



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

December 8, 2010

Christopher Burton, Vice President
Shearon Harris Nuclear Power Plant
Carolina Power & Light Company
Post Office Box 165, Mail Zone 1
New Hill, North Carolina 27562-0165

SUBJECT: SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1- ENVIRONMENTAL
ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT RE: REQUEST
FOR EXEMPTION FROM PHYSICAL SECURITY REQUIREMENTS (TAC NO.
ME4724)

Dear Mr. Burton:

Enclosed is a copy of the Environmental Assessment and Finding of No Significant Impact related to the exemption request dated September 20, 2010, for Shearon Harris Nuclear Power Plant, Unit No. 1, for the Carolina Power & Light Company (CP&L, the licensee), now doing business as Progress Energy Carolinas, Inc. The exemption would extend the compliance date to November 30, 2011, for the implementation of one item of the new security requirements in a final rule issued by the U.S. Nuclear Regulatory Commission (NRC) revising Title 10 of the *Code of Federal Regulations*, Part 73, dated March 27, 2009 (74 FR 13926). Pursuant to the final rule, the new security requirements were to be implemented by March 31, 2010. However, by letter dated February 24, 2010, the NRC granted an exemption to the licensee for three specific items, allowing the implementation of these three items to be deferred until December 15, 2010. In its letter dated September 20, 2010, the licensee requested a further extension to the implementation date for the one item until November 30, 2011. Portions of the September 20, 2010, submittal contain security-related information and, accordingly, a redacted version of this submittal is available for public review in the Agencywide Documents Access and Management System, Accession No. ML102650191.

The assessment is being forwarded to the Office of the Federal Register for publication. If you have any questions, please contact me at (301) 415-2020 or via e-mail at brenda.mozafari@nrc.gov.

Sincerely,

Faridah E. Sel

for Brenda Mozafari, Senior Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-400

Enclosure: Environmental Assessment

cc w/encl: Distribution via Listserv

NUCLEAR REGULATORY COMMISSION
CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1
DOCKET NO. 50-400
ENVIRONMENTAL ASSESSMENT AND
FINDING OF NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (NRC, the Commission) is considering issuance of an exemption, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 73.5, "Specific exemptions," from the implementation date for certain requirements of 10 CFR Part 73, "Physical protection of plants and materials," for Renewed Facility Operating License No. NPF-63, issued to Carolina Power & Light Company (the licensee), now doing business as Progress Energy Carolinas, Inc., for operation of the Shearon Harris Nuclear Power Plant (HNP), Unit 1, located in New Hill, North Carolina. In accordance with 10 CFR 51.21, the NRC staff prepared an environmental assessment documenting its finding. The NRC staff concluded that the proposed actions will have no significant environmental impact.

ENVIRONMENTAL ASSESSMENT

Identification of the Proposed Action:

The proposed action would exempt the licensee from the required implementation date of March 31, 2010, for one specific requirement of 10 CFR Part 73. Specifically, HNP, Unit 1 would be granted a second exemption, further extending the date for compliance with one remaining item of the requirements contained in 10 CFR 73.55, from December 15, 2010, (the date specified in a prior exemption granted by NRC on February 24, 2010), until November 30, 2011. The proposed action, an extension of the schedule for completion of certain actions

required by the revised 10 CFR Part 73, does not result in any additional physical changes to the reactor, fuel, plant structures, support structures, water, or land at the HNP, Unit 1 site.

The proposed action is in accordance with the licensee's application dated September 20, 2010.

The Need for the Proposed Action:

The proposed exemption is needed to provide the licensee with additional time, beyond the date granted by the NRC letter dated February 24, 2010, to implement one remaining item of the three requirements in the previous exemption that involves important physical modifications to the HNP, Unit 1 security system. There are several issues which have delayed the work to this point, and/or impacted the projected schedule, such as the existence of safety-related conduit and dedicated safe shut down (SSD) equipment of HNP, Unit 1 within the room in which some important security modifications are planned. A direct outside access route to the physical construction area has not been available due to design basis tornado and missile considerations for the safety related conduits and SSD equipment. These issues were revealed as the design evolved from the conceptual state to a detailed design state. Presently, CP&L is pursuing a design solution that will allow both temporary and ultimately permanent direct outside access to the area. Additional time, beyond that previously approved, is needed due the extensive redesign and review effort that was unforeseen at the conceptual design stage.

Environmental Impacts of the Proposed Action:

The NRC staff has completed its environmental assessment of the proposed exemption. The NRC staff has concluded that the proposed action to further extend the implementation deadline for one item would not significantly affect plant safety and would not have a significant adverse effect on the probability of an accident occurring.

The proposed action would not result in an increased radiological hazard beyond those hazards previously analyzed in the environmental assessment and final finding of no significant

impact made by the Commission in promulgating its revisions to 10 CFR Part 73 as discussed in a *Federal Register* notice dated March 27, 2009; 74 FR 13926. There will be no change to radioactive effluents that affect radiation exposures to plant workers and members of the public. Therefore, no changes or different types of radiological impacts are expected as a result of the proposed exemption.

The proposed action does not result in changes to land use or water use, or result in changes to the quality or quantity of non-radiological effluents. No changes to the National Pollution Discharge Elimination System permit are needed. No effects on the aquatic or terrestrial habitat in the vicinity of the plant, or to threatened, endangered, or protected species under the Endangered Species Act, or impacts to essential fish habitat covered by the Magnuson-Stevens Act are expected. There are no impacts to the air or ambient air quality.

There are no impacts to historical and cultural resources. There would be no impact to socioeconomic resources. Therefore, no changes to or different types of non-radiological environmental impacts are expected as a result of the proposed exemption.

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

With its request to extend the implementation deadline, the licensee currently maintains a security system acceptable to the NRC and that will continue to provide acceptable physical protection of HNP, Unit 1 in lieu of the new requirements in 10 CFR Part 73. Therefore, the extension of the implementation date for one element of the new requirements of 10 CFR Part 73 to November 30, 2011, would not have any significant environmental impacts.

The NRC staff's safety evaluation will be provided in the exemption that will be issued as part of the letter to the licensee approving the exemption to the regulation, if granted.

Environmental Impacts of the Alternatives to the Proposed Action:

As an alternative to the proposed actions, the NRC staff considered denial of the proposed action (i.e., the "no-action" alternative). Denial of the exemption request would result in no change in current environmental impacts. If the proposed action was denied, the licensee would have to comply with the existing implementation deadline of December 15, 2010, for one remaining item of the three requirements, as granted on February 24, 2010. The environmental impacts of the proposed exemption and the "no-action" alternative are similar.

Alternative Use of Resources:

The action does not involve the use of any different resources than those considered in the Final Environmental Statement for HNP, Unit 1, NUREG-0972, dated October 31, 1983, as supplemented through the "Generic Environmental Impact Statement for License Renewal of Nuclear Plants: Regarding Shearon Harris Nuclear Power Plant, Unit 1 - Final Report (NUREG-1437, Supplement 33)."

Agencies and Persons Consulted:

In accordance with its stated policy, on December 2, 2010, the NRC staff consulted with the North Carolina State official, lee.cox@ncdenr.gov of the North Carolina Department of Environment and Natural Resources, regarding the environmental impact of the proposed action. The State official had no comments.

FINDING OF NO SIGNIFICANT IMPACT

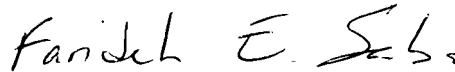
On the basis of the environmental assessment, the NRC concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the NRC has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's letter dated September 20, 2010. Portions of the September 20, 2010, submittal contain security-related information and, accordingly, a redacted version of this letter is available for public review in the

Agencywide Documents Access and Management System (ADAMS), Accession No. ML102650191. This document may be examined, and/or copied for a fee, at the NRC's Public Document Room (PDR), located at One White Flint North, Public File Area O-1F21, 11555 Rockville Pike (first floor), Rockville, Maryland 20852. Publicly available records will be accessible electronically from the ADAMS Public Electronic Reading Room on the Internet at the NRC Web site: <http://www.nrc.gov/reading-rm/adams.html>. 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 send an e-mail to pdr.resource@nrc.gov.

Dated at Rockville, Maryland, this 8 day of December, 2010.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "Farideh E. Saba".

Farideh E. Saba, Senior Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

December 8, 2010

Christopher Burton, Vice President
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Sincerely,

/RA/

Brenda Mozafari, Senior Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
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