



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

Nuclear Business Unit

LRN-00-0226

**JUN 15 2000**

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 May 2000 is attached.

Sincerely,

M. B. Bezilla  
Vice President - Operations

/rbk  
Enclosures

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

The power is in your hands.

NR-063

DOCKET NO.: 50-272  
 UNIT: Salem 1  
 DATE: 6/15/00  
 COMPLETED BY: R. Knieriem  
 TELEPHONE: (856) 339-1782

Reporting Period: May 2000

**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		
<b>Month</b>	<b>Year-to-date</b>	<b>Cumulative</b>
744	3398	121943
744	3334	117586
0	0	0
793273	3605674	118227009

**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

(2) Method

- 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

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

Summary:

Salem Unit 1 began the month of May 2000 operating at full power. On May 13, power was reduced to 15% to replace the Main Generator voltage regulator. The unit returned to full power on May 15, and operated at full power for the remainder of the month.

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

**MONTH: May 2000**

The following items completed during **May 2000** 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**

**1EC-3668, Package 10, Removal of High Radiation Closure Signal from Containment Fan Cooler Unit (CFCU) Valves SW 58 and SW 72**

This design change modified the control circuits for CFCU Service Water inlet and outlet isolation valves SW 58 and SW 72 to remove the valves' automatic operating mode, and to remove the capability for automatic closure on high CFCU outlet water radioactivity. In addition, this design change removed the Control Console high radiation alarm light that is provided for each CFCU. These features were physically removed to preclude the introduction of potential failure modes since these features had previously been removed from the Salem Unit 1 design basis.

Review of this design change under 10CFR50.59 was required because the modification constitutes a change to the facility as described in the SAR. The equipment that was removed was not credited in the plant design for mitigation of any transient, accident, or equipment malfunction. Therefore, this design change would not increase the probability or consequences of an accident previously analyzed. Additionally, this change would not increase the probability

or consequences of a malfunction of equipment important to safety. This change would not create any new accidents or malfunctions since no new failure modes were introduced. In addition the Technical Specification Bases were not affected and no changes to the Technical Specifications were required.

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

#### **Temporary Modification 00-010, Enable Overhead Annunciator E48 Rod Bottom and E24 Rod Deviation or Sequence**

This temporary modification was performed to clear overhead annunciator alarms caused by a failed individual control rod position indication. The modification involved the insertion of a test signal, and the installation of a jumper to simulate a fully withdrawn control rod position. In addition, this temporary modification installed an alternate indication, in the form of a recorder, to validate rod drop if required.

Review of this temporary modification under 10CFR50.59 was required because the insertion of the test signal, the installation of the jumper, and the installation of the recorder to validate rod drop constituted a change to the facility as described in the SAR. The individual rod position indicators provide monitoring only and have no control functions. Therefore, this temporary change would not increase the probability or consequences of an accident previously analyzed. Additionally, this change would not increase the probability or consequences of a malfunction of equipment important to safety. This change would not create any new accidents or malfunctions since no new failure modes were introduced. In addition the Technical Specification Bases were not affected and no changes to the Technical Specifications were required.

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

There were no changes in this category implemented during May 2000.

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

#### **UFSAR Change Notice SCN 99-072, Removal of Positive Displacement Charging Pump From Service For Normal Operation**

This Safety Evaluation considered the use of one of two Centrifugal Charging Pumps to provide Reactor Coolant System makeup and Reactor Coolant Pump seal injection flow vice the use of the Positive Displacement Charging Pump as the normal source for these functions. This action will allow the Positive Displacement Charging Pump to be isolated and placed under administrative controls in order to limit potential leakage outside of containment. The Emergency Core Cooling safety function of the Centrifugal Charging Pumps to provide high head safety injection will remain unchanged.

Review of the isolation of the Positive Displacement Charging Pumps under 10CFR50.59 was required because this action constituted a change to the facility as described in the SAR. Removing the Positive Displacement Charging Pump from service leaves both Centrifugal Charging Pumps that are capable of providing adequate Reactor Coolant System makeup and Reactor Coolant Pump seal injection flow. Therefore, this change would not increase the probability or consequences of an accident previously analyzed. Additionally, this change would not increase the probability or consequences of a malfunction of equipment important to safety. This change would not create any new accidents or malfunctions since no new failure modes were introduced. In addition the Technical Specification Bases were not affected and no changes to the Technical Specifications were required.

#### **UFSAR Change Notice SCN 00-017 – Auxiliary Building Ventilation System Charcoal Filter Removal Efficiency**

This evaluation analyzed input parameters associated with the analysis of the radiological consequences of a design basis loss of coolant accident. Specifically to change the credited Auxiliary Building Ventilation System charcoal filter efficiency from 90% (elemental) to 70%, to change the fraction of airborne ECCS leakage release that is filtered after two hours from 0.5 to 0.65, and to identify an equivalent overall iodine removal efficiency of 45% as a dose assumption. These revised parameters were incorporated as a change to the UFSAR.

Review of this change under 10CFR50.59 was required because revision of the input parameters associated with the analysis of radiological consequences of a design basis loss of coolant accident constituted a change to the facility as described in the SAR. The revised input parameters will result in an overall iodine removal efficiency that is consistent with the dose analysis previously performed to evaluate radiological dose consequence at the site boundary and the control room during a loss of coolant accident, and will not change the results of that analysis. Therefore, this change would not increase the probability or consequences of an accident previously analyzed. Additionally, this change would not increase the probability or consequences of a malfunction of equipment important to safety. This change would not create any new accidents or malfunctions since no new failure modes were introduced. In addition the Technical Specification Bases were not affected and no changes to the Technical Specifications were required.

#### **UFSAR Change Notice SCN 00-015 – Aggregate Performance of Salem Unit 1 Containment Fan Cooler Units (CFCU)**

This evaluation considered the aggregate thermal performance of CFCUs under design accident conditions vice consideration of CFCU thermal performance under design accident conditions on an individual CFCU basis. This evaluation will permit operation with a CFCU with degraded thermal performance up to a

design Service Water (heat sink) temperature of 90°F as long as the aggregate performance of the three lowest performing CFCUs meets accident analysis requirements. The consideration of aggregate versus individual CFCU thermal performance was incorporated as a change to the UFSAR.

Review of this change under 10CFR50.59 was required because consideration of aggregate vice individual CFCU thermal performance constituted a change to the facility as described in the SAR. The aggregate performance of the three lowest performing CFCUs will satisfy the minimum heat removal requirement assumed in the accident analysis. Therefore, this change would not increase the probability or consequences of an accident previously analyzed. Additionally, this change would not increase the probability or consequences of a malfunction of equipment important to safety. This change would not create any new accidents or malfunctions since no new failure modes were introduced. In addition the Technical Specification Bases were not affected and no changes to the Technical Specifications were required.

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

There were no changes in this category implemented during May 2000.

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

There were no changes in this category implemented during May 2000.

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

There were no changes in this category implemented during May 2000.