape Fear River to fill the Harris Reservoir. However, “[d]uring periods of drought, the Main Reservoir will provide some or all of the required cooling water supply” with little or no make up from the Cape Fear River. See ER at 2-17. In fact, ER Section 2.3.1.2.1.6.2 (Hypothetical Operation of HNP, HAR 2, and HAR 3 without Makeup Water from the Cape Fear River) concludes that the time period for which Harris Reservoir “could sustain the HNP and HAR without makeup water flow from the Cape Fear River is 17.5 months.” ER at 2-29 (emphasis added).

In conclusion, for the many foregoing reasons, Contention EC-3 lacks support, raises immaterial issues that are not within the scope of this proceeding, and fails to demonstrate the existence of a genuine dispute of material fact or law. Therefore, the Board should reject this Contention.

6. NC WARN's Claims Regarding The Impacts Of Drought On The AP1000 Are Irrelevant, Lack Support, And Do Not Raise A Genuine Issue Of Material Fact

NC WARN asserts, without further support, that the availability of cooling water can impact the safe shutdown of the proposed AP1000 reactors and increase the chances of a reactor accident. Petition at 46. This is, as discussed above, another inapplicable attack on a closed-cycle re-circulating cooling system. NC WARN further claims that there is no “clear plan on how [safety-related] water will be provided.” *Id.* In this instance, NC WARN appears to have a fundamental misunderstanding of the NRC’s requirements concerning plant safety, water use, water availability, and the function of cooling water systems in the AP1000. Moreover, NC WARN does not directly controvert a position taken by Progress in the Application and does not provide any support for its dispute with the FSAR and ER as required under 10 C.F.R. § 2.309(f)(1)(vi) and (v).

The Standard Review Plan (“SRP”), which provides guidance to the NRC Staff in performing COL safety reviews, requires an assessment of “the adequacy of the ultimate heat sink to supply cooling water for conditions requiring safety-related cooling” to address the effect of possible low water supplies on safety-related water supply.⁸⁸ In accordance with this Section of the SRP, Section 2.4.11 (Low Water Considerations) of the Harris FSAR indicates that the

⁸⁸ Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plans, NUREG-0800, at 2.4.11-9 (Mar. 2007).

passive containment cooling system (“PCS”) functions as the safety-related ultimate heat sink. FSAR at 2.4-36. As discussed in Section 6.2.2 of Tier 2 of the AP1000 DCD Rev. 16, the PCS allows for safe shutdown without reliance on an external water supply or offsite power sources. As the AP1000 does not rely on external water supply for safe shutdown, NC WARN is simply wrong when it asserts that the “availability of cooling water is a significant constraint to the safe shutdown of the proposed reactors.” Petition at 45-46. Thus, NC WARN’s claim that there is “no clear plan” on how safety-related water will be provided ignores Section 2.4.11 of the FSAR. This Section of the FSAR clearly states that Harris will not rely on the Harris Reservoir, the Cape Fear River, or any external water sources, for safety-related cooling water. FSAR at 2.4-36 to 2.4-39.⁸⁹

NC WARN’s claim should be rejected because it fails to directly controvert a position taken by Progress in the Application. NC WARN ignores the portions of the Application that directly address safety-related water. And NC WARN does not provide any support for its dispute with the FSAR or ER. Accordingly, the claim that drought will adversely impact operation of the AP1000 should be dismissed as contrary to 10 C.F.R. §§ 2.309(f)(1)(v) and (vi).

J. Contention EC-4 (Evacuation Plan) Is Inadmissible

Contention EC-4 asserts that “emergency planning that adequately protects the health and safety of the residents, students and workers around the proposed reactors cannot be adequately accomplished.” Petition at 48.⁹⁰ Admission of Contention EC-4 is precluded by collateral

⁸⁹ Moreover, in accordance with 10 C.F.R. § 52.63(a)(5) and Section VI of Appendix D of 10 C.F.R. Part 52, matters that come within the scope of the AP1000 design certification rule are considered resolved. Therefore, to the extent this Contention is challenging aspects of the AP1000 design or NRC requirements for safety-related water availability, it is outside the scope of the proceeding.

⁹⁰ NC WARN characterizes Contention EC-4 as an environmental contention. However, Contention EC-4 discusses emergency planning.

estoppel because Contention EC-4 relies on material found inadequate in another proceeding. In addition, Contention EC-4 is an impermissible attack on the Commission's regulations. Lastly, NC WARN does not contradict information in the Application and provides no supporting basis for the Contention as (1) NC WARN mischaracterizes a State transportation planning report, and (2) NC WARN's purported expert is an epidemiologist lacking training or experience in emergency planning and there is no indication the expert has even reviewed the Application let alone made any effort to show a deficiency in it.

a. Contention EC-4 Relies Solely On Material Previously Found Not To Raise A Genuine Dispute On A Material Issue Of Law Or Fact

The "support" for Contention EC-4 is a limited paraphrase of the support for Contention EC-3 in the Harris Unit 1 license renewal proceeding that was filed by petitioners that included NC WARN. Compare Petition at 48-51 with NC WARN May 18, 2007 Petition at 35-38. In fact, the support for Contention EC-4 is unchanged from that submitted in the Harris Unit 1 license renewal proceeding, except to delete references to newspaper articles about an evacuation of Apex, NC.⁹¹ The license renewal board found that same material failed to provide sufficient information to demonstrate a genuine dispute of a material issue of law or fact regarding emergency planning for the area around the Harris site. LBP-07-11, 65 N.R.C. at 96.

The doctrine of collateral estoppel precludes relitigation of issues actually litigated and necessary to the outcome of the first action. Parklane Hosiery Co. v. Shore, 439 U.S. 322, 326 n. 5 (1979). Collateral estoppel requires the presence of at least four elements in order to be given

⁹¹ Arguably, the omitted newspaper articles that were provided as Attachment 6 to the NC WARN May 18, 2007 Petition did not support the claim that the evacuation around Apex, NC in 2007 was woefully ineffective as the articles identify that over 16,000 residents were evacuated with no major injuries reported. LBP 07-15, 65 N.R.C. at 96-97.

effect: (1) the issue sought to be precluded must be the same as that involved in the prior action, (2) the issue must have been actually litigated, (3) the issue must have been determined by a valid and final judgment, and (4) the determination must have been essential to the prior judgment. Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), ALAB-837, 23 N.R.C. 525, 536 (1986) (“Just as in the judicial context, the purpose of collateral estoppel in administrative proceedings is to prevent continuing controversy over matters finally determined and to save the parties and boards the burden of relitigating old issues.”) In addition, the prior tribunal must have had jurisdiction to render the decision, and the party against whom the doctrine of collateral estoppel is asserted must have been a party or in privity with a party to the earlier litigation. Id.

The board in the Harris Unit 1 license renewal proceeding found that the support provided by the petitioners (which included NC WARN) did not meet the pleading requirements of 10 C.F.R. § 2.309(f) for an admissible contention. LBP-07-11, 65 N.R.C. at 96. Specifically, the board found Contention EC-3 in the Harris Unit 1 license renewal proceeding inadmissible under 10 C.F.R. §§ 2.309(f)(iii) and (iv) as outside the scope of and not material to license renewal (LBP-07-11, 65 N.R.C. at 95-96), and under 10 C.F.R. § 2.309(f)(vi) as failing “to provide ‘sufficient information’” (LBP-07-11, 65 N.R.C. at 96).⁹²

In this case, NC WARN has submitted the same support, albeit with one omission, for Contention EC-4 regarding emergency planning relating to the same residents of the same geographic area as was filed to support Contention EC-3 in the Harris Unit 1 license renewal proceeding. Compare Petition at 48-51 with LBP-07-11, 65 N.R.C. at 89-92. The issue here is

⁹² While the board opinion cites 10 C.F.R. § 2.309(f)(vi) twice, the first reference is probably intended to be 10 C.F.R. § 2.309(f)(iv) when considered in context. LBP-07-11, 65 N.R.C. at 96.

the same as in the license renewal proceeding: whether the proffered contention presents sufficient information to meet the pleading requirements. That issue was litigated in the license renewal proceeding and the board rejected the contention, including an essential finding that the proffered information was insufficient. LBP-07-11, 65 N.R.C. at 96. That decision was not appealed. NC WARN participated before the Harris Unit 1 license renewal board in that proceeding. See LBP-07-11, slip op. at 72 (Certificate of Service). Therefore, the allegations and support proffered here in Contention EC-4 were previously found inadmissible in litigation between these same litigants in another proceeding, and the principle of collateral estoppel precludes the admission of Contention EC-4.

b. Contention EC-4 Is Inadmissible Because It Is A Collateral Attack On The Commission's Emergency Planning Regulations

NC WARN attempts to support Contention EC-4 by asserting that “susceptible populations, such as homebound persons and number of children attending schools within the 10-mile, 20-mile and 50-mile radii around the plant are not adequately covered in the evacuation plan.” Petition at 50-51. NC WARN also quotes an Orange County Board of Commissioners resolution from October 3, 2006 which states that there is no coordinated planning for evacuation beyond the ten-mile radius around the Harris plant. Id. at 50. NC WARN thereby seeks to collaterally attack the Commission's emergency planning regulations that establish a plume-exposure pathway emergency planning zone (“EPZ”) for nuclear power reactors of an area about 10 miles in radius. 10 C.F.R. § 50.47(c)(2). Commission regulations require evacuation planning only in regard to the 10-mile plume-exposure pathway EPZ. See 10 C.F.R. § 50.47(b)(10). By asserting that evacuation planning is required beyond the plume-exposure pathway EPZ, NC WARN is improperly attempting to collaterally attack the Commission's

regulations. See Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), CLI-87-12, 26 N.R.C. 383, 395 (1987) (10 C.F.R. § 50.47(c)(2) precludes adjustments on safety grounds to the size of an EPZ that is “about 10 miles in radius”); Citizens Task Force of Chapel Hill, DPRM-90-1, 32 N.R.C. 281, 290-92 (1990) (rejecting petition to expand EPZ from 10 to 20 miles in radius). Accordingly, Contention EC-4 must be rejected.

c. Contention EC-4 Lacks An Adequate Basis, Is Not Supported By Adequate Facts Or Expert Opinion, And Fails To Demonstrate A Genuine Dispute With The Application

In Contention EC-4, NC WARN asserts “[t]he COLA for 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 [adequate] care in case of an accident.” Petition at 51. As discussed below, Contention EC-4 does not even cite to, let alone contradict, the Emergency Plan submitted with the Application. Furthermore, the Contention provides no documentary evidence or expert opinion in support of its implication of any flaws in the evacuation plan. It relies on mischaracterizing a 2004 State report and the opinion of an epidemiologist with no experience in emergency planning. In addition, contrary to the implication by NC WARN, information on population growth and land use is provided in the Application and is not challenged by NC WARN.

(i) Contention EC-4 Lacks an Adequate Basis

NC WARN’s emergency planning contention fails to even reference the COLA Part 5, Emergency Plan (“Harris COLA EP”) or the Evacuation Time Estimate (“ETE”) that is the basis for the Harris COLA EP, let alone identify any deficiency in them. Contention EC-4, therefore, must be rejected as fatally flawed. Millstone, CLI-01-24, 54 N.R.C. at 358. NC WARN baldly

asserts that the ER should address increasing populations and land use. Petition at 48. Such a conclusory assertion, little more than a claim that some matter ought to be studied, is not an adequate basis for a contention. Rancho Seco, LBP-93-23, 38 N.R.C. at 246. In any event, NC WARN cannot claim a deficiency in the ER for its failure to address a matter that is both (a) adequately addressed in another part of the Application, and (b) outside the scope of what the regulations state the ER must address. In accordance with the NRC guidance, the Harris Emergency Plan is discussed in the Final Safety Analysis Report, Part 2 of the Application. See e.g., Combined License Applications for Nuclear Power Plants, Reg. Guide 1.206, § C.I.13.1. NC WARN does not cite any NRC guidance requiring that the emergency plan be part of the ER, because no such requirement or guidance exists. Furthermore, the specific omissions alleged by NC WARN are included in the ER. The ER does discuss projected land use and increasing population. ER Sections 2.2.3 and 2.5.1. Therefore, Contention EC-4 lacks an adequate basis and should not be admitted.

(ii) Contention EC-4 Is Not Supported by Adequate Facts Or Expert Opinion On Transportation Planning

Contention EC-4 twice states that “the major thoroughfares used as evacuation routes may be impassable at most times of the day.” Petition at 49, 51. In support, NC WARN cites a 2004 State report. Petition at 51 n.72 (citing “Charting a New Direction for NCDOT,” NC Dept. of Transportation (Sept. 2004), www.ncdot.org/doh/preconstruct/tpb/statewideplan (“NC 2004 Multimodal Plan”)). In fact, the NC 2004 Multimodal Plan is a strategic study of multi-modal transportation priorities in North Carolina and nowhere in that report is there any discussion of whether any roads in North Carolina may become impassable. The NC 2004 Multimodal Plan states:

The overriding purpose of this Statewide Transportation Plan is to establish a long-range blueprint for transportation investment in North Carolina. The Statewide Transportation Plan also provides a balanced picture of the State's transportation challenges and opportunities based on anticipated resources, projected passenger and freight movement needs, and estimated improvement costs. The end result is a preferred North Carolina transportation investment strategy for the next 25 years.

NC 2004 Multimodal Plan at 4. The Harris COLA EP shows two main thoroughfares used as evacuation routes; U.S. Routes 1 and 401. Harris COLA EP at Fig. J-1. The NC 2004 Multimodal Plan identifies one segment of the major thoroughfares used as an evacuation route for Harris – specifically U.S. Route 1 – and states that such segment does not warrant upgrading. NC 2004 Multimodal Plan at 24 (showing the segment of U.S. Route 1 between Sanford and Raleigh as “Existing” and not in need of “Upgrade”). Therefore, the NC 2004 Multimodal Plan not only does not support NC WARN’s assertion that major thoroughfares used as evacuation routes may become impassable but, in fact, directly contradicts the assertion.

Contention EC-4 also cites concerns by the town of Holly Springs regarding roads and bridges that would be removed if the Harris Lake was expanded. Petition at 49& n.70. With regard to transportation, the Holly Springs Town Council resolution states:

BE IT FURTHER RESOLVED that the Holly Springs Town Council desires that the NRC address the environmental, socioeconomic and public safety concerns and findings of the Town by requiring the applicant to:

...

be required, as a part of its issuance of a COL, to reconstruct, widen and otherwise improve the bridges on New Hill Road and Friendship Road and the Avent Ferry Road evacuation route to a four-lane median-divided roadway as called for on the Town of Holly Springs Transportation Improvement Plan, or obtain adequate assurances from NCDOT or the U.S. Department of Transportation that the work will be done expeditiously.

Resolution 08-36 of Holly Springs Town Council of July 15, 2008 at 3 (ADAMS Accession No. ML082050312). The ER addresses the need to upgrade roads and bridges as part of the planned

expansion of Harris Lake. ER Section 4.4.2.8.1. The needed transportation study is being coordinated with the State. NRC (D. Palmrose) Memorandum, June 30, 2008 (ADAMS Accession No. ML081620479). Accordingly, documents cited in the Petition do not demonstrate a genuine dispute with the Application.

**(iii) Contention EC-4 Is Not Supported By Adequate Facts
Or Expert Opinion On Population Growth**

In addition, NC WARN asserts that Contention EC-4 is supported by the opinions of Dr. Steven Wing. Petition at 50 & n.71. In fact, Dr. Wing's concerns about the "evacuation plan" are about the 1987 Harris Unit 1 emergency plan, not the Harris COLA EP. Dr. Wing stated "[t]he 1987 evacuation plan needs to be closely reexamined to meet the current and projected population increases." NC WARN May 18, 2007 Petition at 37 & Attachment 4, ¶ 12. Dr. Wing, however, identifies no deficiencies in the Application. His conclusory assertion, little more than a claim that the 1987 Harris Unit 1 emergency plan ought to be studied, is not an adequate basis for a contention.⁹³ Rancho Seco, LBP-93-23, 38 N.R.C. at 246.

Furthermore, Dr. Wing's expertise is as an epidemiologist. NC WARN May 18, 2007 Petition, Attachment 4A. Such training and experience provide no basis to assert any expertise in emergency planning.⁹⁴ Lastly, Dr. Wing offered his opinion in 2007, six months before the NRC made the Application available for public review in February 2008. NC WARN makes no effort to show that Dr. Wing's opinion is relevant to this proceeding or that Dr. Wing has even reviewed the Harris COLA EP and the ETE on which it is based. There is no indication that this

⁹³ Furthermore, the emergency plans are periodically reviewed to ensure they are "adequate throughout the life of any plant even in the face of changing demographics and other site related factors." Turkey Point, CLI-01-17, 54 N.R.C. at 9.

⁹⁴ Dr. Wing's future population projections, for example, are not discussed in the context of projections of future additional evacuation routes and additional traffic control and management measures.

purported expert has offered an opinion relevant to the Application. Reference to Dr. Wing's opinion offered in a different proceeding provides no support for NC WARN's assertions of deficiencies in this Application.

Furthermore, the information in Contention EC-4 regarding population growth is also presented in the Application. Contention EC-4 states that the current population living in the 10-mile EPZ is at least four times 15,000 people (60,000 people). Petition at 48. The population values in the Application's ER and ETE are similar. ETE Tables 1-1 and 3-1 (ADAMS Accession No. ML080601099) (current population is 74,097); ER Table 2.5-2, Sheet 14 (population in 2010 is 75,771). Also, Contention EC-4 states, "[c]urrently, there are more than 2.2 million people within the 50-mile radius." Petition at 49. The values in the ER are consistent with this. ER Table 2.5-4, Sheet 9 (population in 2010 living between 10 to 50 miles is 2,424,467 people; adding the value for 0 to 10 miles from Table 2.5-2 gives about 2.5 million people). While Contention EC-4 states that these population numbers are likely to increase during the license period, that Contention does not contradict the predicted population growth through 2080 provided in the ER. See ER Tables 2.5-2 and 2.5-4. In addition, NC WARN expresses concern about susceptible populations. Such populations, however, are described in the ER (ER Section 2.5.1.3.2) and evacuation needs are described in the ETE (ETE Section 8.3 (ADAMS Accession No. ML080601106)). In short, Contention EC-4's discussion of population demonstrates no genuine dispute with the Application.

(iv) Contention EC-4 Fails To Demonstrate A Genuine Dispute With The Application Regarding Land Use

Contention EC-4 makes a vague assertion about the need to consider land use, essentially arguing that changes in land use should be studied. Petition at 49, 51. Such vague exhortations

that a subject ought to be studied do not provide a basis for an admissible contention. Rancho Seco, LBP-93-23, 38 N.R.C. at 246. Furthermore, the ER does discuss future land use plans. ER Section 2.2.3. NC WARN does not cite to, let alone identify any deficiency in, the Application's discussion of land use plans. NC WARN's vague reference to changing land use demonstrates no genuine dispute with the Application.

(v) Conclusion

Contention EC-4 is an emergency planning contention that does not address the Harris COLA EP. In addition, neither NC WARN's mischaracterization of the content of a State report nor its purported expert's opinion provide a basis, or adequate factual or expert support, for Contention EC-4. The information that NC WARN provides in Contention EC-4, including a Resolution by the Town Council of Holly Springs, is consistent with the information in the Application. Therefore, NC WARN has not demonstrated a genuine dispute with the Application. Accordingly, Contention EC-4 fails to satisfy the requirements of 10 C.F.R. §§ 2.309(f)(1)(ii), (v), and (vi), and should not be admitted.

K. Contention EC-5 (Waste Disposal) Is Inadmissible

1. Contention EC-5 Is An Impermissible Challenge To The NRC's Waste Confidence Rule

Contention EC-5, the majority of which is lifted almost verbatim from intervention petitions filed in two other NRC proceedings,⁹⁵ alleges that both the Application and the ER are deficient for failing (1) to evaluate the time frame within which spent fuel generated by Harris can be safely disposed; and (2) to discuss the environmental implications of the lack of spent fuel

⁹⁵ See Contentions of Blue Ridge Environmental Defense League, Nuclear Information and Resource Service, and Public Citizen regarding Early Site Permit Application for Site of North Anna Nuclear Power Plant, Docket No. 52-008 (May 3, 2004) at 15-23; Petition for Intervention and Request for Hearing by the Blue Ridge Environmental Defense League, Docket No. 52-017 (May 9, 2008) at 21-30.

disposal options. Petition at 51-52. The Contention is inadmissible because it is an impermissible challenge to the NRC's Waste Confidence Rule, 10 C.F.R. § 51.23. The Waste Confidence Rule makes a generic finding that a geologic repository will be available beyond the operating life of any reactor to dispose of its spent nuclear fuel and bars consideration of spent fuel disposal in this proceeding.

The NRC's Waste Confidence Rule provides in pertinent part:

(a) The Commission has made a generic determination that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 30 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor at its spent fuel storage basin or at either onsite or offsite independent fuel storage installations. Further, the Commission believes that 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.

(b) Accordingly, . . . within the scope of the generic determination in paragraph (a) of this section, 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, environmental impact statement, environmental assessment, or other analysis prepared in connection with the . . . issuance . . . of a combined license for a nuclear power reactor under parts 52 and 54 of this chapter.

10 C.F.R. § 51.23(a), (b) (emphases added).

In essence, Contention EC-5 argues that Progress cannot rely on the NRC's Waste Confidence Decision, 49 Fed. Reg. 34,658 (Aug. 31, 1984), as amended, 55 Fed. Reg. 38,474 (Sept. 18, 1990), upon which the Waste Confidence Rule at 10 C.F.R. § 51.23 is based, "because it applies only to plants which are currently operating, not new plants." Petition at 53. NC WARN is just wrong in claiming that the Waste Confidence Decision does not apply to new

reactors. The express language of 10 C.F.R. § 51.23, the NRC findings in the Waste Confidence Decision, and the record in that proceeding all refute NC WARN's claim.

First, the NRC amended the Waste Confidence Rule in 2007 to make it clear that the Waste Confidence Rule applies to combined license applications. See 72 Fed. Reg. at 49,429; 10 C.F.R. § 51.23(b) (explicitly referring to combined license applications). Thus, the rule clearly applies to applications for new reactors.

Further, by its express terms, 10 C.F.R. § 51.23(a) applies to "any reactor." 10 C.F.R. § 51.23(a). Indeed, when the NRC promulgated this rule, it clearly explained, "in licensing actions involving (a) the storage of spent fuel in new or existing facilities, or (b) the expansion of storage capacity at existing facilities, the NRC will continue to require consideration of reasonably foreseeable safety and environmental impacts of spent fuel storage only for the period of the license applied for." 49 Fed. Reg. at 34,689 (emphasis added). Furthermore, in rejecting a contention almost identical to EC-5, the NRC Licensing Board for the North Anna Early Site Permit proceeding ruled that the plain language of 10 C.F.R. § 51.23 applies to new reactors. North Anna ESP, LBP-04-18, 60 N.R.C. at 269 & n.6. A second Licensing Board has rejected similar contentions since NC WARN filed its Petition. Earlier this month, the Licensing Board reviewing intervention petitions for the North Anna Unit 3 combined license application rejected two similar contentions in part for the same reasons stated by the North Anna ESP Licensing Board, believing those reasons "to be clearly correct." North Anna COL, LBP-08-15, slip op. at 54.

Despite the clear wording of the regulation, the amendment of the Waste Confidence Rule in 2007 to explicitly include combined licenses for new reactors, and the prior Board ruling

on this precise issue that was available to NC WARN at the time it filed the Petition, NC WARN contends that “as amended in 1999,”⁹⁶ the second finding of the Waste Confidence Decision “clearly . . . applies to any existing reactor, including reactors whose licenses are revised or renewed.” Petition at 53 (emphasis added). Contrary to NC WARN’S insinuation, the second finding does not refer to and is in no way limited to “existing reactors.” Rather, like the Waste Confidence Rule itself, the second finding (as paraphrased by NC WARN) applies to “any reactor.” Further, the record for the 1990 revision of the second finding could not be more clear in its consideration and inclusion of new reactors. In that record, the Commission addressed relevant issues that had arisen since its original Waste Confidence Decision in 1984. 55 Fed. Reg. at 38,500. The Commission identified one of those issues as:

Is there sufficient uncertainty in total spent fuel projections (e.g., from extension-of-life license amendments, renewal of operating licenses for an additional 20 to 30 years, or a new generation of reactor designs) that this Waste Confidence review should consider the institutional uncertainties arising from having to restart a second repository program.

55 Fed. Reg. at 38,501 (emphasis added). Just as the issue presented clearly addressed new reactors, so did the Commission’s response:

Assuming for the sake of establishing a conservative upper bound that the Commission does grant 30-year license renewals, the total operating life of some reactors would be 70 years, so that the spent fuel initially generated in them would have to be stored for about 100 years if a repository were not available until 30 years after the expiration of their last [Operating Licenses].

Even under the conservative bounding assumption of 30-year license renewals for all reactors, however, if a repository were available within the first quarter of the twenty-first century, the oldest spent fuel could be shipped off the sites of all currently operating reactors well before the spent fuel initially generated in them

⁹⁶ NC WARN is mistaken in describing the second finding of the Waste Confidence Decision as having been amended in 1999. Petition at 53. In fact, the original Waste Confidence Decision (49 Fed. Reg. 34,658 (Aug. 31, 1984)) was amended in 1990 (55 Fed. Reg. 38,474 (Sept. 18, 1990)). In 1999, the Commission decided that a comprehensive evaluation of the Waste Confidence Decision was unnecessary, and that experience and developments since 1990 confirmed the 1990 findings, and no modification to those findings was necessary. 64 Fed. Reg. 68,005 (Dec. 6, 1999).

reached beyond the age of 100 years. Thus, a second repository, or additional capacity at the first, would be needed only to accommodate the additional quantity of spent fuel generated during the later years of these reactors' operating lives. The availability of a second repository would permit spent fuel to be shipped offsite well within 30 years after expiration of these reactors' [Operating Licenses.] The same would be true of the spent fuel discharged from any new generation of reactor designs.

In sum, although some uncertainty in total spent fuel projections does arise from such developments as utilities' planning renewal of [Operating Licenses] for an additional 20 to 30 years, the Commission believes that this Waste Confidence review need not at this time consider the institutional uncertainties arising from having to restart a second repository program. Even if work on the second repository program is not begun until 2010 as contemplated under current law, there is sufficient assurance that a second repository will be available in a timeframe that would not constrain the removal of spent fuel from any reactor within 30 years of its licensed life for operation.

55 Fed. Reg. at 38,503-04 (emphases added). As that statement demonstrates, the Commission fully considered the possibility of additional spent nuclear fuel generation stemming from both the renewal of existing licenses and the licensing of new reactors. North Anna ESP, LBP-04-18, 60 N.R.C. at 269 n.6 (quoting 55 Fed. Reg. at 38,504). See also North Anna COL, LBP-08-15, slip op. at 54 (citing North Anna ESP). Therefore, any assertion that the Waste Confidence Decision does not apply to new reactors must be rejected.

Moreover, this same record of the 1990 Waste Confidence review belies NC WARN's arguments that the Commission "backtracked" from its original Waste Confidence Decision and no longer has confidence that more than one repository will open. See Petition at 53-54.⁹⁷ As quoted above, the Commission stated that "there is sufficient assurance that a second repository will be available in a timeframe that would not constrain the removal of spent fuel from any reactor within 30 years of its licensed life for operation." 55 Fed. Reg. at 38,504.

⁹⁷ NC WARN bases this argument on the 1990 amendment to the second finding, from assurance that "one or more" repositories would be available by years 2007 to 2009, to assurance that "at least one" repository would be available by the first quarter of the twenty-first century. Petition at 53-54.

For the same reason, NC WARN's concerns about the limitation on the capacity of the first repository and whether the NRC can assume continued support from Congress for the first repository, Petition at 54-57, are irrelevant. The Commission considered these issues in its 1990 review and concluded:

The Commission believes that if the need for an additional repository is established, Congress will provide the needed institutional support and funding, as it has for the first repository.

55 Fed. Reg. at 38,502. And the Commission could not have been more clear in its 1999 Status Report on the Review of the Waste Confidence Decision (64 Fed. Reg. 68,005 (Dec. 6, 1999)) reaffirming, without qualification, its 1990 findings. Referring to the ongoing repository development and spent fuel storage activities, the Commission stated:

These considerations confirm and strengthen the Commission's 1990 findings and lead the Commission to conclude that no significant and unexpected events have occurred – no major shifts in national policy, no major unexpected institutional developments, no unexpected technical information – that would cast doubt on the Commission's Waste Confidence findings or warrant a detailed reevaluation at this time.

64 Fed. Reg. at 68,007 (emphasis added). Not only did the Commission decide not to review its 1990 Waste Confidence findings in 1999, the Commission found that events since then had only served to strengthen the 1990 findings, which expressly include consideration of new reactors and the Commission's belief that Congress would address any need for a second repository.

2. NC WARN's Request That The Waste Confidence Rule Be Reconsidered Does Not Meet The Requirements For Seeking A Waiver Of A Rule

Further, NC WARN's request that the Waste Confidence Decision be reconsidered (Petition at 56) falls far short of meeting any of the requirements for seeking a waiver of a rule, as set out in 10 C.F.R. §§ 2.335(b)-(d).

Indeed, it is clear that NC WARN could not meet the standards for a waiver. In this regard, 10 C.F.R. § 2.335(b) provides:

The sole ground for petition of waiver or exception is that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation (or a provision of it) would not serve the purposes for which the rule or regulation was adopted.

10 C.F.R. § 2.335(b) (emphasis added). The “special circumstances” required cannot be merely alleged and must be set forth “with particularity.” Harris, LBP-82-119A, 16 N.R.C. at 2073. In order to establish special circumstances that would support a waiver, the petitioner “must allege facts not in common with a large class of facilities that were not considered, either explicitly or by necessary implication, in the rulemaking proceeding for the rule sought to be waived.” Private Fuel Storage, LBP-98-7, 47 N.R.C. at 238 (citing Seabrook, CLI-89-20, 30 N.R.C. at 235) (emphasis added). Here, NC WARN seeks reconsideration of the Waste Confidence Decision in light of alleged significant cost estimates for a proposed repository at Yucca Mountain and the increased threat of terrorist attacks. Petition at 56. In both cases, NC WARN fails to allege any facts that are specific to Harris.

Whether it is appropriate for the NRC to assume that Congress will continue to fund licensing, construction, and operation for the first geologic repository is a question that is not specific to Harris. Thus, this basis for reconsideration falls short of the Commission’s standards for a waiver.

Likewise, NC WARN’s assertions that the risk of terrorism serves as a basis for the Commission to reconsider its Waste Confidence Decision and 10 C.F.R. § 51.23 also fails to meet the Commission’s standards for a waiver. Here, Contention EC-5 refers to alleged terrorist threats to: “targeted facilities in the United States” (Petition at 57); “commercial reactors” (id. at

58); “storage pools” (id.); “dry casks” (id.) “independent spent fuel storage installations” (id.); transportation of spent nuclear fuel (id.); “nuclear plants” (id.); and “offsite interim storage facilities” (id.). Nowhere in Contention EC-5 does NC WARN refer to any special circumstances that might exist with respect to Harris as a basis for waiver. The Contention seeks reconsideration of the Waste Confidence Decision as it pertains to all spent nuclear fuel, wherever it might or will be produced and stored, and is “nothing more than a generalization regarding [petitioners’] views of what applicable policies ought to be.” Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), LBP-82-76, 16 N.R.C. 1029, 1035 (1982) (citing Peach Bottom, ALAB-216, 8 A.E.C. at 20-21. Such a broad request does not and cannot meet the standard in 10 C.F.R. § 2.335(b).

NC WARN also fails to show, within the context of NEPA, that there are special circumstances that would cause the rule not to serve its purpose. The NRC’s Waste Confidence Decision considered the remoteness of terrorist attacks and their radiological consequences. 49 Fed. Reg. 34,658. In its 1990 review of the Waste Confidence findings, the Commission stated:

[N]o considerations have arisen to affect the Commission’s confidence since 1984 that the possibility of a major accident or sabotage with off site radiological impacts at a spent-fuel storage facility is extremely remote.

55 Fed. Reg. at 38,512 (emphasis added). Subsequent to the September 11 events, the Commission has held that an attack on a fuel storage facility “is speculative and simply too far removed from the natural or expected consequences of agency action to require a study under NEPA.” Private Fuel Storage, CLI-02-25, 56 N.R.C. at 349.⁹⁸ The Commission has also held:

⁹⁸ While the Commission has indicated that the likelihood of a terrorist attack cannot be ascertained with confidence by any state-of-the-art methodology, it has added:

If we were to speculate on the probability of the scenario . . . [of] a hijacked jumbo jet hitting the PFS facility and causing catastrophic effects – our guess is that the probability is actually miniscule.

CLI-02-25, 56 N.R.C. at 351.

[A]n EIS is not an appropriate format to address the challenges of terrorism. The purpose of an EIS is to inform the decisionmaking agency and the public of a broad range of environmental impacts that will result, with a fair degree of likelihood, from a proposed project, rather than speculate about “worst case scenarios” and how to prevent them.

Id. at 347. NEPA’s mandate “is to consider a broad range of environmental effects that are reasonably likely to ensue as a result of a major agency action, not to engage in speculation about what might happen as a result of criminal terrorist activities.” Id. at 352. The Waste Confidence Decision reflects the NRC’s judgment that spent fuel can be stored safely and without significant environmental impact from the expiration of a reactor’s facility operating license until a repository is available. Consistent with the Commission’s multiple rulings,⁹⁹ the Commission’s analysis need not include speculation about potential consequences of terrorism on fuel temporarily stored at the site of new reactors after the end of their licensed life.¹⁰⁰ In this context, Contention EC-5 is nothing more than a back-door attempt to circumvent the Commission’s rulings that terrorism is not a proper subject for NEPA analysis.¹⁰¹

Finally, even if intended as a waiver request, Contention EC-5 fails to meet the affidavit requirement in Section 2.335:

⁹⁹ See the discussion of terrorism and NEPA in the response to Contentions TC-3 and TC-4 supra. The Commission has ruled in several contexts that NEPA does not require it to conduct a terrorism analysis. See Private Fuel Storage, CLI-02-25; Savannah River, CLI-02-24 (construction permit); McGuire, CLI-02-26 (license renewal); Millstone, CLI-02-27 (2002) (license amendment proceeding to expand spent fuel pool storage capacity).

¹⁰⁰ Taking into account the design, licensing and construction period, a forty-year licensed life, and potential 20 year license renewals, this period of storage for new units would not even occur until near the end of the century. The suggestion that the NRC today should attempt to evaluate terrorist risk at that point in the future makes little sense.

¹⁰¹ NC WARN’s reliance on San Luis Obispo Mothers for Peace for “special circumstances” warranting reconsideration of the Waste Confidence Decision is misplaced. The Commission has applied that ruling only to the Diablo Canyon proceeding and will not apply it to other proceedings because it “continue[s] to believe that NEPA does not require the NRC to consider the environmental consequences of hypothetical terrorist attacks on NRC-licensed facilities.” Oyster Creek, CLI-07-08, 65 N.R.C. at 129. Therefore, the San Luis Obispo Mothers for Peace decision does not amount to special circumstances warranting the requested reconsideration of the Waste Confidence rule.

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

10 C.F.R. § 2.335(b). This affidavit should contain enough proof for the Licensing Board to determine whether the petitioner has made a prima facie showing for a waiver. Harris, LBP-82-119A, 16 N.R.C. at 2073. Further, “[i]ntervenors should be aware that as a practical matter, in most cases, a petition for a waiver of a rule under [§ 2.335] will involve a substantial investment in time and effort.” Id. No affidavit with any such specificity or proof was provided to support a waiver in this proceeding. As demonstrated above, even if Contention EC-5 is intended to constitute a waiver request, it does not and cannot satisfy the standards for a waiver.

In summary, Contention EC-5 is a direct challenge to 10 C.F.R. § 51.23 and must be rejected. The regulation’s plain language and the Commission’s Waste Confidence Decisions demonstrate that the Commission fully considered new reactors in this generic rulemaking. Because 10 C.F.R. § 51.23 applies to COL applications and “any reactors,” NC WARN’s Contention to the contrary in this proceeding is an impermissible challenge to the regulation. Furthermore, NC WARN has fallen far short of the Commission’s requirements for seeking waiver of the Waste Confidence Rule in this proceeding. Contention EC-5 must be rejected.

V. Selection of Hearing Procedures

Commission rules require the Atomic Safety and Licensing Board designated to rule on the Petition to “determine and identify the specific procedures to be used for the proceeding” pursuant to 10 C.F.R. §§ 2.310 (a)-(h). 10 C.F.R. § 2.310. The regulations are explicit that “proceedings for the . . . grant . . . of licenses subject to [10 C.F.R. Part 52] may be conducted

under the procedures of subpart L.” Id. § 2.310(a). The regulations permit the presiding officer to use the procedures in 10 C.F.R. Part 2, Subpart G (“Subpart G”) in certain circumstances. Id. § 2.310(d). It is the proponent of the contentions, however, who has the burden of demonstrating “by reference to the contention and bases provided and the specific procedures in subpart G of this part, that resolution of the contention necessitates resolution of material issues of fact which may be best determined through the use of the identified procedures.” Id. § 2.309(g). NC WARN did not address the selection of hearing procedures in its Petition and therefore did not satisfy its burden to demonstrate why Subpart G procedures should be used in this proceeding. Accordingly, any hearing arising from the Petition should be governed by the procedures of Subpart L.

VI. Conclusion

For all of the foregoing reasons, the Petition should be denied.

Respectfully Submitted,

/Signed electronically by John H. O’Neill, Jr./

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August 29, 2008

August 29, 2008

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

Before the Atomic Safety and Licensing Board

In the Matter of)	
)	Docket Nos. 52-022-COL
Progress Energy Carolinas, Inc.)	52-023-COL
)	
Shearon Harris Nuclear Power Plant,)	ASLBP No. 08-868-04-COL
Units 2 and 3)	

CERTIFICATE OF SERVICE

I hereby certify that a copy the foregoing "Progress Energy's Answer Opposing Petition for Intervention and Request for Hearing by The North Carolina Waste Awareness and Reduction Network," dated August 29, 2008, was provided to the Electronic Information Exchange for service to those individuals on the service list in this proceeding, and courtesy copies were provided by email to the persons listed below, this 29th day of August 2008.

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