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U. S. Nuclear Regulatory Commission
Document Control Desk
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Gentlemen:

MONTHLY OPERATING REPORT
SALEM GENERATING STATION UNIT 2
DOCKET NO. 50-311

In compliance with Section 6.9, Reporting Requirements for the Salem Unit 2 Technical Specifications, the operating statistics for **October 2000** are being forwarded. Also being forwarded, pursuant to the requirements of 10CFR50.59(b), is a summary of changes, tests, and experiments that were implemented in **October 2000.**

Sincerely,

D. F. Garchow
Acting Vice President - Operations

RBK
Attachments

C Distribution

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DOCKET NO.: 50-311
UNIT: Salem 2
DATE: 11/15/00
COMPLETED BY: R. Knieriem
TELEPHONE: (856) 339-1782

Reporting Period **October 2000**

OPERATING DATA REPORT

Design Electrical Rating (MWe-Net)	**1115**		
Maximum Dependable Capacity (MWe-Net)	**1106**		
	Month	**Year-to-date**	**Cumulative**
No. of hours reactor was critical	**120**	**6695**	**102800**
No. of hours generator was on line (service hours)	**120**	**6695**	**99477**
Unit reserve shutdown hours	**0**	**0**	**0**
Net Electrical Energy (MWH)	**105591**	**7196765**	**100118983**

UNIT SHUTDOWNS

NO.	DATE	TYPE F=FORCED S=SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTION/ COMMENT
1	10/6/00	S	625	C	2	

(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)

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Summary Of Monthly Operating Experience

- Salem Unit 2 began the month of October in end-of-cycle power coastdown at 90% power.
- On October 5, Salem Unit 2 was shut down to begin its 11th refueling outage, which continued through the end of the month.

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SUMMARY OF CHANGES, TESTS, AND EXPERIMENTS FOR THE SALEM GENERATING STATION – UNIT 2

MONTH October 2000

The following items completed during **October 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

Modification 80017961, 25 Feedwater Heater Pressure Equalization Line Orifice Size Change

This modification enlarged the 25 Feedwater Heater Pressure Equalization Line orifice size in order to prevent two-phase flow and water hammer in the drain lines to the Heater Drain Tanks.

Review of this modification under 10CFR50.59 was required because the enlargement of the Feedwater Heater Pressure Equalization Line orifice size constituted a change to the facility as described in the UFSAR. This modification will provide more reliable system operation by preventing two-phase flow and water hammer in the drain lines to the Heater Drain Tanks. Therefore, this change would not increase the probability or

consequences of an accident previously analyzed. Additionally, this change did 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.

Modification 2EC-3567, Pkg. 1, Replacement of 125/250VDC Switchgear Breakers

This modification replaced the existing 125/250VDC switchgear breakers that have no equivalent replacements, with a new design. This modification also added disconnect switches between the 125VDC batteries and their switchgear to facilitate maintenance on the batteries or the switchgear during all modes of operation.

Review of this modification under 10CFR50.59 was required because the replacement of the 125/250VDC switchgear breakers and the installation of disconnect switches constituted a change to the facility as described in the UFSAR. This change will not affect the functionality or reliability of the 125VDC batteries or the125/250VDC switchgear breakers. Therefore, this change would not increase the probability or consequences of an accident previously analyzed. Additionally, this change did 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.

Modification 80004565, Solid State Protection System (SSPS) and Engineered Safeguards Feature (ESF) Design Changes to Allow Dual Train Unavailabilty in Modes 5 and 6

This design change modified SSPS by adding relays and wiring to both trains of protection that provide for Containment Purge and Pressure/Vacuum Relief Isolation from a Containment Ventilation Isolation signal that originates from a Radiation Monitoring System. The change also added switches to the output test and interface cabinets to be used in lieu of lifted leads and installation of jumpers to maintain the Source Range channels operable. These changes will ensure Technical Specification compliance during operation in Modes 5 and 6 with both trains of SSPS in test or out of service.

Review of this modification under 10CFR50.59 was required because the circuit modifications constituted a change to the facility as described in the UFSAR and changes to procedures as described in the UFSAR. This change will ensure compliance with Technical Specification requirements during operation in Modes 5 and 6 with both trains of SSPS in test or out of service. Therefore, this change would not increase the probability or consequences of an accident previously analyzed. Additionally, this change did 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.

Modification 80009052, Condenser Vacuum Pump Exhaust Flow Instrumentation

This design change installed flow measuring equipment to measure the Condenser Vacuum pump's exhaust flow. This instrumentation will be used to assist in accurately quantifying steam generator primary-to-secondary leakage.

Review of this modification under 10CFR50.59 was required because the installation of flow measuring equipment to measure Condenser Vacuum pump exhaust flow constituted a change to the facility as described in the UFSAR. This change will assist in quantification of steam generator primary-to-secondary tube leakage that could be indicative of an impending tube failure. Therefore, this change would not increase the probability or consequences of an accident previously analyzed. Additionally, this change did 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.

Modifications 80009054 and 80015669, Secondary Chemistry Sampling System Upgrade

These design changes installed isokinetic sampling nozzles into the Condensate Polisher Influent, Condensate Polisher Effluent, Heater Drain Pump Common Discharge, Steam Generator Feedwater and Steam Generator Blowdown sample points. A dissolved oxygen sensor was also installed in close proximity to the Steam Generator Feedwater process sample point.

Review of this modification under 10CFR50.59 was required because the upgrades to the Secondary Chemistry Sampling system constituted a change to the facility as described in the UFSAR. This change will enhance secondary chemistry monitoring and will not affect secondary system operation. Therefore, this change would not increase the probability or consequences of an accident previously analyzed. Additionally, this change did 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.

Modification 80013749, Mid-loop Transmitter Replacement Project

This design change relocated level transmitters and associated calibration volume chambers to mitigate the effects of non-condensable gases on system tubing during vacuum fill.

Review of this modification under 10CFR50.59 was required because the relocation of the mid-loop components constituted a change to the facility as described in the UFSAR. This change will enhance the reliability of the mid-loop transmitters during vacuum fill by mitigation of the effects of non-condensable gases. The function, operation, and overall design of the system will remain the same. Therefore, this change would not increase the probability or consequences of an accident previously analyzed. Additionally, this change did 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.

Modification 80008148, Salem Unit 2 Steam Generator Nozzle Transition Forging Replacement

This design change installed four single-piece tuning fork forgings, one at each of the steam generator feedwater nozzles. The forgings replaced the existing reducers and adjacent elbows along with a short section of the upstream feedwater piping. Integral with the installation of the forgings, a seal seating ring was welded to the existing thermal sleeve and a spring and piston ring type sealing device was installed to provide a tight seal between the forgings and the existing thermal sleeves.

Review of this modification under 10CFR50.59 was required because the steam generator nozzle forging replacement constituted a change to the facility as described in the UFSAR. This change was performed to address steam generator feedwater weld cracking and will enhance the integrity of the feedwater piping. The function, operation, and overall design of the system will remain the same. Therefore, this change would not increase the probability or consequences of an accident previously analyzed. Additionally, this change did 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.

Modification 80018352, 21 and 23 Auxiliary Feedwater (AFW) Pump Control Changes

This design change lowered the pressure range for the 21 AFW pump Runout Protection transmitter, and increased the nominal speed for the 23 AFW pump to compensate for weaker 22 AFW pump performance. This change will allow the AFW system to meet the design basis flows required to mitigate all currently analyzed accident scenarios that credit the AFW system.

Review of this modification under 10CFR50.59 was required because change to the 21 AFW pump Runout Protection transmitter pressure range and the change to the 23 AFW pump nominal speed constitute changes to the facility as described in the UFSAR and will involve changes to procedures as described in the UFSAR. This change was performed to ensure that the AFW system will meet the design basis flows required to mitigate all currently analyzed accident scenarios. Therefore, this change would not increase the probability or consequences of an accident previously analyzed. Additionally, this change did 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 00-018, Temporary Containment Cooling Units

This temporary modification installed temporary containment cooling units during the Salem Unit 2 11th refueling outage to maintain containment temperature for personnel comfort and habitability. The temporary units provided chilled water flow to two of the five permanently installed Containment Fan Coil Units.

Review of this temporary modification under 10CFR50.59 was required because the installation of the temporary containment cooling units constituted a change to the facility as described in the UFSAR. This change was performed to provide personnel comfort and habitability during refueling outage activities and did not affect equipment or systems necessary for safety. Therefore, this change would not increase the probability or consequences of an accident previously analyzed. Additionally, this change did 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.

SUMMARY OF CHANGES, TESTS, AND EXPERIMENTS FOR THE SALEM GENERATING STATION – UNIT 2 – Cont.

Temporary Modification 00-023, Blank Flange Installation to Isolate Valve 21SW20

This temporary modification removed a 30-inch flanged piping spool piece and installed a blind flange to provide more complete isolation for Service Water Bay 4 to facilitate scheduled outage maintenance activities. Valve 21SW20 was closed to provide isolation from Bay 2 but was leaking by its seat.

Review of this temporary modification under 10CFR50.59 was required because the installation of the blank flange constituted a change to the facility as described in the UFSAR. This change was performed to provide more complete isolation during system maintenance and did not affect the operation of the balance of the Service Water system. Therefore, this change would not increase the probability or consequences of an accident previously analyzed. Additionally, this change did 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 Modification 00-024, 21 Chiller Start/Stop Setpoint Change

This temporary modification adjusted the start and stop setpoints of the 21 Chiller to make the 22 Chiller the lead in the chiller starting sequence, and to establish the 21 and 23 Chillers as the lag units. This change was required to improve the reliability of the 21 Chiller during low load conditions that are encountered during plant shutdown with cool ambient temperatures.

Review of this temporary modification under 10CFR50.59 was required because the adjustment of the start and stop setpoints of the 21 chiller constituted a change to the facility as described in the UFSAR. This change was performed to provide more reliable chiller operation during low load conditions. Therefore, this change would not increase the probability or consequences of an accident previously analyzed. Additionally, this change did 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 reportable changes in this category implemented during October 2000.

SUMMARY OF CHANGES, TESTS, AND EXPERIMENTS FOR THE SALEM GENERATING STATION – UNIT 2 – Cont.

UFSAR Change Notices Summary of Safety Evaluations

UFSAR Change Notice SCN00-039, Reactor Coolant System Breaching with Potential Hydrogen Residuals

This evaluation considered a change to the Salem UFSAR that was necessary to reflect the requirement for additional hydrogen monitoring when the Reactor Coolant system is breached during maintenance and there is uncertainty regarding the hydrogen concentration within the system.

Review of this change under 10CFR50.59 was required because the change constitutes a change to the facility as described in the UFSAR and involves changes to procedures as described in the UFSAR. This change will provide additional guidance as to hydrogen monitoring requirements during breaching of the Reactor Coolant system when the hydrogen concentration is uncertain. 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 SCN00-029, Revision to Salem UFSAR to Update the Transfer of the Salem Operating License from Public Service Electric & Gas Company to PSEG Nuclear LLC, and to Reflect Organizational Changes.

This evaluation considered a change to the Salem UFSAR that was necessary to reflect the transfer of the Operating License from Public Service Electric & Gas to PSEG Nuclear LLC and to reflect organizational changes and restructuring.

Review of this change under 10CFR50.59 was required because the change constitutes a change to the facility as described in the UFSAR and involves changes to procedures as described in the UFSAR. This change is administrative in nature and reflects changes to the corporate name and the organizational structure. 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.

Other - Summary of Safety Evaluations

Salem Unit 2 Cycle 12 Reload Safety Evaluation in All Modes (DS.8-0014), Revision 2

This Safety Evaluation considered the Salem Unit 2, Cycle 12 reload specific evaluation of safety parameters required to confirm the validity of the existing safety analysis. Revision 2 to this Safety Evaluation addressed a redesign of the Cycle 12 core loading pattern due to leaking fuel pins, and a change in the top nozzle holddown spring screw use acceptance criteria.

Review of this change under 10CFR50.59 was required because the core loading redesign and the change in the top nozzle holddown spring screw use acceptance criteria constitutes a change to procedures as described in the UFSAR. 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.