



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

January 14, 2010

Chris L. 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
(TAC NO. ME2827)

Dear Mr. Burton:

Enclosed is a copy of the Environmental Assessment and Finding of No Significant Impact related to your application for exemption dated November 30, 2009, as supplemented by letter dated December 16, 2009. The proposed exemption from specific requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 73, for the Shearon Harris Nuclear Power Plant, Unit 1, would extend the deadline from March 31, 2010, until July 30, 2010, and December 15, 2010, for the implementation of certain measures in 10 CFR Part 73.

The assessment is being forwarded to the Office of the *Federal Register* for publication.

Sincerely,

A handwritten signature in black ink, appearing to read "Marlayna Vaaler".

Marlayna Vaaler, 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/enclosure: 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) 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 new 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. (PEC), for operation of the Shearon Harris Nuclear Power Plant, Unit 1 (HNP), located in New Hill, North Carolina.

In accordance with 10 CFR 51.21, "Criteria for and identification of licensing and regulatory actions requiring environmental assessments," the NRC prepared an environmental assessment documenting its finding. The NRC concluded that the proposed actions will have no significant environmental impact.

ENVIRONMENTAL ASSESSMENT

Identification of the Proposed Action:

The proposed action would exempt HNP from the required implementation date of March 31, 2010, for several new requirements of 10 CFR Part 73. Specifically, HNP would be granted an exemption from being in full compliance with certain new requirements contained in 10 CFR 73.55, "Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage," by the March 31, 2010, deadline. PEC has proposed

an alternate full compliance implementation date of July 30, 2010, for one requirement, and December 15, 2010, for two other requirements, which is approximately four months and eight and a half months, respectively, beyond the date required by 10 CFR Part 73. The proposed action, an extension of the schedule for completion of certain actions required by the revised 10 CFR Part 73, does not involve any physical changes to the reactor, fuel, plant structures, support structures, water, or land at the HNP site.

The proposed action is in accordance with the licensee's application dated November 30, 2009, as supplemented by letter dated December 16, 2009.

The Need for the Proposed Action:

The proposed action is needed to provide the licensee with additional time to perform the required upgrades to the HNP security system due to the need to design, resource, construct, and test three significant physical modifications to the current site security configuration, as well as other factors.

Environmental Impacts of the Proposed Action:

The NRC has completed its environmental assessment of the proposed exemption. The staff has concluded that the proposed action to extend the implementation deadline 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 previously analyzed in the environmental assessment and finding of no significant impact made by the Commission in promulgating its revisions to 10 CFR Part 73 as discussed in a *Federal Register* (FR) notice dated March 27, 2009 (74 FR 13967). 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-Steven's 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. In addition, in promulgating its revisions to 10 CFR Part 73, the Commission prepared an environmental assessment and published a finding of no significant impact (Part 73, Power Reactor Security Requirements, 74 FR 13926 through 13967, dated March 27, 2009).

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 actions (i.e., the "no-action" alternative). If the proposed action was denied, the licensee would have to comply with the March 31, 2010, implementation deadline. Denial of the exemption request would result in no change in current environmental impacts. Therefore, 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, 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 18, 2009, the NRC staff consulted with the North Carolina State official, Ms. Beverly Hall of the Division of Radiation Protection, with 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 November 30, 2009, as supplemented by letter dated December 16, 2009. Attachment 1 to the licensee's November 30, 2009, letter, as well as the December 16, 2009, letter in its entirety contain security-related information and, accordingly, are not available to the public. Other parts of these documents 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 Agencywide Document Access and Management System (ADAMS)

Public Electronic Reading Room on the Internet at the NRC Website:

<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 14th day of January 2010.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "Marlayna Vaaler", written in a cursive style.

Marlayna Vaaler, Project Manager
Plant Licensing Branch 2-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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Sincerely,

/RA/

Marlayna Vaaler, Project Manager
Plant Licensing Branch II-2
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Office of Nuclear Reactor Regulation

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