



**PSEG**

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

**Nuclear Business Unit**

LR-N99-0007

**JAN 15 1999**

U. S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555

Attn: Document Control Desk

**MONTHLY OPERATING REPORT  
SALEM UNIT NO. 1  
DOCKET NO. 50-272**

Gentlemen:

In compliance with Section 6.9.1.6, Reporting Requirements for the Salem Technical Specifications, the original Monthly Operating report for December 1998 is attached.

Sincerely,

A. C. Bakken III  
General Manager -  
Salem Operations

/rbk  
Enclosures

C Mr. H. J. Miller  
Regional Administrator USNRC, Region 1  
475 Allendale Road  
King of Prussia, PA 19046

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PDR ADOCK 0500272  
R PDR

The power is in your hands.

JE241

DOCKET NO.: 50-272  
 UNIT: Salem 1  
 DATE: 1/15/99  
 COMPLETED BY: R. Knieriem  
 TELEPHONE: (609) 339-1782

Reporting Period: December 1998

**OPERATING DATA REPORT**

Design Electrical Rating (MWe-Net)  
 Maximum Dependable Capacity (MWe-Net)

No. of hours reactor was critical  
 No. of hours generator was on line (service hours)

Unit reserve shutdown hours  
 Net Electrical Energy (MWH)

1115		
1106		
Month	Year-to-date	Cumulative
744	6440	110821
744	6199	106588
0	0	0
819582	6475620	106612163

**UNIT SHUTDOWNS**

NO.	DATE	TYPE F=FORCED S=SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTION/COMMENT

(1) Reason

- A - Equipment Failure (Explain)
- B - Maintenance or Test
- C - Refueling
- D - Regulatory Restriction
- E - Operator Training/License Examination
- F - Administrative
- G - Operational Error (Explain)
- H - Other

(2) Method

- 1 - Manual
- 2 - Manual Trip/Scram
- 3 - Automatic Trip/Scram
- 4 - Continuation
- 5 - Other (Explain)

Summary:

Salem Unit 1 began the month of December 1998, operating at full power. Full power operation continued until December 26, 1998 when power was reduced to 90% to perform turbine control valve testing. Full power operation was restored that day and continued for the remainder of the month.

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**SUMMARY OF CHANGES, TESTS, AND EXPERIMENTS  
FOR THE SALEM UNIT 1 GENERATING STATION**

**MONTH: December 1998**

The following items completed during **December 1998** have been evaluated to determine:

1. If the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report may be increased; or
2. If a possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report may be created; or
3. If the margin of safety as defined in the basis for any technical specification is reduced.

The 10CFR50.59 Safety Evaluations showed that these items did not create a new safety hazard to the plant; nor did they affect the safe shutdown of the reactor. These items did not change the plant effluent releases and did not alter the existing environmental impact. The 10CFR50.59 Safety Evaluations determined that no unreviewed safety or environmental questions are involved.

**Design Changes - Summary of Safety Evaluations**

**Design Change Package 1EC-3724, Package 1, Demineralizer Alley/Waste Evaporator Room Fire Detection Upgrade**

This design change package installed five additional ionization chamber smoke detectors, cable, and conduit in the Salem Unit 1 Waste Evaporator Room and Demineralizer Alley area. Review of this modification under 10CFR50.59 was required because the modification constituted a change to the facility as described in the Safety Analysis Report (SAR), specifically the Salem Fire Protection Program.

This modification added additional fire detection capability for the Salem Unit 1 Waste Evaporator Room and Demineralizer Alley area. The detectors were installed per the manufacturer and National Fire Protection Association requirements and mounted to meet seismic II/I requirements. As such, the change did not increase the probability or the consequences of an accident previously evaluated in the SAR. The change did not increase the probability of occurrence or the consequences of a malfunction of equipment importance to safety because no changes were made to any system or component required to

safely operate or to shut down the reactor. The change did not increase the possibility of a different type from any previously evaluated in the SAR because no new failure modes were created by the change. Finally, this modification did not involve any changes to Technical Specifications and therefore did not affect the margin of safety, as defined in the Technical Specification Bases. Based upon the above, this modification does not involve an Unreviewed Safety Question.

### **Temporary Modifications - Summary of Safety Evaluations**

#### **Temporary Modification 98-0009, Auxiliary Feed Storage Tank (AFST) Hydrazine Removal Skid Temporary Modifications**

This temporary modification provided connections to the AFST to permit the use of a temporary recirculating demineralizer loop to remove hydrazine from the feed water. Review of this modification under 10CFR50.59 was required because the modification constituted a change to the facility as described in the SAR.

This temporary modification did not affect any existing design basis inputs or safety analysis assumptions, and did not involve a test or procedure not described in the SAR. Neither normal operation, abnormal operation, or failure of the temporary modification can result in a loss of level in the AFST that lowers the level of the water stored to less than the Technical Specification required minimum volume of 200,000 gallons. The AFST and the Auxiliary Feedwater system continue to function as before to mitigate Design Basis Accidents and to perform shutdown and cooldown of the reactor plant. The dose consequences of previously analyzed Design Basis Accidents are not increased by the installation of this temporary modification. Based upon the above, this temporary modification does not involve an Unreviewed Safety Question.

### **Procedures - Summary of Safety Evaluations**

There were no changes in this category implemented during December 1998.

### **UFSAR Change Notices - Summary of Safety Evaluations**

#### **UFSAR Change Notice SCN 98-039, Salem Spent Fuel Cooling System**

This UFSAR Change Notice documents the seismic upgrade of the Spent Fuel Pool Cooling system. This upgrade, along with other system attributes and administrative controls, together would preclude bulk pool temperatures from exceeding 180°F, making Spent Fuel Pool boiling a non-credible event.

The original Salem spent fuel pool licensing basis did not preclude pool boiling. Following identification of several technical and practical concerns associated with pool boiling, it was decided to seismically upgrade the system and render boiling a non-credible event. This evaluation summarizes upgrade activities and justification for rendering boiling non-credible. The upgrade does not constitute an Unreviewed Safety Question because plant design remains within current licensing basis parameters (i.e. maximum pool temperature of 149°F under normal conditions and 180°F under emergency conditions) and no technical specification changes are required.

#### **Deficiency Reports - Summary of Safety Evaluations**

There were no changes in this category implemented during December 1998.

#### **Other - Summary of Safety Evaluations**

There were no changes in this category implemented during December 1998.