



Public Service Electric and Gas Company P.O. Box 236 Hancocks Bridge, New Jersey 08038-0236

Nuclear Business Unit

APR 28 1998

LR-N980199

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

Ladies and Gentlemen:

**ADDITIONAL INFORMATION FOR CORRECTIONS TO
AMENDMENT 69 SAFETY EVALUATION REPORT
SALEM GENERATING STATION UNIT NO. 2
DOCKET NO. 50-311**

On March 6, 1998, Public Service Electric and Gas (PSE&G) submitted letter LR-N980091 providing additional information to the NRC for the correction of the Safety Evaluation Report for Amendment 69 to the Salem Unit 2 Technical Specifications. As a result of the NRC's review of this additional information, the NRC requested additional clarification of the 7000 gpm Refueling Water Storage Tank (RWST) outflow value used to determine the minimum time for switchover from the RWST to the containment sump during a Mode 4 Loss of Coolant Accident (LOCA).

In letter NLR-N86195, dated January 5, 1987, PSE&G provided the following information:

"During Mode 4 operation, the Semi-automatic Switchover system is disarmed. If a LOCA were to occur during Mode 4 operation, the operator would initiate a manual safety injection IAW EI-4.17-Partial Loss of Reactor Coolant.... If switchover ...is in manual, the operator is required to perform the contingency actions of the procedure which shifts each train over to the containment sump."

"Draindown time of the RWST from the Lo-Level Alarm to the unusable water level with the assumption that the operator fails to stop one containment spray pump for conservatism, is calculated to be approximately 18.5 minutes...."

9805060139 980428
PDR ADDCK 05000311
P PDR

1/0
Aool.

The power is in your hands.

APR 28 1998

Document Control Desk
LR-N980199

2

The above time of 18.5 minutes was based on draining the RWST volume from the low level to the unusable volume. The limiting scenario was that at the low level alarm, the operator failed to trip one containment spray pump. The pump flows assumed during changeover from injection to recirculation were:

Pump	GPM (2 pumps)
Safety Injection (Intermediate Head)	700
Charging (High Head)	800
Containment Spray	5200
Total Flow Assumed	6700

The time to complete the changeover from injection to recirculation was calculated assuming an original total volume of available water of 124,460 gallons. This volume of water was arrived at by subtracting the unusable volume (~ 15,540 gallons) and the instrument error (~10,500 gallons) from the RWST volume at the low level alarm (~150,500 gallons). Therefore, the time available from the RWST low level alarm to the unusable volume was $124,460 \text{ gallons} / 6700 \text{ gpm} \approx 18.5 \text{ minutes}$.

As stated in letter NLR-N86001, dated January 3, 1986, the Salem Unit 2 RWST design incorporated level setpoints which provide approximately 129,300 gallons for the transfer from injection to recirculation. Rounding the RWST outflow value to 7000 gpm and using the 129,300 gallon volume also provides for ~18.5 minutes to complete the transfer from injection to recirculation.

If you have any questions concerning the above information, please do not hesitate to contact us.

Sincerely,



for D. R. Powell
Director - Licensing/Regulation and
Fuels

APR 28 1998

Document Control Desk
LR-N980199

3

C Mr. Hubert J. Miller, Administrator - Region I
U. S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Mr. P. Milano, Licensing Project Manager - Salem
U. S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Mail Stop 14E21
Rockville, MD 20852

Mr. S. Morris (X24)
USNRC Senior Resident Inspector - Salem

Mr. K. Tosch, Manager, IV
Bureau of Nuclear Engineering
P.O. Box 415
Trenton, NJ 08625