



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

Nuclear Business Unit

NOV 17 1997

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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. 1
DOCKET NO. 50-272**

In compliance with Section 6.9.1.6, Reporting Requirements for the Salem Technical Specifications, the original monthly operating report for October, 1997, is attached.

Sincerely yours,

A. C. Bakken III
General Manager -
Salem Operations

RBK:tcp
Enclosures

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

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The power is in your hands.

DOCKET NO.: 50-272
UNIT: Salem 1
DATE: 11/15/97
COMPLETED BY: R. B. Knieriem
TELEPHONE: (609) 339-1782

SALEM UNIT 1

The unit is in a refueling and a steam generator replacement outage and remained shutdown for the entire period. According to commitments from PSE&G and a subsequent confirmatory action letter from the NRC, the unit will remain shutdown pending completion of the following actions:

- Appropriately address long standing equipment reliability and operability issues.
- After the work is completed, conduct a restart readiness review to determine for ourselves the ability of the unit to operate in a safe, event free manner.
- After the restart review, meet with the NRC and communicate the results of that review.

DOCKET NO.: 50-272
 UNIT: Salem 1
 DATE: 11/06/97
 COMPLETED BY: F. Todd
 TELEPHONE: (609) 339-1316

OPERATING DATA REPORT
OPERATING STATUS

1	Reporting Period OCTOBER 1997	Hours in Report Period	<u>745</u>
2	Currently Authorized Power Level (Mwt)		<u>3411</u>
	Max Dependable Capacity (MWe-Net)		<u>1106</u>
	Design Electrical Rating (MWe-Net)		<u>1115</u>
3	Power level to which restricted (if any) (MWe Net)		<u>None</u>
4	Reason For Restriction (if any)		

		<u>This Month</u>	<u>Yr To Date</u>	<u>Cumulative</u>
5	No. of hours reactor was critical	0	0	104380
6	Reactor reserve shutdown hours	0.0	0.0	0.0
7	Hours generator on line	0	0	100388
8	Unit reserve shutdown hours	0.0	0.0	0.0
9	Gross thermal energy generated (MWH)	0	0	318062229
10	Gross electrical energy generated (MWH)	0	0	105301000
11	Net electrical energy generated (MWH)	0	0	100144495
12	Unit Service Factor	0.0%	0.0%	56.3%
13	Unit Availability Factor	0.0%	0.0%	56.3%
14	Unit Capacity Factor (MDC)	0.0%	0.0%	50.8%
15	Unit Capacity Factor (DER)	0.0%	0.0%	50.4%
16	Unit Forced Outage Rate	100.0%	100.0%	30.0%
17	Shutdowns scheduled over next 6 months (type, date, duration):			
18	If shutdown at end of report period, estimated date of Startup: Under Review			

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OPERATING DATA REPORT
UNIT SHUTDOWNS AND POWER REDUCTIONS

MONTH OCTOBER 1997

NO.	DATE	TYPE F=FORCED S=SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR OR REDUCING POWER (2)	CORRECTIVE ACTION/COMMENT
3859	10/1 - 10/31	F	745	F, C	4	Steam Generator Replacement

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

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AVERAGE DAILY UNIT POWER LEVEL

MONTH OCTOBER 1997

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>0</u>	17	<u>0</u>
2	<u>0</u>	18	<u>0</u>
3	<u>0</u>	19	<u>0</u>
4	<u>0</u>	20	<u>0</u>
5	<u>0</u>	21	<u>0</u>
6	<u>0</u>	22	<u>0</u>
7	<u>0</u>	23	<u>0</u>
8	<u>0</u>	24	<u>0</u>
9	<u>0</u>	25	<u>0</u>
10	<u>0</u>	26	<u>0</u>
11	<u>0</u>	27	<u>0</u>
12	<u>0</u>	28	<u>0</u>
13	<u>0</u>	29	<u>0</u>
14	<u>0</u>	30	<u>0</u>
15	<u>0</u>	31	<u>0</u>
16	<u>0</u>		

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

MONTH OCTOBER 1997

The following items completed during **October 1997** 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

1EE-0118, Pkg. 1, Replacement Of Check Valve 1DR7. This modification replaces an existing seismic category 1, non-safety check valve (1DR7) with a new seismic category 1, safety related check valve meeting the requirements of ASME Section III, Class 3. The 1DR7 valve serves as a boundary between the non-safety related Demineralized Water system and the safety related Auxiliary Feedwater System.

This design change does not negatively impact any accident response. This design change does not increase the probability or consequences of either an accident or a malfunction of equipment important to safety. Therefore, this design change does not involve an Unreviewed Safety Question.

1EE-0333, Pkg. 3, Replace Service Water Pump Strainer Backwash Valve 13SW24. This design change replaces the existing Service Water Pump Strainer Backwash Diaphragm Valve (11SW24) with a ball valve which has a longer service life between preventive maintenance and is suited for frequent cycling of the backwash service. The existing fast actuating air operator is being replaced with a Bettis piston type actuator to slow the closure time of the valve to mitigate existing water hammer in this portion of the system.

This design change does not negatively impact any accident response. This design change does not increase the probability or consequences of either an accident or a malfunction of equipment important to safety. Therefore, this design change does not involve an Unreviewed Safety Question.

1EA-1240, Pkg. 1, Salem Unit 1 Steam Generator Replacement Project: Main Feedwater Piping Modification. This design change modifies the portion of the piping from the thermal sleeve forging assembly at the Main Feedwater nozzle on the Steam Generator to an interfacing reconnection point with the existing feedwater piping to accommodate replacement of the existing Westinghouse Model 51 Steam Generators with Westinghouse Model F Steam Generators.

This design change does not negatively impact any accident response. This design change does not increase the probability or consequences of either an accident or a malfunction of equipment important to safety. Therefore, this design change does not involve an Unreviewed Safety Question.

1EA-1241, Pkg. 1, Salem Unit 1 Steam Generator Replacement Project: Main Steam Piping Modification. This design change modifies the portion of the piping from the Main Steam nozzle on the Steam Generator to an interfacing reconnection point with the existing Main Steam piping to accommodate replacement of the existing Westinghouse Model 51 Steam Generators with Westinghouse Model F Steam Generators.

This design change does not negatively impact any accident response. This design change does not increase the probability or consequences of either an accident or a malfunction of equipment important to safety. Therefore, this design change does not involve an Unreviewed Safety Question.

1EA-1242, Pkg. 1, Salem Unit 1 Steam Generator Replacement Project: Steam Generator Blowdown And Secondary Side Shell Drain Piping Modifications. This design change modifies Steam Generator Blowdown and Secondary Side Shell Drain piping to accommodate replacement of the existing

Westinghouse Model 51 Steam Generators with Westinghouse Model F Steam Generators.

This design change does not negatively impact any accident response. This design change does not increase the probability or consequences of either an accident or a malfunction of equipment important to safety. Therefore, this design change does not involve an Unreviewed Safety Question.

1EA-1242, Pkg. 2, Salem Unit 1 Steam Generator Replacement Project: Steam Generator Blowdown Sample Line Modification. This design change installs a grab sample valve and a portion of tubing and tube tray on each Steam Generator for the Steam Generator Blowdown sample line. This modification was performed as a part of the replacement of the existing Westinghouse Model 51 Steam Generators with Westinghouse Model F Steam Generators.

This design change does not negatively impact any accident response. This design change does not increase the probability or consequences of either an accident or a malfunction of equipment important to safety. Therefore, this design change does not involve an Unreviewed Safety Question.

1EA-1243, Pkg. 1 & 2, Salem Unit 1 Steam Generator Replacement Project: Installation Of Insulation On Model F Steam Generators and Modified Secondary-side Piping. This design change installs Nukon insulation systems on the Model F Steam Generators (Pkg. 1) and on the modified portions of Main Steam, Main Feedwater, Steam Generator Blowdown, and Narrow and Wide Range Steam Generator Water Level instrument tap piping and root valves (Pkg. 2). This modification was performed as a part of the replacement of the existing Westinghouse Model 51 Steam Generators with Westinghouse Model F Steam Generators.

This design change does not negatively impact any accident response. This design change does not increase the probability or consequences of either an accident or a malfunction of equipment important to safety. Therefore, this design change does not involve an Unreviewed Safety Question.

1EA-1244, Pkg. 1, Salem Unit 1 Steam Generator Replacement Project: Steam Generator Level Tubing Reinstallation. This design change documents the reinstallation of the Steam Generator Level tubing from the root valves to the instrument panels. The tubing was reconnected to the root valves which are at different elevations and azimuthal locations on the replacement Steam Generators. This modification was performed as a part of the replacement of

the existing Westinghouse Model 51 Steam Generators with Westinghouse Model F Steam Generators.

This design change does not negatively impact any accident response. This design change does not increase the probability or consequences of either an accident or a malfunction of equipment important to safety. Therefore, this design change does not involve an Unreviewed Safety Question.

1EA-1250, Pkg. 1, Pipe Whip Restraints And Secondary Manway Access Platforms. This design change provides additional steel structures for pipe whip restraints that were required to support rerouted feedwater piping. Additional steel platforms were also required to allow access to manways on the replacement Steam Generators. This modification was performed as a part of the replacement of the existing Westinghouse Model 51 Steam Generators with Westinghouse Model F Steam Generators.

This design change does not negatively impact any accident response. This design change does not increase the probability or consequences of either an accident or a malfunction of equipment important to safety. Therefore, this design change does not involve an Unreviewed Safety Question.

1EA-1252, Pkg. 1, Steam Generator Replacement Project: Instrumentation Root Valve Modification. This design change installs new Nuclear Class 2, seismic Class I piping and root valves to serve the wide and narrow range water level taps on the replacement Steam Generators. This modification was performed as a part of the replacement of the existing Westinghouse Model 51 Steam Generators with Westinghouse Model F Steam Generators.

This design change does not negatively impact any accident response. This design change does not increase the probability or consequences of either an accident or a malfunction of equipment important to safety. Therefore, this design change does not involve an Unreviewed Safety Question.

1EA-1269, Pkg. 1, Steam Generator Replacement Project: Instrumentation Root Valve Modification. This design change provides for machining of the weld preparation (bevel) on both the replacement steam generator primary nozzle ends and the primary pipe ends (closest to the Steam Generator); and welding of the primary piping to the replacement Steam Generator nozzles. This modification was performed as a part of the replacement of the existing Westinghouse Model 51 Steam Generators with Westinghouse Model F Steam Generators.

This design change does not negatively impact any accident response. This design change does not increase the probability or consequences of either an accident or a malfunction of equipment important to safety. Therefore, this design change does not involve an Unreviewed Safety Question.

1EC-3306, Pkg. 1, Boric Acid Transfer Pump Control Power Fuse Replacement. This modification changes the No. 11 and No. 12 Boric Acid Transfer Pump 115 VAC control power fuses from fifteen (15) amp fuses to five (5) amp fuses to provide adequate control power transformer protection.

This design change does not negatively impact any accident response. This design change does not increase the probability or consequences of either an accident or a malfunction of equipment important to safety. Therefore, this design change does not involve an Unreviewed Safety Question.

1EC-3320, Pkg. 2, Condensate System Design Pressure Rerate And Thermal Relief Valve Replacements. This modification replaced ten relief valves with valves having new set points and added eight new relief valves in the Steam Generator Feed and Condensate systems. The changes were accomplished to support a change to the design pressure of the Condensate System.

This design change does not negatively impact any accident response. This design change does not increase the probability or consequences of either an accident or a malfunction of equipment important to safety. Therefore, this design change does not involve an Unreviewed Safety Question.

1EC-3453, Pkg. 1, Emergency Diesel Generator 1A Fuel Oil Day Tank Setpoint Change. This modification changes the primary stop setpoint for the fuel oil transfer pumps and the Day Tank high level alarm to facilitate field calibration. It also raises the set point for start of the backup fuel oil transfer pump and the Day Tank Low Level alarm to allow the Emergency Diesel Generator to run longer following receipt to the Day Tank Low Level alarm before it runs out of fuel. These changes bring the Emergency Diesel Generator automatic refill systems into compliance with ANSI N195-1976.

This design change does not negatively impact any accident response. This design change does not increase the probability or consequences of either an accident or a malfunction of equipment important to safety. Therefore, this design change does not involve an Unreviewed Safety Question.

1EC-3510, Pkg. 1, Auxiliary Building HEPA/Charcoal Filter Damper Fail Position Modifications. This modification changes the fail-safe positions of dampers in the Auxiliary Building Ventilation system during a loss of power event to ensure that the Technical Specification limit on air flow through the Charcoal Filter Units is not exceeded.

This design change does not negatively impact any accident response. This design change does not increase the probability or consequences of either an accident or a malfunction of equipment important to safety. Therefore, this design change does not involve an Unreviewed Safety Question.

1EC-3668, Pkg. 1, Service Water Connections For Future Use - Containment Fan Coil Unit Return Lines. This modification installs 1" piping connections with isolation valves in the Containment Fan Cooler return piping. The new piping connections and isolation valves will allow future system tie-in without removing a Service Water header from service.

This design change does not negatively impact any accident response. This design change does not increase the probability or consequences of either an accident or a malfunction of equipment important to safety. Therefore, this design change does not involve an Unreviewed Safety Question.

1EC-3668, Pkg. 8, Service Water System No. 11 Header Check Valve Installation. This modification installs a redundant check valve in the Service Water Nuclear Supply Header to eliminate backflow or back leakage in the service water supply lines to the Containment Fan Cooler Units. It also provides a connection to each Service Water Nuclear Supply Header to be used for future design changes that will be implemented by other portions of this modification.

This design change does not negatively impact any accident response. This design change does not increase the probability or consequences of either an accident or a malfunction of equipment important to safety. Therefore, this design change does not involve an Unreviewed Safety Question.

1EC-3668, Pkg. 19, Service Water System Containment Fan Cooler Unit Thermal Overpressure Protection. This modification installs a one inch bypass line for each of the five Containment Fan Coil Unit Service Water lines to eliminate the potential for overpressure in the fan coils in the event of a Loss of Offsite Power coincident with a Main Steam Line break or a Loss of Coolant Accident.

This design change does not negatively impact any accident response. This design change does not increase the

probability or consequences of either an accident or a malfunction of equipment important to safety. Therefore, this design change does not involve an Unreviewed Safety Question.

1EC-3695, Pkg. 1, Removal of KWS Relay From Emergency Diesel Generator Turbo Boost Circuits. This modification removes the KWS and KWT relays from the Emergency Diesel Generator turbo-boost circuitry to eliminate unnecessary actuations of the KWS relay and the turbo-boost system during Emergency Diesel Generator load sequencing. In addition, a new interlock between the turbo-boost system and the Service Water pump starting circuits, including new timing relays to replace the KWT relay functions, will be added.

This design change does not negatively impact any accident response. This design change does not increase the probability or consequences of either an accident or a malfunction of equipment important to safety. Therefore, this design change does not involve an Unreviewed Safety Question.

S97-080, Removal Of Valve 1DF126. This minor modification permanently incorporates the removal of the regulator valve (1DF126) in the Fuel Oil System to prevent the Fuel Oil Transfer pump from running at shutoff head during filling of the Fuel Oil Storage tank. This valve was previously replaced with a pipe spool under a temporary modification.

This design change does not negatively impact any accident response. This design change does not increase the probability or consequences of either an accident or a malfunction of equipment important to safety. Therefore, this design change does not involve an Unreviewed Safety Question.

Temporary Modifications Summary of Safety Evaluations

There were no changes in this category implemented during October, 1997.

Procedures Summary of Safety Evaluations

EPlan 11, Rev. 8 & EPIP 902, Rev. 17. This procedure change alters the backup method of performing protected area accountability. The change will allow badged personnel to take their accountability card home with their site security badge.

This procedure revision does not negatively impact any accident response. This procedure revision does not increase the probability or consequences of either an accident or a malfunction of equipment important to safety.

Therefore, this procedure revision does not involve an Unreviewed Safety Question.

SC.MD-EU.DG-003(Q), Rev 1, Astro-Med Recorder/Equipment Setup For Emergency Diesel Generator Related Surveillance Testing. This procedure change provides test equipment and test equipment setup that will allow an Emergency Diesel Generator (EDG) train to remain operable during its monthly Technical Specification Surveillance Test.

This procedure revision does not negatively impact any accident response. This procedure revision does not increase the probability or consequences of either an accident or a malfunction of equipment important to safety. Therefore, this procedure revision does not involve an Unreviewed Safety Question.

UFSAR Change Notices Summary of Safety Evaluations

UFSAR Change Notice 97-08, Main Steam Flow Transmitter Time Response. This Change Notice changes the UFSAR description of the steam flow transmitters to reflect a modification performed on the steam flow transmitters to provide variable dampening.

This UFSAR change does not negatively impact any accident response. This design change does not increase the probability or consequences of either an accident or a malfunction of equipment important to safety. Therefore, this design change does not involve an Unreviewed Safety Question.

Deficiency Reports Summary of Safety Evaluations

There were no changes in this category implemented during October, 1997.

Other Summary of Safety Evaluation

There were no changes in this category implemented during October, 1997.