



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

February 18, 2010

Mr. Michael J. Annacone, Vice President  
Brunswick Steam Electric Plant  
Carolina Power & Light Company  
Post Office Box 10429  
Southport, North Carolina 28461

SUBJECT: BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2 – ENVIRONMENTAL  
ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT  
(TAC NOS. ME2804 and ME2805)

Dear Mr. Annacone:

Enclosed is a copy of the Environmental Assessment and Finding of No Significant Impact related to your application for exemptions dated November 30, 2009. The proposed exemption from specific requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 73, for the Brunswick Steam and Electric Plant, Units 1 and 2, would extend the deadline from March 31, 2010, until December 20, 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 that reads "Farideh E. Saba".

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

Docket Nos. 50-325 and 50-324

Enclosure: As stated

cc w/encl: Distribution via Listserv

NUCLEAR REGULATORY COMMISSION  
CAROLINA POWER & LIGHT COMPANY  
DOCKET NOS. 50-325 AND 50-324  
BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2  
ENVIRONMENTAL ASSESSMENT AND  
FINDING OF NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of exemptions, 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 Facility Operating License Nos. DPR 71 and DPR-62, issued to Carolina Power & Light Company (CP&L, the licensee), for operation of the Brunswick Steam Electric Plant, Units 1 and 2 (BSEP), located in Brunswick County, 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 Actions:

The proposed actions would exempt the BSEP, Units 1 and 2 from the required implementation date of March 31, 2010, for two new requirements of 10 CFR Part 73. Specifically, BSEP would be granted exemptions 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. CP&L has proposed an alternate full compliance implementation date of December 20, 2010, approximately 9 months beyond the date required by 10 CFR Part 73. The proposed actions, extensions of the schedule for completion of certain actions required by the revised 10 CFR Part 73, do not involve any physical changes to the Units 1 and 2 reactors, fuel, plant structures, support structures, water, or land at the BSEP site.

The proposed actions are in accordance with the licensee's application dated November 30, 2009 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML093370132).

The Need for the Proposed Actions:

The proposed actions are needed to provide the licensee with additional time to perform the required changes to the BSEP, Units 1 and 2 security systems, which involve significant physical modifications, e.g., design and construction of a new security building to support the new physical protection program requirements, relocation of certain security equipment to the new building, the addition of uninterrupted power supply, and infrastructure upgrades. In addition, these modifications must be coordinated with the Unit 1 refueling outage in spring 2010.

Environmental Impacts of the Proposed Actions:

The NRC has completed its environmental assessment of the proposed exemptions. The staff has concluded that the proposed actions 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 actions 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* 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 exemptions.

The proposed actions do 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 exemptions.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed actions. 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, 13967 (March 27, 2009)).

The licensee currently maintains a security system acceptable to the NRC and will continue to provide acceptable physical protection of BSEP. Therefore, the extension of the implementation date for certain new requirements of 10 CFR Part 73 to December 20, 2010, would not have any significant environmental impacts.

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

Environmental Impacts of the Alternatives to the Proposed Actions:

As an alternative to the proposed actions, the NRC staff considered denial of the proposed actions (i.e., the “no action” alternative). Denial of the exemption requests would result in no change in current environmental impacts. If the proposed actions were denied, the licensee would have to comply with the March 31, 2010, implementation deadline. The environmental impacts of the proposed exemptions and the “no action” alternative are similar.

Alternative Use of Resources:

The actions do not involve the use of any different resources than those considered in the Final Environmental Statement for the BSEP dated January 1976, and the Generic Environmental Impact Statement for License Renewal of Nuclear Plants, NUREG-1437, Supplement 25, dated March 2006 (ADAMS Accession No. ML060900480).

Agencies and Persons Consulted:

In accordance with its stated policy, on January 19, 2010, the NRC staff consulted with the North Carolina State official, Mr. Dale Dusenbury of the North Carolina Department of Environment and Natural Resources regarding the environmental impact of the proposed actions. The State official had no comments.

FINDING OF NO SIGNIFICANT IMPACT

On the basis of the environmental assessment, the NRC concludes that the proposed actions 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 actions.

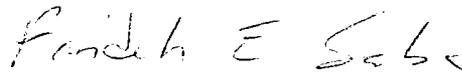
For further details with respect to the proposed actions, see the licensee’s letter dated November 30, 2009. Attachment 1 of the November 30, 2009, submittal contains security-related information and, accordingly, is not available to the public. Other parts of this document may be examined, and/or copied 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 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](mailto:pdr.resource@nrc.gov).

Dated at Rockville, Maryland, this 18th day of February 2010.

FOR THE NUCLEAR REGULATORY COMMISSION



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

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**ADAMS Accession No.** ML100190161

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