Public Service
Electric and Gas
Company

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NLR-N94105
LCR 94-19

United States Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Gentlemen:

REQUEST FOR AMENDMENT
AUXILIARY FEEDWATER SYSTEM
SALEM GENERATING STATIONS
UNIT NOS. 1 AND 2
DOCKET NOS. 50-272 AND 50-311

In accordance with the requirements of 10CFR50.90, Public Service Electric & Gas Company (PSE&G) hereby transmits a request for amendment of Facility Operating Licenses DPR-70 and DPR-75 for Salem Generating Station Units Nos. 1 and 2 respectively. In accordance with 10CFR50.91(b)(1) requirements, a copy of this request has been sent to the State of New Jersey.

The proposed amendment modifies Technical Specification for Auxiliary Feedwater to reduce the secondary side steam pressure required for testing the steam turbine driven Auxiliary Feedwater pump. The proposed change also clarifies the time required to perform the steam turbine driven Auxiliary Feedwater pump surveillance test when entering Mode 3.

Attachment 1 includes a description, justification, and significant hazards analysis for the proposed change. Attachment 2 contains the Technical Specification pages revised with pen and ink changes.

PSE&G is requesting a 60 day implementation period after amendment approval.

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Should there be any questions with regard to this submittal, please do not hesitate to contact us.

C Mr. J. C. Stone
Licensing Project Manager

Mr. C. Marschall
Senior Resident Inspector

Mr. T. Martin, Administrator
Region I

Mr. Kent Tosch, Manager IV
New Jersey Department of Environmental Protection
Division of Environmental Quality
Bureau of Nuclear Engineering
CN 415
Trenton, NJ 08625

REF: NLR-N94105

STATE OF NEW JERSEY)
) SS.
COUNTY OF SALEM)

J. J. Hagan, being duly sworn according to law deposes and says:

I am Vice President- Nuclear Operations of Public Service Electric and Gas Company, and as such, I find the matters set forth in the above referenced letter, concerning the Salem Generating Station, Unit Nos. 1 and 2, are true to the best of my knowledge, information and belief.

J. J. Hagan

Subscribed and Sworn to before me
this 20th day of September, 1994

Kimberly Jo Brown
Notary Public of New Jersey

KIMBERLY JO BROWN
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires April 21, 1998

My Commission expires on _____

AUXILIARY FEEDWATER SYSTEM (AFW)

I. Description of Change

Change surveillance requirement 4.7.1.2.b.2 to read:

"Verifying that the steam turbine driven pump develops a discharge pressure of greater than or equal to 1500 psig on recirculation flow when the secondary side steam generator pressure is greater than 680 psig. The provisions of Specification 4.0.4 are not applicable provided the surveillance is performed within 24 hours after secondary side steam pressure is greater than 680 psig."

The change reduces the steam pressure required to test the turbine driven AFW pump from 750 psig to 680 psig. The change expands the Specification 4.0.4 exception to require the surveillance test to be performed within 24 hours after attaining the pressure required to perform the test. The change provides clarification that the pressure being measured is steam generator pressure.

II. Justification

The AFW system automatically supplies feedwater to the steam generators to remove decay heat from the Reactor Coolant System upon loss of normal feedwater supply. The AFW pumps take suction from the Auxiliary Feedwater Storage Tank and pump to the steam generator secondary side through connections to the main feedwater piping. The steam generators function as a heat sink for core decay heat. The heat load is dissipated by releasing steam to the atmosphere or the condenser from the steam generators through the atmospheric steam dumps, main steam safety valves, or the condenser steam dumps.

The AFW System consists of two motor driven AFW pumps and one steam turbine driven AFW pump. Each motor driven AFW pump is powered from an independent Class 1E power supply and feeds two steam generators. The steam turbine driven AFW pump receives steam from two main steam lines upstream of the main steam isolation valves and feeds all four steam generators. The AFW system is capable of supplying feedwater to the steam generators during normal unit startup, shutdown and hot standby conditions.

PSE&G is currently performing a fuel upgrade and margin recovery project. As part of this project, analysis is being performed for reduced Tavg and increased steam generator tube plugging. These parameters reduce the normal operating secondary side steam pressure. These parameters however, do not affect the zero load secondary side steam pressure.

The minimum operating secondary side steam pressure supported by the fuel upgrade and margin recover project is 695 psia (approximately 680 psig). This supports operation with reduced Tavg and increased steam generator tube plugging. Changes in steam generator tube plugging and Tavg operating conditions, do not affect the zero load conditions, and therefore do not affect the conditions in which the steam turbine driven AFW pump will be required to perform its safety function.

The minimum steam pressure at which the surveillance test of the steam turbine driven AFW pump is performed is being revised to be consistent with the minimum value of the fuel upgrade and margin recovery project. Because the pump is designed to operate over a wide range of turbine steam supply pressures, no change to the minimum discharge pressure in specification 4.7.1.2.b.2 (1500 psig) is required. The specification is clarified to state secondary side steam generator pressure. 680 psig in the steam generator will assure sufficient pressure to the turbine-driven auxiliary feed pump.

The current surveillance requirement for the steam turbine driven AFW pump contains a statement that the provisions of Specification 4.0.4 are not applicable. The exception to Specification 4.0.4 is required to allow entry into Mode 3, Hot Standby, prior to testing the steam turbine driven AFW pump because there is insufficient steam pressure to perform the test.

The exception to Specification 4.0.4 is being expanded to clarify the time requirement during which the surveillance must be performed. The statement will read, "The provisions of Specification 4.0.4 are not applicable provided the surveillance is performed within 24 hours after secondary side steam pressure is greater than 680 psig." This will ensure that testing is performed in a timely manner after attaining the required steam pressure. The time of 24 hours is consistent with the time allowed in NUREG-1431, Standard Technical Specifications - Westinghouse Plants.

III. Significant Hazards Consideration

In accordance with 10CFR50.92, PSE&G has reviewed the proposed changes and concluded the proposed changes do not involve a significant hazards consideration because the changes would not:

1. Involve a significant increase in the probability or consequences of an accident previously analyzed.

   The proposed change to the minimum required test pressure for the steam turbine driven AFW pump does not affect the operation of the pump during conditions when it is required to performed its safety function. The clarification that the secondary side steam pressure is steam generator pressure is editorial. Reduced Tavg and increased steam generator tube plugging will affect the normal operating secondary side steam pressure. However, the zero load secondary side steam pressure is not affected, therefore, the conditions in which the steam turbine driven AFW pump will be required to perform its safety function are not changed.

   Providing a specific time frame in which to perform the surveillance test after attaining the required steam pressure ensures that the test will be performed in a timely manner. The time frame specified is consistent with NUREG-1431, Standard Technical Specifications - Westinghouse Plants.

   Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Create the possibility of a new or different kind of accident.

   The proposed changes do not change system configurations, plant equipment, or analysis. Therefore, the proposed changes will not increase the possibility of a new or different kind of accident from any accident previously identified.

3. Involve a significant reduction in a margin of safety.

The proposed change to the minimum required steam pressure will not affect the heat removal capability of the AFW System. Therefore, the value assumed in the safety analysis is not changed. The change to the specification 4.0.4 exemption to provide a specific time period does not affect any margins of safety. Therefore, these changes do not involve a significant reduction in any margin of safety.

IV. Conclusion

Based on the information presented above, it is concluded that the activities associated with this license change request satisfy the no significant hazards considerations of 10CFR50.92.

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ATTACHMENT 2
MARKED UP PAGES