

March 3, 2000

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
CAROLINA POWER & LIGHT)	Docket No. 50-400-LA
COMPANY)	
(Shearon Harris Nuclear Power Plant))	ASLBP No. 99-762-02-LA
)	
)	

NRC STAFF RESPONSE TO INTERVENOR'S REQUEST
FOR ADMISSION OF LATE-FILED ENVIRONMENTAL CONTENTIONS

I. INTRODUCTION

Pursuant to an "Order (Granting Amended Request for Time Extension to File Reply)," issued on February 14, 2000, by the Atomic Safety and Licensing Board ("Board"), and 10 C.F.R. § 2.714(c), the staff of the Nuclear Regulatory Commission ("Staff") hereby responds to "Orange County's Request for Admission of Late-Filed Environmental Contentions," dated January 31, 2000 ("Request for Admission"). As discussed below, none of Orange County's ("Orange County" or "BCOC") proposed contentions is admissible. Therefore, Orange County's Request for Admission of its late-filed contentions should be denied.

II. DISCUSSION

A. Late-Filed Contentions

The admissibility of any late-filed contention, including those filed on subsequent NRC environmental review documents, is governed by the criteria set forth in

001557

10 C.F.R. § 2.714(a)(1)(i)-(v). *Sacramento Municipal Utility Dist.* (Rancho Seco Nuclear Generating Station), CLI-93-12, 37 NRC 355, 363 (1993). The proponent of the admission of late-filed contentions bears the burden of demonstrating that a balancing of these factors weighs in favor of admission of the proposed contentions. *Cf. Texas Util. Elec. Co.* (Comanche Peak Steam Electric Station, Units 1 & 2), CLI-92-12, 36 NRC 62, 69 (1992) (petitioners for late intervention bore burden to demonstrate that balancing of factors weighed in favor of their intervention).

The institutional unavailability of a licensing-related document does not establish good cause for filing a contention late if information was publicly available early enough to provide the basis for the timely filing of that contention. *Duke Power Co.* (Catawba Nuclear Station, Units 1 & 2), CLI-83-19, 17 NRC 1041, 1045 (1983). The Commission has not held that a showing that the Staff's environmental review documents significantly differ from the applicant's environmental report is always necessary to raise a good contention. *Rancho Seco*, CLI-93-12, 37 NRC at 363. Without such a showing, an intervenor may be able to meet the late-filed contention requirements of 10 C.F.R. § 2.714(a)(1) by presenting significant new evidence not previously available. *Id.* In addition, an intervenor's lateness may not be fatal if its argument rests significantly on a licensee document prepared after the submission of the original contention and the intervenor brought the argument promptly to the Board's attention. *See Yankee Atomic Elec. Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 255 (1996).

Because the proffered contentions are being submitted beyond the time limit specified in 10 C.F.R. § 2.714, BCOC must address the five factors for late-filed contentions discussed above and establish that consideration of the factors weighs in favor of admission.

BCOC's contentions were to be filed on April 5, 1999, and BCOC timely filed five environmental contentions, but the Board dismissed them without prejudice to file at an appropriate time. BCOC asserts that the issuance of the Staff's EA provided an appropriate time to file these contentions. BCOC filed its environmental contentions 46 days after receipt of the EA. Good cause is predicated on the specific circumstances of this case -- BCOC previously filed timely environmental contentions which were dismissed without prejudice; and BCOC received the EA on December 16, 1999, while counsel was preparing a voluminous pleading to be filed in this proceeding. Based on the above circumstances of this case, the Staff does not object on the basis of timeliness, except to the extent that BCOC is raising a security issue related to its contention regarding sabotage. Such an issue is not an environmental issue based upon the EA and could have been raised within the time limits. That issue is, therefore, late without good cause.

As to the remaining factors, the Staff agrees that there is no other forum for seeking the relief requested and that there are no other parties to represent the interests of BCOC. But the Staff does not agree that BCOC's participation may be expected to assist in the development of a sound record. BCOC's contentions are supported by the report of Dr. Gordon Thompson (Thompson Report), who is offered as an expert. Neither the Thompson Report nor the Request for Admission provides a basis for admission of any of the four contentions. Moreover, the submissions consist of discussions of severe accidents

and their consequences that are not required to be analyzed in conjunction with a change to the spent fuel pools, and, therefore, raise concerns which are irrelevant to this proceeding. Therefore, BCOC's participation will not assist in the development of a sound record. Finally, there is no doubt that BCOC's participation will broaden the issues and delay the proceeding.

Since BCOC has demonstrated good cause for failure to file on time, the most important of the five factors,¹ except as noted above, and has met two of the other four criteria of 10 C.F.R. § 2.714(a)(1), BCOC's late-filed contentions should not be dismissed because of their lateness. As noted below, however, for other reasons, none of the contentions should be admitted.

B. Legal Standards for Admission of Contentions

1. Standards Applicable to All Contentions

In order for a contention to be admitted to a proceeding, the requirements of 10 C.F.R. § 2.714 must be met. *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, & 3), CLI-99-11, 49 NRC 328, 333 (1999); *Yankee Atomic Elec. Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 248 (1996). A contention must meet the standards set forth in 10 C.F.R. § 2.714(b)(2), which provides that each contention must consist of a "specific statement of the issue of law or fact to be raised or controverted" and must be accompanied by:

- (i) A brief explanation of the bases of the contention;

¹ See *Commonwealth Edison Co.* (Braidwood Nuclear Power Station, Units 1 and 2), CLI-86-8, 23 NRC 241, 244 (1986).

(ii) A concise statement of the alleged facts or expert opinion which supports the contention . . . together with references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion;

(iii) Sufficient information . . . to show that a genuine dispute exists with the applicant on a material issue of law or fact.

10 C.F.R. § 2.714(b)(2). The failure of a contention to comply with any one of these requirements is grounds for dismissing the contention. 10 C.F.R. § 2.714(d)(2)(i); *Arizona Public Serv. Co.* (Palo Verde Nuclear Generating Station, Units 1, 2 & 3), CLI-91-12, 34 NRC 149, 155-56 (1991). When a postulated accident scenario provides the premise for a contention, a causative mechanism for the accident must be described and some credible basis for it must be provided. *See Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), ALAB-919, 30 NRC 29, 44 (1989), *remanded on other grounds*, CLI-90-4, 31 NRC 333 (1990).

In order for a dispute to involve a material issue of law or fact, its resolution must make a difference in the outcome of the proceeding. *Oconee*, CLI-99-11, 49 NRC at 333-34, *citing Final Rule, Rules of Practice for Domestic Licensing Proceedings -- Procedural Changes in the Hearing Process*, 54 Fed. Reg. 33,168, 33,172 (1989). *See also* 10 C.F.R. § 2.714(d)(2)(ii) (a contention must also be dismissed where the “contention, if proven, would be of no consequence . . . because it would not entitle [the] petitioner to relief.”). Moreover, contentions that are not supported by some alleged fact or facts should not be admitted nor should the full adjudicatory hearing process be triggered by contentions that lack a factual and legal foundation. *Oconee*, CLI-99-11, 49 NRC at 334-35, *citing* 54 Fed. Reg. at 33,170.

2. Standards for Admission of Environmental Contentions

All of BCOC's late-filed proposed contentions relate to environmental issues, and many of the bases for these proposed contentions involve severe accidents. The Commission has laid down standards, in addition to those described above, applicable to the admission of such contentions, and for the treatment of environmental contentions involving severe accidents. These standards are set forth below.

The National Environmental Policy Act of 1969, as amended ("NEPA"), is to be interpreted by a "rule of reason." See *Vermont Yankee*, ALAB-919, 30 NRC at 44, citing *Limerick Ecology Action, Inc. v. NRC*, 869 F.2d 719, 739 (3d Cir. 1989) and *San Luis Obispo Mothers for Peace v. NRC*, 751 F.2d 1287, 1300 (D.C. Cir. 1984), *aff'd en banc*, 789 F.2d 26, *cert. denied* 479 U.S. 923 (1986). If a contention claims that an EIS is necessary or inadequate in some respect, the "rule of reason" provides that agencies need not consider "remote and speculative risks" or "events whose probabilities they believe to be inconsequentially small." *Id.* In addition, neither NEPA nor the case law based thereon requires a "worst case analysis." See *Vermont Yankee*, ALAB-919, 30 NRC at 44, citing *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 333-34 (1989).

The Commission's "Policy Statement on Severe Reactor Accidents Regarding Future Designs and Existing Plants," 50 Fed. Reg. 32,138 (1985) ("Severe Accident Policy"), addresses, among other things, consideration of severe accidents in environmental impact statements (EISs) prepared in the Staff's review of initial operating licenses. *Vermont Yankee*, ALAB-919, 30 NRC at 50 n.29. It does not require the Staff to consider such matters where no EIS is required. In addition, the Commission considers the environmental

risks of beyond design-basis accidents in initial operating license proceedings as a matter of discretion, rather than as a requirement of NEPA. *Vermont Yankee*, ALAB-919, 30 NRC at 50, n.29, citing *San Luis Obispo Mothers for Peace*, 751 F.2d at 1301. The Atomic Safety and Licensing Appeal Board ("Appeal Board") found no Commission intent to extend that discretionary policy to a license amendment proceeding. *Vermont Yankee*, ALAB-919, 30 NRC at 50-51 n.29. That policy should not be extended to this proceeding.²

C. BCOC's Contentions Do Not Meet the Standards for Admission of Contentions Set Forth in 10 C.F.R. § 2.714

CONTENTION EC-1: In the Environmental Assessment ("EA") for CP&L's December 23, 1998, license amendment application, the NRC Staff concludes that the proposed expansion of spent fuel storage capacity at the Shearon Harris nuclear power plant will not have a significant effect on the quality of the human environment. Environmental Assessment and Finding of No Significant Impact Related to Expanding the Spent Fuel Pool Stage Capacity at the Shearon Harris Nuclear Power Plant (TAC No. MA4432) at 10 (December 15, 2000). Therefore, the Staff has decided not to prepare an Environmental Impact Statement ("EIS") for the proposed license amendment. The Staff's decision not to prepare an EIS violates the National Environmental Policy Act ("NEPA") and NRC's implementing regulations, because the Finding of No Significant Impact ("FONSI") is erroneous and arbitrary and capricious. In fact, the proposed expansion of spent fuel pool storage capacity at Harris would create accident risks that are significantly in excess of the risks identified in the EA, and significantly in excess of accident risks previously evaluated by the NRC Staff in the EIS for the Harris operating license. These accident risks would significantly affect the quality of the human environment, and therefore must be addressed in an EIS.

² In *Limerick*, the Court of Appeals for the Third Circuit held that the Severe Accident Policy Statement was entitled to no deference, and the Commission could not rely on it to exclude the consideration of severe accident mitigation design alternatives ("SAMDA's") in an EIS prepared pursuant to its "Statement of Interim Policy, Nuclear Power Plant Accident Considerations Under the National Environmental Policy Act of 1969," 45 Fed. Reg. 40,101 (1980) ("Interim Policy Statement"). *Limerick*, 869 F.2d at 731-36. The court in *Limerick*, however, did not examine whether severe accidents should be considered with respect to amendments. Indeed, the Commission, in the Interim Policy Statement, directed only that severe accidents be considered in EISs prepared with respect to construction permits and initial operating licenses. Interim Policy Statement, 45 Fed. Reg. at 40,103.

There are two respects in which the proposed license amendment would significantly increase the risk of an accident at Harris:

(1) CP&L proposes several substantial changes in the physical characteristics and mode of operation of the Harris plant. The effects of these changes on the accident risk posed by the Harris plant have not been accounted for in the Staff's EA. The changes would significantly increase, above present levels, the probability and consequences of potential accidents at the Harris plant.

(2) During the period since the publication in 1979 of NUREG-0575, the NRC's Generic Environmental Impact Statement ("GEIS") on spent fuel storage³, new information has become available regarding the risks of storing spent fuel in pools. This information shows that the proposed license amendment would significantly increase the probability and consequences of potential accidents at the Harris plant, above the levels indicated in the GEIS, the 1983 EIS for the Harris operating license, and the EA. The new information is not addressed in the EA or the 1983 EIS for the Harris operating license.

Accordingly, the Staff must prepare an EIS that fully considers the environmental impacts of the proposed license amendment, including its effects on the probability and consequences of accidents at the Harris plant. As required by NEPA and Commission policy, the EIS should also examine the costs and benefits of the proposed action in comparison to various alternatives, including Severe Accident Mitigation Design Alternatives ("SAMDas") and the alternative of dry storage.

In support of this contention, BCOC proffers six bases. The bases are designated A through F. Basis F has two subparts. Each of the bases and subparts, and the reasons why they are inadequate to support admission of proposed Contention EC-1, are set forth below.

Basis A. The NRC is required, pursuant to NEPA, 42 U.S.C. § 4332(C), and 10 C.F.R. § 51.20(a), to prepare an EIS for CP&L's proposed action because it is a "major federal action significantly affecting the quality of the human environment." Request for Admission at 3-4. Further, if portions of a proposed action have been previously addressed in an EIS, a new EIS is required if a major federal action will occur and there is new

³ NUREG-0575, Generic Environmental Impact Statement on Handling and Storage of Spent Light Water Power Reactor Fuel (August 1979) (hereinafter "GEIS").

information showing that there will be a significant effect on the human environment not previously considered. *Id.* at 4.

Staff Response to Basis A. This argument does not provide an adequate basis for admission of this contention. It merely recites the regulatory requirements and makes the unsupported conclusion that the proposed action is a "major federal action significantly affecting the quality of the human environment," citing no facts or expert opinion. Moreover, it does not recite a material fact in issue.

BCOC provides absolutely no support for its allegation that the proposed amendment constitutes a major federal action significantly affecting the quality of the environment. In fact, neither NEPA nor the Commission's regulations require the preparation of an EIS in this case. The Commission's regulations at 10 C.F.R. § 51.20(b) list actions requiring an EIS; 10 C.F.R. § 51.22 lists actions eligible for categorical exclusion or otherwise not requiring environmental review; and 10 C.F.R. § 51.21 states that actions not falling within either § 51.20(b) or § 51.22 require an EA. The issuance of an amendment authorizing spent fuel pool storage capacity expansion is not listed as an action requiring an EIS and BCOC has raised nothing in this basis that would indicate that an EIS is required in this case. BCOC fails to satisfy 10 CFR §2.714 (b) (ii), which requires a contention to be supported by the alleged fact or expert opinion which supports the contention together with references to those specific sources and documents on which petitioner intends to rely to establish those facts or expert opinion.

but not within categorical exclusion

Basis B. The proposed action will result in "substantial changes to the physical characteristics and mode of operation" of Harris, due to 1) the increase in the number of

spent fuel assemblies permitted to be stored and the increase in the amount of radioactive material, and 2) the reliance on administrative measures over physical measures to prevent criticality in pools C & D. *Id.* at 4-5.

Staff Response to Basis B. This basis does not provide support for the contention, or even offer information demonstrating a genuine dispute. BCOC merely alleges that there will be substantial changes because of the increase in the number of fuel assemblies and the reliance on administrative measures to prevent criticality.⁴ BCOC provides no support for these conclusions in the form of facts or expert opinion. BCOC therefore fails to satisfy 10 CFR §2.714 (b) (ii), which requires a contention to be supported by the alleged fact or expert opinion together with references to those specific sources and documents on which petitioner intends to rely to establish those facts or expert opinion. Therefore, this basis must be dismissed.

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Basis C. There is a need to evaluate the “extent to which the proposed amendment would create an additional or incremental risk of accidents”; and “previous environmental analyses of the existing operation, and determine whether they are adequate to address the incremental risk posed by the proposed license amendment.” *Id.* at 5-6.

Staff Response to Basis C. This basis does not support admission of the contention because BCOC offers no factual, expert or documentary support. BCOC presents no basis for concluding that there is any incremental risk posed by the proposed amendment, and thus, fails to satisfy 10 CFR §2.714 (b) (ii). BCOC states that the evaluation of the proposed amendment should be accomplished by comparing the risk of the existing operation with the

⁴ The Staff discusses criticality further in connection with Basis F.2.c, below.

risk of the operation as proposed, but provides no information as to how to conduct the evaluation, other than to say that "risk" is not based "as is sometimes done" on probability times consequences but is rather "the potential for an accident, encompassing both the probability and consequences." Request for Admission at 5-6, n. 3. BCOC does not provide a reference for this definition or otherwise explain its meaning or its departure from the commonly accepted definition.

Basis D. The NRC's evaluation of accident risk, contained in the 1983 EIS for the operating license (NUREG-0972), CP&L's Individual Plant Examination (IPE) of 1993, and CP&L's Individual Plant Examination for External Events (IPEEE) of 1995 did not evaluate spent fuel accidents. The findings contained in NUREG-0575, the Generic Environmental Impact Statement on the handling and storage of spent fuel, regarding the risk of spent fuel pool accidents are no longer applicable, because new information demonstrates that "the risks of a severe spent fuel accident during high-density pool storage of spent fuel are significant." Request for Admission at 6-7.

Staff Response to Basis D. This basis fails to satisfy 10 CFR §2.714 (b) (ii), which requires a contention to be supported by the alleged fact or expert opinion which supports the contention together with references to those specific sources and documents on which petitioner intends to rely to establish those facts or expert opinion. Basis D concludes that new information demonstrates that "the risks of a severe spent fuel accident during high-density pool storage of spent fuel are significant," but does not specify what the new information is or where it may be located. Basis D appears to be simply a restatement of

Bases C and F. In addition, BCOC's complaint that the EIS for Harris issued in 1983⁵ did not evaluate spent fuel pool accidents does not support admission of its contention because, as explained above, the Severe Accident Policy applies only to reactors, and does not require consideration of severe accidents with respect to spent fuel pools.⁶

Basis E. CP&L has not evaluated the increment of accident risk that would arise from operation of SFPs C and D.

Staff Response to Basis E. This basis does not raise a litigable issue, contains no factual assertions, and otherwise does not support admission of this contention. It fails to satisfy 10 CFR §2.714 (b) (ii), because, although BCOC asserts that the staff has not performed an analysis, it provides no support for its contention, via facts or expert opinion based on credible facts, that such an analysis is in fact required or will result in relevant findings. Therefore, Basis E must be dismissed.

Basis F. BCOC alleges that the EA is incorrect in its evaluation of the increment of accident risk that would arise because: (1) new information indicating that the risk for high density pool storage is significant and not properly evaluated in the GEIS (NUREG-0575), the EIS for Harris or the EA (Request for Admission at 7); (2) the increment of accident risk from operation of pools C and D would be significant, "by itself and in comparison to the

⁵ NUREG-0972, "Final Environmental Statement Related to the Operation of Shearon Harris Nuclear Power Plant Units 1 and 2, Docket Nos. STN 50-400 and 50-401, Carolina Power and Light Company (October 1983).

⁶ The argument in the Thompson Report that a PRA analysis should be done to address the risks of accidents in the Harris spent fuel pools is without merit and lacks a basis in fact or law. See Thompson Rep. at 6; Thompson Rep. Appendix B. A PRA analysis is neither justified nor required in this case. See "Use of Probabilistic Risk Assessment Methods in Nuclear Regulatory Activities; Final Policy Statement," 60 Fed. Reg. 42,622, 42,624-25, 42,628 (1995).

baseline accident risk . . . [and the] increment of risk arises from the proposed changes in the physical characteristics and mode of operation of the Harris plant, specifically the greatly increased inventory of spent fuel permitted at the Harris site and the significant weakening of criticality prevention measures” (*Id.* at 7-8.); and (3) the Staff failed to take new information regarding risk of sabotage into account.

Staff Response to Basis F. In support of this basis BCOC states, in a footnote, that its concern is the increment of risk posed by operation of pools C and D. Request for Admission at 7-8 n. 5. However, in order to evaluate that risk, BCOC believes that the risk of operation prior to the amendment, that is with only pools A and B in operation, must be assessed as a baseline for comparison. *Id.* BCOC states, “if an adequate evaluation of the risk posed by pools A and B became available, this evaluation would shed light on the cumulative impacts of the proposed license amendment, but would not affect the significance of the increment of risk that would arise from that amendment.” *Id.* BCOC appears to be saying that even without knowing what the “baseline” is, it knows that the incremental risk is significant. BCOC repeatedly refers to “new information”; however, it fails to identify any information that allows it to conclude that “the increment of risk” is significant without establishing what that increment is or that it, in fact, exists. Since “risk” for Orange County is not the familiar definition of probability times consequences but is rather some unexplained “potential,” it is not possible to say with any certainty what the County’s concerns are.

Throughout this basis and the other bases, BCOC refers to the Thompson Report and the new information contained therein. A careful reading of the report demonstrates that it

does not contain new information regarding the issues raised by BCOC and that there are significant inaccuracies and lack of bases for many of the conclusions reached.⁷

In Basis F-1, BCOC refers to new information that is "summarized" in the Thompson Report. This "new information" allegedly shows that an accident involving exothermic reaction of zircaloy fuel cladding could contaminate land with Cesium-137 to the extent that relocation of populations could be required over an area as large as North Carolina. Request for Admission at 8. This "new information" is not identified either in the Request for Admission or in the Thompson Report. The footnote on page 9 of the Request for Admission reveals that a degraded core accident is evaluated in the EIS for the Harris OL and in Harris's IPE, but that these reports do not discuss the effect of a reactor accident on the operation of the fuel pools at Harris. Request for Admission at 9 n.6.

BCOC faults the Staff's EA for not discussing the alleged new information in Appendix C of the Thompson Report, to wit: that the loss of water in the Harris pools is an almost certain outcome of a degraded core accident with containment failure or bypass.

⁷ Some examples of the lapses in the report follow. As stated elsewhere in this brief, the conclusion that partial or total loss of water in the SFPs would be "an almost certain outcome" of a severe reactor accident involving containment failure is totally unsupported. In discussing the effects of earthquake and cask drop, the report refers to studies of the Robinson, Millstone and Ginna plants, but contains no assessment of the effects at Harris. Appendix C at C-2 to C-4. The report also makes the unsupported assumption that if the postulated reactor accident occurs, SFP cooling would cease and would not resume. *Id.* at C-5. The report relies on an outdated figure for maximum heat load in pools C & D (15.6m BTU/Hr), ignoring the fact that the heat load will be limited by technical specifications to 1m BTU/Hr. *Id.* The estimate of the upper bound of temperature rise is based on a value applicable to fuel aged 1 year, which would be inapplicable to the fuel that will be stored in pools C & D. Appendix D at D-3 to D-4. The conclusion that fuel aged in excess of 10 years is subject to exothermic reaction is without basis. *Id.* at D-5. See NUREG-0649 at 75. No effort is made in the report to relate any of the analyses discussed to the Harris SFPs. *Id.* at D-7.

Request for Admission at 9. Yet, Appendix C contains no new information, other than the unsupported conclusions of Dr. Thompson, and contains no analysis or basis for his conclusion that the loss of water is "an almost certain outcome" of the postulated accident.

See Request for Admission at 10, 11; Appendix C at C-5. *See also* Thompson Rep. at 8, 13-14; Appendix B at B-6. Nor does it contain any specific references to "other literature" constituting "new" information, which supports this conclusion. In addition, Appendix C states that "[a] comprehensive application of PRA techniques to the Harris fuel pools is a task beyond the scope of the author's present work for Orange County." Appendix C at c-2.

Thus, it appears that the number the Thompson Report supplies for the probability of an exothermic reaction leading to the need to evacuate by all of North Carolina (that number is 1) is based not on a probabilistic risk assessment or any other assessment but on mere speculation. Dr. Thompson states, "it can be assumed that pool cooling would cease during the accident. And would not resume." Appendix C at C-5. This assumption is not based on any facts or analysis. BCOC introduced no "new information," but rather conclusions unsupported by facts or credible analysis. BCOC has not provided a sufficient basis for the

contention that an EIS is required in order to analyze the postulated series of accidents. As the Appeal Board stated in *Vermont Yankee*, "when a postulated accident scenario provides the premise for a contention, a causative mechanism for the accident must be described and some credible basis for it must be provided." *Vermont Yankee*, ALAB-919, 30 NRC at 44.

Here, BCOC does not specify the cause of the initiating accident - core degradation with containment bypass or failure. More importantly, BCOC fails to state a basis, either in the Request for Admission or from the Thompson Report, for its conclusion that the loss of

water to the spent fuel pools and exothermic reaction in the pools is the certain result of the postulated reactor accident.⁸ Nor has BCOC demonstrated that this postulated accident series is a design basis accident. Therefore, the basis is not admissible in support of the contention.

BCOC has not demonstrated that the accident with which it is concerned is an accident which is within the scope of this proceeding, that is, that it is not a remote and speculative accident that need not be considered in connection with the proposed amendment. Such remote and speculative occurrences are excluded from consideration by NEPA's "rule of reason," discussed above. *See also Pacific Gas & Elec. Co.* (Diablo Canyon Nuclear Power Plant, Units 1 & 2), ALAB-880, 26 NRC 449, 458 (1987); *Public Service Electric & Gas Co.* (Salem Nuclear Generating Station, Unit 1), ALAB-650, 14 NRC 43, 48 n. 5, 62-3 n.29 (1981). In fact, BCOC has produced nothing to demonstrate the probability of its spent fuel pool accident, other than Dr. Thompson's unsupported conclusion that it is an almost certain result of the degraded core accident. In Appendix B of the Thompson Report, the probability of degradation of the reactor core is addressed, based upon the analysis contained in CP&L's IPE and IPEEE.⁹ Thompson Rep., Appendix B at B-4-7. The

⁸ The Thompson Report correctly points out that none of the NRC documents cited in the report or appendices provide support for the conclusion that the postulated spent fuel pool accident will "almost certainly" follow the postulated reactor accident. *See e.g.* Thompson Rep. at 6, Appendix B at B-7, Appendix C.

⁹ It should be noted that at no point in Appendix C does the author point to the specific pages or sections of the IPE and the IPEE to which he refers. In fact, neither the Thompson Report, nor BCOC's Request for Admission provide page numbers for any reference. They merely make a general reference to the documents, leaving the other parties and the Board to actually locate the analyses to which they refer. This is impermissible pursuant to Commission precedent. *See Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 & 2), CLI-99-4, 49 NRC 185, 194 (1999), *aff'd Dienethal v. NRC*, No. 99-1132 (D.C.Cir. (continued...))



report states that this figure is 7×10^{-5} . *Id.* at B-4. The probability of containment failure leading to a release in the RC-5 category is placed at 3×10^{-6} . The report concludes that, based upon an alleged IPE prediction that 15% of core damage sequences will lead to *significant* degree of containment failure, there is a total probability of 1×10^{-5} . *Id.* at B-6-7. There is no indication of how this figure was reached. In fact, the figure is misleading. The IPE actually indicates that the conditional probability of *all* releases, significant or not, is 15%. See NRC Staff's Evaluation of the Shearon Harris Nuclear Plant Individual Plant Examination (IPE Submittal), "Technical Evaluation Report of the Shearon Harris Individual Plant Examination Back-End Submittal," (ERI/NRC 95-103) at viii, 21 (1995). (Exhibit A). Table E.1 in ERI/NRC 95-103 shows that a certain percentage of the releases would be insignificant. For example, 3.2% of containment failure modes consist of containment failures with in-vessel recovery, prior to vessel breach. *Id.* at vi. Therefore, the conclusion that 15% of the releases would be significant is not supported by the documentation referenced.

In addition, the Thompson Report does not attempt to evaluate the probability that any of the containment failure scenarios will affect or preclude entry into the fuel handling building. The report merely concludes, without support, that if there is an RC-5 category release "the Harris plant and its immediate surroundings would become radioactively contaminated to the point where access by personnel will be precluded. Accidents in other release categories would release smaller amounts of radioactive material, but could also

⁹(...continued)
Jan. 21, 2000) (*per curiam*).

contaminate the Harris plant to the point where access by personnel would be precluded.”

Thompson Rep. at B-6. [Moreover, the Report does not consider meteorological effects (e.g. wind direction), type of containment failure, or other factors which would affect the probability that the postulated core degradation with containment bypass or failure would pose a credible and sustained threat to access to the fuel handling building.] See, e.g., ERI/NRC 95-103 at 21. If those factors had been considered, the probability would be far less than postulated in the Thompson Report.

In *Vermont Yankee*, the Appeal Board rejected, as remote and speculative, contentions premised on a severe accident involving a self-sustaining cladding fire in a spent fuel pool. *Id.* at 45-47, 50-52, *remanded for further findings*, CLI-90-4, 31 NRC 333, *clarification requested*, ALAB-938, 32 NRC 154, *clarified and dismissed*, CLI-90-7, 32 NRC 129 (1990). In that case, involving a spent fuel pool expansion, the Appeal Board denied admission of a contention similar to the one offered herein. The intervenor in that proceeding submitted a contention focusing on:

an unspecified, hypothetical reactor accident involving hydrogen generation, failure of the Mark I containment, and hydrogen detonation in the reactor building, which also houses the spent fuel pool. This accident in turn allegedly would threaten the pool cooling water systems or pool structure itself, leading to pool heatup and ultimately a zircaloy cladding fire.¹⁰

¹⁰ The contention asserted that the EA failed to consider the consequences and risks posed by the hypothetical accident, which would result in risks greater than those previously evaluated in connection with the reactor. The risk was sufficient to render the proposed amendment a “major federal action significantly affecting the environment,” therefore requiring an EIS. *Vermont Yankee*, ALAB-919, 30 NRC at 52.

Vermont Yankee, ALAB-919, 30 NRC at 42. In addressing the admissibility of the contention, the Appeal Board stated:

It should go without saying that reactors and spent fuel pools are not expected to have accidents, or a series of accidents, like that set forth in this contention. . . . Further, spent fuel pools must be designed "to prevent significant reduction in fuel storage coolant inventory under accident conditions." 10 C.F.R. Part 50, Appendix A, General Design Criteria 61. Therefore, the scenario on which the contention is premised is obviously not a "normal" operating event; indeed, it can be fairly characterized as a double "worst case" accident -- (1) a severe hydrogen-generating and detonating reactor accident that somehow leads to (2) a gross loss of spent fuel pool water and subsequent zircaloy fire. In other words, the two accidents at the heart of the contention are individually among the worst things that can even be hypothesized for a reactor and an spent fuel pool, respectively, in terms of potentially significant offsite consequences for the public.

Id. at 43 (footnote omitted).

BCOC cites the Reactor Safety Study ("WASH-1400") and NUREG-1353¹¹ in support of its thesis that its proffered severe accident scenario is not remote and speculative. It quotes the Executive Summary of NUREG-1353 in support of this proposition, but the quote does not support its thesis. Request for Admission at 11. WASH-1400 shows the risks of beyond design basis accidents in spent fuel pools as "orders of magnitude" below those involving the reactor core. NUREG-1353 concluded that the probability of a zircaloy cladding fire¹² resulting from the loss of water was estimated to have a mean frequency value of 2×10^{-6} . The risks and consequences of a spent fuel accident were found to meet the

¹¹ E.D. Throm, NUREG-1353, "Regulatory Analysis for the Resolution of Generic Issue 82, Beyond Design Basis Accidents in Spent Fuel Pools (April 1989).

¹² The postulated exothermic air reaction is the same as the zircaloy cladding fire discussed in *Vermont Yankee*.

assemblies at Harris, an accident at these pools could release to the atmosphere a substantial fraction of the inventory of Cesium-137 in these pools. The Request for Admission points to the Thompson Report at Appendices D and E as support for this proposition. However, although Dr. Thompson states that for "scenarios which involve partial uncovering of fuel, the reaction could affect fuel aged 10 or more years," he offers no authority to support this conclusion. Dr. Thompson's is the only opinion of which the Staff is aware that holds that fuel five years or more out of the reactor is susceptible to zircaloy fire/exothermic reaction. *See, e.g., NUREG/CR-0649, Spent Fuel Heatup Following Loss of Water During Storage, at 85-87 (1979) (Exhibit B).*

Moreover, NUREG-0972, the Final Environmental Statement related to the Operation of Shearon Harris Nuclear Power Plant, Units 1 and 2 (1983) ("FES") and NUREG-1038, the Safety Evaluation Report related to the Operation of Shearon Harris Nuclear Plant, Units 1 and 2 (1983) ("SER"), both evaluated operation of Harris as a two unit facility with four fuel pools. *See, e.g., SER at §§ 9.1.1, 9.1.2 (Exhibit C); FES at § 5.9.4 (Exhibit D).* Therefore, there is no significant incremental increase in risk of accident, due to the proposed changes in the physical characteristics and mode of operation, not already evaluated for pools C and D. The second reason BCOC gives as support for its contention of significant increase in risk is higher density storage. BCOC says, "[o]ther factors being equal, this reduced distance [between assemblies] would increase the propensity of pools C and D . . . to experience an exothermic reaction of fuel cladding in the event of partial or total loss of water." Request for Admission at 12. However, other factors are not equal. The fuel to be stored in the C and D pools will be at least five years out of the reactor. Dr.

did not evaluate fuel storage at this density

Thompson's belief that such fuel is susceptible to exothermic reaction does not appear to be based on the scientific literature. *See, e.g.*, Exhibit C at 73-77, 85-87.

With respect to criticality, BCOC simply asserts that the proposed amendment results in "significantly increasing the probability that a criticality accident would occur at the Harris plant." Request for Admission at 14. As explained above, however, BCOC does not provide any baseline probability of such an accident's occurring, and, indeed, complains that such probability has not been previously evaluated. *Id.* at 6-7. While there was and is no requirement for the NRC to evaluate the probability of such an accident, BCOC has not shown that there is a significant increase in the probability of a criticality accident in the Harris SFP, and does not raise an adequate basis for its contention.¹⁴

In addition, as set forth in the "NRC Staff Brief and Summary of Relevant Facts, Data and Arguments Upon Which the Staff Proposes To Rely At Oral Argument On Technical Contentions 2 and 3," January 4, 2000 (NRC Brief), BCOC is not qualified to analyze

¹⁴ BCOC adopts and incorporates in its Request for Admission its Summary and Appendix C to its "Detailed Summary of Facts, Data and Arguments and Sworn Submission On Which Orange County Intends To Rely At Oral Argument to Demonstrate the Existence of a Genuine and Substantial Dispute of Fact With the Licensee Regarding the Proposed Expansion of Spent Fuel Storage Capacity at the Harris Nuclear Power Plant With Respect to Criticality Prevention Issues," dated January 4, 2000 ("BCOC Subpart K Summary"). BCOC, however, does not identify any specific pages in its Subpart K Summary (out of 48 pages, exclusive of exhibits) or Appendix C thereto (out of 13 pages, exclusive of exhibits) as containing the information needed to establish a basis for its contention.

The Commission does not expect its adjudicatory boards, unaided by the parties, to sift through the parties' pleadings to uncover and resolve arguments not advanced by the litigants themselves. *Zion*, CLI-99-4, 49 NRC at 194. Rather, the burden of setting forth a clear and coherent argument is on the proponent of a contention. *Cf. id.* (ruling on intervention). BCOC purports to address the probability of criticality in Appendix C to its Subpart K Summary, but in no way connects any of the facts asserted therein to Harris.

criticality, and cannot establish that criticality could in fact occur at Harris, as asserted in Basis 2 for Technical Contention 2.¹⁵ NRC Brief at 16-18. Moreover, the Staff and CP&L have demonstrated in this proceeding that criticality could not occur in the Harris SFP as claimed by BCOC. *Id.* at 28-31. For the reasons set forth above, BCOC has not provided any basis with respect to criticality for concluding that the proposed action will have a significant effect on the human environment, and there is no basis to contend that the Staff must prepare an EIS in connection with the proposed amendment because of criticality concerns.

Basis F-3 contends that the increased inventory and management of the spent fuel pools at Harris increase the opportunity for sabotage of the pools, and that the EA is inadequate because NRC has not considered new information regarding sabotage risks. The information provided does not support the contention.

Specifically, BCOC contends that the occurrence of a handful of terrorist events around the globe over the last seventeen years demonstrates that sabotage is a “reasonably foreseeable and significant threat” that must be addressed in an EIS. Request for Admission at 14. BCOC references Dr. Thompson’s report, which relies chiefly on a 1996 book, a 1998 magazine article, and a February, 1999 newspaper article. Thompson Rep. at B-3-4 n. 5-7.

¹⁵ BCOC asserts that the GEIS is outdated and its findings are no longer applicable because new information shows the risks of a severe spent fuel accident during high-density fuel storage are significant. Request for Admission at 6-7. BCOC, while claiming that criticality can occur, does not analyze the nature of any criticality that might assertedly occur in the SFP, and does not establish that the consequences of any such criticality are significantly greater than the consequences of criticality considered in the GEIS. *See* GEIS, Section 4.2.3.4, at 4-19. BCOC’s claim that the findings of the GEIS are no longer applicable with respect to criticality is devoid of support.

The first two references were available for use by BCOC well before the end of the time for timely contentions. Thus, any information drawn from these references on which Thompson bases his conclusions is not “new information” sufficient to support a good cause finding. *See Yankee Atomic Elec. Co. (Yankee Nuclear Power Station)*, LBP-96-15, 44 NRC 8, 26 (1996)(“Generally, a ‘good cause’ finding based on ‘new information ‘ can be resolved by a straightforward inquiry into when the information at issue was available to the petitioner.”) Moreover, the 1998 article, “Catastrophic Terrorism: Tackling the New Danger,” discusses terrorism in general, with no specific mention of U.S. nuclear facilities or radiological sabotage. The 1999 article by Scott Allen, “NRC to Cut Mock Raids on Atom Plants,” *Boston Globe*, Feb. 25, 1999, at A6, discusses NRC’s plans to change its program that tests nuclear plant readiness for terrorists. The article does not discuss the Harris facility. To the extent that either of these articles provides “new information,” BCOC fails to show a nexus between the contents of the Thompson Report and this information, on which it relies, and the Harris facility.

BCOC also attempts to distinguish *Limerick Ecology Action v NRC*, 869 F.2d 719 (3^d Cir. 1989). The decision upheld NRC’s refusal to accept for litigation in an operating license proceeding a contention regarding sabotage on the basis of the impossibility of modeling the risks of sabotage. *Id.* at 741-42. The examples provided by BCOC fail to demonstrate a specific nexus between these events and the Harris Application at issue here.

BCOC also contends that, although the risk of sabotage is not easily quantifiable, the NRC should address it in an EIS. The Thompson report agrees that the risk of sabotage is “less susceptible to probabilistic analysis” than other types of risk. Thompson Rep. at B-3.

As noted above, BCOC provides a laundry list of past sabotage events which have no relation to the Harris facility. The Thompson report suggests a few possible scenarios - a "sabotage event that leads to direct leakage from the pools;" "siphoning of water from the pools through . . . malice." Id. at C-1, C-5. These statements stand alone, and are not accompanied by any "statement of the alleged facts or expert opinion which supports the contention . . . together with references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion." 10 C.F.R. § 2.714(b)(2)(ii). Therefore, the contention fails to comply with the requirements and must be dismissed. Moreover, a contention such as this one, that provides a postulated accident scenario - sabotage - must describe a causative mechanism for the accident. *See Vermont Yankee*, ALAB-919, 30 NRC at 44. Dr. Thompson's vague allusions to "sabotage events" are insufficient to meet this standard. For this contention to succeed, BCOC should have advanced "some method or theory by which the NRC could have entered into a meaningful analysis of the risk of sabotage despite its asserted inability to quantify the risk. *Limerick*, 869 F.2d at 744.

Finally, BCOC contends that a consideration of the environmental impacts of sabotage should incorporate severe accident mitigation design alternatives (SAMDA) which could mitigate the impacts of sabotage. BCOC appears to state that wet storage options involve severe accident risks, (such as draining the spent fuel pool) , and dry storage options do not. The notion of a loss of water inventory in the spent fuel is remote and speculative, and BCOC has not provided a basis to support why this scenario needs to be considered for the purposes of NEPA. In 1985, in issuing its Severe Accident Policy Statement, 50 Fed.

001581

Reg. 32138, 32144, the NRC concluded that “[o]perating nuclear power plants require no further regulatory action to deal with severe accident issues unless significant new safety information arises to question whether there is adequate assurance of no undue risk to public health and safety.” This proposed contention offers no such significant new information. In any event, Harris is required, like all power plants, to maintain a safeguards contingency plan that includes plans for dealing with “threats, thefts, and radiological sabotage.” See 10 C.F.R. § 50.34(d).

In sum, BCOC’s contention that the Staff should prepare an EIS to discuss the risks of sabotage introduced by pools C and D is without support and should be dismissed.

CONTENTION EC-2: The EIS is deficient because it fails to acknowledge or evaluate the significant environmental risk posed by the operation of pools A, B, C, and D.

Basis: The NRC is required by law to evaluate the cumulative impacts of operation of pools C and D, in conjunction with the impacts of current operation, including operation of pools A and B. New information, developed since the publication of the 1979 GEIS, shows that it “constitutes an inadequate basis for drawing any conclusions about the environmental impacts of operating pools A & B.” Request for Admission at 17. The new information shows that there is a significant risk that a degraded-core reactor accident will lead to a SPF accident. Therefore, the NRC is required to perform an integrated risk evaluation of all pools, including how the pool loading pattern would influence accident risk and how the potential for an accident at one pool could affect the development of an accident at another pool. Request for Admission at 17-18.

Staff Response to EC-2. This contention must be dismissed because it does not state an adequate basis for admission. The basis refers to "new information," yet nowhere in the basis is the new information specified. A reference to EC-1, Section E is made to support the claim of new information, but EC-1, Section E contains no such new information. In fact, as demonstrated elsewhere in this brief, BCOC has offered *no* new information regarding the probability that a degraded core accident would lead to an SFP accident, just the unsupported opinion and conclusions of its consultant. An expert opinion must provide a sufficient basis for the conclusions reached and no such basis has been demonstrated here. BCOC has not demonstrated that there are any cumulative effects to be analyzed.

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CONTENTION EC-3: The EIS for the proposed license amendment should include within its scope the storage of spent fuel from the Brunswick and Robinson nuclear power plants.

Basis. BCOC bases this contention on the assertion that the purpose of the proposed expansion is to store fuel not only from Shearon Harris, but also from Brunswick and Robinson. Despite the fact that CP&L has a dry storage facility at Robinson and has applied for an ISFSI license for Brunswick, which represent "viable alternative[s] to high-density storage in pools C and D," BCOC contends that the Staff "should be required to thoroughly examine the alternative of dry storage in an EIS." Request for Admission at 19.

Staff Response to Contention EC-3. This contention should be dismissed because the proposed action does not involve the authorization to receive spent fuel from Brunswick and Robinson. The operating license issued for Harris authorized the receipt of spent fuel from Robinson and Brunswick and the receipt of such fuel was acknowledged in the 1983 SER at 9-6. Since Harris is already authorized to receive spent fuel from Brunswick and

Robinson, and is not seeking an amendment to that license condition, this contention is not relevant to this proceeding. *See Virginia Elec. Co.* (North Anna Power Station, Units 1 & 2), ALAB-790, 20 NRC 1450, 1453-54 (1984) (ruling that an amendment to permit the receipt and storage of spent fuel at the North Anna facility from the Surry facility has no bearing on a separate amendment approving the expansion of the spent fuel pool at the North Anna facility).

CONTENTION EC-4: Even if the Licensing Board determines that an EIS is not required under NEPA and 10 C.F.R. § 51.20(a), the Board should nevertheless require an EIS as an exercise of its discretion, as permitted by 10 C.F.R. §§ 51.20(b)(14) and 51.22(b). Request for Admission at 20.

Basis: BCOC contends that special circumstances exist warranting a discretionary EIS because the proposed action involves unresolved conflicts concerning alternative use of available resources within the meaning of section 102(2)(E) of NEPA. *Id.* According to BCOC, these conflicts arise from the fact that CP&L intends to store spent fuel from three different reactors: Harris, Brunswick and Robinson. *Id.*

Staff Response to Contention EC-4. The question of whether the Staff should prepare an EIS pursuant to 10 C.F.R. §§ 51.20(b)(14) and 51.22(b) is a matter of Staff discretion. The Board does not have the authority to direct the Staff to prepare an EIS as a matter of discretion. *See Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plants, Units 1, 2, 3 & 4), CLI-80-12, 11 NRC 514, 516-17 (1980) (“[T]he Boards do not direct the staff in performance of their administrative functions.”).

None of BCOC’s claims demonstrate that an EIS should be prepared as a matter of discretion. As characterized by BCOC, the unresolved conflicts arise from the storage of

spent fuel from the Brunswick and Robinson facilities. The storage of spent fuel from Robinson and Brunswick is already authorized by the Harris license. Thus, the consideration of the environmental impacts of the storage of spent fuel from Robinson and Brunswick is not warranted. *See North Anna*, ALAB-790, 20 NRC at 1453-54.

BCOC also asserts another reason to prepare an EIS is that the Licensee's proposal appears to be in conflict with the Commission's Waste Confidence decision. *See Request for Admission* at 22-23, *citing* 10 C.F.R. § 51.23. According to 10 C.F.R. § 51.23, the Commission stated its belief that there is reasonable assurance that at least one mined geologic repository will be available within the first quarter of the twenty-first century. 10 C.F.R. § 51.23(a). CP&L, however, stated in its application that DOE spent fuel storage facilities are not available and are not expected to be available for the foreseeable future. *Request for Admission* at 22, *citing* Licensee Application, Enclosure 1 at 1. Thus, BCOC contends, the license amendment application is in conflict with 10 C.F.R. § 51.23. *Id.* This concern also does not constitute a special circumstance warranting the preparation of a discretionary EIS. According to the Licensee Application, CP&L anticipates a need for an expansion in spent fuel storage capacity by the year 2000. 10 C.F.R. § 51.23 provides that there is reasonable assurance that at least one mined geologic repository will be available within the first quarter of the twenty-first century, but not necessarily by the year 2000. *See* 10 C.F.R. § 51.23. Thus, there is no conflict between the basis of CP&L's proposal and the Commission's regulation. In any event, 10 C.F.R. § 51.23 only relates to the environmental impacts of spent fuel storage beyond the operating term of a reactor. BCOC, thus, fails to demonstrate that special circumstances exist warranting a discretionary EIS.

III. CONCLUSION

Based upon the foregoing, the Staff submits that the requirement of supporting a contention with a "statement of the alleged facts or expert opinion which supports the contention . . . together with references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion," (10 C.F.R. § 2.714(b)(2)(ii)) has not been met as to any of the four contentions offered by BCOC and the bases are not admissible in support of contentions. BCOC has not demonstrated that there are any genuine and substantial disputes of material fact as to any aspect of the contentions and there is no issue raised in the contentions which require the introduction of evidence in an adjudicatory proceeding for resolution.

Respectfully submitted,

Susan L. Uttal
Robert M. Weisman
Brooke D. Poole
Counsel for NRC staff

Dated at Rockville, Maryland
this 3rd day of March 2000.

March 3, 2000

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of)	
)	
CAROLINA POWER & LIGHT)	Docket No. 50-400-LA
COMPANY)	
(Shearon Harris Nuclear Power Plant))	ASLBP No. 99-762-02-LA

**APPLICANT'S RESPONSE TO BCOC'S
LATE-FILED ENVIRONMENTAL CONTENTIONS**

I. INTRODUCTION

Pursuant to the Licensing Board's February 14, 2000 Order (Granting Amended Request for Time Extension to File Reply), Applicant Carolina Power & Light Company ("CP&L" or "Applicant") files this response to the January 31, 2000 late-filed environmental contentions of the Board of Commissioners of Orange County ("BCOC"). BCOC requested admission of four late-filed environmental contentions which challenge the adequacy of the Nuclear Regulatory Commission Staff's ("NRC Staff" or "Staff") environmental analysis regarding the activation of spent fuel storage pools C and D at the Harris Nuclear Plant ("Harris"). See Orange County's Request for Admission of Late-Filed Environmental Contentions ("BCOC Env. Cont.") at 1 (Jan. 31, 1999). The Staff's environmental analysis is documented in its December 15, 1999 Environmental Assessment and Finding of No Significant Impact ("EA"). 64 Fed. Reg. 71,514 (1999). BCOC now challenges the NRC Staff's EA and its conclusion that "the proposed action will not have a significant effect on the quality of the human environment."

All four of BCOC's late-filed contentions must be rejected for failure to comply with the Commission's pleading requirements for admissible contentions.

001587

II. ANALYSIS OF THE FIVE FACTORS FOR LATE-FILED CONTENTIONS

BCOC filed its contentions 45 days after receiving the EA (which included 13 days of “unavoidable” delay and the Christmas and New Year’s holidays). BCOC Env. Cont. at 25. Based on the specific factual circumstances stated by BCOC, Applicant will not challenge BCOC’s compliance with the good cause factor.¹

BCOC necessarily concedes that admission of any one of these late-filed contentions “will broaden and delay this proceeding significantly beyond the current time-table.” *Id.* at 26. Factors two and four, regarding the availability of other means to protect BCOC’s interests and the extent to which BCOC’s interests will be represented by another party, weigh in BCOC’s favor. Applicant strongly disagrees, however, with BCOC’s assertion that its participation can be expected to assist in the development of a sound record. BCOC’s late-filed contentions are supported only by Dr. Gordon Thompson. Dr. Thompson does not have the education, qualifications, or experience to assist the Board in the development of a sound record on the issues raised in the late-filed contentions. Flaws in Dr. Thompson’s February 1999 report, which forms the asserted bases for BCOC’s late-filed contentions, again demonstrate that Dr. Thompson would be of little help to the Board and the NRC Staff.² This factor does not support consideration of BCOC’s late-filed contentions.

Nevertheless, based on the considerable weight given to a finding of good cause for late-filing, Applicant does not challenge weighing the five late-filed factors in BCOC’s favor.

¹ Under different factual circumstances, Applicant reserves the right to contest an intervenor’s compliance with the good cause test if the intervenor were to wait 45 days to file contentions. In addition, Applicant does not agree with the assertion that “[t]he County has a right to make a timely challenge to the Staff’s compliance with NEPA.” *Id.* at 27 (emphasis added). Under the Commission’s regulations, BCOC has no right to challenge the Staff’s environmental analysis. As with any party, BCOC must first demonstrate that it meets the Commission’s pleading requirements in 10 C.F.R. § 2.714.

² See NRC Staff Brief and Summary of Relevant Facts, Data and Arguments upon which the Staff Proposes to Rely at Oral Argument on Technical Contentions 2 and 3 at 14-19 (Jan. 4, 2000); see also Summary of Facts, Data and Arguments on which Applicant Proposes to Rely at the Subpart K Oral Argument at 55 n.122, 72 n.72 (demonstrating Dr. Thompson’s lack of expertise).

III. STANDARDS FOR ADMISSIBILITY OF CONTENTIONS

Applicant incorporates by reference Section II of Applicant's Answer to Petitioner Board of Commissioners of Orange County's Contentions ("Applicant's May 5, 1999 Answer") at 2-11, which sets forth the Commission's requirements for the admissibility of contentions pursuant to 10 C.F.R. § 2.714.

IV. RESPONSE TO LATE-FILED ENVIRONMENTAL CONTENTIONS

A. Introduction

The NRC has done more than is required by the National Environmental Protection Act ("NEPA") in connection with its review of the license amendment application ("Lic. Amend. App.") to place Harris spent fuel pools C and D in operation and to store a limited amount of spent fuel – limited to a maximum heat load of 1.0 MBTU/hr.³ The "Final Environmental Statement Related to the Operation of Shearon Harris Nuclear Power Plant, Units 1 and 2" (NUREG-0972) (October 1983) ("Harris FES") supported the issuance of the Operating License for Harris Unit 1 alone, as Harris Unit 2 had been cancelled. The Harris FES, however, considered two-unit operation and bounded the environmental impacts for single unit operation. In fact, the maximum number of fuel assemblies contemplated at the time of the Harris FES, for two-unit operation with all four spent fuel pools, exceed the maximum number of fuel

³ NEPA directs federal agencies to prepare an environmental impact statement ("EIS") for "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C) (emphasis added). The NRC has consistently found that there is no significant environmental impact from the expansion of spent fuel storage capacity at a nuclear power plant. In light of the Department of Energy's delay in implementing the Nuclear Waste Policy Act of 1982 and in developing the permanent repository for spent nuclear fuel, license amendments to expand spent fuel storage capacity have been requested and granted at almost every nuclear operating facility – often more than once. In each case, an environmental assessment has been prepared. In each case, as with the instant application, there has been a finding of "no significant [] environmental impacts associated with the proposed action." See 64 Fed. Reg. at 71,515; see also, e.g., 64 Fed. Reg. 2,688 (Union Electric Company, Callaway Plant) (1999); 64 Fed. Reg. 23,133, 23,134 (Florida Power & Light Company, St. Lucie Plant) (1999). Accordingly, the NRC has never prepared an EIS in connection with the many expansions of on-site spent fuel storage in existing spent fuel pools. See, e.g., Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), ALAB-919, 30 NRC 29, 42 n.13 (1989); Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-87-24, 26 NRC 159, 166 (1987).

assemblies that will be stored pursuant to the instant license amendment request, because of the 1.0 MBTU/hr limit on total heat generation in spent fuel pools C and D.⁴

Applicant sought to have this license amendment treated as a "categorical exclusion" not requiring an environmental review or environmental assessment, pursuant to 10 C.F.R. § 51.22(c)(9).⁵ The NRC Staff did not find that the categorical exclusion was inappropriate, but nevertheless prepared an EA.⁶ The EA addressed *inter alia* the environmental impacts of severe accidents, referring to the considerable analysis performed by the NRC Staff in addressing Generic Issue 82 ("Beyond Design Basis Accidents in Spent Fuel Pools").⁷ Based on the analysis performed by the NRC Staff regarding severe accidents and its analysis of the Harris Plant design and construction, the NRC Staff concluded that the potential for environmental impact from severe accidents is negligible.⁸

NEPA requires an agency to do no more than take a "hard look" at environmental consequences. See Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 346 (1989).

⁴ The Applicant's license amendment includes the addition of Technical Specification 5.6.3.d to the Harris operating license, which requires that "[t]he heat load from fuel stored in Pools 'C' and 'D' shall not exceed 1.0 MBtu/hr." Lic. Amend. App., Encl. 5 at 5-7. Pursuant to the 1.0 MBTU/hr, Technical Specification limit, Applicant does not currently intend to load any fuel in pool D under this license amendment. See Lic. Amend. App., Encl. 1 at 4 (pool D is not scheduled for use until 2016. The total number of assemblies in pools A, B and C combined, even if pool C was loaded to its maximum capacity, is less than the total number of assemblies that was considered in the Harris FES. Compare Lic. Amend. App. Enc. 5 at 2 (Harris originally licensed for up to 7640 assemblies) with *id.* at 3 (pools A, B and C combined are 7359 assemblies).

⁵ The Commission has found by rule that a certain "category of actions does not individually or cumulatively have a significant effect on the human environment." 10 C.F.R. § 51.22(a). In its EA, the NRC noted its finding that "the proposed action will not significantly increase the probability or consequences of accidents, no changes are being made in the types of any effluents that may be released offsite, and there is not significant increase in occupational or public radiation exposure." 64 Fed. Reg. at 71,515.

⁶ 64 Fed. Reg. 71,514.

⁷ "Regulatory Analysis for the Resolution of Generic Issue 82: Beyond Design Basis Accidents in Spent Fuel Pools" (NUREG 1353) (1989); "Severe Accidents in Spent Fuel Pools in Support of Generic Safety Issue 82" (NUREG/CR-4982) (1987); "Seismic Failure and Cask Drop Analyses of the Spent Fuel Pools at Two Representative Nuclear Power Plants" (NUREG/CR 5176) (1989); "Value/Impact Analysis of Accident Preventative and Mitigative Options for Spent Fuel Pools" (NUREG/CR 5281) (1989).

⁸ 64 Fed. Reg. at 71,515.

The NRC took a "hard look" at the impact of spent fuel storage in its "Final Generic Environmental Impact Statement on Handling and Storage of Spent Light Water Power Reactor Fuel" (NUREG 0575) (1979). The NRC addressed the very issue raised by BCOC — the potential environmental impacts of severe accidents — in its investigation of Generic Issue 82. The Commission has determined that there are no significant environmental impacts associated with on-site spent fuel storage generically in the context of license renewal.⁹ The Commission has found by rule¹⁰:

[I]f 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 spent fuel storage installations.

The NRC took a hard look at the environmental impacts of Harris Plant operations, including operation of its four spent fuel pools and storage of spent fuel from its other nuclear plants, in the Harris FES. The NRC Staff took another hard look at any incremental impacts from the proposed license amendment in the EA. NEPA requires no more.

NEPA is subject to a "rule of reason," requiring consideration only of a range of "reasonably foreseeable" environmental impacts. 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); Dubois v. United States Dep't of Agric., 102 F.3d 1273, 1286-1287 (1st Cir. 1996). NEPA does not require consideration of "remote and highly speculative" impacts. San Luis Obispo, 751 F.2d at 1300. Under NEPA, an EIS need only provide "a 'reasonably thorough discussion of the significant aspects of the probable environmental consequences'." City of Carmel-By-The-Sea

⁹ See "Environmental Review for Renewal of Nuclear Power Plant Operating Licenses," 61 Fed. Reg. 66,537, 66,538 (1996). See also Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 343-44 (1999).

¹⁰ 10 C.F.R. § 51.23(a).

v. United States Dep't of Transp., 95 F.3d 892, 899 (9th Cir. 1996); Dubois, 102 F.3d at 1287 (quoting Carmel-By-The-Sea). An EIS is not required to include a "worst case analysis" of possible but substantially uncertain environmental impacts. Robertson, 490 U.S. at 354-56. Considering unlikely worst-case impacts "distort[s] the decisionmaking process by overemphasizing highly speculative harms." Id. at 356. The scenarios advanced by Dr. Thompson as "new information" requiring yet another look, as we discuss infra, are highly remote and speculative.

Licensing Boards have consistently — and correctly — accepted NRC Staff determinations that license amendments related to storing spent fuel in fuel pools have no significant environmental impacts and therefore do not require an EIS. In one case where the Licensing Board admitted a contention claiming that an EIS was required because of the possibility of zircaloy-cladding fire, the Atomic Safety and Licensing Appeal Board reversed the Licensing Board. Vermont Yankee, ALAB-919, supra, 30 NRC at 43-52. Most recently, the Millstone licensing board rejected contentions similar to those here, likewise relying on the very same report authored by Dr. Gordon Thompson, claiming that reracking spent fuel at Millstone would have significant environmental impacts, based on an accident scenario involving severe accidents, and would therefore require an EIS. Northeast Nuclear Energy Co. (Millstone Nuclear Power Station), LPB-00-02, slip op. at 41-49 (contentions 8-11).

BCOC (citing Marsh v. Oregon Natural Resources Council, 490 U.S. 371 (1989)) apparently contends that the Harris FES must be supplemented because of "new information." BCOC Env. Cont. at 4. The reasons for supplementing an existing EIS are essentially the same as the reasons for preparing an initial EIS. See Marsh, 490 U.S. at 374 (explaining that "the decision whether to prepare a supplemental EIS is similar to the decision whether to prepare an EIS in the first instance"); Wisconsin v. Weinberger, 745 F.2d 412, 417 (7th Cir. 1984) (courts apply the same standard in deciding whether a supplemental EIS was required as in deciding whether an EIS was required in the first place). NEPA does not expressly require preparation of a supplemental EIS after an initial EIS has been completed. A supplement to an existing EIS is required only when "new information provides a seriously different picture of the environmental

landscape such that another hard look is necessary.” Weinberger, 745 F.2d at 418 (emphasis in original). “[T]here is no benefit in taking another ‘hard look’ at an action if that view is taken from the same vantage point and overlooks the same environmental panorama.” Id. (citation omitted). While BCOC uses the phrase “new information” as a mantra throughout its environmental contentions, the only thing actually new in Dr. Thompson’s report are unsupported assertions without basis as will be discussed in some detail in the remainder of this Response

BCOC has advanced four environmental contentions, alleging (1) an EIS is required for activation of Harris spent fuel pools C and D; (2) the EIS should consider cumulative impacts of Harris pools A and B; (3) the scope of an EIS should include Brunswick and Robinson spent fuel storage; and (4) even if not required by law, the Board should direct an EIS as an exercise of its discretion. In light of the foregoing statement of the law and the NRC Staff’s hard looks at the environmental consequences of spent fuel storage, both generically and at the Harris Plant, we address each of the proposed environmental contentions in turn.

B. Contention EC-1: Environmental Impact Statement Required

1. The Contention and Bases

Contention EC-1 asserts that NEPA requires the NRC Staff to prepare an EIS. In summary, the two-page statement of contention EC-1 claims that the NRC Staff’s decision not to prepare an EIS violates NEPA because accident risks exceed those analyzed in the EA in two general respects: (1) changes proposed in the physical characteristics and mode of operation of the Harris plant are not accounted for in the EA; and (2) new information on accident risks in spent fuel pools since the Generic Environmental Impact Statement (“GEIS”) (NUREG-0575) (1979) and Harris FES are not accounted for in the EA. BCOC Env. Cont. at 2-3.

The lengthy statement of contention EC-1 does not itself provide any specific factual or legal bases sufficient to form the basis for an admissible contention. The general statement in

contention EC-1 is followed by a statement of bases for the contention.¹¹ See BCOC Env. Cont. at 3-16. In its statement of bases, BCOC asserts that “[t]he EA is incorrect in its evaluation of the increment of accident risk that would arise from operation of pools C and D at Harris, in three respects.”¹² BCOC Env. Cont. at 7.

Basis 1 – The EA does not address the environmental effects of a significant release of radioactive material to the atmosphere initiated by a “degraded-core” reactor accident, followed by containment bypass, followed by loss of all spent fuel pool cooling and makeup systems, followed by inability to restart any pool cooling or makeup systems due to substantial radiation doses precluding equipment access, followed by loss of most or all pool water through evaporation, followed by initiation of an exothermic zirconium oxidation reaction in pools C and D; in that (a) new information shows that this scenario is not a remote and speculative event; and (b) the EIS for a spent fuel pool license amendment must consider severe accidents because EIS’s for reactor operating licenses, reactor emergency planning, and reactor IPEs have considered severe accidents;

Basis 2 - EIS is required because the increment of accident risk from operating pools C and D, in comparison to pools A and B, is significant in its own right

Basis 3 – The EA does not address the environmental risks of sabotage to spent fuel in pools C and D.

See BCOC Env. Cont. at 7-16.

¹¹ It is well established that the scope of a contention hinges upon its terms coupled with its specific bases. Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-899, 28 NRC 93, 97 (1988). In fact, a contention is limited in scope by the specific alleged basis or bases set forth in the contention. Illinois Power Co. (Clinton Power Station, Unit 1), LBP-81-61, 14 NRC 1735, 1737 (1981). The first five pages of the basis for Contention EC-1 provide background on regulatory requirements, the proposed change, and previous and current environmental evaluations for Harris. See BCOC Env. Cont. at 3-7. The specific allegations supporting Contention EC-1 are found in Section F. See *id.* at 7-16.

¹² These three issues are addressed in Sub-Sections 1, 2 and 3, of Section F. See BCOC Env. Cont. at 8, 12, 14.

2. Applicant's Response to the Contention

- a. **Basis 1 for contention EC-1 must be rejected as a flawed, severe beyond-design-basis "Class 9" accident scenario, lacking basis with specificity and requesting analysis beyond that required under governing law.**

BCOC first argues that "new information" shows that its accident scenario is not a remote and speculative event for Harris spent fuel pools C and D, and therefore must be evaluated under NEPA. BCOC seeks to skirt the governing law that environmental reviews under NEPA need not address remote and speculative events. San Luis Obispo, 751 F.2d at 1300. NEPA does not require NRC environmental reviews to consider scenarios based on "severe, beyond-design-basis ["Class 9"] accidents because they are, by definition, highly improbable — i.e., remote and speculative — events." Vermont Yankee Nuclear Power Corp., (Vermont Yankee Nuclear Power Station), ALAB-869, 26 NRC 13, 30-31 (1987) (rejecting admission of contention); see also San Luis Obispo, 751 F.2d at 1301 ("NEPA ... does not require the consideration of Class Nine accidents in future EISs."). Thus, under governing case law, BCOC's Basis 1 must be rejected unless it can be shown, with the required basis with specificity, that the proffered accident scenario is not based on a "Class 9" or severe, beyond-design-basis accident.¹³ BCOC's accident scenario is predicated on a chain of highly unlikely events; each link must at least be credible — not remote and speculative — or BCOC's postulated scenario and the postulated environmental impacts cannot require preparation of an EIS.¹⁴

Basis 1 postulates the following series of events: 1) a "degraded-core" reactor accident; 2) containment bypass; 3) loss of all spent fuel pool cooling and makeup systems; 4) extreme radiation doses precluding equipment access; 5) inability to restart any pool cooling or makeup

¹³ "Class 9" is the terminology previously used by the Commission to describe severe accidents of very low probability, involving significant deterioration of the fuel and breach of containment. See id. at 31 n.26. "Class 9" severe reactor accidents are beyond-design-basis events. 50 Fed. Reg. 32,138, 32,139 (1985).

¹⁴ Essentially, this same contention, based on the same February 1999 report authorized by Dr. Thompson, was recently rejected by a licensing board in Millstone as "requesting analysis of a severe accident without adequate demonstration of the causation of such an accident or the likelihood that such an accident might occur at this facility." Millstone, LBP-00-02, supra, slip op. at 41.

systems due to extreme radiation doses; 6) loss of most or all pool water through evaporation; and 7) initiation of an exothermic zirconium oxidation reaction in pools C and D.¹⁵ A “degraded-core” reactor accident, the first link in BCOC’s scenario, is, by definition, a beyond-design-basis event.¹⁶ BCOC’s scenario never makes it to the next link. However, this “house of cards” completely collapses in Links 4 and 5.¹⁷

In addition to the fact that it is initiated by some undefined beyond-design-basis “degraded-core” event, Basis 1 falls apart because substantial radiation doses on which its accident scenario hinges are derived from “Class 9” accidents. Contention EC-1 baldly states that “[r]estoration of cooling water or makeup of water lost by evaporation would be precluded because onsite radiation levels would prevent access by personnel.” BCOC Env. Cont. at 8-9. BCOC’s alleged basis for this assertion is a figure in Appendix C of the Thompson Report.¹⁸

¹⁵ Though BCOC makes a generalized reference to “a class of severe pool accident scenarios,” this is the only scenario specifically identified in EC-1. BCOC Env. Cont. at 12.

¹⁶ “Degraded core accident” is the Commission’s previous terminology for what it now calls a “severe reactor accident.” 50 Fed. Reg. at 32,139. Severe reactor accidents are beyond-design-basis events. *Id.* Therefore, the very first link in the chain of BCOC’s postulated accident scenario is already a beyond-design-basis event.

¹⁷ While there are other failures to provide basis with specificity – no specific “degraded-core” reactor accident is identified, nor is the type, location, and magnitude of alleged containment bypass – the fatal flaws in Links 4 and 5 are so significant that any further criticism of this basis amounts to “beating a dead horse,” which the page limit on this response discourages. As just one example, in Dr. Thompson’s February 1999 report (“Thompson Report”) supporting contention EC-1, BCOC cites a probability of spent fuel pool boiling for the Susquehanna BWR and a probability of reactor core damage for the Harris PWR and then, without further explanation, concludes that “[t]he similar magnitudes of these probabilities suggests that pool accidents could be a major contributor to risk at Harris.” Thompson Report at C-2. Besides the fact that one statement concerns a spent fuel pool and the other a reactor, the two facilities are completely different reactor types (BWR vs. PWR) with completely different spent fuel pool safety systems (pool in reactor building vs. separate pool building). See NRC Information Notice 93-83, Supp. 1 at 1-3 (Aug. 24, 1995) (“Potential Loss of Spent Fuel Pool Cooling After a Loss-of-Coolant Accident or a Loss of Offsite Power”) (Susquehanna pool cooling system does not remain functional after design basis events and is not connected to the emergency diesel generators). Moreover, the probability cited for Susquehanna is dominated by an entirely different type of event that occurs with the reactor shutdown and defueled. *Id.* at 2-3. The Thompson Report upon which contention EC-1 is based is rife with such junk science and conclusory nonsense.

¹⁸ In Appendix B of the Thompson Report, it is asserted that “the Harris plant and its immediate surroundings would become radioactively contaminated to the point where access by personnel would be precluded.” Thompson Report, at B-6. Again, the only basis provided for this assertion is a reference to Appendix C of the Thompson Report.

See id. at 9-10. The large radiation doses cited in the Thompson Report, however, are not for Harris, but are rather for generic "Class 9" accidents. "Figure C-1" of the Thompson Report is used to conclude that doses of "1,000 rem over one day" or "much higher" would result from a severe reactor accident, and that a "qualitatively similar result," could be developed for Harris. Thompson Report at C-4. Precedent establishes that the Board should not accept uncritically an intervenor's assertion that a document supplies the basis for a contention, but should instead "review the information provided to ensure that it does indeed supply a basis for the contention." Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 181 (1998). Review of the radiation doses cited by BCOC shows that they are for a "Class 9" accident, and thus beyond the requirements for NEPA review. San Luis Obispo, 751 F.2 at 1301.

"Figure C-1" is taken from a 1983 Department of Health and Human Services report. See Thompson Report at C-4 n.6 (citing Preparedness and Response in Radiation Accidents, U.S. Department of Health and Human Services, FDA 83-8211, at 170 (Figure 3.5-10)) (relevant pages of FDA 83-8211 are included as Attachment 1 to this response). The flaw in the argument is that "Figure C-1" (Figure 3.5-10 of FDA 83-8211) is specifically for "a PWR 'atmospheric' release (PWR 1-5)," which the 1983 FDA report defines as a "Class 9" accident. FDA 83-8211 at 11, 170. The FDA report describes the "Class 9" accident that forms the basis for BCOC's contention as a "[h]ypothetical sequence of successive failures more severe than those postulated for establishing the design basis." Id. at 11 (Table 1.1-3). Thus, BCOC's causative chain, which requires that access to equipment be precluded due to high radiation doses, is founded on a "Class 9" accident.¹⁹ Basis 1 must be rejected for requesting NRC environmental review of a

¹⁹ Moreover, BCOC has selected the most extreme "Class 9" accident. Compare FDA 83-8211 at 170 ("PWR1-5") with id. at 168 ("PWR 6-7").

scenario based on a "Class 9" severe, beyond-design basis accident.²⁰ San Luis Obispo, 751 F.2d at 1301.

Basis 1 can also be independently rejected for numerous other reasons. Most notably, it falls apart as well on Link 5 of the causative chain — inability to restart any pool cooling or makeup systems due to substantial radiation doses. When a postulated accident scenario provides the premise for a contention, a causative mechanism for the accident must be described and some credible basis for it must be provided. Vermont Yankee, ALAB-919, *supra*, 30 NRC at 44 (citing Metropolitan Edison Co. (Three Mile Island Nuclear Station, Unit No. 1), CLI-80-16, 11 NRC 674, 675 (1980)). BCOC fails to identify a credible basis for its accident scenario to occur at the Harris facility. BCOC has completely failed to address the specific features of the Harris facility in its postulated accident scenario.

First, BCOC fails to address the numerous makeup systems available to add water to the Harris pools. Four separate systems are available in the design basis to provide makeup water to the spent fuel pools:²¹

- RWST (Refueling Water Storage Tank);
- ESW (Emergency Service Water) System;
- RMWST (Reactor Makeup Water Storage Tank); and
- Demin Water System.

All four of these are safety-grade systems which will be functional and available to provide makeup to the spent fuel pools following a design basis accident at Harris. Moreover, additional non-safety-grade makeup sources are available, including the Fire Water System, Potable Water System, and fire tanker trucks. BCOC fails to address any of these specific systems that provide

²⁰ Basis 1 must also be rejected because BCOC does not even attempt to tie the "Class 9" radiation dose figures it puts forward to the specific features of the Harris facility. Thus, Basis 1 lacks basis with specificity as required for an admissible contention.

²¹ Harris Final Safety Analysis Report ("FSAR") at 9.1.3-66; CP&L System Description SD-116 at 4 (included as Attachment G to Exhibit 1 of Applicant's January 4, 2000 Subpart K Summary); CP&L Operating Procedure OP-116 at 24, 25, 50, 78.

pool water makeup at Harris. BCOC's generalized, sweeping assertion that restoration of makeup water would be precluded fails to address the specific features to accomplish this at the Harris facility, and therefore fails to provide the required specificity for an admissible contention.

Second, BCOC entirely neglects to address the analysis of post severe-accident equipment accessibility in the Harris FSAR. Section 12.3.2.16 of the Harris FSAR addresses the accessibility of different areas of the Harris plant following a severe accident with core damage. FSAR at 12.3.2-13b to 13e. The FSAR concludes that "vital areas of the plant requiring occupancy or access to mitigate the postulated accident are accessible for performing the necessary post-accident operations without overexposing an individual." *Id.* at 12.3.2-13b. The numerous spent fuel pool makeup systems described above, as well as the spent fuel pool cooling system, are all controllable from the Harris Auxiliary Building and Fuel Handling Building. The post severe-accident accessibility analysis demonstrates that these locations will be accessible by Harris operators following a severe accident. For example, the Harris FSAR shows that the post severe-accident dose rates in Zone R16, where the pool cooling system would be reinitiated, would be less than 15 mrem/hr one hour after a severe accident. FSAR Figure 12.3A-8 ("Post-Accident Dose Rates and Accessibility Analysis"). 15 mrem/hr certainly does not preclude personnel access. BCOC completely fails to address the post-accident accessibility analysis in the Harris FSAR. Basis 1 again fails to provide the required basis with specificity for an admissible contention.

Third, BCOC's scenario is based on a mistaken understanding of the license amendment at issue. In Basis 1, BCOC bases its accessibility scenario on "the bounding decay heat load for pools C and D ... estimated to be 15.6 million BTU/hr." Thompson Report at C-5 (emphasis added). On the basis of a heat load of 15.6 MBTU/hr, BCOC estimates that the water in pools C and D "will be entirely evaporated over a period of 180 hours (7.5 days)." *Id.* (emphasis added). The license amendment before this Board, however, limits the heat load in pools C and D to only 1.0 MBTU/hr, not 15.6 MBTU/hr as BCOC mistakenly assumes. Lic. Amend. App., Encl. 5 at 5-7. Based on the correct heat load of 1.0 MBTU/hr for pools C and D, using BCOC's analysis

it would take not 7.5 days, but rather 117 days (or about four months) to evaporate the water from pools C and D. BCOC provides no credible basis to believe that pool cooling or pool water makeup could not be restored to pools C and D in the intervening four months after a reactor accident. BCOC gives no explanation how such a scenario could be credible at Harris.

Thus, in addition to basing its accident scenario on a "Class 9" accident, BCOC simply fails to demonstrate how its scenario would apply to the specific features of the Harris facility. As the Millstone licensing board concluded, this accident scenario, founded on the same Thompson Report, "appears to be requesting analysis of a severe accident without adequate demonstration of the causation of such an accident or the likelihood that such an accident might occur at this facility." Millstone, LBP-00-02, supra, slip op. at 45 (citing Private Fuel Storage, LBP-98-7, supra, 47 NRC at 181). As did the licensing board in Millstone, the Board here should reject this contention.

BCOS's second premise for Basis 1 alleges that its postulated accident scenario, even though based on a severe accident, must be considered by the NRC in an EIS for this license amendment because the Commission has considered severe accidents in the past in EISs for reactor operating licenses, reactor emergency planning, and reactor Individual Plant Examinations ("IPE"). BCOC Env. Cont. at 10-12. BCOC asserts that because severe accidents with core damage and containment bypass have been considered in these past reactor evaluations, ipso facto such a scenario "is recognized as a credible event by the NRC." Id. at 11. There is no support, nor does BCOC provide any, for such a statement by the NRC. Such a supposition goes directly against NRC precedent and practice.

Governing case law makes clear that the NRC environmental review for a spent fuel pool license amendment need not consider beyond design-basis severe accidents simply because such accidents have been considered in prior NRC analyses for reactors. It is well established that "[t]o the extent that the Commission ever considers the environmental impact and risks of a beyond design-basis accident, it does so as an exercise of discretion under its 1980 NEPA Policy Statement." Vermont Yankee, ALAB-869, supra, 26 NRC at 38-39 (citing San Luis Obispo, 751 F.2d at 1301). Nothing in the Policy Statement indicates that it was intended to apply to a

license amendment proceeding. *Id.* Moreover, these reactor analyses do not address the issue of whether an EIS is required.²² *See id.* The mere fact that other NRC analyses have considered the effects of severe, beyond design-basis accidents involving a degraded core with containment bypass as an exercise of Commission discretion neither makes such a scenario credible nor requires it to be evaluated in the environmental review for a spent fuel pool license amendment. The analogous contention founded on the Thompson Report was rejected earlier this year by the licensing board in Millstone, based on the fact that “the NRC did not intend to apply its Severe Accident Policy Statement to a license amendment proceeding involving reracking of a spent fuel pool.” *Millstone*, LBP-00-02, *supra* slip op. at 41 (citing *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), ALAB-876, 26 NRC 277, 282 (1987)). BCOC’s assertion is contrary to governing case law and must be rejected as insufficient to form the basis for an admissible contention.

b. Basis 2 for contention EC-1 must be rejected as irrelevant to the NRC’s environmental review.

Basis 2 asserts that an EIS is required because the increment in accident risk from pools C and D in comparison to pools A and B is significant in its own right, regardless of the absolute magnitude of the accident risk. BCOC Env. Cont. at 12. As a matter of law, BCOC’s premise is mistaken. NEPA requires that an EIS be conducted where the subject action itself has a significant impact on the environment. *See* 42 U.S.C. § 4332(2)(C). The mere fact — even if true — that an action “doubles” or “triples” the accident risk compared to some existing risk does not, of itself, require an EIS.²³ (Two times nothing is still nothing.) If BCOC’s reasoning

²² Neither the IPE nor emergency planning goes to the issue of the threshold for evaluating risks under NEPA. While both address beyond design-basis degraded core accidents, the mere fact that the Commission has determined to evaluate such events does not demonstrate that they are credible. For instance, the IPE process clearly considers only “severe accidents.” Generic Letter No. 88-20 at 1 (Nov. 23, 1988) (“Individual Plant Examination for Severe Accident Vulnerabilities”).

²³ BCOC appears to be addressing the definition of “significant increase” in the No Significant Hazards Determination, which was the subject of the Thompson Report. The No Significant Hazards Determination test is different from that for requiring an EIS, and therefore this analysis is completely misplaced.

were correct, virtually any change to an existing facility would require an EIS because of the "comparative risk." BCOC's legal error and faulty logic affects all of Basis 2.

BCOC provides three disconnected, incomplete, random examples of its alleged increase in comparative risk. None of these provide the required basis with specificity to suggest that the activation of pools C and D will result in a significant environmental impact requiring an EIS.

BCOC first provides one paragraph pointing out that the storage capacity of pools C and D could exceed that of pools A and B. BCOC Env. Cont. at 12. This, in itself, is an unremarkable proposition.²⁴ BCOC states that this will increase the quantity of long-lived radionuclides stored at the Harris plant. *Id.* This is also unremarkable. BCOC then states that a release of all these radionuclides to the atmosphere would yield significant consequences. *Id.* None of these three statements identify any accident scenario by which the environment would be affected. The mere fact that a license amendment increases spent fuel storage capacity cannot, without more, require completion of an EIS. Otherwise, an EIS would be required, *ipso facto*, for every spent fuel storage capacity expansion. In fact, the Commission has never performed an EIS for a license amendment to increase spent fuel pool storage capacity. BCOC's assertion that the mere increase in number of fuel assemblies stored requires an EIS lacks basis with specificity and is contrary to Commission case law and practice.

Just like its statements that the number of assemblies will increase, BCOC next alleges that the decrease in center-to-center spacing between PWR assemblies, from 10.5" to 9.0", itself is a significant change that requires an EIS. BCOC Env. Cont. at 13. Again, if this were true, virtually every spent fuel storage capacity expansion (at least those going to higher-density storage) would, *ipso facto*, require an EIS. NRC case law and practice clearly demonstrate that this is not the case. BCOC identifies no accident scenario whereby this change results in a

²⁴ Moreover, BCOC ignores the fact that Harris is already licensed to store up to 7,640 assemblies, twice as many as the 3,669 assemblies for pools A and B. *See* Lic. Amend. App., Encl. 5 at 2 (Technical Specification 5.6.3).

significant environmental impact.²⁵ See *id.* BCOC states that “[o]ther factors being equal, this reduced distance would increase the propensity of pools C and D, as compared to pools A and B, to experience an exothermic reaction.” *Id.* (emphasis added). Of course, other factors are not equal. Unlike pools A and B, pools C and D are limited in the requested license amendment to only 1.0 MBTU/hr of heat and to storage of fuel cooled five years or more out of the reactor. Lic. Amend. App., Encl. 5 at 4, Encl. 7 at 5-2. Moreover, even if the probability is increased relative to pools A and B that does not, itself, show there is any significant environmental impact warranting an EIS. BCOC also asserts that because of the smaller distance between assemblies, the “conditional probability of an exothermic reaction in pools C and D would be comparable to or greater than the conditional probability of a similar reaction in pools A and B.” BCOC Env. Cont. at 13. This statement is not only irrelevant, it is wrong. BCOC fails to show why an increase in “conditional probability” is, in itself, relevant to the need for an EIS. Moreover, BCOC ignores the fact that pools C and D are only permitted to store old fuel which has been cooled for at least 5 years, whereas pools A and B can store much hotter fuel freshly discharged from the reactor. Lic. Amend. App., Encl. 7 at 5-2. Finally, BCOC alleges that “the probability of a substantial release of radioactive material from [pools C and D] would be comparable to the probability of a substantial release from the Harris reactor.” BCOC Env. Cont. at 13. BCOC provides neither specific support for this assertion nor an explanation of why it demonstrates that an EIS is required.

BCOC’s third allegation in Basis 2 is that the mere fact that pools C and D will prevent criticality using “administrative controls on the burnup of PWR fuel,” while pools A and B do not, is a significant increment in accident risk at Harris. BCOC Env. Cont. at 13-14. Again, as for the first two parts of Basis 2, the mere fact of this change does not demonstrate the need for an EIS. BCOC then states that the use of burnup credit will “significantly increas[e] the probability that a criticality accident would occur at the Harris plant,” incorporating by reference

²⁵ BCOC does refer back to the scenario identified in Basis 1 of EC-1, but does not show that this spacing has any effect on whether or not an EIS is required.

its Subpart K pleading regarding criticality prevention. *Id.* at 14. Again, assuming arguendo that the probability of an accident were to significantly increase relative to what it was before, this would not itself justify an EIS. Moreover, BCOC's Subpart K filing failed to identify any scenario leading to criticality in pools C and D that was not remote and speculative.²⁶ BCOC fails to provide in its contention any explanation of such a scenario or demonstrate that it would require an EIS. BCOC's general assertions regarding criticality control must be rejected for failure to provide basis with specificity to support its contention that an EIS is required.

The second paragraph on criticality prevention rings hollow and provides no basis for an admissible contention. BCOC alleges only that the NRC's GEIS for spent fuel storage and handling does not address credit for burnup. BCOC Env. Cont. at 14. The contention proposed by BCOC, however, is that an EIS is required. *See id.* at 1. To have an admissible contention, BCOC must show that some accident scenario not evaluated in the EA is not remote and speculative. The mere fact that one of several environmental analyses cited in the EA does not address credit for burnup fails to demonstrate the existence of credible accident scenario that has not been considered or bounded by the EA. BCOC's allegations regarding the scope of the 1975 GEIS do not provide the basis for an admissible contention.

- c. **Basis 3 for contention EC-1 must be rejected because it lacks basis with specificity and flies in the face of governing Commission case law regarding evaluation of sabotage risks in NRC environmental reviews.**

Basis 3 asserts that the NRC Staff's EA violates NEPA because it fails to consider the risks of sabotage during transportation, handling, and storage of spent fuel at Harris. BCOC Env. Cont. at 14-15. BCOC lists a series of random, unrelated terrorist events over the past 17 years and baldly asserts that these "have demonstrated that sabotage is a reasonably foreseeable

²⁶ The only scenario BCOC was able to identify that would lead to criticality in pools C and D involved misloading every assembly in the pools using fresh 5 wt.% uranium-235 fuel, combined with the complete loss of all soluble boron from the pools. BCOC has never stated, nor does it attempt to allege in its filing here, that such an extreme scenario is not remote and speculative. In fact, Dr. Thompson admitted in his deposition under oath that misloading every assembly in the pool is not credible. Thompson Dep. Tr. at 164.

and significant threat whose risks must be addressed in an EIS, whether or not those risks can be quantified.” BCOC Env. Cont. at 15. The series of random, unrelated terrorist events cited by BCOC, ranging from bombing of a Marine barracks in Lebanon to release of nerve gas on a subway in Japan, provide no specific facts or reference to the Harris facility, and therefore lack the basis required for an admissible contention.²⁷ See Florida Power & Light Co. (St. Lucie Nuclear Power Plant, Unit 1), LBP-88-10A, 27 NRC 452, 455 (quoting Philadelphia Electric Co. (Peach Bottom Atomic Power Station, Units 2 and 3), CLI-73-10, 6 AEC 173, 174 (1973)).

Basis 3 to Contention EC-1 files in the face of Commission law regarding environmental analysis of sabotage risks. The Commission has clearly established that the environmental review to support an NRC licensing action need not include the environmental effects of the risk of sabotage. Philadelphia Electric Co. (Limerick Generating Station, Units 1 and 2), ALAB-819, 22 NRC 681, 701 (1985); Comm'n rev. denied, 23 NRC 125 (1986); aff'd Limerick Ecology Action v. NRC, 869 F.2d 719, 742 (3rd Cir. 1989); see also Private Fuel Storage, L.L.C., LBP-98-7, supra, 47 NRC at 199, 200-01 (dismissing contentions Utah U, basis 4 and Utah V, basis 4.c. regarding failure to consider sabotage risks in environmental report). The Appeal Board in Limerick held, and the Third Circuit upheld, that “the risk of sabotage is simply not yet amenable to a degree of quantification that could be meaningfully used in the [NEPA] decisionmaking process.” Limerick, ALAB-819, 22 NRC at 701. In fact, BCOC itself admits that the probability of a sabotage/terrorism event at Harris cannot be quantified. Thompson Report at C-

²⁷ Neither the random list of events cited, nor the generalized description of an event in the Thompson Report, relate to the specific features of the Harris facility. See Thompson Report, App. C at C-5 to C-6. BCOC never addresses or cites any alleged weaknesses the Harris Physical Protection Plan. Indeed, CP&L has been routinely commended for excellence in its resistance to sabotage and terrorism at Harris. In fact, following the Operational Safeguards Response Evaluation to assess the ability of Harris to respond to a design basis terrorist threat, the NRC Staff concluded that “the protective strategy for Harris was being effectively implemented and that the response force demonstrated excellent capabilities in protecting public health and safety against the NRC design basis threat.” Letter from W. Travers (NRC) to Senator J. Helms at 1 (June 23, 1999) (emphasis added); see also NRC Inspection Report 50-400/98201 (Operational Safeguards Response Evaluation) at 1 (Apr. 12, 1999) (page 1 not safeguards information). BCOC completely ignores information regarding the sabotage resistance of Harris in making its generalized claims in contention EC-1.

6. Nothing in BCOC's filing gives cause for the Board to disturb governing Appellate precedent.²⁸

Because its three bases fail to meet the Commission's pleading requirements, contention EC-1 must be rejected in its entirety.

C. Contention EC-2: EIS Should Consider Cumulative Impacts In Light Of New Information

1. The Contention and Bases

Contention EC-2 asserts simply that:

The EA is deficient because it fails to acknowledge or evaluate the significant cumulative environmental risk posed by the operation of pools A, B, C, and D.

BCOC Env. Cont. at 16. This contention is focused on the accident risk from the operation of Harris spent fuel pools A and B. *See id.* at 7, n.5. BCOC's discussion of this contention comprises two pages. BCOC identifies three specific issues that form the bases for its contention. The Applicant has summarized BCOC's three bases as follows:

Basis 1 – The NRC Staff should be required to evaluate the environmental risks of spent fuel pool accidents in all four Harris spent fuel pools, including Harris pools A and B. This evaluation must consider the cumulative impacts of adding pools C and D to the operation of Harris pools A and B;

Basis 2 - The NRC Staff should perform an integrated risk evaluation of Harris pools A, B, C and D that shows how the pool loading pattern, over all four fuel pools, influences accident risk;

Basis 3 – The integrated risk evaluation should address the potential for an accident at one pool to influence the development of an accident at another pool.

BCOC Env. Cont. at 16-18.

²⁸ Note also that the CEQ regulation cited by BCOC, 40 C.F.R. § 1502.22, is not binding on the NRC and cannot form the basis for an admissible contention. *Vermont Yankee*, ALAB-919, *supra*, 30 NRC at 44 n.17 (1989). In addition, the SAMDA issue raised by BCOC concerning SAMDAs to mitigate environmental effects of sabotage risks pertains only to the scope of an EIS, not whether or not an EIS is required.

2. **Applicant's Response to the Contention**

- a. **Basis 1 for contention EC-2 must be rejected because it requests analysis beyond the scope required by NEPA and because its vague, generalized assertions lack the required specificity.**

In Basis 1, BCOC asserts that "the NRC is required by law to evaluate the cumulative impacts of pools C and D in conjunction with the impacts of the current operation, including the environmental risks of operating pools A and B."²⁹ BCOC Env. Cont. at 17 (emphasis added). BCOC provides no statutory, regulatory, or case law support for its proposition that the NRC must analyze the "environmental risks of operating pools A and B" as part of this operating license amendment. In fact, no such requirement exists, and BCOC's assertion is directly counter to existing Commission case law on this issue.

The scope of this proceeding concerns only the activation of Harris spent fuel pools C and D. The Commission defined the scope of this proceeding in its Notice of Opportunity for Hearing, which states that "[t]he proposed amendment would support a modification to the plant to increase the spent fuel storage capacity by adding rack modules to spent fuel pools (SFPs) "C" and "D" and placing the pools in service." 64 Fed. Reg. at 2,238. Harris pools A and B are already licensed by the Commission and are not being changed by the present license amendment.

NRC case law precedent clearly establishes that the environmental analysis for a spent fuel pool expansion proceeding must be confined to only "the incremental effect on the environment occasioned by the proposed license amendment." Public Service Electric and Gas Co. (Salem Nuclear Generating Station, Unit 1), ALAB-650, 14 NRC 43, 66 (1981) (emphasis added). In another case, the Appeal Board held that where spent fuel storage pools had already been considered in the environmental review supporting issuance of the plant's operating license,

²⁹ Basis 1 addresses itself to "the environmental risks of operating pools A and B," "conclusions about the environmental impacts of operating fuel pools A and B," and "the risks of . . . an accident for pools A and B." BCOC Env. Cont. at 17. BCOC notes that "the accident risk . . . from operating pools C and D" is addressed elsewhere, "in Contention EC-1." *Id.* at 18.

Nothing in NEPA ... dictates that the same ground be wholly replowed in connection with a proposed amendment to those 40-year operating licenses. Rather, it seems manifest to us that all that need be undertaken is a consideration of whether the amendment itself would bring about significant environmental consequences beyond those previously assessed.

Portland General Electric Co. (Trojan Nuclear Plant), ALAB-531, 9 NRC 263, 266 n.6 (1979) (citing Northern States Power Co., (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-455, 7 NRC 41, 46 n.4 (1978)) (emphasis added); see also Consumers Power Co. (Big Rock Point Nuclear Plant), ALAB-636, 13 NRC 312, 316 (NEPA does not require the preparation of duplicative environmental reviews). BCOC's contention requests the NRC to "replow" the environmental review for pools A and B.

The environmental impacts of operating Harris spent fuel pools A and B have already been considered as part of the Harris FES. The current license amendment does not request any change to pools A and B. Consistent with the requested license amendment and NRC case law, the NRC Staff's EA is confined to the incremental environmental effects of "increas[ing] the spent fuel storage capacity by adding rack modules to spent fuel pools (SFPs) 'C' and 'D' and placing the pools in service." 64 Fed. Reg. at 71,514. Basis 1 of EC-2 requests an analysis beyond what is required by the Commission's regulations. Such a contention constitutes an impermissible collateral attack on the Commission's regulations, and must be rejected. Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), LBP-82-106, 16 NRC 1649, 1656 (1982); 10 C.F.R. § 2.758.³⁰

³⁰ BCOC attempts to support Basis 1 with an unexplained reference to Baltimore Gas & Electric Co. v. Natural Resources Defense Council, 462 U.S. 87, 106-07 (1983) (citing Council on Environmental Quality regulations 40 C.F.R. §§ 1508.7 and 1508.8). BCOC Env. Cont. at 16-17. Neither Baltimore Gas nor the CEQ regulations supports the admission of Basis 1. A closer inspection of the citation to Baltimore Gas reveals only a cursory statement regarding what "NEPA requires an EIS to disclose." However, it does not address the standard for requiring an EIS to be performed in the first instance, which is the subject of BCOC's contention. Moreover, the reference to "cumulative impacts" is just that, a reference. No further description or explanation is provided. BCOC's reference to the CEQ regulations also fails to support admission of its contention. It is well established that the NRC, as an independent regulatory agency, is not bound by, and has declined to adopt, the CEQ regulations. Vermont Yankee, ALAB-919, *supra*, 30 NRC at 44 n.17; see also Pacific Gas & Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-880, 26 NRC 449, 461 (1987).

Moreover, BCOC simply fails to provide any specific basis regarding what sort of “cumulative impacts” it is talking about, much less how pools A and B somehow relate to the inquiry. BCOC simply provides a vague, generalized assertion that the NRC Staff must “consider the cumulative impacts of adding pools C and D to the operation of pools A and B.” BCOC Env. Cont. at 17. BCOC provides no explanation of what the “cumulative impacts” would be and fails to show that the NRC Staff EA has not already considered, and bounded, any such effects.³¹ NRC precedent requires that “the bases of a contention be set forth with reasonable specificity . . . to put the other parties on notice as to what issues they will have to defend against or oppose.” Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-899, 28 NRC 93, 97 (1988). A petitioner must provide documents or other factual information or expert opinion setting forth the specific issue to be litigated. Private Fuel Storage, L.L.C., LBP-98-7, *supra*, 47 NRC at 180. Basis 1 fails to provide the requisite basis with specificity required to put the other parties on notice as to what is to be litigated.³²

b. Basis 2 for contention EC-2 must be rejected because it too lacks the required specificity and is outside the scope of this proceeding.

In Basis 2, BCOC alleges that the NRC Staff has failed to perform an “integrated risk evaluation” of Harris pools A, B, C and D that addresses “how the pool loading pattern, over all four fuel pools, would influence accident risk.” BCOC Env. Cont. at 18. Basis 2 is completely devoid of the specificity required for an admissible contention under the Commission’s pleading requirements. See 10 C.F.R. § 2.714(b)(2)(ii). This is a two-sentence basis.³³ Basis 2 asserts

³¹ BCOC refers to Section F of contention EC-1, but states that “the significance of the increment of accident risk at Harris that would arise from operating pools C and D” is addressed in contention EC-1. BCOC Env. Cont. at 18. BCOC fails to provide any specific facts whatsoever concerning alleged unaccounted for “cumulative impacts” caused by operating pools C and D along with the already-licensed pools A and B. This same failure plagues Bases 2 and 3 of contention EC-2, as well.

³² To be admissible, a “contention must address concrete issues and may not consist of ‘vague generalized assertions, drawn without any particularized reference to the details of the challenged facility.’” St. Lucie, LBP-88-10A, *supra*, 27 NRC at 455.

³³ The only additional statement made by BCOC on Basis 2 is a footnote, which asserts that “the fuel loading pattern would influence both the conditional probability and the consequence of a pool accident.” BCOC Env. Cont. at 18 n.11. This simply restates the assertion in the text.

that the NRC Staff should evaluate the influence on accident risk from “the pool loading pattern, over all four fuel pools.” BCOC Env. Cont. at 18. The naked assertion that some matter ought to be considered is not a sufficient basis for an admissible contention. See Private Fuel Storage, L.L.C., LBP-98-7, supra, 47 NRC at 180. BCOC fails to identify the “pool loading pattern” to which it refers to or define what it means by “an integrated risk evaluation.” See BCOC Env. Cont. at 18. Nor does BCOC provide any information on the alleged connection between the “pool loading pattern” and accident risk. There is also no description of how “all four fuel pools” are involved. BCOC fails to explain how whatever “pool loading pattern” it is referring to is not bounded by the Staff’s accident evaluation in the EA. The Commission’s requirements demand basis with specificity in order “to put the other parties on notice as to what issues they will have to defend against.” Seabrook, ALAB-899, supra, 28 NRC at 97. Here, BCOC fails to identify any concrete and specific issues concerning the details of the Harris facility, making it unclear what issue would be litigated. A proposed contention will not be admitted based on “vague generalized assertions, drawn without any particular reference to the details of the challenged facility.” St. Lucie, LBP-88-10A, supra, 27 NRC at 455.

Moreover, as with Basis 1, BCOC’s request that the Staff reevaluate the environmental impacts of Harris pools A and B to address the “the pool loading pattern” is beyond the scope of this proceeding and must be rejected. This proceeding must focus on the proposed license amendment, activation of pools C and D. Salem, ALAB-650, supra, 14 NRC at 66. As discussed above for Basis 1, BCOC’s request that the Staff revisit the operation of pools A and B goes beyond what NEPA and the Commission require for the subject license amendment. Basis 2, therefore, advocates stricter requirements than those imposed by the Commission and must be rejected. 10 C.F.R. § 2.758.

c. Basis 3 for contention EC-2 must be rejected as devoid of specificity and requesting an analysis outside the scope of this proceeding.

In Basis 3, BCOC simply asserts that the “integrated risk evaluation,” requested in Basis 2, should also address “the potential for an accident at one pool to influence the development of an accident at another pool.” BCOC Env. Cont. at 18. This is a one-sentence

assertion. There is no more. See id. Just as with Basis 1, BCOC here again fails to provide the required basis with specificity to meet the Commission's requirements for a litigable contention. BCOC provides no discussion of what type of accident is addressing, much less any description of how the development of the undefined accident in "one pool" would be "influenced" by another pool. In fact, the pools are all physically separated.³⁴ See Lic. Amend. App., Encl. 7, Figure 1-1 FSAR at Figure 1.2.2-55. For example, pools A and B are separated from pools C and D by approximately 300 feet. See Affidavit of R. Steven Edwards ¶ 20 (Exhibit 1 of Applicant's Jan. 4, 2000 Subpart K Summary). BCOC fails to address the specific facts of Harris in its one-sentence basis, and fails to explain how "an accident in one pool" would "influence the development of an accident at another pool," in light of the physical separation between pools at Harris. A proposed contention based on "vague generalized assertions, drawn without any particular reference to the details of the challenged facility" must be rejected. St. Lucie, LBP-88-10A, supra, 27 NRC at 455.

In addition, Basis 3 must be rejected for the same reasons cited supra regarding Basis 2. BCOC fails to show the analysis it is requesting is not bounded by the Staff's analysis and BCOC's request to analyze pools A and B goes beyond the scope of this proceeding. Contention EC-2 must be rejected.

D. Contention EC-3: Scope of EIS Should Include Brunswick and Robinson Storage

1. The Contention and Bases

BCOC asserts in contention EC-3 that:

The EIS for the proposed license amendment should include within its scope the storage of spent fuel from the Brunswick and Robinson nuclear power plants.

BCOC Env. Cont. at 18. BCOC provides three brief paragraphs as bases for this contention, which are summarized as follows:

³⁴ The physical separation between the spent fuel pools was obvious to Dr. Thompson when he toured the Harris Fuel Handling Building on October 20, 1999.

Basis 1 - There is no independent utility to the expansion of spent fuel pool capacity at Harris that does not include storage of spent fuel from Brunswick and Robinson.

Basis 2 - CP&L has a global plan for storage of spent fuel from its three North Carolina reactors that includes the option of dry storage at Brunswick.

Basis-3- The license amendment focuses on only pool storage and ignores other alternatives.

2. Applicant's Response to the Contention

Contention EC-3 is identical to Contention 6 in BCOC's original Supplemental Petition to Intervene ("BCOC Supp. Pet."), at 38-39, except that a new Basis 3 has been added. Applicant responded to Contention 6 in its May 5, 1999 Answer at 53-59, and during the prehearing conference (Prehearing Conference Tr. at 160-162). Applicant incorporates by reference its previous responses to the Contention. Contention EC-3 attempts to raise issues that are beyond the scope of this proceeding, and run directly counter to Commission precedent. Furthermore, the bases asserted by BCOC fail to address or challenge relevant Applicant's filings and NRC Staff analysis and do not provide the required specificity for an admissible contention.

a. BCOC's Contention EC-3 is Outside of the Scope of this Proceeding

BCOC's Contention EC-3 must be rejected because it raises issues that are outside of the scope of this proceeding. There are only three issues before the NRC for approval as part of the instant license amendment request, as restated clearly in the Harris EA: (1) a revision to Harris Technical Specification 5.6 to identify burnup restrictions, enrichment limits, pool capacities, heat load limitations and nominal center-to-center distances in the racks to be installed in Harris spent fuel pools C and D; (2) an alternative plan in accordance with 10 C.F.R. § 50.55a to demonstrate an acceptable level of quality and safety in completion of the Harris CCW system and spent fuel pool cooling and cleanup system; and (3) an unreviewed safety question for additional heat load on the Harris CCW system.³⁵ Transshipment of spent fuel from Robinson

³⁵ 64 Fed. Reg. at 71,514.

and Brunswick and receipt of spent fuel from Robinson and Brunswick at Harris are not here before the NRC. Applicant is already licensed to receive spent fuel from Robinson and Brunswick at Harris.³⁶ The alternative of spent fuel storage at Brunswick and Robinson is outside the scope of this license amendment proceeding to expand spent fuel storage capacity of Harris.³⁷

b. BCOC's Bases Fail to Meet the Commission's Pleading Requirements

BCOC asserts in Basis 1 that "there is no independent utility to the racking of a spent fuel pool" that does not include storage of spent fuel from Brunswick and Robinson. BCOC Env. Cont. at 19-20. Even if true, this does not provide a basis to require an EIS to evaluate dry storage at Brunswick and at Robinson. Moreover, there is independent utility of the license amendment request to Harris — the continued operation of the Harris Plant. Even if Applicant terminated receipt of spent fuel from Robinson and Brunswick this year, Harris would run out of spent fuel storage capacity in 2006, twenty years before the end of its licensed life.³⁸ BCOC fails to address the fact that the license amendment request has independent utility beyond the storage of spent fuel from Robinson and Brunswick.

BCOC's second basis asserts that "CP&L has a global plan for storage of spent fuel" which includes "the option of dry cask storage at Brunswick." BCOC Env. Cont. at 19. BCOC provides no support for this assertion, which is factually mistaken. CP&L corrected BCOC's mistaken understanding in Applicants May 5, 1999 Answer at 56-57. BCOC ignored Applicant's Answer and has simply repeated its mistaken and unfounded assertion here again.

³⁶ See Shearon Harris Nuclear Power Plant, Unit 1, Facility Operating License, License NPF-63 at 3 (Jan. 12, 1987) (Section 2.B(8)).

³⁷ This very issue has previously been addressed in a prior agency proceeding. See Virginia Electric and Power Co. (North Anna Power Station, Units 1 and 2), LBP-84-40A, 20 NRC 1195, 1200, aff'd, ALAB-790, 20 NRC 1450, 1453-54 (1984). For the application of North Anna to this proceeding, see Applicant's May 5, 1999 Answer at 53-59; Prehearing Conference Tr. at 160-162.

³⁸ See Prehearing Conference Tr. at 161-162.

In its new third basis, BCOC asserts: "This license amendment focuses on only one storage methodology, ignoring other alternatives that are safer and also cost-effective. The NRC Staff should be required to thoroughly examine the alternative of dry storage in an EIS." BCOC Env. Cont. at 19. BCOC ignores the fact that the NRC Staff did evaluate alternatives in its EA, including "the alternative of dry storage."³⁹ The Staff found that the environmental impacts of the alternative technologies were similar to those of the proposed action and were not environmentally superior.⁴⁰ BCOC does not contest the NRC Staff's analysis. A contention asserting that an EIS is required to address alternatives to spent fuel pool expansion must be rejected where no specific basis is provided to show the alternatives are environmentally superior.⁴¹

Contention EC-3 must be rejected.

E. Contention EC-4: Discretionary EIS Warranted

BCOC Contention EC-4 asserts the following:

Even if the Licensing Board determines that an EIS is not required under NEPA and 10 C.F.R. § 51.20(a), the Board should nevertheless require an EIS as an exercise of its discretion, as permitted by 10 C.F.R. §§ 51.20(b)(14) and 51.22(b).

BCOC Env. Cont. at 20.

Contention EC-4 is identical to Contention 8 in BCOC's original Supplemental Petition. BCOC Supp. Pet. at 40-43. Applicant responded to Contention 8 in its May 5, 1999 Answer at 59-64. Applicant incorporates by reference its previous response to Contention 8. Contention EC-4 must be rejected because the Licensing Board has no authority to direct the Commission to perform a discretionary act. See discussion during Prehearing Conference Tr. at 155-56. Furthermore, Petitioner has made no showing of "special circumstances" which would warrant

³⁹ 64 Fed. Reg. at 71,516.

⁴⁰ *Id.*

⁴¹ *St. Lucie*, LBP-88-10A, *supra*, 27 NRC at 459.

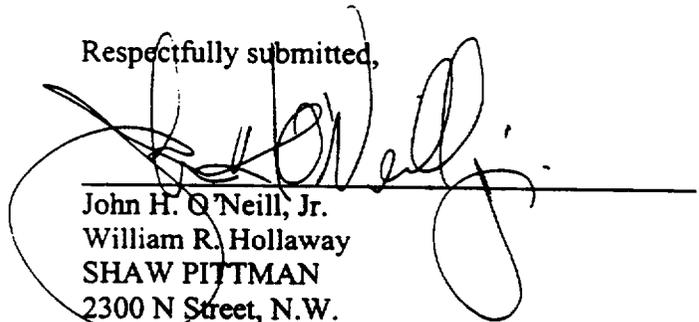
such a discretionary environmental impact statement. Finally, preparation of a discretionary EIS regarding additional spent fuel pool storage at Harris would simply be redundant of the evaluation in the Harris FES and of numerous definitive, generic findings by the Commission concluding that there is no significant environmental impact from spent fuel pool storage.

Contention EC-4 must be rejected.

V. CONCLUSION

For the reasons set forth herein, Applicant submits that contentions EC-1 through EC-4 must be rejected.

Respectfully submitted,



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