

September 13, 1993

Docket Nos. 50-272
and 50-311

Mr. Steven E. Miltenberger
Vice President and Chief Nuclear
Officer
Public Service Electric and Gas
Company
Post Office Box 236
Hancocks Bridge, New Jersey 08038

Dear Mr. Miltenberger:

SUBJECT: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT, ROD
CONTROL SYSTEM UNREVIEWED SAFETY QUESTION, SALEM NUCLEAR GENERATING
STATION, UNITS 1 AND 2 (TAC M86753 AND M86754)

Enclosed for your information is a copy of the Environmental Assessment and
Finding of No Significant Impact related to a request for approval of a
license amendment to address an unreviewed safety question associated with the
rod control system. By letter dated June 17, 1993, you submitted a request to
change the licensing basis for Salem, Units 1 and 2, to address a potential
single failure in the rod control system and show that the requirements of
10 CFR Part 50, Appendix A, General Design Criterion 25, Protection System
Requirements for Reactivity Control Malfunctions, are met.

We have enclosed a copy of the Environmental Assessment and Finding of No
Significant Impact for this proposed amendment which is being forwarded to the
Office of the Federal Register for publication.

Sincerely,
/s/

James C. Stone, Senior Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

cc: See next page

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

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Sincerely,

A handwritten signature in cursive script, reading "James C. Stone".

James C. Stone, Senior Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

cc: See next page

Mr. Steven E. Miltenberger
Public Service Electric & Gas
Company

Salem Nuclear Generating Station,
Units 1 and 2

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Baltimore, MD 21202-3486

UNITED STATES NUCLEAR REGULATORY COMMISSIONPUBLIC SERVICE ELECTRIC AND GAS COMPANYDOCKET NOS. 50-272 AND 50-311ENVIRONMENTAL ASSESSMENT ANDFINDING OF NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of amendments to Facility Operating License Nos. DPR-70 and DPR-75, issued to Public Service Electric and Gas Company, et al. (PSE&G or the licensee) for Salem Nuclear Generating Station (SNGS), Units 1 and 2, located in Salem County, New Jersey.

Environmental AssessmentIdentification of the Proposed Action:

By letter dated June 17, 1993 (NLR-N93098), PSE&G requested an emergency license amendment to reflect changes to the Updated Final Safety Analysis Report (UFSAR) for Salem, Units 1 and 2. The request concerned changes to the current licensing basis requirements to address a potential single failure identified in the rod control system (RCS). Investigation of an RCS failure during startup of Salem Unit 2 had determined that a single failure in the RCS may result in a single rod control cluster assembly (RCCA) withdrawal or an asymmetric RCCA withdrawal event. The current UFSAR analysis for single RCCA withdrawal at power indicates that localized Departure From Nucleate Boiling (DNB) would result. This was acceptable because UFSAR Sections 4.3 and 15.3.5.1 describe single RCCA withdrawal events as requiring multiple failures in the RCS for a single RCCA withdrawal to occur. If a single failure can

cause a single RCCA withdrawal or an asymmetric RCCA withdrawal, the requirements of 10 CFR Part 50, Appendix A, General Design Criterion (GDC) 25, Protection System Requirements for Reactivity Control Malfunctions, which states, "The protection system shall be designed to assure that specified acceptable fuel design limits are not exceeded for any single malfunction of the reactivity control systems such as accidental withdrawal (not ejection of dropout) of control rods," are not met.

The licensee proposes to change the UFSAR by assuming the probability of occurrence of event has increased because only a single failure in the RCS is necessary for the event to occur. Salem-specific analysis of the event has shown that DNB limits would not be exceeded.

Need for Proposed Action:

The revision of the licensing basis for the rod control system and the resultant change in the accident analysis is required to demonstrate continued compliance with the regulations.

Environmental Impact of the Proposed Action:

The proposed changes to the UFSAR, Sections 4.3 and 15.3.5.1, would include an analysis of the core response, assuming a single failure of the RCS with a resultant single or multiple asymmetric RCCA withdrawal event. The staff has concluded that such changes would not adversely affect plant safety or the health and safety of the public. Because the change in the assumption concerning RCS failures is from multiple failures to a single failure, the probability of this event has theoretically increased. However, the calculated consequences of the event have decreased because the DNB limits of the fuel are not exceeded. No changes are being made in the types or amount

of any radiological effluents that may be released offsite. There is no significant increase in the allowable individual or cumulative occupational radiation exposure.

With regard to potential non-radiological impacts, the proposed changes involve systems located within the restricted area, as defined in 10 CFR Part 20. They do not affect non-radiological plant effluents and have no other environmental impact.

Therefore, the Commission concludes that there are no significant radiological or non-radiological environmental impacts associated with the proposed action.

Alternatives to the Proposed Action:

Since the Commission concluded that there are no significant environmental effects that would result from the proposed action, any alternatives with equal or greater environmental impact need not be evaluated. The principle alternative would be to deny the requested amendments. This would not reduce the environmental impacts of plant operation.

Alternate Use of Resources:

This action does not involve the use of any resources not previously considered in the Final Environmental Statement for the Salem Nuclear Generating Station, Units 1 and 2, dated April 1973.

Agencies and Persons Contacted:

The NRC staff reviewed the licensee's request and consulted the State of New Jersey regarding the environmental impact of the proposed action.

FINDING OF NO SIGNIFICANT IMPACT:

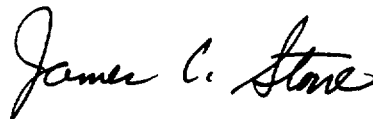
The Commission has determined not to prepare an environmental impact statement for the proposed amendments.

Based upon the foregoing environmental assessment, the Commission concludes 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 application for license amendments dated June 17, 1993. This letter is available for public inspection at the Commission's Public Document Room, the Gelman Building, Lower Level, 2120 L Street, NW, Washington, DC 20555, and the local public document room located at the Salem Free Public Library, 112 West Broadway, Salem, New Jersey 08079.

Dated at Rockville, Maryland, this 13th day of September 1993.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script, reading "James C. Stone".

James C. Stone, Acting Director
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation