July 29, 2005

Mr. J. W. Moyer, Vice President
Carolina Power & Light Company
H. B. Robinson Steam Electric Plant
3581 West Entrance Road
Hartsville, South Carolina 29550

SUBJECT: FEDERAL REGISTER NOTICE PUBLISHING AN ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT FOR AN EXEMPTION FROM 10 CFR 72.212 AND 72.214 (TAC NO. L23860)

Dear. Mr. Moyer:

In accordance with Progress Energy Carolina, Inc., also known as Carolina Power and Light Company (CP&L), exemption request dated June 13, 2005, as supplemented on July 20, 2005, and pursuant to 10 CFR 51.35, the Nuclear Regulatory Commission (NRC), Office of Nuclear Material Safety and Safeguards, Spent Fuel Project Office, is forwarding an Environment Assessment and Finding of No Significant Impact for noticing in the Federal Register. The requested exemption would allow CP&L to use the proposed Amendment No. 8 to Certificate of Compliance No. 1004, with further exemptions and conditions, for the Transnuclear, Inc. (TN) NUHOMS® Storage System, prior to completion of the amendment rulemaking.

NRC will notify you in a timely manner of our decision on this exemption request. Enclosed is a copy of the Federal Register Notice.

Sincerely,
/RA/
L. Raynard Wharton, Project Manager
Spent Fuel Project Office
Office of Nuclear Material Safety
and Safeguards

Docket Nos. 72-60 (50-261)

Enclosure: Federal Register Notice

July 29, 2005

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Docket Nos. 72-60 (50-261)

Enclosure: Federal Register Notice

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|---|---|---|---|---|---|---|
| NAME | LRWharton* | | MDeBose* | | MMarkley* | |
| DATE | 07/ 13 /05 | | 07/ 13 /05 | | 07/ 29 /05 | |

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7590-01-P

U.S. NUCLEAR REGULATORY COMMISSION

CAROLINA POWER AND LIGHT COMPANY

H. B. ROBINSON INDEPENDENT SPENT FUEL STORAGE INSTALLATION

DOCKET NO. 72-60

ENVIRONMENTAL ASSESSMENT AND FINDING OF

NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (NRC or Commission) is considering issuance of an exemption to Progress Energy Carolinas, Inc. also known as Carolina Power & Light Company (CP&L or licensee), pursuant to 10 CFR 72.7, from specific provisions of 10 CFR 72.212(a)(2), 72.212(b)(2)(i)(A), 72.212(b)(7), and 72.214. The licensee wants to use the Transnuclear, Inc. (TN) NUHOMS Storage System, Certificate of Compliance No. 1004 (CoC or Certificate) Amendment No. 8 (24PTH DCS), to store spent nuclear fuel under a general license in an Independent Spent Fuel Storage Installation (ISFSI) associated with the operation of the H. B. Robinson Steam Electric Plant, Unit No. 2 (HBRSEP2), located in Darlington County, South Carolina. The requested exemption would allow CP&L to use the TN NUHOMS®-24PTH system with revised transfer cask/dry shielded canister (TC/DSC) handling and lifting height specifications prior to completion of the proposed TN NUHOMS CoC Amendment No. 8 rulemaking.

ENVIRONMENTAL ASSESSMENT (EA)

Identification of Proposed Action:

The proposed action would exempt CP&L from the requirements of 10 CFR 72.212(a)(2), 72.212(b)(2)(i)(A), 72.212(b)(7), and 72.214 and enable CP&L to use the TN NUHOMS® -24PTH cask design with modifications at HBRSEP2. These regulations specifically require storage in casks approved under the provisions of 10 CFR Part 72 and compliance with the conditions set forth in the CoC for each dry spent fuel storage cask used by an ISFSI general licensee. The TN NUHOMS® CoC provides requirements, conditions, and operating limits in Attachment A, Technical Specifications. The proposed action would exempt CP&L from the requirements of 10 CFR 72.212(a)(2) and 72.214 enabling the licensee to store fuel in the TN NUHOMS® -24PTH DSC system prior to the effective date of the final rule change for the Amendment No. 8 approving the issuance of this amended CoC. The proposed action would also exempt CP&L from the requirements of 10 CFR 72.212(b)(2)(i)(A) and 72.212(b(7) to allow lifting and handling a loaded TC/DSC above the height limit in the proposed Amendment No. 8. Specifically, the exemption would be from the requirement to limit the lift height of a loaded TC/DSC to 80 inches when outside the spent fuel pool building. In lieu of this requirement, CP&L stated that the TC/DSC will not be lifted higher than 80 inches when not being handled by devices that meet the existing 10 CFR Part 50 license heavy load requirements.

Additionally, TN identified an issue in the proposed Amendment No. 8 CoC that resulted in a need for clarification to the proposed technical specifications in regard to thermal loading patterns and transit times for the 24PTH DSC. CP&L stated that a limit of 1.3 kilowatts decay heat level per fuel assembly will be imposed to ensure cask loadings are bounded by the

analyses supporting the proposed Amendment No. 8. Further, the NRC staff identified an issue in the proposed Amendment No. 8 CoC related to the potential for air (oxygen) to come in contact with spent fuel during DSC draining and vacuum drying evolutions. CP&L committed to implementing procedural controls to ensure that (1) only nitrogen or helium is used for blowdown during vacuum drying evolutions, and (2) when draining water from the DSC at or below the level of the fuel cladding, a nitrogen cover will be used. CP&L requested that the exemptions remain in effect for 90 days following the effective date of the final rule change to 10 CFR 72.214 to incorporate TN CoC No. 1004, Amendment No. 8. The proposed action would allow CP&L to use the -24PTH system as described in the TN NUHOMS® CoC amendment requests currently under staff review and subject to the commitments made by CP&L with respect to the issues that have been identified in the proposed CoC for TN NUHOMS® Amendment No. 8.

The proposed action is in accordance with the licensee's request for exemption dated June 13, 2005, as supplemented July 20, 2005.

Need for the Proposed Action:

The proposed action is needed because CP&L plans to initiate the transfer of the HBRSEP2 spent fuel pool contents to the ISFSI in August 2005. The fuel transfer campaign was scheduled to begin in late July 2005. The licensee has planned its dry fuel campaign to support the HBRSEP2 Refuel Outage 23 (RO-23), currently scheduled to begin on September 17, 2005. The licensee stated that the exemption is requested to maintain the ability to offload a full core of 157 fuel assemblies upon restart from RO-23 in October 2005. Additionally, if no fuel is transferred to dry storage prior to the start of RO-23, there would be insufficient space in the spent fuel pool for the 56 new fuel assemblies that will be loaded into

the reactor core during RO-23. This would complicate the fuel handling evolutions required for core reload during the outage. The proposed action is necessary because the 10 CFR 72.214 rulemaking to implement the TN NUHOMS® CoC Amendment No. 8 is not projected for completion until late Fall 2005, which will not support the HBRSEP2 fuel transfer and dry cask storage loading schedule.

Environmental Impacts of the Proposed Action:

The NRC has completed its evaluation of the proposed action and concludes that there will be no significant environmental impact if the exemptions are granted. The staff reviewed the analyses provided in the TN NUHOMS amendment applications addressing the NUHOMS® -24PTH, -32PT, and -24PHB systems. Included in those applications were TC/DSC lifting and handling height technical specification revisions. The staff has completed Safety Evaluation Reports (SERs) associated with reviews of the applications. The SER for the TN NUHOMS® -24PTH system documenting the staff's safety findings and conclusions was published in the Federal Register on May 25, 2005. The SER documenting the staff's safety finding associated with the lifting and handling height restriction revision was included as an enclosure to the letter to U. B. Chopra, dated March 30, 2005.

The thermal loading pattern issue identified by TN was reviewed by the staff and found to be acceptable, with a 1.3 kW per assembly decay heat limit. The staff-identified issue regarding spent fuel in an oxidizing environment was reviewed and found acceptable provided the spent fuel environment for short term operations, draining and vacuum drying, is limited to an inert atmosphere (nitrogen or helium). The staff agrees that both CP&L commitments, regarding the decay heat limit per fuel assembly and the limiting of blowdown and draining evolutions to an environment of nitrogen or helium, will maintain safety regarding fuel loading

and transfer operations. The NRC concludes that there is reasonable assurance that the proposed exemptions have no impact on off-site doses.

The potential environmental impact of using the NUHOMS® system was initially presented in the Environmental Assessment (EA) for the Final Rule to add the TN Standardized NUHOMS® Horizontal Modular Storage System for Irradiated Nuclear Fuel to the list of approved spent fuel storage casks in 10 CFR 72.214 (59 FR 65898, dated December 22, 1994). The potential environmental impact of using the NUHOMS® -24PTH system was initially presented in the Environmental Assessment (EA) for the direct final rule to add the 24PTH system to the Standardized NUHOMS® system, Amendment No. 8 (70 FR 29931, dated May 25, 2005). The TN -24PTH, -32PT, and -24PHB systems do not 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 no significant increase in occupational or public radiation exposure. Therefore, there are no significant radiological environmental impacts associated with the proposed action.

With regard to potential nonradiological impacts, the proposed action does not have a potential to affect any historic sites. It does not affect nonradiological plant effluents and has no other environmental impact. Therefore, there are no significant nonradiological environmental impacts associated with the proposed action.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed action.

Alternative to the Proposed Action:

Since there is no significant environmental impact associated with the proposed action, alternatives with equal or greater environmental impact were not evaluated. As an alternative to the proposed action, the staff considered denial of the proposed action. Denial of the exemption would result in no change in current environmental impact.

Agencies and Persons Consulted:

This exemption request was discussed with Mr. Henry Porter, Assistant Director of the Division of Waste Management, Department of Health and Environmental Control, for the State of South Carolina, on July 13, and July 27, 2005. He stated that the State had no comments on the technical aspects of the exemption. The NRC staff has determined that a consultation under Section 7 of the Endangered Species Act is not required because the proposed action will not affect listed species or critical habitat. The NRC staff has also determined that the proposed action is not a type of activity having the potential to cause effects on historic properties. Therefore, no further consultation is required under Section 106 of the National Historic Preservation Act.

FINDING OF NO SIGNIFICANT IMPACT

The environmental impacts of the proposed action have been reviewed in accordance with the requirements set forth in 10 CFR Part 51. Based upon the foregoing Environmental Assessment, the Commission finds that the proposed action of granting the exemption from specific provisions of 10 CFR 72.212(a)(2), 72.212(b)(2)(i)(A), 72.212(b)(7), and 10 CFR 72.214, to allow CP&L to use a modified version of the proposed CoC No. 1004, Amendment No. 8, subject to conditions, will not significantly impact the quality of the human environment. Accordingly, the Commission has determined that an environmental impact statement for the proposed exemption is not warranted.

In accordance with 10 CFR 2.390 of NRC's "Rules of Practice," final NRC records and documents regarding this proposed action are publically available in the records component of NRC's Agencywide Documents Access and Management System (ADAMS). The request for exemption dated June 13, 2005, and July 20, 2005, was docketed under 10 CFR Part 72, Docket No. 72-60. These documents may be inspected at NRC's Public Electronic Reading Room at http://www.nrc.gov/reading-rm/adams.html. These documents may also be viewed electronically on the public computers located at the NRC's Public Document Room (PDR), O1F21, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852. The PDR reproduction contractor will copy documents for a fee. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS, should contact the NRC PDR Reference staff by telephone at 1-800-397-4209 or (301) 415-4737, or by e-mail to pdr@nrc.gov

Dated at Rockville, Maryland, this 29th day of July, 2005.

FOR THE NUCLEAR REGULATORY COMMISSION
/RA/
L. Raynard Wharton, Project Manager
Spent Fuel Project Office
Office of Nuclear Material Safety
and Safeguards

10 CFR 72.214, to allow CP&L to use a modified version of the proposed CoC No. 1004, Amendment No. 8, subject to conditions, will not significantly impact the quality of the human environment. Accordingly, the Commission has determined that an environmental impact statement for the proposed exemption is not warranted.

In accordance with 10 CFR 2.390 of NRC's "Rules of Practice," final NRC records and documents regarding this proposed action are publically available in the records component of NRC's Agencywide Documents Access and Management System (ADAMS). The request for exemption dated June 13, 2005 and July 20, 2005, was docketed under 10 CFR Part 72, Docket No. 72-3. These documents may be inspected at NRC's Public Electronic Reading Room at http://www.nrc.gov/reading-rm/adams.html. These documents may also be viewed electronically on the public computers located at the NRC's Public Document Room (PDR), O1F21, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852. The PDR reproduction contractor will copy documents for a fee. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS, should contact the NRC PDR Reference staff by telephone at 1-800-397-4209 or (301) 415-4737, or by e-mail to pdr@nrc.gov

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