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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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BEFORE THE COMMISSION

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

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

CAROLINA POWER & LIGHT COMPANY'S ANSWER OPPOSING ORANGE COUNTY'S REQUEST FOR EMERGENCY STAY OF LBP-01-09

Pursuant to the Commission's Order dated March 21, 2001,[1] Carolina Power & Light Company ("CP&L") submits its Answer Opposing the Board of Commissioners of Orange County's ("BCOC") Request for Emergency Stay of LBP-01-09.[2] CP&L respectfully submits that the Commission should deny the request because BCOC fails to meet the legal standards for such an extraordinary action.

I. BACKGROUND

This proceeding relates to CP&L's December 23, 1998, application for a license amendment to place spent fuel pools C and D in service at CP&L's Harris Nuclear Plant ("Harris Plant," or "Harris").[3] CP&L invoked 10 C.F.R. Part 2, Subpart K, adjudicatory

[1] Order, Docket No. 50-400-LA (Mar. 21, 2001)

[2] Orange County's Request for Emergency Stay of LBP-01-09 (Mar. 16, 2001) ("BCOC Request").

[3] Shearon Harris Nuclear Power Plant Docket No. 50-400/License No. NPF-63 Request For License Amendment Spent Fuel Storage (Dec. 23, 1998) ("License Amendment Application").

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procedures after the Licensing Board granted BCOC's petition to intervene and admitted Technical Contentions 2 and 3 proffered by BCOC.[4] The parties conducted discovery and on January 4, 2000, submitted to the Board written summaries of the facts and law upon which they intended to rely at oral argument. On January 21, 2000, the Licensing Board heard oral argument concerning Technical Contentions 2 and 3. In a Memorandum and Order dated May 5, 2000, the Board ruled that BCOC had failed to show there was any genuine and substantial dispute of fact or law that required an evidentiary hearing.[5]

The Board admitted late-filed Contention EC-6 on August 7, 2000, stating that "[w]ith this contention, BCOC challenges the Staff's [environmental assessment] conclusion that the proposed CP&L license amendment to use spent fuel pools C and D does not require a complete EIS."[6] As admitted, the Board further narrowed the contention to whether "BCOC has established an adequate basis to allow merits litigation" on whether its postulated seven-step beyond-design-basis accident scenario was too "remote and speculative" to require an environmental analysis.[7]

The parties conducted discovery and on November 20, 2000, submitted to the Board written summaries of the facts and law upon which they intended to rely at oral argument. Both the NRC Staff and CP&L submitted voluminous, detailed, and peer-

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[4] Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), LBP-99-25, 50 NRC 25, 40 (1999).

[5] Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), LBP-00-12, 51 NRC 247, 249 (2000).

[6] Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), LBP-00-19, 52 NRC 85, 94 (2000).

[7] Id. at 95.

reviewed analyses supporting their independent conclusions that BCOC's seven-step postulated accident scenario was too remote and speculative to warrant consideration in an environmental analysis. For its part, BCOC submitted essentially nothing beyond a conclusory report by its sole "expert."

The Licensing Board heard oral argument concerning Contention EC-6 on December 7, 2000, in Raleigh, North Carolina. At oral argument, the NRC Staff and CP&L answered each question addressed to them by the Board and identified the analyses supporting each response. BCOC failed to offer any credible response and focused its argument on complaints that its expert could not understand the analyses proffered by the other parties and that more time was required for more investigation. The NRC Staff issued the final no significant hazards determination and the Harris spent fuel pool expansion License Amendment on December 21, 2000, just a week short of two years after the License Amendment Application was filed.[8] On December 22, 2000, BCOC filed a Petition for Review and Motion for Immediate Suspension and Stay,[9] which the Commission rejected "summarily."[10]

On March 1, 2001, the Licensing Board issued its decision regarding EC-6 finding that (1) BCOC failed to show there was a genuine and substantial dispute of fact or law that could only be satisfactorily resolved by an evidentiary hearing and (2) the NRC

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[8] 65 Fed. Reg. 82,405 (2000).

[9] Orange County's Petition For Review and Request For Immediate Suspension and Stay of the NRC Staff's No Significant Hazards Determination and Issuance of License Amendment for Harris Spent Fuel Pool Expansion (Dec. 22, 2000) ("BCOC December 2000 Filing").

[10] Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), CLI-01-07, slip op. at 1 (Feb. 14, 2001).

Staff met its burden by demonstrating that BCOC's postulated seven-step accident scenario was remote and speculative and did not warrant the preparation of an EIS.[11] The Board also authorized the grant of the requested license amendment and dismissed the proceeding because "there are no remaining disputed issues of fact or law requiring resolution in an adjudicatory hearing."[12] On March 16, 2001, BCOC filed the instant Request for Emergency Stay and a Petition for Review of three Licensing Board decisions in the proceeding below.[13]

CP&L originally requested that the License Amendment be issued no later than December 31, 1999, and had planned to begin loading spent fuel in pool C in 2000. As discussed below, further delays would adversely impact CP&L's ability to maintain adequate spent fuel storage capacity and, with the loss of core discharge capability, could lead to a forced shutdown of one or more of CP&L's nuclear units.

II. ARGUMENT

BCOC fails to meet its heavy burden of persuasion regarding any of the factors the Commission uses to determine if a stay is appropriate.

A. BCOC Does Not Meet the Legal Standard For A Stay of the License Amendment

It is firmly established that the "burden of persuasion" in obtaining a stay "rests

[11] Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), LBP-01-09, slip op. at 2 (Mar. 1, 2001).

[12] Id. at 44.

[13] Orange County's Petition For Review of LBP-00-12, LBP-00-19, and LBP-01-09 (Mar. 16, 2001).

on the moving party."[14] Where a petitioner is asking for the full relief to which it might be entitled if successful at the conclusion of an appeal, it "has a heavy burden indeed to establish a right to it."[15] It is BCOC, as the movant, that has the significant burden of convincing the Commission to grant the extraordinary relief it now seeks.

BCOC fails to satisfy any of the applicable regulatory requirements for determining whether a stay is appropriate, which are:

(1) Whether the moving party has made a strong showing that it is likely to prevail on the merits;
(2) Whether the party will be irreparably injured unless a stay is granted;
(3) Whether the granting of a stay would harm other parties; and
(4) Where the public interest lies.[16]

The reasons BCOC fails to meet its burden of persuasion regarding any of these factors are discussed below.

1. BCOC is not likely to prevail on the merits

To meet the standard of making a strong showing that "it is likely to prevail on the merits," the movant "must do more than merely establish possible grounds for appeal."[17] In addition, "an 'overwhelming showing of likelihood of success on the merits' is necessary to obtain a stay where the showing on the other three factors is weak."[18] Especially because its arguments regarding the other factors are so weak, BCOC must pres-

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[14] Alabama Power Co. (Joseph M. Farley Nuclear Plant Units 1 and 2), CLI-81-27, 14 NRC 795, 797 (1981).

[15] Id. (footnote omitted) (emphasis added).

[16] 10 C.F.R. § 2.788(e).

[17] Farley, CLI-81-27, 14 NRC at 797.

[18] Id.

ent an overwhelming basis for its claim of prevailing on the merits. It has not and can not.

The substance of BCOC's arguments supporting its shopworn contention and this stay request has been raised, considered, and dismissed by the NRC Staff and Licensing Boards a number of times over the past two decades.[19] Indeed, a Licensing Board recently rejected a contention asserting the same scenario based on the same report prepared by the same expert retained by BCOC in this proceeding.[20] BCOC presents nothing new here and makes no cogent argument as to why the Licensing Board decision below is inconsistent with these precedents.

BCOC claims that it is likely to be successful in persuading the Commission to find, for the first time in over a hundred cases, that an EIS must be prepared in connection with a license amendment to expand spent fuel pool storage at an existing facility. Well over 100 license amendment applications have been reviewed and approved by the Commission to expand on-site spent fuel pool storage without requiring an EIS.[21] As there is nothing in BCOC's postulated scenario that is unique to Harris, BCOC's argu-

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[19] See, e.g., Sacramento Municipal Utility District (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 234 n.97 (1993) (contention that a loss of offsite power risks "a Zircoloy cladding fire"); Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), CLI-90-4, 31 NRC 333, 334 (1990) (postulated accident sequence that included a "spent fuel cladding fire"); Florida Power & Light Co. (St. Lucie Plant, Unit No. 1), LBP-88-10A, 27 NRC 452, 467 (1988) (contention that the "accident analysis should address the burning of the total number of assemblies authorized to be stored in the pool").

[20] Northeast Nuclear Energy Co. (Millstone Nuclear Power Station, Unit 3), LBP-00-2, 51 NRC 25, 45 (2000).

[21] Pacific Gas & Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-86-12, 24 NRC 1, 7 (1986).

ment requires all of these cases to be wrongly decided. This not a "likely" outcome of Commission review of the merits.

The detailed analyses performed by the NRC Staff and CP&L and its consultant demonstrate that the probability of the postulated scenario at the Harris Plant is remote and speculative in the extreme.[22] The NRC Staff performed a detailed analysis using risk assessment methodology and industry data that found, on a conservative bounding case, the probability of the BCOC postulated scenario was on the order of 2×10^{-7}.[23] Independent of the Staff's analysis, CP&L retained ERIN Engineering, Inc. ("ERIN")[24] to perform a Harris-specific probabilistic safety assessment to determine the probability of occurrence of BCOC's postulated scenario.[25] The ERIN analysis, and other detailed plant-specific calculations performed by Harris personnel, demonstrate that the best-estimate overall probability of the postulated scenario was less than 3 in one hundred

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[22] In the Subpart K proceeding below, both CP&L and the NRC Staff stated that the probability of BCOC's postulated accident could reasonably be *zero* (*i.e.*, not possible), but that a conservative methodology yielded some finite possibility of occurrence. Summary of Facts, Data, and Arguments On Which Applicant Proposes to Rely at the Subpart K Oral Argument Regarding Contention EC-6 (Nov. 20, 2000) ("Applicant's Summary") at 67-68; NRC Staff Brief and Summary of Relevant Facts, Data and Arguments Upon Which The Staff Proposes To Rely At Oral Argument On Environmental Contention EC-6 (Nov. 20, 2000) ("Staff Summary") at 34.

[23] Staff Summ. at 47. CP&L anticipates that the Staff will present information that supports its conclusion.

[24] ERIN's experience, and that of the lead analyst for this project, Dr. Edward Burns, are unsurpassed in the industry. ERIN has developed many of the state-of-the-technology methods used in Probabilistic Safety Assessments and is actively involved in the American Society of Mechanical Engineers ("ASME") Committees which are developing the PSA standard. Applicant's Summ. at 51.

[25] Id. § IV.

million (2.65×10^{-8}) per year.[26] Regarding the BCOC "analysis," the Licensing Board was "seriously troubled by BCOC's claim of certainty – its use of a probability of one" in a simplistic calculation.[27]

As to LBP-00-12, the Commission already has under review BCOC's challenge to the Board's decision on Contention 2. CP&L has submitted that the Commission should reject any interpretation of Criterion 62 of the General Design Criteria ("GDC 62") that would prohibit taking into account fuel enrichment, burnup, and decay time limits in spent fuel pool criticality calculations.[28] BCOC's tortured interpretation of GDC 62: (1) displays a lack of understanding of the methods of criticality control; (2) is inconsistent with the criterion's plain language and regulatory history; (3) is inconsistent with the other Commission regulations; (4) would establish a subjective and standardless measure of licensee compliance; (5) would produce results contrary to express Congressional intent; and (6) would reverse over twenty years of consistent interpretation and implementation. Just as with LBP-01-09, BCOC has not shown why Commission reversal of an unbroken chain of decisions is "likely" based on its threadbare and discredited arguments.

Finally, BCOC's likelihood of success on the merits is inextricably tied to the "expertise" of its consultant, Dr. Gordon Thompson. The NRC Staff and CP&L strongly

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[26] Id. at 71. Although intended to be a "best-estimate" value, this probability, as small as it is, still reflects a number of conservatisms that were not possible to remove from the available information. See Applicant's Summ. § IV.F.

[27] LBP-01-09 at 24 (emphasis added).

[28] Carolina Power & Light Company's Brief Amicus Curiae Supporting Affirmance of the Licensing Board Decision in LBP-00-26 (Feb. 28, 2001).

questioned Dr. Thompson's qualifications below,[29] but the Board gave him the benefit of the doubt and did not strike his testimony.[30] Given the opportunity, however, Dr. Thompson has now firmly established his lack of expertise in the technical disciplines relevant to this proceeding. In response to the Licensing Board's questions relating to Contention EC-6, Dr. Thompson did not perform a probability study or probabilistic safety assessment. Rather, he made assumptions and performed "scoping" calculations, which produced nonsensical results.[31] BCOC, left without a shred of meritorious technical analysis by Dr. Thompson, was reduced to arguing that "no party could perform such a comprehensive analysis in the time available."[32] Dr. Thompson's lack of expertise and inadequate analysis, now part of the record below, forecloses BCOC's ability to claim likelihood of success on the merits.

BCOC has made no showing of likelihood of success on the merits.

2. BCOC will not be irreparably injured unless a stay is granted

BCOC will not be harmed at all by the Commission denying the motion for a stay. BCOC has admitted that "[a]ctivation of pools C and D would not significantly alter the

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[29] See, e.g., id.; 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 (Jan. 4, 2000) at 14-19; Staff Summ. at 21-24; Applicant's Summ. at 19-28.

[30] The Licensing Board politely noted Dr. Thompson's "expertise relative to reactor technical issues seems largely policy-oriented." Harris, 51 NRC at 267 n.9.

[31] Declaration of 16 March 2001 By Dr. Gordon Thompson in Support of Orange County's Stay Motion of 16 March 2001 ("Mar. 16, 2001) ("Thompson March 2001 Declaration") ¶ 33; see also Applicant's Summ. at 19-28.

[32] Thompson Mar. 2001 Decl. ¶¶ 32-34.

probability of a pool fire at Harris."[33] Even assuming, *arguendo*, that the possibility of a pool fire exists from BCOC's speculative scenario, the purported harm arises, not from the License Amendment, but from existing licensed activities in storing spent fuel in pools A and B. The activities BCOC complains of are not within the scope of the license amendment. Indeed, BCOC is still utterly unable to refute the CP&L analysis that the probability of its postulated scenario is actually less with the License Amendment's implementation, which places into service a second, independent spent fuel pool cooling system for spent fuel pools C and D.[34]

In any event, the harm asserted by BCOC is too remote to warrant a stay pending review. It is well-established that "speculation about a nuclear accident does not, as a matter of law, constitute the imminent, irreparable injury required for staying a licensing decision."[35] BCOC claims that its postulated accident scenario could amount to a "national disaster of historic proportions" based solely on Dr. Thompson's "calculation" of consequences.[36] Even assuming, *arguendo*, that Dr. Thompson accurately performed this calculation, his assumption that "an approximate doubling of the number of spent fuel

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[33] Declaration of 22 December 2000 by Dr. Gordon Thompson Regarding the Potential for a Severe Accident at Spent Fuel Pools C & D at the Harris Nuclear Power Plant (Dec. 22, 2000) ¶ 7.

[34] Applicant's Summ. at 57; Affidavit of Gareth W. Parry in Support of NRC Staff Opposition to Orange County's Petition for Review and Request for Immediate Suspension and Stay of the NRC Staff's No Significant Hazards Determination and Issuance of License Amendment for Harris Spent Fuel Pool Expansion (Jan. 9, 2001) ¶ 5.

[35] Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Units 1 and 2), ALAB-820, 22 NRC 743, 748 n.20 (1985) (citing Pacific Gas & Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-84-5, 19 NRC 953, 964 (1984)).

[36] BCOC Request at 9.

assemblies"[37] (necessary for his "historic" consequences) instantaneously occurs following implementation of the License Amendment is a physical and regulatory impossibility. The License Amendment limits the total heat load of spent fuel pools C and D to 1.0 MBTU and CP&L plans to store no more than 150 elements in pool C by the end of 2001.[38] CP&L cannot physically transport and store the thousands of spent fuel elements required to "double" the number stored at Harris for many years.[39] Without Dr. Thompson's bloated "consequences," BCOC's reliance on State of Ohio ex rel. Celebrezze[40] is inapt. Once again, BCOC has relied on Dr. Thompson to no avail.

BCOC also claims that "modifications may jeopardize fair consideration of alternatives" if an EIS is "later required."[41] A potential harm that "may" be "later required" is certainly not immediate. Further, a potential administrative action (*i.e.*, "fair consideration of alternatives") is definitely not irreparable. In any event, physical construction activities are all but complete at Harris spent fuel pools C and D.[42]

BCOC has not carried its burden to show irreparable injury.

3. CP&L will suffer irreparable harm if a stay were granted

On the other hand, CP&L's need to implement the License Amendment is urgent.

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[37] Thompson Mar. 2001 Decl. ¶ 77.

[38] Affidavit of R. Steven Edwards and Robert K. Kunita (March 30, 2001) ("CP&L Affidavit") ¶ 15. As compared to the approximately 3,000 elements already stored under the existing Harris license, the 150 additional elements is insignificant.

[39] Id.

[40] 812 F.2d 288, 291 (6th Cir. 1987). See BCOC Request at 9.

[41] BCOC Request at 9.

[42] CP&L Aff. ¶¶ 8, 10, 11.

Real harm and tangible costs will accrue if the Commission were to issue a stay. Harris spent fuel pools C and D are urgently needed to restore Prudent Operating Reserve[43] at Brunswick Units 1 and 2 and any stay of the license amendment would have a direct and immediate impact on restoring this capability.[44]

BCOC dismisses this element in a single conclusory sentence claiming that harm to CP&L from a stay "is minimal."[45] BCOC, however, has previously admitted that CP&L "is running out of core off-load space," although still summarily dismissing, without explanation, the impact on CP&L and its customers.[46] The impact of "running out of spent fuel storage space" has the potential to cause premature shutdown of CP&L's nuclear units, an occurrence that is not reasonably dismissed as "minimal" harm.

To the contrary, three of seven shipments of Robinson spent fuel planned for 2000 were cancelled as a result of previous delays in approval of the License Amendment.[47] As a result, Robinson will lose its Prudent Operating Reserve in the spring of 2001. Without implementing the License Amendment, Harris will lose its Prudent Operating Reserve in the fall of 2001.[48] The CP&L spent fuel shipping program would have to be

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[43] As used herein, a Prudent Operating Reserve is sufficient space in a spent fuel pool to allow storage of the new fuel to be loaded during the next refueling and to unload the entire reactor core. CP&L Aff. ¶ 12.

[44] Id. ¶ 13. Harris is licensed to store spent fuel from CP&L's Brunswick Units 1 and 2 and Robinson Unit 2, as well as from its Harris Unit 1 reactor. CP&L had originally anticipated obtaining the license amendment within a year of its application, before the loss of the Prudent Operating Reserve at any of its units.

[45] BCOC Request at 10.

[46] BCOC Dec. 2000 Filing at 19.

[47] CP&L Aff. ¶ 13.

[48] Id.

revised, at significant additional expense to CP&L, to compensate for further delays in spent fuel pool availability because of resource and shipping window limitations.[49] This is a significant harm to CP&L and its customers.

Any delay in implementing the License Amendment will result in a day-for-day delay in the availability of Harris spent fuel pools C and D. Work that could be performed without the License Amendment has long been completed.[50] The remaining work, testing, and revisions to plant procedures drawings, calculations, technical manuals, and databases to reflect the new plant configuration is nearly complete and the management, engineering, and support personnel are in place to complete the necessary activities over the next 90 days.[51] All of these resources will be adversely impacted, at a monetary cost to CP&L, if the Commission were to issue a stay.

BCOC ignores the irreparable harm to CP&L if a stay were granted.

4. The public interest lies in timely issuance of spent fuel storage license amendments

In the NWPA, Congress recognized that it would be many years before a permanent repository was ready to accept spent nuclear fuel. The Act provided special expedited licensing procedures designed "to encourage utilities to expand storage capacity at reactor sites."[52] Promptness, or the lack thereof, is an issue of significant weight in light of the greater than two-year length of these proceedings and the associated burdens already placed upon CP&L. The Commission, in adopting Subpart K, acknowledged that

[49] Id. ¶ 16.

[50] Id. ¶ 6.

[51] Id. ¶¶ 8, 10, 11.

[52] H.R. Rep. No. 97-785, 39 (1982).

the purpose of NWPA section 134 "is to encourage and expedite the licensing of onsite spent fuel expansions and transshipments."[53] Further, the Commission reiterated "its long-standing commitment to the expeditious completion of adjudicatory proceedings" only a few months before CP&L submitted the License Amendment Application.[54] An expedited resolution of this proceeding is required by the Commission's rules and policy. The additional delays that would result from Commission intervention at this point, especially in light of the exhaustive treatment and unanimous decisions below and the lack of a reasonable likelihood of BCOC prevailing on the merits, would circumvent Congressional intent for an expedited resolution of spent fuel expansion license amendment proceedings.

In light of the difficult situation in which CP&L finds itself regarding Prudent Operating Reserve at its nuclear units, the public interest in a reliable supply of electricity to CP&L's customers strongly militates against a stay.

In summary, BCOC has not met its burden of persuasion with regard to any of the factors the Commission requires to issue a stay. There is, therefore, no basis for such an action in this matter.

B. There Is No Basis for Commission Intervention

The BCOC Request presents no legitimate basis for Commission discretionary review. The Commission has the inherent discretion to institute a proceeding even where

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[53] 50 Fed. Reg. 41,662, 41,665 (1985) (emphasis added).

[54] "Statement of Policy on Conduct of Adjudicatory Proceedings," 48 NRC 18, 24 (1998).

one is not required by law.[55] However, such intervention "is appropriate only where substantial health and safety issues have been identified" and not under threat of federal court action.[56] BCOC raises, at best, only specious environmental issues already considered and rejected by the NRC Staff and Licensing Boards over the last two decades. The exhaustive deliberations and opinions of the Licensing Board in the proceeding below demonstrates the careful consideration given to BCOC's contention before it was unanimously rejected. There is simply no need for the Commission to exercise its discretion in this case.

III. CONCLUSION

For the reasons discussed above, BCOC fails to meet any of the applicable legal standards for a stay and the Commission should decline to issue such extraordinary relief.

Respectfully submitted,

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Dated: April 2, 2001

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[55] Yankee Atomic Electric Co. (Yankee Nuclear Power Station), CLI-94-3, 39 NRC 95, 103 (1994).

[56] Id.; see also BCOC Request at 1 n.2 (demanding Commission action by April 16, 2001 to prevent threatened court action).

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing "Carolina Power & Light Company's Answer Opposing Orange County's Request for Emergency Stay of LBP-01-09" dated April 2, 2001, was served by electronic mail transmission and first class mail on this 2nd day of April, 2001, on the persons listed below.

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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

AFFIDAVIT OF R. STEVEN EDWARDS AND ROBERT K. KUNITA

COUNTY OF WAKE	)	
	)	ss:
STATE OF NORTH CAROLINA	)	

Robert Steven Edwards and Robert K. Kunita, being sworn, do on oath depose and say:

1. My name is Robert Steven Edwards. I am a resident of the State of North Carolina. I am employed by Carolina Power & Light Company ("CP&L") and work at the Harris Nuclear Plant ("Harris Plant" or "Harris") in the Major Projects Section. Presently, I am the Supervisor, Spent Fuel Pool Project, and am responsible for commissioning and placing into service Harris spent fuel pools C and D, including the completion of the spent fuel pool cooling and cleanup system ("SFPCCS"), spent fuel storage rack design and installation, and related activities. My business address is 5413 Shearon Harris Road, New Hill, North Carolina 27562-0165. I was graduated from North Carolina State University in 1982 with

a B.S. in Industrial Engineering. My resume is provided as Attachment A to this affidavit.

2. My name is Robert K. Kunita. I am a resident of the State of North Carolina. I am employed by CP&L and work in the Nuclear Fuel Services Unit of the Nuclear Fuels Management & Safety Analysis Section of the Nuclear Engineering & Services Department. Presently, I am a Principal Engineer, Spent Fuel Management responsible for CP&L's spent fuel shipment and storage programs. My business address is 410 S. Wilmington Street, Raleigh, NC 27601-1551. I hold a Bachelor of Science degree in Physics from the Illinois Institute of Technology and a Masters of Science degree in Nuclear Science and Engineering from Carnegie Mellon University. My resume is provided in Attachment B to this affidavit.

3. The purposes of this affidavit are to identify and discuss (a) the activities in progress and planned by CP&L to place Harris spent fuel pools C and D in service as authorized by Amendment No. 103 to Facility Operating License No. NPF-63 issued on December 21, 2000 and (b) the significant adverse effects on the CP&L nuclear units from any further delay in making these pools available for spent fuel storage.

4. CP&L submitted an application for a license amendment to place spent fuel pools C and D in service on December 23, 1998.

5. The license amendment application and the need to expand spent fuel storage at Harris results from the failure of the U.S. Department of Energy ("DOE") to

begin taking delivery of spent fuel in 1998, as required by the contract between DOE and CP&L and by the Nuclear Waste Policy Act of 1982, as amended. CP&L originally requested that the license amendment to allow placement of spent fuel in spent fuel pools C and D be issued no later than December 31, 1999, as CP&L had planned to begin loading spent fuel in pool C starting in 2000.

6. Portions of the engineering and construction work required to place Harris spent fuel pools C and D in service could be completed pursuant to the Harris Plant 10 C.F.R. § 50.59 program. Work that could be completed without prior NRC approval included a) physical installation of SFPCCS and Component Cooling Water ("CCW") piping and equipment (including pumps, valves, motors, instrumentation and controls), up to but not including tie-ins to operable plant systems; b) installation of cable and conduit to support SFPCCS and CCW equipment, up to but not including final terminations; and c) installation of fourteen storage racks in spent fuel pool C that would remain unused until issuance and implementation of license amendment No. 103.

7. Work on Harris spent fuel pools C and D and supporting systems that could be completed without prior NRC staff approval was essentially completed while awaiting issuance of the license amendment.

8. Remaining physical work includes final piping connections to the existing SFPCCS and CCW systems and final electrical terminations. This work is in progress and nearing completion.

9. Once construction activities are completed, CP&L is required to conduct an

extensive testing program prior to activation of the spent fuel pools. This testing program is comparable to initial system startup testing conducted during original plant construction and includes inspections, piping flushes, hydrostatic tests, instrument and loop calibrations, system flow balancing, functional testing, and performance verification of all equipment.

10. Over 200 plant procedures, drawings, calculations, technical manuals and equipment databases required revision to reflect the new plant configuration. Engineering, construction, testing and administrative activities necessary to place spent fuel pools C and D into service is essentially complete.

11. Management, engineering and support personnel are currently performing the identified work activities. CP&L plans to place Harris spent fuel pools C and D into service following testing on or about July 2, 2001.

12. A "Prudent Operating Reserve" of unused storage capacity in a spent fuel pool allows for the pool storage of new fuel, planned for loading during a refueling outage, as well as the ability to discharge spent fuel from the reactor. If the unused capacity of a spent fuel pool is less than this Prudent Operating Reserve, the reactor cannot be completely unloaded during or after the completion of a refueling outage if necessary to facilitate maintenance.

13. Delays in licensing Harris spent fuel pools C and D have contributed to Brunswick Unit 2 losing its Prudent Operating Reserve in 1999 and Brunswick Unit 1 in 2000. Since Harris pools C and D were not available, three of the seven shipments of Robinson spent fuel to Harris planned to occur in 2000 were

cancelled. As a consequence, Robinson will lose its Prudent Operating Reserve in the spring of 2001. Without the availability of pools C or D, Harris will lose its Prudent Operating Reserve in the fall of 2001.

14. Further delays threaten to impact directly and adversely CP&L's ability to maintain adequate spent fuel storage capacity. The loss of full core discharge capability could lead to a forced shutdown of one or more of CP&L's nuclear units.

15. CP&L currently plans to store less than one hundred and fifty fuel elements in pool C before the end of calendar year 2001 and has no plans to store any spent fuel in pool D for a number of years. Spent fuel pools A and B currently contain a total of approximately three thousand spent fuel elements.

16. The CP&L spent fuel shipping program would have to be revised, at significant additional expense to CP&L, to compensate for further delays in spent fuel pool availability because of resource and shipping window limitations.

CONCLUSIONS

17. Further delays in availability of Harris spent fuel pools C and D could result in the inability to fully offload the cores and potential shutdown of the Brunswick, Robinson and Harris nuclear reactors. This would be a significant injury to CP&L and its customers.

18. In order to maintain the planned spent fuel shipping schedule, the remaining

activities necessary to place Harris spent fuel pools C and D into service must continue as scheduled. Further delay would directly impact CP&L's ability to place the pools in service in time to avoid the significant injuries resulting from a loss of spent fuel storage capacity.

I declare under penalty of perjury that the foregoing information contained in paragraphs 1, 3, 4, 6, 7, 8, 9, 10, 11, and 18 is true and correct to the best of my knowledge and belief.

Executed on March 29, 2001.

WANDA C. LANGSTON NOTARY *** PUBLIC WAKE COUNTY, N.C.

R. Steven Edwards

I declare under penalty of perjury that the foregoing information contained in paragraphs 2, 3, 4, 5, 12, 13, 14, 15, 16, and 17 is true and correct to the best of my knowledge and belief.

Executed on March 29, 2001.

WANDA C. LANGSTON NOTARY *** PUBLIC WAKE COUNTY, N.C.

Robert K. Kunita

Subscribed and sworn to before me
this 30 day of March 2001.

Wanda C Langston

My Commission expires: 9-15-2002

Attachment A
Resume of Robert Steven Edwards

R. Steven Edwards

Summary: Eighteen years experience in engineering, project management and outage management.

EXPERIENCE: Carolina Power & Light Company, June 1982 - Present

Supervisor, Spent Fuel Pool Project, Nuclear Engineering/Harris Plant (April 1998 - Present)

Project manager for Harris spent fuel pool 'C' and 'D' activation projects including spent fuel pool cooling and cleanup system completion, spent fuel storage rack design and installation, pool cleanup, and related activities. Responsible for all aspects of scope, cost, schedule and quality of projects. Responsible for study, design and implementation activities. Supervise multi-disciplined modification engineering staff that includes mechanical, civil and electrical engineers that develop plant design change modifications, oversee architect/engineer designs, write procedures, perform 10CFR50.59 analyses, perform ANSI N45.2.11 design verification reviews, and perform owner reviews of A/E developed modifications and calculations. Manage activities of various A/E engineers performing design activities including Bechtel, Sargent & Lundy, Duke Engineering, Raytheon, Protopower and Holtec. Responsible for development of License Amendment Request for SFP Activation project. Provide technical support to spent fuel communications team. Perform root cause evaluations. Serve as Emergency Response Organization Company Technical Spokesperson.

Manager of Projects, Nuclear Engineering (July 1996 - April 1998)

Project manager responsible for scope, cost, schedule and quality of various nuclear projects. Responsible for A/E design and analysis. Managed outsource engineering activities (scope development, schedule & cost management, AE negotiations & interface) for preferred and specialty engineering AE's and contractors. Provided group-wide oversight and administration of project management and economic evaluation processes, procedures and activities. Responsible for three-phase project authorization including value-added technical and financial review of projects requiring executive approval. Delivered economic evaluation module at NGG Business Concepts Course. Taught Project Cost Management module for Project Management Institute (PMI) project manager certification course. Developed and delivered various project management/ project controls presentations to industry groups such as Integrated Scheduling & Planning Utility Group (ISPUG) and Institute for International Research Budgeting and Forecasting Conference.

Director - Project Control, Nuclear Business Operations/ Operations & Environmental Support (October 1994 - July 1996)

Provided group-wide oversight and administration of project management and economic evaluation processes and activities. Lead development of NGG project management procedure. Responsible for three-phase project authorization. Developed and delivered project management and economic analysis training to plant personnel focusing on fundamentals and NGG specifics. Delivered various project management related presentations to industry groups and internal company management. Managed implementation of integrated project cost/schedule reporting system that combined FAIM financial data with Prestige schedule information. Developed and delivered economic evaluation module of NGG Business Concepts Course. Managed project budgeting team that implemented process to use Prestige schedule and resource data to build budget for

plant projects. Facilitated development of Long Range Planning process at each nuclear plant. Project management peer group facilitator.

Director - Information Architecture (Nuclear), Management Services (August 1992 - October 1994)

Served as management-level liaison and project manager for nuclear related information technology projects. Provided technical and business process perspective for corporately implemented nuclear I/T projects. Coordinated the development of the nuclear portion of the Corporate Information Technology (I/T) Plan including administration of project prioritization process. Evaluated NGG generated requests for I/T products and services including evaluation of business justification, development of cost/benefit analyses and approval of I/S resource allocations.

Project Engineer - Mechanical Systems, Technical Support, Robinson Plant (June 1991 - August 1992)

Managed staff of four system engineers and two component engineers responsible for operation, performance, reliability and maintenance of various plant NSSS, support and secondary mechanical systems and equipment such as high head safety injection, low head SI/residual heat removal, containment spray, reactor coolant pumps, liquid & gaseous waste disposal, steam generator blowdown, HVAC, make up water treatment, condensate polishing, etc. Provided extensive coaching and mentoring to staff with varied experience/education levels in development of their customer focused, performance oriented system and component engineering skills. Served as refueling outage Technical Support Shift Manager responsible for timely and successful completion of all engineering related outage activities through coordination of efforts with operations, maintenance, corporate engineering and other site management as well as supervision of engineers assigned to emergent activities and planned projects. Served on Emergency Response Organization as Accident Assessment Team - Mechanical Engineer and Emergency Communicator.

System Engineer - Mechanical Systems, Technical Support, Robinson Plant
Senior Engineer (July 1988 - June 1991); Engineer (November 1986 - July 1988)

Supervised staff of contract engineers responsible for specific projects including plant performance monitoring, procedure rewrite, backlog assessment, engineering training program, and work management system development (1990-1991).

System engineer responsible for operation, performance, reliability and maintenance of various mechanical systems including all plant HVAC, containment vessel (civil and support systems), LHSI/RHR, containment spray, post accident containment venting/H2 recombiner, primary and post-accident sampling, etc. (1986-1990). As system engineer, monitored system/equipment performance; performed surveillance tests; developed engineering evaluations, temporary plant modifications, procedures, 10CFR50.59 safety analyses, ANSI N45.2.11 design verification reviews, procurement engineering reviews, etc. Provided oversight to maintenance staff in troubleshooting system/equipment problems. Conducted root cause analyses. Served on Emergency Response Organization as Accident Assessment Team - Mechanical Engineer and Emergency Communicator.

R. Steven Edwards

Outage Planning and Scheduling Engineer, Outage Management, Robinson Plant Engineer (June 1984 - November 1986); Associate Engineer (June 1982 - June 1984)

Responsible for planning, scheduling and execution of outages and major projects. Developed detail and summary level schedules for forced outages, refueling outages, steam generator replacement outage and normal operating periods using manual CPM and ARTEMIS project management system. Led plan-of-day meetings. Served as field coordinator in outage management organization for major projects such as S/G eddy current.

PROFESSIONAL DEVELOPMENT: Attended American Management Association Project Management and Financial Analysis training, Reengineering Fundamentals Seminar, Harvard University In-Place Filter Testing Workshop, industry sponsored ANSI N510 Fan and Filter Testing Workshop, and NCSU Fundamentals of HVAC Design. Participated in company sponsored technical, project management and management/supervisory development training. Engineer in Training Certification - State of North Carolina.

EDUCATION: Bachelor of Science in Industrial Engineering, North Carolina State University, May 1982

Attachment B
Resume of Robert K. Kunita

Carolina Power & Light Co.,
A Progress Energy Company
410 S. Wilmington Street
Raleigh, NC 27602-1551
Work (919) 546-2709
Home (919) 847-6901

Robert K. Kunita

Professional Experience

1973 - Present Carolina Power & Light Company

Principal Engineer – Spent Fuel Management

During my 27 years with Carolina Power & Light, I have worked in the Power Plant Engineering Section, the Nuclear Fuel Section, and the Emergency Preparedness & Spent Fuel Management Sections, all of which were in the Corporate Offices in Raleigh, NC. I have worked for the past three years at the Harris Nuclear Plant located in New Hill, NC in the Spent Fuel Management Subunit of the Environmental and Radiation Control Unit. I have recently (Dec, 2000) transferred to the Nuclear Fuels Management & Safety Analysis Section of the Nuclear Engineering & Services Department located in the Corporate Offices in Raleigh, NC..

My experience covers a broad range of nuclear fuel related items from reactor systems interfaces, fuel design, fuel fabrication, nuclear material accountability, and spent fuel management. I was responsible for and accomplished reviews of system designs and NRC license application submittals, development and implementation of nuclear fuel fabrication surveillance plans, establishment and maintenance of a nuclear material accountability program, development of a dry spent fuel storage demonstration project which was successfully implemented, preparation of implementation of spent fuel shipping emergency exercises, and development of a corporate spent fuel management plan.

I have reviewed documents from the NRC, NEI, EPRI, etc. for technical adequacy and impact on CP&L and I have represented CP&L on numerous NEI and EPRI spent fuel committees.

1966 - 1973 Bettis Atomic Power Laboratory West Mifflin, PA

Associate Engineer through Senior Engineer

I worked for 7 years at the Bettis Atomic Power Laboratories, which was run by Westinghouse for the Naval Reactors Program. I was a member of the nuclear core design team for Admiral Rickover's Light Water Breeder Reactor Project, which subsequently ran successfully at the Shippingport Reactor. I performed computerized nuclear design calculations and participated in fuel design changes to optimize breeding while safely generating reactor power.

Education

Carnegie Mellon University Pittsburgh, PA

- 1973 M. S. Nuclear Science and Engineering

Illinois Institute of Technology Chicago, IL

- 1966 B.S. Physics

Registration

Registered Professional Engineer

- North Carolina, PE #007015

Awards

1993 CP&L Quality Achievement Award

Professional Memberships

American Nuclear Society

Easterm Carolinas Section of the American Nuclear Society, past membership chairman and treasurer.