

UNITED STATES NUCLEAR REGULATORY COMMISSIONCAROLINA POWER & LIGHT COMPANYBRUNSWICK STEAM ELECTRIC PLANT, UNIT 2DOCKET NO. 50-324NOTICE OF ENVIRONMENTAL ASSESSMENT ANDFINDING OF NO SIGNIFICANT IMPACT

The U. S. Nuclear Regulatory Commission (the Commission) is considering issuance of an extension to the schedular requirements of 10 CFR 50.49 to Carolina Power & Light Company (the licensee) for the Brunswick Steam Electric Plant, Unit 2, located at the licensee's site near Southport, North Carolina.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action: The extension would extend the deadline for final environmental qualification of electrical equipment within the scope of the rule from the end of the 1984 refueling outage to November 30, 1985. The proposed extension is in accordance with the licensee's request for extension dated April 25, 1984, as supplemented July 6 and August 30, 1984. In the April 25, July 6 and August 30, 1984 submittals the licensee requested an extension of the deadline until November 30, 1985 for certain items of equipment. Unit 2 is currently scheduled for a special shutdown on or before November 30, 1985 for the purpose of completing the required modifications and thereby meeting the requirements of 10 CFR 50.49(g).

The Need for the Proposed Action: 10 CFR 50.49(g) requires a licensee to complete final environmental qualification of electrical equipment

within the scope of the rule by the end of the second refueling outage after March 31, 1982 or by March 31, 1985, whichever is earlier. The refueling outage which began in March 1984 is the second refueling outage at the Brunswick Steam Electric Plant, Unit 2 since March 31, 1982. Therefore, the regulation would require completion of final qualification at the Brunswick Steam Electric Plant, Unit 2 before startup from this refueling outage.

The April 25, July 6 and August 30, 1984 letters explain the process by which Carolina Power & Light Company intends to achieve final qualification of any equipment for which final qualification has not been achieved at the end of the refueling outage. Carolina Power & Light Company concluded that this process including additional analysis and testing, equipment procurement and installation, cannot be completed before the end of the outage. This process was reviewed and approved by the NRC staff.

Environmental Impacts of the Proposed Action: The purpose of the final environmental qualification of electrical equipment required by 10 CFR 50.49 is to ensure that electrical equipment which is needed to achieve safe shutdown or mitigate a reactor accident is capable of performing properly under the environmental conditions which might ensue (for example, high temperature and pressure) during such an accident. The environmental impact of delaying final qualification is the slightly increased risk of radiological releases during the next twelve months of power operation which could be associated with a reactor accident if the equipment failed due to the accident environment.

To ensure that this risk is minimized, the licensee has provided justifications for continued operation for equipment for which final qualification will not be completed by the end of the outage. These justifications are based on the acceptance criteria for such justifications provided in 10 CFR 50.49. These justifications provided reasonable assurance that an accident would be properly mitigated even though the final qualification of the equipment is not complete. Therefore, this incremental risk is quite low and the releases if they did occur would be bounded by releases which have been previously determined as possible consequences for other accidents at the Brunswick Steam Electric Plant, Unit 2. Therefore, the Commission concludes that there are not significant radiological environmental impacts associated with this proposed extension.

The proposed extension involves only systems located entirely within the restricted area as defined in 10 CFR Part 20. Also, the proposed extension does not affect non-radiological plant effluents or other non-radiological environmental impacts. Therefore, the Commission concludes that there are no significant non-radiological environmental impacts associated with the proposed extension.

The principal alternative to the proposed action would be to deny the extension and not allow reactor startup until final qualification was complete. Such an action would negate the insignificant incremental risk described above. However, such an action would result in the loss of approximately twelve full power months of generated electricity, a large adverse impact.

Alternative Use of Resources: This action does not involve the use of resources not previously considered in the Final Environmental Statement (Operating License) for the Brunswick Steam Electric Plant, Units 1 and 2).

Agencies and Persons Consulted: The NRC staff reviewed the licensee's request and did not consult other agencies or persons.

FINDINGS OF NO SIGNIFICANT IMPACT:

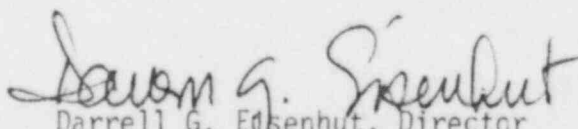
The Commission has determined not to prepare an environmental impact statement for the proposed extension.

Based upon the environmental assessment, we conclude that the proposed action will not have a significant effect on the quality of the human environment.

For further details with respect to this action, see the request for extension dated April 25, 1984, and supplements dated July 6 and August 30, 1984, which are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. 20555, and at the Southport - Brunswick County Library, 108 W. Moore Street, Southport, North Carolina 28461.

Dated at Bethesda, Maryland, this 18th day of September, 1984.

FOR THE NUCLEAR REGULATORY COMMISSION



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