

April 3, 2001

Mr. Harold W. Keiser
Chief Nuclear Officer & President
PSEG Nuclear LLC - X04
Post Office Box 236
Hancocks Bridge, NJ 08038

SUBJECT: SALEM NUCLEAR GENERATING STATION, UNIT NOS. 1 AND 2, REQUEST FOR ADDITIONAL INFORMATION RE: INCREASE LICENSED POWER LEVELS BY APPROXIMATELY 1.4 PERCENT (TAC NOS. MB0521 AND MB0522)

Dear Mr. Keiser:

By application dated November 10, 2000, PSEG Nuclear LLC requested amendments to Facility Operating License Nos. DPR-70 and DPR-75 and the Technical Specifications, to increase the licensed power levels at the Salem Nuclear Generating Station, Unit Nos. 1 and 2, by approximately 1.4%.

The U.S. Nuclear Regulatory Commission staff is reviewing your amendment application and requires additional information in order to complete its evaluation. The enclosed request for additional information was discussed with Mr. Brian Thomas during a telephone call on April 2, 2001. During the call, we agreed to establish a target date of 30 days from the date of this letter to receive your response. If circumstances result in the need to revise the target date, please contact me at (301) 415-1324.

Sincerely,

/RA/

Robert J. Fretz, Project Manager, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-272 and 50-311

Enclosure: Request for Additional Information

cc w/encl: See next page

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ACCESSION NUMBER: ML010920359 TEMPLATE = NRR-088

OFFICE	PDI-2/PM	PDI-2/LA	PDI-2/SC
NAME	RFretz	TLClark	REnnis for JClifford
DATE	04/02/01	4/2/01	4/3/01

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REQUEST FOR ADDITIONAL INFORMATION

POWER UPRATE AMENDMENT REQUEST

SALEM NUCLEAR GENERATING STATION, UNIT NOS. 1 AND 2

By application dated November 10, 2000, PSEG Nuclear LLC (PSEG) submitted a request to increase licensed power levels for Salem Nuclear Generating Station, Unit Nos. 1 and 2 (Salem) by 1.4 percent. By letter dated December 5, 2000, PSEG Nuclear provided additional information (Westinghouse Topical Reports WCAP-15565, Revision 0 and WCAP-15566, Revision 0) to support its November 10, 2000, submittal. The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the submittals and finds that additional information in the following areas is needed to complete its review.

1. In order to verify that General Design Criterion (GDC) 14, "Reactor Coolant Pressure Boundary," will continue to be met following power uprate, please provide the following information:
 - a. Tables 2-1 and 2-2 of Attachment 1 to the reference transmittal provide the nuclear steam supply system (NSSS) design parameters that are used as the basis for the 1.4% power uprate for Salem Units 1 and 2. Additionally, please provide the corresponding parameters that are used in the current Salem design basis analyses.
 - b. In Sections 5.3.3, you evaluated the reactor internal components for the uprated power conditions including the baffle/barrel region components, core barrel, baffle plate, baffle/former bolts, and lower core plate. Provide a summary of analytical results including the maximum calculated stresses and cumulative usage factors (CUFs) for these components. Also provide the code and code edition used for evaluation of the reactor internal components. If different from the code of record, please justify and reconcile the differences.
 - c. In reference to Section 5.6.1, you stated that an evaluation confirmed that the existing fatigue usage factors for the reactor coolant system (RCS) piping and nozzles remain bounding due to the conservative nature of the analysis (e.g., a conservative grouping of several more severe transients). Discuss your basis for the statement and conclusion. Provide a summary of the maximum calculated stresses and CUFs at the most critical locations for RCS piping, primary equipment supports and nozzles, RCS branch nozzles and pressurizer surge nozzles, allowable limits, the code of record and code edition used for the power uprate conditions for NSSS piping and supports. If different from the code of record, justify and reconcile the differences.
2. In order to verify that the assumptions, analyses, and conclusions of Salem's programs associated with Generic Letter (GL) 89-10, GL 95-07, and GL 96-06 remain valid, please discuss the functionality of safety-related mechanical components (i.e., all safety-related valves and pumps, including air-operated valves (AOV) and power-operated relief valves) affected by the power uprate to ensure that the performance specifications and technical specification requirements (e.g., flow rate, close and open times) will be met for the proposed power uprate. Confirm that safety-related motor-operated valves (MOVs) in your GL 89-10 MOV program at Salem will be capable of performing their intended function(s)

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following the power uprate including such affected parameters as fluid flow, temperature, pressure and differential pressure, and ambient temperature conditions. Identify mechanical components for which functionality at the uprated power level could not be confirmed. Please discuss effects of the proposed power uprate on the pressure locking and thermal binding of safety-related power-operated gate valves for GL 95-07, and on the evaluation of overpressurization of isolated piping segments for GL 96-06.

3. In reference to Section 9, list the balance-of-plant (BOP) piping systems that were evaluated for the power uprate. Provide a summary of the methodology and assumptions used for evaluating BOP piping, components, and pipe supports, nozzles, penetrations, guides, valves, pumps, heat exchangers and anchorage for pipe supports. Provide a summary of the calculated maximum stresses for the critical BOP piping systems, the allowable limits, the code of record and code edition used for the power uprate conditions. If different from the code of record, justify and reconcile the differences.
4. Discuss the potential for flow-induced vibration in the heat exchangers following the power uprate. Provide a summary of evaluation for power uprate effects on the high energy line break analysis, jet impingement, and pipewhip loads for the power uprate condition.

The regulatory basis for questions 3 and 4 is that the BOP piping systems conform to the requirements of GDCs 1, 2, 4, 14, and 15 of Appendix A to 10 CFR Part 50 as they relate to maintaining structural integrity of pressure-retaining components and their supports (reference SRP Section 3.9.3).

REFERENCE:

PSEG Nuclear LLC Letter to the NRC, "Request for a License Amendment, Increase Licensed Power Level, Salem Generating Station, Units 1 and 2, Facility Operating Licenses DPR-70, And DPR-75, NRC Docket Nos. 50-272 and 50-311," dated November 10, 2000.

PSEG Nuclear LLC

Salem Nuclear Generating Station,
Unit Nos. 1 and 2

cc:

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