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Nuclear Business Unit

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

Attn: Document Control Desk

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

Gentlemen:

In compliance with Section 6.9.1.6, Reporting Requirements for the Salem Technical Specifications, the original Monthly Operating report for March 1999 is attached.

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Jez

Sincerely,

D. F. Garchow
General Manager -
Salem Operations

000022

/rbk
Enclosures

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

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R PDR

The power is in your hands.

DOCKET NO.: 50-311
 UNIT: Salem 2
 DATE: 4/15/99
 COMPLETED BY: R. Knieriem
 TELEPHONE: (609) 339-1782

Reporting Period: March 1999

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 | 2160 | 90778 |
| 744 | 2160 | 87511 |
| 0.0 | 0.0 | 0.0 |
| 799308 | 2360278 | 87333109 |

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 2 began the month of March 1999, operating at full power. Full power operation continued until March 29, when a power reduction began in preparation for the unit's 10th refueling outage. Salem Unit 2 completed the month of March at 75% power.

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

MONTH: March 1999

The following items completed during **March 1999** 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 (DCP) 2EE-0331, Pkg. 1, Addition Of Isolation Capability To Spent Fuel Pool Tell-Tale Leak-Off Lines

This modification installed isolation capability on the Spent Fuel Pool (SFP) tell-tale leak-off lines. The capability to isolate these leak-off lines will preclude a potential loss of SFP inventory in the event of a loss of SFP liner integrity.

Review of this modification under 10CFR50.59 was required because the installation of isolation capability on the SFP tell-tale leak-off lines constituted a change to the facility as described in the Safety Analysis Report (SAR). This modification did not constitute an Unreviewed Safety Question (USQ) because since the modification did not increase the consequence or probability of an accident previously analyzed. The modification did not increase the probability or consequences of a malfunction of equipment important to safety. This modification would not create any new accidents or malfunctions since no new failure modes were introduced and failure modes considered applicable to this modification are within the existing design basis. In addition the Technical

Specification Bases were not affected and no changes to the Technical Specifications were required.

Temporary Modifications - Summary of Safety Evaluations

There were no changes in this category implemented during March 1999.

Procedures - Summary of Safety Evaluations

There were no changes in this category implemented during March 1999.

UFSAR Change Notices - Summary of Safety Evaluations

UFSAR Change Notice S97-049, Steam Dump Radiological Consequences

This UFSAR change incorporated the results of the reference design calculation, which updated the analysis discussed in the UFSAR section concerning the radiological consequences of a postulated steam release by the Main Steam Safety valves rather than by the Power-operated Relief valves.

Review of this change under 10CFR50.59 was required because the updated the analysis concerning the radiological consequences of a postulated steam release by the Main Steam Safety valves constituted a change to the facility as described in the Safety Analysis Report (SAR). The review determined that the change did not increase the probability or consequences of an accident previously evaluated in the SAR, did not increase the probability or consequences of a malfunction of equipment important to safety, and did not create the possibility of an accident or malfunction of a different type from any previously evaluated. Because the change did not affect the existing analysis that forms the basis for the Technical Specifications, and did not violate Technical Specification and Updated Final Safety Analysis Report (UFSAR) requirements, the change did not reduce the margin of safety as defined in the basis for the Technical Specifications.

UFSAR Change Notice S98-031, Addition Of Hand-Held Portable Lighting Units As Emergency Lighting For The Appendix R Safe Shutdown Program

This UFSAR change added hand-held portable lights to function with the existing fixed lighting units as emergency lighting for the Appendix R Safe Shutdown program.

Review of this change under 10CFR50.59 was required because the installation of the portable hand-held lighting units constituted a change to the facility as described in the Safety Analysis Report (SAR). The review determined that the change did not increase the probability or consequences of an accident previously evaluated in the SAR, did not increase the probability or consequences of a malfunction of equipment important to safety, and did not

create the possibility of an accident or malfunction of a different type from any previously evaluated. Because the change did not affect the existing analysis that forms the basis for the Technical Specifications, and did not violate Technical Specification and Updated Final Safety Analysis Report (UFSAR) requirements, the change did not reduce the margin of safety as defined in the basis for the Technical Specifications.

UFSAR Change Notice S99-004, Chemistry Department Reorganization

This UFSAR change addressed the functional reorganization of the Salem and Hope Creek Chemistry Departments. This reorganization combined the Salem and Hope Creek Chemistry Departments into a single Nuclear Business Unit Chemistry Department under a single Manager – Chemistry.

Review of this change under 10CFR50.59 was required because the changes to the Salem and Hope Creek Chemistry department functional organization constituted a change to the facility as described in the Safety Analysis Report (SAR) and a change to procedures described in the SAR. The review determined that the change did not increase the probability or consequences of an accident previously evaluated in the SAR, did not increase the probability or consequences of a malfunction of equipment important to safety, and did not create the possibility of an accident or malfunction of a different type from any previously evaluated. Because the change did not affect the existing analysis that forms the basis for the Technical Specifications, and did not violate Technical Specification and Updated Final Safety Analysis Report (UFSAR) requirements, the change did not reduce the margin of safety as defined in the basis for the Technical Specifications.

UFSAR Change Notice S99-008, On-line Main Steam Safety Valve Setpoint Verification Testing

This UFSAR change addressed on-line testing of Main Steam Line Code Safety Valves (MSSV). The on-line testing procedure involves the installation of the Crosby Set Pressure Verification Device/Portable Computer Controller and testing of the MSSV while in Modes 1 - 3.

Review of this change under 10CFR50.59 was required because on-line testing of the MSSV constituted a change to the facility as described in the Safety Analysis Report (SAR), changed procedures described in the SAR, and involved a test not described in the SAR. The review determined that the change did not increase the probability or consequences of an accident previously evaluated in the SAR, did not increase the probability or consequences of a malfunction of equipment important to safety, and did not create the possibility of an accident or malfunction of a different type from any previously evaluated. Because the change did not affect the existing analysis that forms the basis for the Technical Specifications, and did not violate Technical Specification and Updated Final Safety Analysis Report (UFSAR) requirements, the change did not reduce the margin of safety as defined in the basis for the Technical Specifications.

UFSAR Change Notice S99-010, Fuel Handling Area Ventilation System – Removal Of The Requirement To Meet Single Failure Criteria

This UFSAR change addressed the removal of the requirement to meet single failure criteria for the Fuel Handling Area Ventilation System (FHAVS) since the FHAVS has only one complete Engineered Safety Feature (ESF) Atmosphere Cleanup System air filtration train to filter the effluent from the building. The inability of the Salem FHAVS to meet single failure criteria was reviewed by the Office Of Nuclear Reactor Regulation (NRR) during its resolution of Unresolved Item 50-311/96-080-01; "Single Failure Licensing Basis Of Fuel Handling Ventilation System". In its disposition and closure of Unresolved Item 50-311/96-080-01, the Commission did not conclude that the FHAVS was required to meet single failure criteria.

Review of this change under 10CFR50.59 was required because the removal of the requirement to meet single failure criteria for the FHAVS constituted a change to the facility as described in the Safety Analysis Report (SAR). The review determined that the change did not increase the probability or consequences of an accident previously evaluated in the SAR, did not increase the probability or consequences of a malfunction of equipment important to safety, and did not create the possibility of an accident or malfunction of a different type from any previously evaluated. Because the change did not affect the existing analysis that forms the basis for the Technical Specifications, and did not violate Technical Specification and Updated Final Safety Analysis Report (UFSAR) requirements, the change did not reduce the margin of safety as defined in the basis for the Technical Specifications.

UFSAR Change Notice S99-014, Outage Equipment Hatch (OEH)

This UFSAR change addressed the use of an OEH as an alternate method to provide containment closure for the Salem Equipment Hatch in lieu of closing the Equipment Hatch Inner Door. The use of an alternate method to provide containment closure was reviewed by the Commission and approved in Salem Amendment Nos. 217 (Unit 1) and 199 (Unit 2) to Technical Specification 3/4.9.4, Refueling Operations – Containment Building Penetrations.

Review of this change under 10CFR50.59 was required because the use of the OEH constituted a change to the facility as described in the Safety Analysis Report (SAR). The review determined that the change did not increase the probability or consequences of an accident previously evaluated in the SAR, did not increase the probability or consequences of a malfunction of equipment important to safety, and did not create the possibility of an accident or malfunction of a different type from any previously evaluated. Because the change did not affect the existing analysis that forms the basis for the Technical Specifications, and did not violate Technical Specification and Updated Final Safety Analysis Report (UFSAR) requirements, the change did not reduce the margin of safety as defined in the basis for the Technical Specifications.

UFSAR Change Notice S99-019, H₂O₂ Addition Plant Shutdown With A Bubble In The Pressurizer, H₂O₂ Addition To The Refueling Cavity, And Reactor Coolant System H₂ Specification Change

This UFSAR change considered the addition of H₂O₂ to the Reactor Coolant System during plant shutdown with a steam bubble in the pressurizer. The change also addressed the addition of H₂O₂ to the Refueling Cavity. Finally, this change addressed a change from 35 cc/kg to 50 cc/kg to the upper specification for Reactor Coolant System H₂ concentration.

Review of this change under 10CFR50.59 was required because the changes to the Reactor Coolant System chemistry control program constituted a change to the facility as described in the Safety Analysis Report (SAR) and changes to procedures described in the SAR. The review determined that the change did not increase the probability or consequences of an accident previously evaluated in the SAR, did not increase the probability or consequences of a malfunction of equipment important to safety, and did not create the possibility of an accident or malfunction of a different type from any previously evaluated. Because the change did not affect the existing analysis that forms the basis for the Technical Specifications, and did not violate Technical Specification and Updated Final Safety Analysis Report (UFSAR) requirements, the change did not reduce the margin of safety as defined in the basis for the Technical Specifications.

Deficiency Reports - Summary of Safety Evaluations

There were no changes in this category implemented during March 1999.

Other - Summary of Safety Evaluations

Salem Unit 2 Cycle 11 Reload Safety Evaluation For Operation In All Modes

This Safety Evaluation considered the Salem Unit 2 Cycle 11 reload specific evaluation of safety parameters required to confirm the validity of the existing safety analysis.

Review of this analysis under 10CFR50.59 was required because the Cycle 11 reload specific evaluation of safety parameters constituted a change to the facility as described in the Safety Analysis Report (SAR) and changes to procedures described in the SAR. The review determined that the change did not increase the probability or consequences of an accident previously evaluated in the SAR, did not increase the probability or consequences of a malfunction of equipment important to safety, and did not create the possibility of an accident or malfunction of a different type from any previously evaluated. Because the change did not affect the existing analysis that forms the basis for the Technical Specifications, and did not violate Technical Specification and Updated Final

Safety Analysis Report (UFSAR) requirements, the change did not reduce the margin of safety as defined in the basis for the Technical Specifications.

Salem Unit 2 Cycle 10 Reload Safety Evaluation For Extending Cycle Burnup

This Safety Evaluation considered a change to the Salem Unit 2 Cycle 10 reload design to extend the Cycle 10 burnup from 18500 MWD/MTU to 18750 MWD/MTU.

Review of this analysis under 10CFR50.59 was required because the change to the Salem Unit 2 Cycle 10 reload to extend its burnup constituted a change to the facility as described in the Safety Analysis Report (SAR). The review determined that the change did not increase the probability or consequences of an accident previously evaluated in the SAR, did not increase the probability or consequences of a malfunction of equipment important to safety, and did not create the possibility of an accident or malfunction of a different type from any previously evaluated. Because the change did not affect the existing analysis that forms the basis for the Technical Specifications, and did not violate Technical Specification and Updated Final Safety Analysis Report (UFSAR) requirements, the change did not reduce the margin of safety as defined in the basis for the Technical Specifications.

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Review of this change under 10CFR50.59 was required because the changes to the Reactor Coolant System chemistry control program constituted a change to the facility as described in the Safety Analysis Report (SAR) and changes to procedures described in the SAR. The review determined that the change did not increase the probability or consequences of an accident previously evaluated in the SAR, did not increase the probability or consequences of a malfunction of equipment important to safety, and did not create the possibility of an accident or malfunction of a different type from any previously evaluated. Because the change did not affect the existing analysis that forms the basis for the Technical Specifications, and did not violate Technical Specification and Updated Final Safety Analysis Report (UFSAR) requirements, the change did not reduce the margin of safety as defined in the basis for the Technical Specifications.

Deficiency Reports - Summary of Safety Evaluations

There were no changes in this category implemented during March 1999.

Other - Summary of Safety Evaluations

Salem Unit 2 Cycle 11 Reload Safety Evaluation For Operation In All Modes

This Safety Evaluation considered the Salem Unit 2 Cycle 11 reload specific evaluation of safety parameters required to confirm the validity of the existing safety analysis.

Review of this analysis under 10CFR50.59 was required because the Cycle 11 reload specific evaluation of safety parameters constituted a change to the facility as described in the Safety Analysis Report (SAR) and changes to procedures described in the SAR. The review determined that the change did not increase the probability or consequences of an accident previously evaluated in the SAR, did not increase the probability or consequences of a malfunction of equipment important to safety, and did not create the possibility of an accident or malfunction of a different type from any previously evaluated. Because the change did not affect the existing analysis that forms the basis for the Technical Specifications, and did not violate Technical Specification and Updated Final Safety Analysis Report (UFSAR) requirements, the change did not reduce the margin of safety as defined in the basis for the Technical Specifications.

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Review of this analysis under 10CFR50.59 was required because the change to the Salem Unit 2 Cycle 10 reload to extend its burnup constituted a change to the facility as described in the Safety Analysis Report (SAR). The review determined that the change did not increase the probability or consequences of an accident previously evaluated in the SAR, did not increase the probability or consequences of a malfunction of equipment important to safety, and did not create the possibility of an accident or malfunction of a different type from any previously evaluated. Because the change did not affect the existing analysis that forms the basis for the Technical Specifications, and did not violate Technical Specification and Updated Final Safety Analysis Report (UFSAR) requirements, the change did not reduce the margin of safety as defined in the basis for the Technical Specifications.