UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

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

NOTICE OF APPEAL, REQUEST FOR ORAL ARGUMENT AND
BRIEF SUPPORTING NOTICE OF APPEAL BY NC WARN

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NOTICE OF APPEAL

Pursuant to 10 C.F.R. § 2.311, now comes the North Carolina Waste Awareness and Reduction Network, Inc. ("NC WARN"), by and through the undersigned counsel, with a notice of appeal from decisions taken by the Commission and the ASLB in this matter:

Commission, Memorandum and Order, CLI-08-15, July 23, 2008.[1]

ASLB, Memorandum and Order, LBP-08-21, October 30, 2008.

ASLB, Memorandum and Order, December 23, 2008.

Commission, Memorandum and Order, CLI-09-08, May 18, 2009.

ASLB, Memorandum and Order, LBP-09-08, June 30, 2009.

REQUEST FOR ORAL ARGUMENT

Pursuant to 10 C.F.R. § 2.343, NC WARN requests the opportunity to be heard by the full Commission on the merits of this appeal.

[1] All orders by the ASLB and Commission are in the Shearon Harris proceeding are available at http://ehd.nrc.gov/ehd_proceeding/home.asp

BRIEF IN SUPPORT OF NOTICE OF APPEAL

This brief supports the above notice of appeal. Because of the regulatory mandate that limits the length of the brief supporting the notice of appeal, the legal arguments in this brief are substantially supported in the other filings made by NC WARN in this docket and adopted by reference herein:

> Motion to Immediately Suspend Hearing Notice (June 23, 2008)[2]
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> Supplement to Motion (July 10, 2008)
>
> Petition for Intervention and Request for Hearing ("Petition") (August 8, 2008)
>
> Reply to Staff and Progress Answers (September 5, 2008)
>
> Response to Board Notification (October 13, 2008)
>
> Motion to Allow New Contention (November 13, 2008)
>
> Motion to Hold Harris Combined Operating License Application Adjudication in Abeyance Pending Completion of Rulemaking on the Standard Design Certification Application for the AP1000 Reactor Design (November 13, 2008)
>
> Reply to Responses in Opposition to Motion for Leave to File New Contention (November 28, 2008)

Any consideration by the Commission must be made in context of the previous filings with due consideration of the legal and factual arguments made in those filings.

STATEMENT OF THE CASE

This proceeding concerns the combined operating license application ("COLA") for the proposed Shearon Harris Nuclear Power Plant, Units 2 and 3 ("Harris"), filed pursuant to

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[2] All filings are available at http://ehd.nrc.gov/ehd_proceeding/home.asp under the Shearon Harris proceeding.

10 C.F.R. Part 52, Subpart C by Progress Energy on February 18, 2008. A qualified acceptance of the application for docketing by the NRC was sent to Progress Energy on April 17, 2008.[3] Notice of hearing and opportunity to petition for leave to intervene was published in 73 F.R. 31899 on June 4, 2008. The COLA incorporates by reference 10 C.F.R. Part 52, Appendix D which includes the Westinghouse AP1000 pressurized water reactor Design Control Document ("DCD") Revision 16.[4] The AP1000 DCD remains subject to an ongoing NRC rulemaking under Docket No. 52-006.

On June 23, 2008, NC WARN moved to indefinitely postpone the hearing notice in this docket on the bases that the COLA was incomplete because the lack of information on water (see Contention EC-3) and the uncertified AP1000 reactor design and operational procedures in Docket No. 52-002 (see Contentions TC-1 and TC-7). NC WARN supplemented its motion on July 20, 2008, with additional information about further delays in the certification process and lack of a timetable for those issues to be resolved. The applicant and the NRC staff responded to the motion. On July 23, 2008, the Secretary issued Commission Memorandum and Order, CLI-08-15, denying this motion.

On August 4, 2008, NC WARN submitted its Petition, raising the following contentions:

Contention TC-1. The design and operating procedures are not in the COLA.

Contention TC-2. Progress Energy's track record of fire violations at the existing

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[3] ADAMS Accession No. ML081070226.

[4] The AP1000 DCD Revision 16 reference documents are available at www.nrc.gov/reactors/new-licensing/col/harris.html#refDocuments

Harris reactor is suspect.

Contentions TC-3 and TC-4. The COLA does not consider aircraft attacks and/or the impacts of fires from aircraft attacks.

Contention TC-5. The proposed Harris reactors depend on dangerous high-density spent fuel pools.

Contention TC-6. Uranium is not a reliable fuel.

Contention EC-1. Progress Energy has underestimated the cost of the proposed Harris reactors.

Contention EC-2. The COLA does not address the carbon footprint of the reactor cycle.

Contention EC-3. The COLA does not fully address the water requirements of the proposed reactors.

Contention EC-4. The emergency planning for the proposed reactors is deficient.

Contention EC-5. The problem of the disposal of high-level waste has not been resolved.

On August 29, 2008, both the NRC Staff and the applicant, Progress Energy, filed responses opposing the Petition. Neither the NRC staff nor the applicant questioned the representative standing of NC WARN to bring the Petition. On September 5, 2008, NC WARN filed its Reply to those answers. Without hearing oral arguments from the parties, the ASLB issued its Memorandum and Order, LBP-08-21, on October 30, 2008. In its Memorandum and Order, the ASLB properly found that NC WARN had standing and found one contention admissible, Contention TC-1 regarding the inadequacies in the application because of the lack of a final design and operating procedures. On October 30, 2008, the opposing parties brought interlocutory appeals on the admission of the contention pursuant to 10 C.F.R. § 2.311(c)

On November 13, 2008, NC WARN moved for leave to file a new contention and

a second motion to hold the proceeding in abeyance until the AP1000 reactor design and operating procedures were finalized. The new contention, Contention TC-7, addressed new and significant changes in design and operating procedures as described in the AP1000 DCD Revision 17, replacing Revision 16, the version that is referenced in the Harris COLA. Similar to the contention admitted by the ASLB, the contention on Revision 17 described a series of significant safety-related reactor components that remain unreviewed and uncertified.[5] On December 23, 2008, the ASLB issued a Memorandum and Order denying the admission of the new contention.

On May 18, 2009, the Commission issued a Memorandum and Order CLI-09-08 remanding the matter to the ASLB and providing it with guidance regarding Contention TC-1. In the same Order, the Commission denied the request to hold the proceeding in abeyance. On June 30, 2009, the ASLB filed its Memorandum and Order (Ruling on Admissibility of Contention TC-1 in Response to the Commission's Remand in CLI-09-08), LBP-09-08, denying the Petition to Intervene of NC WARN and otherwise terminating the proceeding.

NC WARN moved for an extension of time to file the notice of appeal and supporting brief, which the Secretary granted.

LEGAL ARGUMENT

[5] Although not available at the time the NC WARN Motion was filed, the AP1000 DCD Revision 17 was subsequently posted as ADAMS Accession No.ML083230868. The DCD Revision 17 is adopted by reference herein. Revision 17 is also available at www.nrc.gov/reactors/new-reactors/design-cert/amended-ap1000.html.

I. The purpose of the Atomic Energy Act is to protect public health and safety, and the purpose of the National Environmental Policy Act is to address environmental impacts.

As detailed in NC WARN's Petition and its other filings, Progress Energy's COLA fails to comply with both the provisions of the Atomic Energy Act ("AEA"), 42 U.S.C. §2011 *et seq*., that protect health and safety, and the provisions of the National Environmental Protection Act ("NEPA"), 42 U.S.C. §4321 *et seq.,* that address the environmental impacts of operating the proposed Harris reactors.

One of the AEA's primary mandates is to prohibit the Commission from issuing a license to operate a nuclear power plant if it would be "inimical to the common defense and security or to the health and safety of the public." 42 U.S.C. §2133(d). Public safety is "the first, last, and a permanent consideration in any decision on the issuance of a construction permit or a license to operate a nuclear facility." Petition for Emergency and Remedial Action, 7 NRC at 404, citing *Power Reactor Development Corp. v. International Union of Electrical Radio and Machine Workers*, 367 U.S. 396, 402 (1961). 10 C.F.R. § 50.34(a)(4) provides that a construction permit application for a nuclear power plant must include:

> a preliminary analysis and evaluation of the design and performance of structures, systems, and components of the facility with the objective of assessing the risk to public health and safety resulting from operation of the facility and including determination of the margins of safety during normal operations and transient conditions anticipated during the life of the facility, and the adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents.

The NRC relies in large part on the "adequacy of structures, systems and components" to prevent and mitigate the accidental release of radioactive materials and other

dangers to public health and safety, and the environment.

While the AEA sets minimum standards for safe and secure operation of nuclear facilities, NEPA requires the Commission to consider and attempt to avoid or mitigate significant adverse environmental impacts of licensing those facilities. Although the statutes have some overlapping concerns, they establish independent requirements. *Limerick Ecology Action v. NRC*, 869 F.2d 719, 729-30 (3rd Cir. 1989) ("*Limerick Ecology Action")* (holding that the AEA does not preclude NEPA). It is "unreasonable to suppose that [environmental] risks are automatically acceptable, and may be imposed upon the public by virtue of the AEA, merely because operation of a facility will conform to the Commission's basic health and safety standards." *Limerick Ecology Action*, quoting *Citizens for Safe Power v. NRC*, 524 F.2d 1291, 1299 (D.C. Cir. 1975).

NEPA goes beyond the AEA by requiring the consideration of alternatives for reducing or avoiding adverse environmental impacts of NRC licensing actions. 10 C.F.R. § 51.71(d). NRC regulations for implementation of the AEA provide that a nuclear power plant must be designed against accidents that are "anticipated during the life of the facility." These are both the low-frequency but credible events referred to as design-basis accidents ("DBAs"), and accidents that are more complex and less likely than design basis accidents, the "severe accidents," i.e., "those involving multiple failures of equipment or function and, therefore, whose likelihood is generally lower than design-basis accidents but whose consequences may be higher."[6] Although severe accidents are "beyond the substantial coverage of design-basis events," they constitute

[6] "Policy Statement on Severe Accidents Regarding Future Designs and Existing Plants," 50 F.R. 32,138, 32,139 (August 8, 1985).

"the major risk to the public associated with radioactive releases from nuclear power plant accidents." The applicant for a license must present its full analysis and evaluation of the adequacy of the proposed plant to protect the public health and safety from all releases and accidents.

NEPA procedures require the NRC to prepare an EIS for any major licensing action significantly affecting the quality of the human environment. 10 C.F.R. §§ 51.71 and 51.91. The goal of the EIS is to analyze and evaluate the ability of the plant to operate safely; first that the plant is in compliance with safety rules, and protects against "anticipated" accidents and design basis accidents, and the "reasonably foreseeable" impacts which have "catastrophic consequences, even if their probability of occurrence is low." 40 C.F.R. § 1502.22(b)(1). In licensing hearings, the Commission has required that the EIS address the probability of severe accidents and how to prevent them if at all possible, or mitigate them if they cannot be prevented. See, *e.g., Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), CLI-01-11, 53 NRC 370, 387 (2001).

In the EIS for the present operating license extension, 10 C.F.R. § 51.53(c)(ii)(L) requires that the license renewal applicant and the NRC consider alternatives to mitigate severe accidents if the NRC staff has not previously evaluated Severe Accident Mitigation Alternatives ("SAMAs") for the applicant's plant in an EIS document. 10 C.F.R. § 51.53(c)(3)(iii), citing 10 C.F.R. § 51.45(c). This requirement is:

> based on the Commission's NEPA regulations that require a review of severe [accident] mitigation alternatives in its environmental impact statements (EISs) and supplements to EISs, as well as a previous court decision that required review of severe mitigation alternatives (referred to as SAMAs) at the operating license stage. See, *Limerick Ecology Action v. NRC*, 869 F.2d 719 (3d Cir. 1989).

61 F.R. at 28,481. The NRC staff's responsibility in preparing the EIS is to conduct a fair and independent analysis of the impacts of the proposed action on the environment in order to give the decisionmaker a useful tool, based on solid scientific and technical data, to make a decision to grant or deny the COLA.

Without a complete application showing the final design of the major safety components and the operating procedures that the applicant commits to following, it is impossible to assess whether the proposed reactors can operate safely, and protect public health and the environment.

II. The ASLB erred in determining that none of the contentions raised in NC WARN's petition were admissible.

As noted above, public safety is "the first, last, and a permanent consideration in any decision on the issuance of a construction permit or a license to operate a nuclear facility." NC WARN would expand the definition of public safety to include both the impacts on public health and that on the environment. The purpose of the licensing proceeding is to make certain that public safety is protected; in its initial petition, the petitioner raises contentions regarding deficiencies in the COLA.

Contention admissibility is governed by 10 C.F.R. § 2.309(f)(1), stating that a contention is required to:

> (i) Provide a specific statement of the issue of law or fact to be raised or controverted;
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> (ii) Provide a brief explanation of the basis for the contention;
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> (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;

> (iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;
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> (v) Provide a concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the requestor/petitioner intends to rely to support its position on the issue; and
>
> (vi) Provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must include references to specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief.

In its Petition and subsequent filings, NC WARN fully complies with these requirements by presenting the factual and legal support for each of its contentions, pointing directly at significant gaps in the COLA and inadequacies in its analysis.

In LBP-08-21, at 5, the ASLB briefly addresses the criteria for admissibility for contentions but relies by reference to the thorough recitation of relevant case law presented in *Duke Energy Carolinas, LLC* (William States Lee Nuclear Station, Units 1 and 2), LBP-08-17, 68 NRC ___ (slip op. at 4-10) (September 22, 2008). In this brief, NC WARN also will rely on the *Duke Energy* recitation but would add that while the rule on admissibility of contentions is "strict by design," relevant case law clearly holds that this restriction is not so strict that a contention cannot or should not be admitted. *Dominion Nuclear Connecticut, Inc*. (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349 (2001). A variety of contentions have been admitted by ASLBs at a number of the latest rounds of petitions on the adequacies of COLAs. See for

example, *Tennessee Valley Authority*, (Bellefonte Nuclear Power Plant, Units 3 and 4), LBP-08-16, 68 NRC ___ (slip op.) (September 12, 2008). In addition to the initial admission of NC WARN's Contention TC-1 described below, it should also be noted that in the present proceeding, the NRC Staff originally argued that another of NC WARN's contentions should be admitted, Contention EC-1 alleging that Progress Energy had underestimated the cost of the proposed Harris reactors. NRC Staff Answer, August 29, 2008, at 37.

In several instances, the ASLB determined that a contention was not admissible because NC WARN had not specified which portions of the COLA lacked the factual basis or analysis NC WARN alleged was necessary. 10 C.F.R. § 2.309(f)(1) (vi) above allows a petitioner to allege that "the application fails to contain information on a relevant matter as required by law," then identify the absence of the information and provide the supporting reasons for the petitioner's belief. This does not require the petitioner to identify all sections in which the information or analysis could possibly be located in the COLA or ER, but only to state that information is required by a specific provision of the NRC regulations, the AEA or NEPA. The primary allegation is that the information is missing, not that it is required to be in a specific section and is not found there.

Under the regulatory requirements as described above, and centered on the protection of public safety, each of the contentions discussed below is admissible.

III. The ASLB erred in determining that contentions addressing the lack of final

designs and operating procedures in the COLA were inadmissible.

IV. Both the ASLB and Commission erred by not holding in abeyance or staying the licensing proceeding until designs and operating procedures are finalized.

In two of its contentions and in its two motions to hold the proceeding in abeyance, NC WARN has raised serious procedural and regulatory issues concerning the lack of the final design and operating procedures in the COLA. Because the COLA as submitted lacked the final designs and operating procedures, it did not even satisfy the basic requirement for completeness of the COLA and should not have been docketed. 10 C.F.R. § 2.101(a)(3).

In denying NC WARN's initial motion to indefinitely postpone the notice of hearing because of the lack of certified design and operational components under the AP1000 DCD Revision 16, the Commission stated that

> **If the Petitioners believe the Application is incomplete in some way, they may file a contention to that effect.** Indeed, the very purpose of NRC adjudicatory hearings is to consider claims of deficiencies in a license application; such contentions are commonplace at the outset of NRC adjudications.

(emphasis added). *Progress Energy Carolina, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-08-15, 68 NRC 1 (June, 23, 2008). NC WARN believes that the COLA "is incomplete in some way," and has filed contentions to that effect in both Contention TC-1 on Revision 16 of the AP1000 design and Contention TC-7 on Revision 17, and has alleged that the application is incomplete without the ultimate design or operational procedures. The validity of these contentions does not depend on whether the ultimate design or operational procedures are certified or not; the COLA

is incomplete and cannot be reviewed by the NRC staff or affected persons without a clear and concise description of all its components. It is clear that the missing components and procedures are crucial in assessing the safety and impacts of the proposed reactors.

In CLI-08-15, the Commission further stated that

> although the Commission anticipated that applicants would first seek to have designs certified before submitting COLs which reference those designs, the NRC's regulations, nonetheless, allow an applicant – at its own risk – to submit a COL application that does not reference a certified design.

Because the Commission's "anticipated" certification process has not been accomplished in actuality, leading to the very problems described in detail in Contentions TC-1 and TC-7, i.e., that a petitioner, such as NC WARN, is forced to file contentions on designs and operational procedures that are "known unknowns."

In reaching this position, the Commission cited the Final Policy Statement on the Conduct of New Reactor Licensing Proceedings, in which it explained the process as follows:

> 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 abeyances, if is otherwise admissible.

73 F.R. 20,972 (April 17, 2008). In carrying out this directive, the ASLB determined "that Petitioner's Contention TC-1 was not a challenge to the AP1000 design review process, but rather a challenge to the Application itself." LBP-08-21, at 8. As

determined by the ASLB, NC WARN in Contention TC-1 “set forth facts indicating specific omissions from the COLA that falls within the scenario contemplated by the Commission.” LBP-08-21, at 9.

As cited above, 10 C.F.R. § 50.34(a)(4) provides that a COLA provides “a preliminary analysis and evaluation of the design and performance of structures, systems, and components of the facility.” The purpose of this is to assess the risk to public health and safety, and without a final design and operating procedures, neither potential intervenors nor the NRC staff can evaluate the application. The uncontroverted fact is that the AP1000 DCD Revision 16 is incorporated by reference in the COLA. Any unresolved issue or uncertified component in the DCD are *de facto* omissions in the COLA. The purpose of the certification process is to provide the opportunity for review by the NRC staff and other interested parties, leading to the certification of the final design components and operational procedures that necessarily are requirements for the COLA.

However, the COLA continues to adopt Revision 16 by reference even though a subsequent revision has been filed that explicitly replaces it. Before Revision 17 was actually filed with the NRC, NC WARN raised a new contention, Contention TC-7. The motion raising the contention met all of the criteria for admissibility of new contentions pursuant to 10 C.F.R. §§ 2.309(f)(1)(i - iii) and 2.309(c). The information contained in Westinghouse’s new filing of DCD Revision 17 was simply not available at the time NC WARN filed its original contentions because Westinghouse filed its DCD Revision 17 subsequent to the date the Petition was required to be filed. Further, the Revision 17 documents were not made available as expected on the NRC website or through the

ADAMS system in a timely manner, and were only filed some sixty days after the initial Westinghouse submittal letter.[7] Rather than wait for Revision 17 to be available, the NC WARN's motion was based on information and belief based on the cover letter for the DCD and presentations by Westinghouse to NRC Staff and various industry representatives subsequent to Westinghouse's submittal. After review of Revision 17, the factual allegations about the various deficiencies in the Harris COLA as expressed in Contention TC-7 remain valid.

The new DCD Revision 17 is materially different from DCD Revision 16 as there it contains significant changes to the earlier revision about the components required to be in the Harris COLA. The new contention was submitted in a timely manner, as soon as it became apparent to NC WARN that Revision 17 would be significantly different from Revision 16.[8]

In its initial Order, LPB-08-21, the ASLB rightly admitted Contention TC-1, but then later arbitrarily dismissed Contention TC-7 in its Order (December 23, 2008), even though the contentions addressed a similar issue, following the same legal and factual logic. Even after the Commission addressed the issue in its remand order, CLI-09-08, the ASLB continued to err in discounting the "nine specific asserted omission as well as the assertions as set out in Contention TC-1." LBP-09-08, at 10. The assertions were

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[7] As directly stated by Progress Energy in its Board Notice, filed September 24, 2008 in this docket, "[t]he public version of AP1000 Design Control Document (Enclosure 2 of Enclosure 1) is expected to be available soon on the NRC website and through ADAMS."

[8] The differences are addressed in Contention TC-7 as presented in the NC WARN Motion, not the least of which is the complete lack of a timetable for review and certification.

that the omissions are of the ***final*** designs and operating procedures, not that the COLA did not mention them. Specifically at the proposed Harris reactors, the application does not contain the ***final*** designs and operating procedures for:

a. The final design of the reactor containment.

b. The control room set up and operator decision-making procedures.

c. Seismic qualifications for various components of the AP1000 reactors.

d. The establishment of fire protection areas.

e. Technology requirements for heat removal.

f. Human factors engineering design throughout the plant.

g. Plant personnel requirements.

h. Alarm systems throughout the plant.

i. Plant-wide requirements for pipes and conduits.

Contention TC-7 included each of these unresolved issues and added the ongoing safety problems associated with the inability of Westinghouse to resolve the "sump problem," i.e., containment sump failure and consequential impairment of the reactor core and containment cooling functions.

As permitted in 10 C.F.R. § 2.309(f)(1)(vi), NC WARN has correctly alleged that the COLA "fails to contain information on a relevant matter as required by law." As the Commission stated in CLI-08-15, "the very purpose of NRC adjudicatory hearings is to consider claims of deficiencies in a license application." Despite this mandate and the remand instructions from the Commission in CLI-09-08, the ASLB erroneously concludes that because SAMDAs are set out in the COLA, Environmental Report ("ER")

§ 7.3, that they are automatically free of error, even though the facts are clear that they are based on incomplete designs and procedures. LBP-09-08, at 10. The ASLB pushes the burden onto the petitioner to "suggest, let alone provide, the requisite support for the proposition that there is any error therein." The error is that the final designs and operating procedures are absent, and without knowing them, this is an impossible burden not just on NC WARN but on the NRC staff in their mandated review and analysis. As NC WARN has attempted twice so far, the proceeding should be halted until the applicant is prepared to file a complete application.[9]

The ASLB's position is that even if the design continues to change (and by the filing of Revision 17, it is clear that the AP1000 design is not near to being finalized), NC WARN has "the opportunity to file new contentions related to material new information regarding site-specific plant design issues." LBP-09-08, at 11. It is exactly the site-specific plant design issues that are now before the NRC; it does not make sense to pretend that a license for the proposed Harris reactors can be granted without knowing what the final design and operating procedures are. To do otherwise leads to an absurd conclusion; hypothetical results of future rulemaking do not rectify the present deficiencies.

To the extent that the Commission's Order, CLI-09-08, precludes NC WARN

[9] NC WARN adopts herein the compelling arguments in the Texans for a Sound Energy Policy's Petition to Hold Docketing Decision And/or Hearing Notice for Victoria Combined License Application in Abeyance Pending Completion of Rulemaking on Design Certification Application for Economically Simplified Boiling Water Reactor, Victoria County Stations, Docket Nos. 52-031 and -032, filed on November 3, 2008. Although the proposal was for a ESBW reactor, the same problems exist for licensing a reactor prior to finalizing designs and operating procedures. The TSEPP filing is available at http://ehd.nrc.gov/ehd_proceeding/home.asp

from raising the issue of the lack of finality of reactor design and procedures, the Commission should reconsider that decision. From a policy point of view, the Commission should reconsider the issue because its "anticipated" process, i.e., having the designs certified prior to licensing, has provided a failure.

V. The ASLB erred in determining that none of the other contentions in NC WARN's petition were admissible.

The discussions above on the primary purpose of protecting public safety and the admissibility of contentions should be noted in the discussion of each of the remaining contentions. This section also adopts the previous filings of NC WARN in this docket, and in particular the Petition and Reply to Staff and Progress Answers. Those filings provide the in much more detail the legal and factual background for each of the contentions discussed below.

A. Contention TC-2 (fire protection). The Petition describes Progress Energy's track record of violations of explicit regulatory standards at the existing Harris reactor for more than fifteen years. In the Petition and subsequent filings, NC WARN clearly documents the lengthy series of actions and failures that have put public safety in jeopardy. As one example, the Government Accountability Office in a recent investigation concluded that

> By taking prompt action to address the unapproved use of operator manual actions, long-term use of interim compensatory measures, the effectiveness of fire wraps, and multiple spurious actuations, NRC would provide greater assurance to the public that nuclear units are operated in a way that promotes fire safety.

GAO, "Nuclear Safety: NRC's Oversight of Fire Protection at U.S. Commercial Nuclear

Reactor Units Could Be Strengthened," GAO-08-747, June 2008.[10]

The rules for fire protection are both explicit and unequivocal; 10 C.F.R. 50, Appendix R, III.G.2 provides the three acceptable methods of protecting at least one shutdown train to remain free from fire damage during a postulated fire when redundant trains are located in the same fire area, those being:

> 1. Separation of the redundant system by a passive barrier able to withstand a fire for at least three hours; or
>
> 2. Separation of the redundant system by a distance of twenty feet containing no intervening combustible material, together with fire detectors and an automatic fire suppression system; or
>
> 3. Separation of the redundant system by a passive barrier able to withstand a fire for one hour, coupled with fire detectors and an automatic fire suppression system.

The present applicant has not complied with these regulations despite a long series of NRC notices, bulletins and enforcement actions. Progress Energy has continually ignored efforts to rectify this significant safety deficiency.

In response to these serious allegations, the ASLB whimsically quotes Gilbert & Sullivan's *Mikado* to make its point that a consideration of an applicant's past record is not relevant to the application for additional reactors. LBP-08-21, at 11. This ignores the ongoing failure of this same applicant, who has applied for licenses for two new reactors, to correct major safety deficiencies. Just by saying that the matter is outside the scope of the proceeding does not make it so. The issue is not whether a fire at Harris Unit 1 will adversely affect the two proposed units, but rather, whether an applicant that blatantly ignores one set of safety rules can be trusted to follow those

[10] Available at www.gao.gov/htext/d08747.html

same rules, or any other rule, at two additional reactors.

As a matter of precedent, contentions raised in the operating license proceeding for Harris Unit 1 regarding failures by the same applicant, Progress Energy (formerly Carolina Power & Light), at its Brunswick Nuclear Plant and deficiencies in its construction of Harris Unit 1 were admitted and vigorously litigated. In that matter, the ASLB and Commission determined correctly that serious and substantial allegations of past unlawful actions were directly relevant to whether that applicant should receive an operating license.

As such, the ASLB erred in determining that the applicant's track record regarding fire protection was irrelevant to the current licensing process and was therefore inadmissible.

B. Contentions TC-3 (aircraft attacks) and TC-4 (aircraft attacks and fires). The COLA does not consider aircraft attacks and/or the impacts of fires from aircraft attacks even though they are recognized as significant threats. Fully supported in its Petition and other filings, NC WARN alleges that aircraft impacts, either intentional or accidental, and the multiple fires caused by those attacks, should be fully analyzed as part of the Applicant's SAMDA analysis in its ER. The dangers from releases from aircraft attacks have been well-document by NRC reports and presented fairly in the NC WARN Petition.

The ASLB relies on the Commission's determination that, with the exception of facilities situated within the jurisdiction of the Ninth Circuit, these impacts are outside the scope of the NRC's NEPA review. LBP-08-21, at 14. This reliance stems from *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016 (9th Cir. 2006), *cert. den. sub.*

nom., 127 S. Ct. 1124 (2007), and the subsequent Commission determinations in other licensing proceedings.[11]

However, NC WARN maintains that this reliance fails on several grounds and should be rectified by the Commission. First, the Commission has not explicitly stated that facilities situated within the jurisdiction of the Fourth Circuit are outside the scope of the NRC's NEPA review of aircraft attacks and related fires. NC WARN suggests that this should be a case by case analysis, with site-specific considerations on whether a particular proposed reactor should contain this analysis. Second, the Fourth Circuit has not made the determination whether it would join the Ninth Circuit in its interpretation no licensing matters appear to have come to the Fourth Circuit on these grounds. Lastly and more important, the Commission's decision that facilities in one jurisdiction require NEPA review of aircraft attacks while others do not is arbitrary and capricious. Should affected persons in one part of the country not be afforded similar protections that persons receive in the Western states? In ruling on this appeal, the Commission has the ability to rectify this error.

C. Contention TC-5 (spent fuel pools). As supported in its Petition and subsequent filings, NC WARN has alleged that the proposed Harris reactors depend on dangerous high-density spent fuel pools. The studies and testimony cited in the Petition squarely document the dangers to public safety from continuing with this questionable practice.

In finding that the contention is inadmissible, the ASLB relies on what it describes

[11] See LBP-08-21 at 14, footnote 12, for other orders.

as ongoing rulemaking proceedings on the AP1000 DCD Rev. 15 and AP1000 Rev. 16. LBP-08-21, at 19-20. However, neither of these rulemaking proceedings is still in effect as the AP1000 DCD Rev. 17 has been filed. In that rulemaking proceeding, there is no timetable for completing NRC staff review, although as described above in the discussion on Contentions TC-1 and TC-7, these unresolved issues will likely not be resolved and designs finalized prior to NRC decisions on the COLA. What remains is that the COLA states that the proposed reactors will use high-density fuel pools but does not provide a final design. As described above regarding the AP1000 contentions (Contentions TC-1 and TC-7), the absence of a final design is a significant deficiency in the COLA. The regulatory required SAMDAs simply cannot be investigated or developed until the final designs and procedures are finalized.

To the extent that the ASLB's determination is based on downplaying the possibility and impact of a terrorist attack, NC WARN adopts the arguments regarding the aircraft attack contentions (Contentions TC-3 and TC-4) above.

D. Contention TC-6 (reliability of uranium fuel). NC WARN relies on the legal considerations and facts in its Petition and subsequent filings in support of this contention. The ASLB's determination that the contention is inadmissible is based wholly on its assessment of the credibility of the factual allegations in the Petition. LBP-08-21, at 21. The ASLB apparently made evidentiary findings without allowing the parties the opportunity to put on evidence at hearing or even allow motions for summary disposition. It is not clear what factual evidence the ASLB based its decisions on or if the members of the ASLB relied on their own biases and beliefs outside any hearing record.

E. Contention EC-1 (underestimation of costs). In its Petition, NC WARN alleged that Progress Energy had underestimated the cost of the proposed Harris reactors, citing cost projections by the same applicant (operating under a different name in Florida) that were significantly higher. The NRC staff supported this contention in that a comparison of alternatives, a clear requirement in the ER, cannot be accomplished without an estimate of the cost of the proposed reactors.

The ASLB's rationale for determining that costs are not required to be considered in the ER is arbitrary and unreasonable. LBP-08-21, at 25-26. The ASLB maintains that a cost-benefit analysis is only required when there is an environmentally preferable alternative, citing the NRC regulations at 10 C.F.R. § 51.45 and relying on the use of the word "should" as permissive from the following:

> [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., on 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.

Consumers Power Co. (Midland Plant, Units 1 and 2), ALAB-458, 7 NRC 155 (1978).

In its interpretation, the ASLB fails to comprehend that in the context of reactor licensing case, the "no reactor" option always has far fewer environmental impacts than the proposed "two reactor" option and is therefore environmentally preferable. As stated in the contention, and supported by the NRC staff, there are other environmentally preferable alternative energy sources that need to be compared to the two reactor option. The cost-benefit balancing should take place in the ER for the proposed Harris reactors. The ASLB appears to have based its determination on the

false premise that reactors are environmentally preferable to all other alternatives. The ASLB erroneously leaps to this conclusion without any consideration of the range of alternative sources of energy, and without any consideration of the costs or benefits of those alternative as they compare to the proposed reactors.

The above discussion aside, this contention was rendered in large part moot in that the applicant submitted a notification to the ASLB on October 6, 2008, stating that it was amending its COLA to adopt the estimated costs of the proposed Florida reactors. It should be noted that the Florida cost estimates did not include financing costs that could add an additional 50 percent to the total cost of the reactors.

NC WARN expects that Progress Energy will continue to amend its COLA whenever new cost estimates are available so that environmentally preferable alternatives may be compared to the proposed reactors. Now that nationwide the estimated costs of nuclear reactors are more than $10 billion each, the availability of cost-effective alternatives to the electricity produced by the proposed reactors would be even greater. Even so, the cost-benefit analysis is required in the ER using the most recent and best cost estimates available.

F. Contention EC-2 (carbon footprint). As supported by facts and legal consideration in its Petition and subsequent filings, NC WARN alleged that the COLA does not adequately address the carbon footprint of the reactor cycle.

The ASLB's determination that the contention is inadmissible is based primarily on its determination that the "contention fails to create a genuine issue of material fact." (emphasis in the original). In support of this, the ASLB unquestionably adopts the COLA and a supporting study referenced in the COLA that

> present carbon footprint numbers for the nuclear fuel cycle which are of the order of less than 1% of the carbon footprint of the only viable power generation alternatives (which are fossil-fueled), and of comparable size to the carbon footprint of wind-powered generation.

LBP-08-21, at 29. The ASLB then goes outside the bounds of the proceeding to recommend to the Commission that the study referenced in the Harris COLA should be used in all other COLAs as unassailable fact that there is only a small carbon footprint in the nuclear fuel cycle. LBP-08-21 at 29-30. As it did in other determinations on the admissibility of contentions, the ASLB apparently made evidentiary findings but did not allow the parties the opportunity to put on evidence at hearing or even allow motions for summary disposition. In this instance the ASLB based its decision on a report in the COLA and the members of the ASLB appeared to rely on their own biases and beliefs outside any hearing record.

A clear reading of the contention shows that the Petition provides reports and citations to documents supporting for the contention that directly challenge the report relied upon in the COLA. On the other hand, the ASLB, without the benefit of testimony and evidence, makes the conclusion that the COLA is correct and the allegations of NC WARN are therefore materially wrong. It limits the comparison of the carbon footprint of the reactors to coal-fired plants and wind, without taking into consideration the other viable alternatives.

There is no allowance in 10 C.F.R. § 2.309(f)(1) for the ASLB to determine that a contention is not admissible based on its unwavering acceptance of facts and speculations presented in the COLA when contrary facts and opinions are contained in the Petition. A “genuine dispute” is present regardless of whether the members of the

ASLB are willing to hear it or not. By determining that the contention is not admissible, NC WARN was not given a fair and unbiased hearing on the merits of its allegation.

G. Contention EC-3 (water requirements). As supported by facts and legal consideration in its Petition and subsequent filings, NC WARN alleged that the COLA does not fully address the water requirements of the proposed reactors. 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.[12] 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 water levels at the Harris Lake and the intake on the Cape Fear River. By themselves, these two significant deficits in the COLA show that it did not even satisfy the basic requirement for completeness of the COLA and should not have been docketed. 10 C.F.R. § 2.101(a)(3).

The ASLB's determination that the contention is inadmissible is based wholly on its assessment of the credibility of the factual allegations in the Petition. LBP-08-21, at 33-34. Similarly to the other determinations by the ASLB that certain contentions were not admissible on factual grounds, this was done without even oral argument, let alone the opportunity to present witnesses and evidence.

The ASLB again criticizes NC WARN for not stating which specific sections of the COLA or ER lack the necessary analysis of the environmental impacts of water withdrawals and discharge of heated water even though it is clear in the contention that

[12] ADAMS Accession No. ML081070226.

this analysis was not included in any section. 10 C.F.R. § 2.309(f)(1)(vi) cited above allows a petitioner to allege that "the application fails to contain information on a relevant matter as required by law," then identify the absence of the information and provide the supporting reasons for the petitioner's belief. This does not require the petitioner to identify all sections in which the information or analysis could possibly be located in the COLA or ER, but only to state that information is required by a specific provision of the NRC regulations, the AEA or NEPA. The primary allegation is that the information is missing, not that it is required to be in a specific section. In at least two areas, the NRC staff initially agreed that significant information was missing.

H. Contention EC-4 (deficiencies in emergency planning). The emergency planning for the proposed reactors is deficient in that it does not address the unique problems that certain susceptible populations will have. NC WARN relies on the legal considerations and facts in its Petition and subsequent filings in support of this contention.

The ASLB's determination that the contention is inadmissible is based wholly on its assessment of the credibility of the factual allegations in the Petition. LBP-08-21, at 35. This was done without oral argument or the opportunity to present evidence. It is not clear what factual evidence the ASLB based its decisions on or if the members of the ASLB relied on their own biases and beliefs outside any hearing record.

The ASLB apparently did not fully review the attachments to the contention in its statement that "Petitioner asserts . . . without any support, the need for a baseline health study" of certain susceptible populations. LBP-08-21, at 35. In direct contradiction to this statement, Dr. Wing in his affidavit and report clear demonstrates

that the COLA is inadequate precisely because of that reason; the needs of "children, women of childbearing age, senior citizens and nursing home residents" cannot be readily protected under the proposed evacuation plan. Petition, Attachments 4, 4A and 4B. The ASLB misrepresented what is in the contention and then found it to be inadmissible.

I. Contention EC-5 (waste disposal). NC WARN relies on the legal considerations and facts in its Petition and subsequent filing in support of this contention, alleging that the problem of the disposal of high-level waste has not been resolved. NC WARN agrees with the ASLB's determination that this contention is a direct challenge to NRC regulations. LBP-08-21, at 39. Without question, the contention is meant to be a direct challenge to an arbitrary and capricious regulation that does not have any basis in the real world.

The so-called "Waste Confidence Decision," 10 C.F.R. § 51.23, was originally issued in 1984, amended in 1999, and is in process to be amended again. Waste Confidence Decision Update, 73 F.R. 59,551 (October 9, 2008). It is apparent that the rule is being amended again because it does not resolve the safe storage of high-level radioactive waste from the combined operating license applications ("COLAs") for new reactors being reviewed by the NRC Staff. This proposed replacement of a failed policy with another failed policy fails to protect public health and safety under the AEA or protect the environment under NEPA. It is far easier for the Commission to arbitrarily amend the decision than it is for it to face the reality that there remains no viable solution to the nuclear waste question. As demonstrated in the contention, there is no funding for the first repository, no realistic timetable for its completion and what appears

to be insurmountable regulatory hurdles. Even if Yucca Mountain as contemplated would open today, its capacity would be full from the already produced waste from existing reactors, without any room for waste from any of the new proposed reactors, and in particular, the proposed Harris reactors. On top of this, there is no funding or even preliminary plans for a second repository.

The contention stands as there is no realistic plans or timetable for any real-world resolution of the issue. Even if other licensing boards have rejected this same contention in recent licensing decision, the present ASLB has erred is agreeing with the faulty premises behind the rule.[13] It should be noted that the restriction established by the Commission in not allowing challenges to rules is a policy and that on a case-by-case basis, other laws and regulations should have precedent. The Waste Confidence Decision does not protect public health and safety, and the environment, and the COLA and ER should address this directly. Simply put, the COLA is inadequate because it does not include an evaluation or proposal for the safe disposal of waste generated by the proposed Harris reactors.

CONCLUSION

For the reasons given above, and as supported by the Petition and the other filings NC WARN has made in this proceeding, the ASLB's decisions in LBP-08-21, LBP-09-08 and its Memorandum and Order dated December 23, 2008, should be reversed. Because of the considerable and substantial errors in law, arbitrary and capricious

[13] See LPB-08-09, at 39, footnote 35, for decisions by other ASLBs.

determinations, misrepresentations of the contentions, reliance on matters outside the record, and other examples of bias by the ASLB, the review by the Commission should be a *de novo* review on the entire record before it.

For the reasons given above, and as supported by the Petition and the other filings NC WARN has made in this proceeding, the decisions by the ASLB and the Commission not to hold this proceeding in abeyance should be reconsidered and reversed.

In light of the arguments given above and the serious and significant issues raised, NC WARN should be granted its request for oral argument before the Commission.

Respectfully submitted this the 22nd day of July 2009.

_____/s/jr_____
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CERTIFICATE OF SERVICE

I hereby certify that copies of this NOTICE OF APPEAL, REQUEST FOR ORAL ARGUMENT AND BRIEF SUPPORTING NOTICE OF APPEAL BY NC WARN were served on the following via the EIE system:

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This is the 22nd day of July, 2009.

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