

AVERAGE DAILY UNIT POWER LEVEL

Docket No. 50-272
 Unit Name Salem # 1
 Date September 10, 1986
 Telephone 609-935-6000
 Extension 4451

Completed by Pell White

Month August 1986

Day Average Daily Power Level
(MWe-NET)

Day Average Daily Power Level
(MWe-NET)

1 1111
 2 1088
 3 1086
 4 1080
 5 261
 6 1
 7 0
 8 0
 9 0
 10 0
 11 7
 12 640
 13 1092
 14 1096
 15 1107
 16 1091

17 1101
 18 997
 19 1108
 20 1106
 21 1115
 22 1115
 23 1115
 24 1115
 25 1093
 26 1095
 27 1106
 28 1104
 29 1086
 30 1046
 31 1057

P. 8.1-7 R1

OPERATING DATA REPORT

Docket No. 50-272
 Date September 10, 1986
 Telephone 935-6000
 Extension 4451

Completed by Pell White

Operating Status

	<u>Salem No. 1</u>	<u>Notes</u>
1. Unit Name		
2. Reporting Period	<u>August 1986</u>	
3. Licensed Thermal Power (Mwt)	<u>3411</u>	
4. Nameplate Rating (Gross MWe)	<u>1170</u>	
5. Design Electrical Rating (Net MWe)	<u>1115</u>	
6. Maximum Dependable Capacity (Gross MWe)	<u>1149</u>	
7. Maximum Dependable Capacity (Net MWe)	<u>1106</u>	
8. If Changes Occur in Capacity Ratings (Items 3 through 7) since Last Report, Give Reason	<u>N/A</u>	

9. Power Level to Which Restricted, if any (Net MWe) N/A

10. Reasons for Restrictions, if any N/A

	<u>This Month</u>	<u>Year to Date</u>	<u>Cumulative</u>
11. Hours in Reporting Period	<u>744</u>	<u>5831</u>	<u>80400</u>
12. No. of Hrs. Reactor was Critical	<u>600.1</u>	<u>4341.8</u>	<u>48527.2</u>
13. Reactor Reserve Shutdown Hrs.	<u>0</u>	<u>0</u>	<u>0</u>
14. Hours Generator On-Line	<u>590.7</u>	<u>4175.8</u>	<u>46680.6</u>
15. Unit Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
16. Gross Thermal Energy Generated (MWH)	<u>1963392</u>	<u>13184429</u>	<u>143668458</u>
17. Gross Elec. Energy Generated (MWH)	<u>651510</u>	<u>4367480</u>	<u>47663490</u>
18. Net Elec. Energy Generated (MWH)	<u>623055</u>	<u>4161717</u>	<u>45267209</u>
19. Unit Service Factor	<u>79.4</u>	<u>71.6</u>	<u>58.1</u>
20. Unit Availability Factor	<u>79.4</u>	<u>71.6</u>	<u>58.1</u>
21. Unit Capacity Factor (using MDC Net)	<u>75.7</u>	<u>64.5</u>	<u>50.9</u>
22. Unit Capacity Factor (using DER Net)	<u>75.1</u>	<u>64.0</u>	<u>50.5</u>
23. Unit Forced Outage Rate	<u>20.6</u>	<u>11.5</u>	<u>27.4</u>

24. Shutdowns scheduled over next 6 months (type, date and duration of each)

N/A

25. If shutdown at end of Report Period, Estimated Date of Startup:

N/A

26. Units in Test Status (Prior to Commercial Operation):

	<u>Forecast</u>	<u>Achieved</u>
Initial Criticality	<u>9/30/76</u>	<u>12/11/76</u>
Initial Electricity	<u>11/1/76</u>	<u>12/25/76</u>
Commercial Operation	<u>12/20/76</u>	<u>6/30/77</u>

UNIT SHUTDOWN AND POWER REDUCTIONS
REPORT MONTH AUGUST 1986

Docket No. 50-272
Unit Name Salem No. 1
Date September 10, 1986
Telephone 609-935-6000
Extension 4451

Completed by Pell White

No.	Date	Type 1	Duration Hours	Reason 2	Method of Shutting Down Reactor	License Event Report	System Code 4	Component Code 5	Cause and Corrective Action to Prevent Recurrence
616	0805	F	22.1	A	3	----	CH	PUMPXX	Feedwater Pump
618	0806	F	3.8	A	4	----	CH	PUMPXX	Feedwater Pump
620	0806	F	.5	A	4	----	CH	PUMPXX	Feedwater Pump
622	0806	F	131.1	D	1	----	ZZ	CKTBRK	Plant Mod Strictly for Compliance With New or changed Reg Req
624	0811	F	16.5	A	5	----	CH	PUMPXX	Feedwater Pump
644	0818	F	.7	A	5	----	CH	PUMPXX	Feedwater Pump Local Controls

1
F: Forced
S: Scheduled

2 Reason
A-Equipment Failure-explain
B-Maintenance or Test
C-Refueling
D-Regulatory Restriction
E-Operator Training & Licensing Exam
F-Administrative
G-Operational Error-explain
H-Other-explain

3 Method
1-Manual
2-Manual Scram.
3-Automatic Scram.
4-Continuation of
Previous Outage
5-Load Reduction
9-Other

4 Exhibit G
Instructions
for Prepara-
tion of Data
Entry Sheets
for Licensee
Event Report
(LER) File
(NUREG 0161)

5 Exhibit 1
Salem as
Source

MAJOR PLANT MODIFICATIONS
REPORT MONTH AUGUST 1986

DOCKET NO.: 50-272
UNIT NAME: Salem 1
DATE: September 10, 1986
COMPLETED BY: L. Miller
TELEPHONE: 609/339-4497

<u>*DCR NO.</u>	<u>PRINCIPAL SYSTEM</u>	<u>SUBJECT</u>
1EC-0692	Fire Protection	Install automatic halon 1301 total flooding fire protection system in the Relay Room to maintain 7% halon concentration for 20 minutes.
1EC-1375	Steam Generator Feed & Condensate	Install motor operators on all four BF 22 stop check valves.
1EC-1710	VS - Control & Relay Rooms	Modify the existing control circuit on each EACS fan by adding a stop feature. Also, add amber low flow indicating light to the CMC switch for fan failure.
1EC-1872	VS - Containment Fan Coil Units	Replacement of Butyl expansion joints at ECU discharge end for Containment Fan Coil Unit #'s 11, 12, 13, 14 and 15 with expansion joints made of EPDM material.

* DCR - Design Change Request

MAJOR PLANT MODIFICATIONS
REPORT MONTH AUGUST 1986

DOCKET NO.: 50-272
UNIT NAME: Salem 1
DATE: September 10, 1986
COMPLETED BY: L. Miller
TELEPHONE: 609/339-4497

*DCR

SAFETY EVALUATION 10 CFR 50.59

1EC-0692

The installation of the automatic Halon 1301 Fire Protection System in the Relay Room is in compliance with an NRC request. This modification enhances the plant protection against fire. Additionally, installation of this system does not increase or change any plant emissions. Therefore, no unreviewed safety or environmental questions are involved.

1EC-1375

Limitorque motor operators ensure positive closure of the BF22 stop check valves to preclude release or radioactivity to the environment because of seat leakage. The electric operators are not required to be automatically activated during a unit trip or a containment isolation signal. They are also not required or designed to close against normal feedwater flow. In any given situation when the BF22 valves need positive closure, the operators can be activated from the control room. Necessary alarms and indicators to display valve position and motor availability are provided. The modifications enhance compliance to General Design Criteria 57 and do not create any unreviewed safety questions or reduce the margin of safety or alter previous analysis. This modification does not alter any plant process or discharge. No unreviewed safety or environmental questions are involved.

1EC-1710

The modifications provide stop and alarm features to two independent channels. The function of having one of two fans available remains unchanged. This modification, as required by the Technical Specifications, ensures the 1/4" wc differential pressure in the control room with respect to the outside. No unreviewed safety or environmental questions are involved.

* Design Change Request

UNIT 1 MAJOR PLANT MODIFICATIONS (continued)
REPORT MONTH - AUGUST 1986

*DCR

SAFETY EVALUATION 10 CFR 50.59

1EC-1872

The replacement joint is made of elastomer vulcanized to two plies of corrosion resistant knit wire to form a tough, homogeneous wall joint and is better qualified to withstand the environmental conditions inside the containment after an accident. Loss, in the sense of a hole or tear in any one of the expansion joints will not impair the containment cooling capability since only three out of five containment fan coil units are required to mitigate the consequences of a design basis accident. Use of the new expansion joints does not affect any presently performed safety analysis or create any new safety hazards. This modification does not change any plant process or discharge or affect the existing plant impact. No unreviewed safety or environmental questions are involved.

* Design Change Request

PSE&G SALEM GENERATING STATION
SAFETY RELATED WORK ORDER LOG

SALEM UNIT 1

WO NO	UNIT	EQUIPMENT IDENTIFICATION
0099180839	1	N2 ACCUM FILL VALVE 12 ACCUM
		FAILURE DESCRIPTION: VALVE WILL NOT STROKE OPEN. PLEASE REPAIR.
		CORRECTIVE ACTION: CLEANED AND RETIGHTENED LEAD WIRES. CYCLED VALVE VERIFIED LIMITS WITH CONTROL ROOM.
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0099181606	1	#13 CHARGING PUMP
		FAILURE DESCRIPTION: PUMP IS LEAKING THRU PACKING WITH PUMP I/S RCS LEAKAGE WAS 97 GPM WITH PUMP O/S AND ISOLATED LEAK RATE WAS 32 GPM PLEASE REPAIR.
		CORRECTIVE ACTION: REPLACED PLUNGER AND REPACKED #2 CYLINDER.
<hr/>		
0099182271	1	11 AFP BREAKER
		FAILURE DESCRIPTION: 11 AF PP BREAKER DID NOT DISCHARGE WHEN IT WAS REACTED. PLEASE INVESTIGATE AND REPAIR.
		CORRECTIVE ACTION: ADJUSTED DISCH BRACKET, BREAKER DISCHARGED WHEN RACKET DOWN.

SALEM UNIT 1

WO NO	UNIT	EQUIPMENT IDENTIFICATION
8606160172	1	13 CHARGING PUMP
		FAILURE DESCRIPTION: CHARGING PUMP SEAL TANK IS OVERFLOWING DUE TO SEAL LEAKAGE IN EXCESS OF 1 GPM. PLEASE REPAIR.
		CORRECTIVE ACTION: REPLACED 2 PLUNGERS, PACKING, THROAT BUSHINGS, GLAND FOLLOWER, PRIMARY FOLLOWER. REUSED ALL SPRINGS AND SECONDARY GLAND O-RINGS.
8606270261	1	ICC264 3/4" GLOBE
		FAILURE DESCRIPTION: PACKING LEAK. REPACK WITH CHESTERTON PACKING. DRAWING 205231 SHEET 2 (D 5).
		CORRECTIVE ACTION: REPACKED VALVE WITH CHESTERTON PACKING AND TORQUED TO 5 FT LBS PER PROCEDURE MP7.8, REPLACED PACKING GLAND STUDS. REPAIRED BONNET GASKET.
8607101056	1	11CCHX SW CONTROL VALVE
		FAILURE DESCRIPTION: IN AUTO VALVE CONTINUALLY CYCLES OPEN AND CLOSED.
		CORRECTIVE ACTION: VALVE WAS REMOVED AND ACTUATOR REMOVED FOR MAINTENANCE WORK 86-07-29-048-7. VALVE WAS STROKED USING CONTROLLER AND CHECKED SATISFACTORY. VERIFIED CONTROLLER STABLE AND VALVE ACTION SIGNAL NOT CYCLING.

SALEM UNIT 1

WO NO	UNIT	EQUIPMENT IDENTIFICATION
8608050552	1	P-4's & BREAKERS
		FAILURE DESCRIPTION: PLEASE PERFORM 11C-18.1.006 AND 11C-18.1.007 WITHIN TWENTY FOUR HOURS OF UNITS 1's STARTUP.
		CORRECTIVE ACTION: PERFORMED 11C-18.1.006 AND 11C-18.1.007 ON REACTOR TRIP BREAKERS AND BYPASS BREAKERS. EVERYTHING SATISFACTORY.
8608080443	1	RX TRIP BREAKER & TURBINE TRIP SOLENOID
		FAILURE DESCRIPTION: VERIFY RX TRIP BREAKER AND TURBINE TRIP SOLENOID ACTUATION TIMES FROM 11 S/G LO FLOW COINCIDENT WITH LO LEVEL RX TRIP. (TO SATISFY AD-16).
		CORRECTIVE ACTION: VERIFIED TIMES. REACTOR MAIN TRIP BREAKER B TRIP 5 CYCLES. REACTOR MAIN TRIP BREAKER A TRIP 6 CYCLES. TURBINE REMOTE EMERG TRIP 7 CYCLES.
8608080672	1	LEAK TEST VALVE ROOM COVERS
		FAILURE DESCRIPTION: LEAK RATE TEST THE 11SJ44 AND THE 12SJ44 VALVES ROOM COVERS IN ACCORDANCE WITH PROCEDURE M9-ILP-CT-3. THESE LEAK RATES ARE DUE TO THE LIMITORQUE OPERATOR E.Q. INSPECTIONS. (12SJ44)
		CORRECTIVE ACTION: PERFORMED A LEAK RATE TEST ON 11 AND 12SJ44 VALVE ROOM COVERS WITH AN ACCEPTABLE LEAKAGE AS FOLLOWS: 11SJ44 - 7.0 SCCM LEAKAGE 12SJ44 - 1.5 SCCM LEAKAGE

SALEM UNIT 1

WO NO	UNIT	EQUIPMENT IDENTIFICATION
0099182327	1	BREAKER 12BSD
		FAILURE DESCRIPTION: 4KV BREAKER FOR 1B VITAL BUS INFEED 1, 12BSD, INADVERTENTLY OPENED. PLEASE INVESTIGATE AND REPAIR.
		CORRECTIVE ACTION: CHECKED CONTROL CIRCUIT AND ALL MULTI TRIPS, FOUND NO PROBLEM AT THIS TIME, VISUAL INSPECTION OF WIRES PERFORMED.
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8510300216	1	LIQUID WASTE
		FAILURE DESCRIPTION: REPLACE THE EXISTING RHR SUMP PUMPS (CHEM PUMP) WITH PORTABLE SUBMERSIBLE TYPE TRASH PUMPS. MODIFY THE EXISTING MOUNTING PLATES AND INSTALL FLEXIBLE STAINLESS STEEL PIPING TO ALLOW FOR REMOVAL AND CLEANING.
		CORRECTIVE ACTION: REPLACED PUMPS, PLATES, SUPPORTS AND RELATED PIPING PER DCR REQUIRED.
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8605150149	1	11 CONT. SPRAY ROOM COOLER
		FAILURE DESCRIPTION: INSPECT FOR ACCUMULATION OF SILT AND CORROSION/ PITTING AT THE WATER BOX AND FLANGED AREA PER FIELD DIRECTIVE S-1-M600-MFD-0350.
		CORRECTIVE ACTION: OPENED AND INSPECTED AND CLOSED BACK UP. SYSTEM WILL BE MADE UP TO DETERMINE WHAT IS NECESSARY TO CLEAN SYSTEM UP, REMOVED COOLER HEAD FOR INSPECTION, REINSTALLED AFTER INSPECTION.

SALEM UNIT 1

WO NO	UNIT	EQUIPMENT IDENTIFICATION
8607310712	1	1LT528 CH FUNCTION
		FAILURE DESCRIPTION: REACTOR PROT SYSTEM. PERFORM CHANNEL FUNCTION TEST ON LOOP 1LT528.
		CORRECTIVE ACTION: PERFORMED CHANNEL FUNCTION TEST 1IC-2.6.044 FOUND 1BS528B TRIPPING OUT OF TECH SPEC. REPLACED C2 AND C3 VERIFIED TIRP SETPOINT AS PER 1IC-2.2.044 PAGE 16 COMPLETED FUNCTION.
8608011646	1	13 S/G A.F. FLOW INDIC.
		FAILURE DESCRIPTION: INDICATION OF AUX. FEED FLOW TO 13 S/G IS BOUNCING. PLEASE INVESTIGATE AND REPAIR.
		CORRECTIVE ACTION: FOUND CONTROL CONSOLE INDICATOR FA-5753IB OSCILLATING. CONTROL OPERATOR RAN #11 AUX FEED PUMP AND TOOK OUT OF SERVICE INDICATION ON FA-5753IB WENT TO ZERO AND STOPPED OSCILLATING.
8608050412	1	STEAM DUMPS
		FAILURE DESCRIPTION: PLEASE INVESTIGATE STEAM DUMP SYSTEM FOR POSSIBLE PROBLEMS OBSERVED DURING TRIP OF 8/5/86.
		CORRECTIVE ACTION: AFTER ANALYZING TRIP OPERATOR FEELS THAT STEAM DUMP OPERATION WAS SATISFACTORY. AS PER A. ORTICELLE. NO WORK PERFORMED.

SALEM UNIT 1

WO NO	UNIT	EQUIPMENT IDENTIFICATION
8608090325	1	LEAK RATE TEST 1CV69
		FAILURE DESCRIPTION: LEAK RATE TEST VALVE 1CV69 IN ACCORDANCE WITH PROCEDURE M9-ILP-CT-3. THIS VALVE IS BEING LEAK RATE TESTED, BECAUSE A NEW TORQUE SWITCH WAS INSTALLED.
		CORRECTIVE ACTION: ABORTED TEST, BOUNDARY DID NOT HOLD. AN INCIDENT WILL BE WRITTEN TO DECLARE THE 1CV69 VALVE INOPERABLE
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8608130335	1	REACTOR VESSEL LEVEL
		FAILURE DESCRIPTION: REMOTE DISPLAY IN CONTAINMENT ROOM INTERMITTENTLY FAILS TO COMMUNICATE WITH THE MICROPROCESSOR, REQUIRING RESET AND OR POWER RESET. REWORK AS NECESSARY.
		CORRECTIVE ACTION: FOUND POWER SUPPLY PS1 ON CARD A10 FAILED.
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8608150760	1	EXHAUST FAN
		FAILURE DESCRIPTION: WHEN STARTED, CONTROL ROOM DOES NOT GET RED START LIGHT ON CMC SWITCH AND GREEN STOP LIGHT FLICKERS, PLEASE REPAIR.
		CORRECTIVE ACTION: REPLACED 6X RELAY THAT WAS BURNED TO A CRISP, STILL NO INDICATION, PROBLEM IS IN THE DAMPER SWITCHES, REPLACED SOLENOID COIL.

SALEM UNIT 1

WO NO	UNIT	EQUIPMENT IDENTIFICATION
8608181819	1	CFCU DISCHARGE
		FAILURE DESCRIPTION: THE INDICATION FOR R13A IS TOO LOW. PLEASE INVESTIGATE AND REPAIR.
		CORRECTIVE ACTION: CHECK SOURCE WAS STUCK ON 1R13F CAUSING IT TO READ 3K WHEN THE % OF BACKGROUND IS SUBSTAINED FROM R13A IT CAUSED IT TO READ ZERO BECAUSE THREE CHANNELS DO NOT READ NEGATIVE.
8608221012	1	PENETRATION
		FAILURE DESCRIPTION: THE ABOVE MENTIONED PENETRATION, LOCATED ON THE NORTH WALL IN THE BIT ROOM, IS NOT SEALED. COULD YOU PLEASE INVESTIGATE AND REPAIR. ANY QUESTIONS CONTACT SITE PROTECTION AT EX 4017.
		CORRECTIVE ACTION: SEALED PENETRATION #1424C40003N, LOCATED IN SERVICE WATER PIPING ALLEY, WITH KAOWOOL AND SEMKIT. READY FOR INSPECTION BY SITE PROTECTION.

SALEM GENERATING STATION
MONTHLY OPERATING SUMMARY - UNIT NO. 1
AUGUST 1986

SALEM NO. 1

The Unit began the period in Mode 3 (Hot Standby). On July 28, 1986 at 0058 hours Unit Startup commenced. At 0649 hours (the same day) the Unit was synchronized and brought to full power operation. On August 5, 1986 at 0612 hours, the Unit tripped on #12 Steam Generator (S/G) Low-Low Level due to #11 Steam Generator Feed Pump (SGFP) tripping on overspeed protection. The pump experienced overspeed when a suppression diode in the Governor actuator controls failed. On August 6, 1986 at 0421 hours the Unit was synchronized. At 0839 hours on August 6, 1986, the Unit tripped on #11 S/G Low Level in conjunction with Feed Flow/Steam Flow mismatch. No. 12 SGFP had experienced a runback to minimum speed during troubleshooting of the previous days problem with No. 11 SGFP. The runback was caused by personnel inadvertently "earth grounding" the circuit common in the feed pump controls. Cooldown to Mode 5 commenced on August 6, 1986 at 1830 hours to support environmental qualification inspection/repair of Limitorque motor operated valves. With completion of the investigation/repairs, the Unit was brought to Mode 4 at 1630 hours on August 10, 1986. On August 11, 1986 at 1948 hours the Unit was synchronized and brought to full power. The Unit operated at 100% power for the remainder of the period, except for approximately eight (8) hours on August 18, 1986, when a load reduction to 60% was required to clear a plugged sensing line on No. 12 Steam Generator Feed Pump.

REFUELING INFORMATION

COMPLETED BY: L.K. Miller DOCKET NO.: 50-272
 UNIT NAME: Salem 1
 DATE: September 10, 1986
 TELEPHONE: 609/935-6000
 EXTENSION: 4497

Month August 1986

1. Refueling information has changed from last month:
 YES _____ NO X
2. Scheduled date for next refueling: September 12, 1987
3. Scheduled date for restart following refueling: November 26, 1987
4. A) Will Technical Specification changes or other license amendments be required?
 YES _____ NO _____
 NOT DETERMINED TO DATE X
- B) Has the reload fuel design been reviewed by the Station Operating Review Committee?
 YES _____ NO X
 If no, when is it scheduled? August 1987
5. Scheduled date(s) for submitting proposed licensing action:
August 1987 if required
6. Important licensing considerations associated with refueling:
NONE

7. Number of Fuel Assemblies:
 A) Incore 193
 B) In Spent Fuel Storage 380
8. Present licensed spent fuel storage capacity: 1170
 Future spent fuel storage capacity: 1170
9. Date of last refueling that can be discharged to spent fuel pool assuming the present licensed capacity: September 2001

8-1-7.R4



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

Salem Generating Station

September 11, 1986

Director, Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Sir:

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

In compliance with Section 6.9, Reporting Requirements for the Salem Technical Specifications, 10 copies of the following monthly operating reports for the month of August 1986 are being sent to you.

- Average Daily Unit Power Level
- Operating Data Report
- Unit Shutdowns and Power Reductions
- Major Plant Modification
- Safety Related Work Orders
- Operating Summary
- Refueling Information

Sincerely yours,

J. M. Zupko, Jr.
 J. M. Zupko, Jr.
 General Manager - Salem Operations

JR:sl

cc: Dr. Thomas E. Murley
 Regional Administrator USNRC
 Region I
 631 Park Avenue
 King of Prussia, PA 19406

Director, Office of Management
 U.S. Nuclear Regulatory Commission
 Document Control Desk
 Washington, DC 20555

Enclosures
8-1-7.R4

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