

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  
[NRC-2011-0107]

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) 26.9, "Specific exemptions," from paragraphs (c) and (d) of 10 CFR 26.205, "Work hours," for Facility Operating License Nos. DPR 71 and DPR-62, issued to Carolina Power & Light Company (the licensee), for operation of the Brunswick Steam Electric Plant (BSEP), Units 1 and 2, 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 performed an environmental assessment and concluded that the proposed action will have no significant environmental impact.

ENVIRONMENTAL ASSESSMENT

Identification of the Proposed Action:

The proposed action would consider approval of an exemption for BSEP, Units 1 and 2 from certain requirements of 10 CFR Part 26, "Fitness for duty programs." Specifically, the licensee requested approval of an exemption from the requirements of 10 CFR 26.205(c), "Work hours scheduling," and (d), "Work hour controls," during declaration of severe weather conditions involving tropical storm or hurricane force winds. The licensee in its request stated

that during these conditions, adherence to all work hour control requirements could impede the ability to respond to a plant emergency and ensure that the plant reaches and maintains a safe and secure status.

The licensee specifically stated that the exemption would only apply to severe weather conditions where tropical storm or hurricane force winds are predicted onsite; requiring the sequestering of the BSEP personnel.

The proposed exemption will allow the licensee to not meet the requirements of 10 CFR 26.205(c) and (d), during the period of time defined by the entry condition until the exit condition. The licensee needs the proposed exemption to support effective response to severe weather conditions when travel to and from the BSEP site may not be safe or even possible. During these times, the licensee sequesters sufficient individuals, including covered workers, to staff two 12-hour shifts to maintain the safe and secure operation of the facility.

The exemption would only apply to individuals designated as the storm crew who perform duties specified in 10 CFR 26.4(a)(1) through (a)(5), namely, (1) operating or onsite directing of the operation of structures, systems and components (SSCs) that a risk-informed evaluation process has shown to be significant to public health and safety; (2) performing health physics or chemistry duties required as a member of the onsite emergency response organization minimum shift complement; (3) performing the duties of a fire brigade member who is responsible for understanding the effects of fire and fire suppressants on safe shutdown capability; (4) performing maintenance or onsite directing of the maintenance of SSCs that a risk-informed evaluation process has shown to be significant to public health and safety; and (5) performing security duties as an armed security force officer, alarm station operator, response team leader, or watchperson. When storm crew sequestering exit conditions are met, full compliance with 10 CFR 26.205(c) and (d) will be required.

Since 10 CFR 26.207(d), "Plant emergencies," already provides an exception for the time period associated with a declared emergency, the exemption requested per 10 CFR 26.9 only applies to the applicable time periods prior to and following the 10 CFR 26.207(d) exception, requiring the sequestering storm crew at BSEP, Units 1 and 2.

The proposed action does not involve any physical changes to the reactor, fuel, plant, structures, support structures, water, or land at the BSEP, Units 1 and 2, site.

The proposed action is in accordance with the licensee's application dated December 16, 2010, as supplemented by letters dated January 27, March 7, and April 13, 2011.

The Need for the Proposed Action:

The proposed action is needed because the licensee is unable to meet the requirements of 10 CFR 26.205(c) and (d) during declarations of severe weather conditions that could result due to prevailing tropical storm or hurricane force winds impacting the facility.

Compliance with work hour control requirements could impede the licensee's ability to use whatever staff resources may be necessary to respond to a plant emergency and ensure that the plant reaches and maintains a safe and secure status.

Environmental Impacts of the Proposed Action:

The NRC has completed its evaluation of the proposed action and concludes that there are no environmental impacts associated with the proposed exemption. The details of the staff's safety evaluation will be provided in the exemption, if approved by the NRC, that will be issued as part of the letter to the licensee approving the exemption to the regulation.

The proposed action will not significantly increase the probability or consequences of accidents. No changes are being made in the types of effluents that may be released offsite. There is no significant increase in the amount of any effluent released offsite. 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 any foreseeable impacts to land, air, or water resources, including impacts to biota. In addition, there are also no known socioeconomic or environmental justice impacts associated with such proposed action. 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.

Environmental Impacts of the Alternatives to the Proposed Action:

As an alternative to the proposed action, the 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 fatigue rules in 10 CFR 26.205(c) and (d). This would cause unnecessary burden on the licensee, without a significant benefit in environmental impacts. 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 the BSEP dated January 1976, and the Generic Environmental Impact Statement for License Renewal of Nuclear Plants, NUREG-1437, Supplement 25, dated March 2006 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML060900480).

Agencies and Persons Consulted:

In accordance with its stated policy, on April 16, 2011, the NRC staff consulted with the North Carolina State official, Mr. William Lee Cox 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

Pursuant to 10 CFR 51.32, "Finding of No Significant Impact," and on the basis of the above 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 December 16, 2010 (ADAMS Accession No. ML103630405), as supplemented by letters dated January 27, March 7, and April 13, 2011 (ADAMS Accession Nos. ML110730275, ML110400193, and ML11110A021). 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. 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 9<sup>th</sup> day of May 2011.

FOR THE NUCLEAR REGULATORY COMMISSION

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