

AVERAGE DAILY UNIT POWER LEVEL

Docket No. 50-311
 Unit Name Salem # 2
 Date May 10, 1984
 Telephone 609-935-6000
 Extension 4455

Completed by L. K. Miller

Month April 1984

Day Average Daily Power Level
 (MWe-NET)

1	<u>1004</u>
2	<u>945</u>
3	<u>917</u>
4	<u>1024</u>
5	<u>1032</u>
6	<u>425</u>
7	<u>0</u>
8	<u>0</u>
9	<u>0</u>
10	<u>0</u>
11	<u>0</u>
12	<u>0</u>
13	<u>0</u>
14	<u>0</u>
15	<u>0</u>
16	<u>0</u>

Day Average Daily Power Level
 (MWe-NET)

17	<u>0</u>
18	<u>0</u>
19	<u>0</u>
20	<u>0</u>
21	<u>0</u>
22	<u>0</u>
23	<u>0</u>
24	<u>0</u>
25	<u>0</u>
26	<u>0</u>
27	<u>0</u>
28	<u>0</u>
29	<u>0</u>
30	<u>0</u>
31	<u>0</u>

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OPERATING DATA REPORT

Docket No. 50-311
 Date May 10, 1984
 Telephone 935-6000
 Extension 4455

Completed by L. K. Miller

Operating Status

	Salem No. 2	Notes	
1. Unit Name	May 1984		
2. Reporting Period			
3. Licensed Thermal Power (MWt)	3411		
4. Nameplate Rating (Gross MWe)	1162		
5. Design Electrical Rating (Net MWe)	1115		
6. Maximum Dependable Capacity (Gross MWe)	1149		
7. Maximum Dependable Capacity (Net MWe)	1106		
8. If Changes Occur in Capacity Ratings (items 3 through 7) since Last Report, Give Reason	N/A		
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	719	2903	22344
12. No. of Hrs. Reactor was Critical	161.7	902.8	12611.3
13. Reactor Reserve Shutdown Hrs.	0	1443	3533.6
14. Hours Generator On-Line	129.3	778.3	12195.6
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	406510	2470951	35942023
17. Gross Elec. Energy Generated (MWH)	134460	804960	11673250
18. Net Elec. Energy Generated (MWH)	117694	737994	11055242
19. Unit Service Factor	18.0	26.8	54.6
20. Unit Availability Factor	18.0	26.8	54.6
21. Unit Capacity Factor (using MDC Net)	14.8	23.0	44.7
22. Unit Capacity Factor (using DER Net)	14.7	22.8	44.4
23. Unit Forced Outage Rate	82.0	73.2	35.0
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:

5-5-84

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

	Forecast	Achieved
Initial Criticality	6/30/80	8/2/80
Initial Electricity	9/1/80	6/3/81
Commercial Operation	9/24/80	10/13/81

UNIT SHUTDOWN AND POWER REDUCTIONS
REPORT MONTH April 1984

Docket No. 50-311
Unit Name Salem No.2
Date May 10, 1984
Telephone 609-935-6000
Extension 4455

Completed by L.K. Miller

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
84-128	04-06	F	414.6	A	3	-	HC	INSTRU	Turbine Trip Devices (Including Instru- ments) Control
84-130	04-23	F	40.0	A	3	-	HH	VALVEX	Feedwater Regulating Boiler Level Control Valve
84-132	04-25	F	59.3	A	4	-	WG	HTEXCH	Nuclear Containment Cooler/Filter System
84-134	04-27	F	75.6	A	3	-	HH	VALVEX	Feedwater Regulating Boiler Level Control Valve

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 APRIL 1984DOCKET NO: 50-311UNIT NAME: SALEM 2DATE: MAY 10, 1984COMPLETED BY: L. K. MILLERTELEPHONE: (609) 339-4455

*DCR NO.	PRINCIPLE SYSTEM	SUBJECT
2EC-1744	Circulating Water	Remove circulating water traveling screen "Not Running Indication Lights" from 2RP5 panel. Remove motion detectors and wiring from TSI panel to circulating water traveling screen motors.
2EC-1777	Circulating Water	Upgrade materials of construction to HC-250 (Abex) or equivalent of No. 21 Screen Wash Pump.
2SC-0996	Annunciators	Modify Auxiliary Annunciator inputs 013, 138, 531, 553 and 613 to indicate NORMAL (no alarm) when breakers are de-energized.
2SC-1281	Main Generator Stator Water Cooling (Package 3 only)	Change nipple joint configuration on failed tube connections.

MAJOR PLANT MODIFICATIONS
REPORT MONTH APRIL 1984

DOCKET NO.: 50-311
UNIT NAME: Salem 2
DATE: May 10, 1984
COMPLETED BY: L.K. Miller
TELEPHONE: 609/339-4455

DCR NO.	10CFR 50.59	SAFETY EVALUATION
2EC-1744	This modification does not alter the reliability of any safety related systems. The functions of the circulating water travelling screens are not altered. No unreviewed safety or environmental questions are involved.	
2EC-1777	This material change of Nos. 21 and 22 Screen Wash Pumps does not alter any presently performed safety analysis, nor does it create any new safety hazards. The basis of the Technical Specifications remains unchanged. No unreviewed safety or environmental questions are involved.	
2SC-0996	All potential realistic failure modes have been considered but are not applicable. This modification will not change any plant process or discharge. No unreviewed safety or environmental questions are involved.	
2SC-1281	The stator water cooling system is non-safety related and located in an area with no safety related equipment. This modification will not alter any plant process or discharge. No unreviewed safety or environmental questions are involved.	

* Design Change Request

P S E & G SALEM GENERATING STATION
SAFETY RELATED WORK ORDER LOG

SALEM UNIT NO. 2

WO NO	DEPT	UNIT	EQUIPMENT IDENTIFICATION
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910278	OP	2	230V AC POWER SYSTEM
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FAILURE DESCRIPTION:	CHANGE CIRCUIT BREAKER FOR POSITIONS 5G5, 5G6 FROM TEC 18/72, 1.5KW, 3.6 AMPS TO TED 20, 12 AMPS, 4KW FOR INSTRUMENT PANEL 36I-2A and 36I-2B. NO. 2 SERVICE WATER INTAKE 460V-230V CONTROL CENTER (111083)
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CORRECTIVE ACTION:	CHANGED BREAKERS IAW DCP 2SC-0325 (032184)
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938768	IC	2	VALVE 2SJ175
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FAILURE DESCRIPTION:	VALVE APPEARS TO BE LEAKING (081183)
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CORRECTIVE ACTION:	REPLACED AND TESTED VALVE (010484)
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941599	IC	2	CONTAINMENT PRESSURE RECORDER
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FAILURE DESCRIPTION:	RECORDER FOUND OUT OF CALIBRATION (041684)
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CORRECTIVE ACTION:	REPLACED SERVO ASSEMBLY AND CALIBRATED RECORDER (041584)
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941601	IC	2	21BF19 FEED REG. VALVE E/P
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FAILURE DESCRIPTION:	VERIFY CALIBRATION OF THE E/P (041784)
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CORRECTIVE ACTION:	INSTALLED AND CALIBRATED NEW TRANSMITTER (041884)
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941606	IC	2	ROD POSITION INDICATOR 2SA2
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FAILURE DESCRIPTION:	INDICATION IS GREATER THAN TWELVE STEPS FROM THE REST OF THE BANK (012384)
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CORRECTIVE ACTION:	RECALIBRATED INDICATOR (042384)
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P S E & G SALEM GENERATING STATION
SAFETY RELATED WORK ORDER LOG

941655	IC	2	NO. 21 DIESEL GENERATOR VENTILATION VALVE 2DGV2 SOLENOID
			FAILURE DESCRIPTION: VALVE IS BLOWING THROUGH (032984)
			CORRECTIVE ACTION: REPAIRED LEAKING SOLENOID VALVE (040284)

941681	IC	2	VALVE 23BF40
			FAILURE DESCRIPTION: VALVE IS BINDING WHEN STROKING OPEN FROM A FULL CLOSED POSITION (042384)
			CORRECTIVE ACTION: INSPECTED VALVE INTERNALS, NO PROBLEMS NOTED. STEM OPERATED SMOOTHLY BY HAND (042584)

942679	IC	2	NO. 22 STEAM GENERATOR WIDE RANGE LEVEL RECORDER
			FAILURE DESCRIPTION: RECORDER DRIVE CORD BROKEN (040284)
			CORRECTIVE ACTION: INSTALLED NEW DRIVE CORD AND PERFORMED CHANNEL CALIBRATION (040384)

942875	OD	2	2R41A
			FAILURE DESCRIPTION: 2R41A FAILED
			CORRECTIVE ACTION: OVERHAULED CONTROLLER AND REPLACED DATA BUFFER VERIFIED SETPOINTS (011384)

947057	MD	2	CVCS VITAL HEAT TRACE
			FAILURE DESCRIPTION: CHECK THERMOCOUPLE AND CONTROLLER FOR OPERATION (012384)
			CORRECTIVE ACTION: REPLACED FAILED THERMOCOUPLE ON CONTROLLER 260A and 260B (041184)

947784	OD	2	23 STEAM GENERATOR LEVEL CONTROL SYS.
			FAILURE DESCRIPTION: 23 SG LEVEL DRIFTED FROM 44% TO 40% (032884)
			CORRECTIVE ACTION: PERFORMED CALIBRATION AND VERIFIED PROPER OPERATION OF LEVEL CONTROLLER (032984)

P S E & G SALEM GENERATING STATION
SAFETY RELATED WORK ORDER LOG

947818 OD 2 SOLENOID VALVE 2DGV1

FAILURE DESCRIPTION: SOLENOID VALVE IS BLOWING AIR, HAMPERING DAMPER OPERATION (032984)

CORRECTIVE ACTION: REPLACED SOLENOID VALVE (032984)

947857 OD 2 NO. 21 PRESSURIZER BACKUP HEATER ELEMENT

FAILURE DESCRIPTION: BREAKER IS TRIPPING OUT PERIODICALLY (010184)

CORRECTIVE ACTION: REPLACED WITH SPARE BREAKER (042184)

948071 OD 2 FEED REG. VALVE 23BF19

FAILURE DESCRIPTION: VALVE NOT STROKING FULL OPEN (042284)

CORRECTIVE ACTION: ADJUSTED SUPPLY PRESSURE AND VERIFIED PROPER STROKING OF THE VALVE (042284)

948110 OD 2 OHA A-47 "B" 28V CONTROL BUS VOLT LOW

FAILURE DESCRIPTION: BATT. BUS INDICATED LESS THAN 26V WITH NO ALARM (042584)

CORRECTIVE ACTION: FIELD QUESTIONNAIRE 81-47 WRITTEN TO ENG. TO PROVIDE A BETTER UV RELAY FOR THIS CKT. (042584)

948173 OD 2 CONTAINMENT VENTILATION RESET BEZEL

FAILURE DESCRIPTION: RESET PUSHBUTTON WOULD NOT RESET ALL CONTAINMENT VENTILATION RESET BEZEL (3) WHEN NORMAL RESET BUTTON PUSHED (041284)

CORRECTIVE ACTION: FOUND AND REPLACED DEFECTIVE CONTAINMENT VENTILATION ISOLATION RESET RELAY (041384)

P S E & G SALEM GENERATING STATION
SAFETY RELATED WORK ORDER LOG

948214 OD 2 2B VITAL BUS INSTRUMENT INVERTER

FAILURE DESCRIPTION: INVERTER WILL NOT GO ON REGULAR FEED (041884)

CORRECTIVE ACTION: THYRISTOR FUSES BLOWN IN MASTER INVERTER. REPLACED FUSES AND RETURNED TO SERVICE (041884)

948605 IC 2 NO. 25 FEEDWATER HEATERS

FAILURE DESCRIPTION: CALIBRATE LEVELS ON 25A, B, & C HEATERS (040684)

CORRECTIVE ACTION: CALIBRATED HEATERS (041684)

948606 IC 2 FEEDWATER VALVES 21-24BF19'S

FAILURE DESCRIPTION: VERIFY VALVE OPERATION (040684)

CORRECTIVE ACTION: CORRECTED AND VERIFIED PROPER OPERATION OF THE VALVES (040684)

948758 OD 2 22 EAST MAIN STEAM COIL DRAIN TANK VALVE 22RD2

FAILURE DESCRIPTION: VALVE HAS A BODY TO BONNET LEAK (040384)

CORRECTIVE ACTION: REPLACED BONNET, LAPPED SEAT, REPACKED VALVE (041584)

948896 OD 2 23 RC FLOW CHANNEL II

FAILURE DESCRIPTION: MID-SCALE OF CHANNEL IS FAILED (042184)

CORRECTIVE ACTION: REPLACED AMPLIFIER (042184)

949988 MD 2 2A DIESEL OUTPUT BREAKER

FAILURE DESCRIPTION: REPLACE OVERCURRENT RELAY ON BREAKER AS PER SORC REQUEST (031784)

CORRECTIVE ACTION: REPLACED THE RELAY (041284)

OPERATIONS SUMMARY REPORT
MARCH 1984

Unit No. 2 began the month operating at reduced power (78% to 94%) due to problems experienced with No. 23 A&B Circulator Travelling Screens. The travelling screen problems were corrected and on April 3, a unit power escalation was commenced. On April 6, Unit No. 2 tripped at 0930 hours due to a false low condenser vacuum signal. The signal was inadvertently initiated by personnel troubleshooting a problem with the condenser vacuum indication. Later, at 1633 hours, during performance of inservice testing on Feedwater Regulating Valve 23BF19, a water hammer occurred. Investigation revealed that Valve 23BF22 (No. 23 Steam Generator Stop Check Valve) failed to close. Subsequently, when Valve 23BF19 was opened, a pressure transient occurred in the main and auxiliary feedwater lines. Unit No. 2 was placed in Cold Shutdown while investigation of the occurrence and assessment of the damage was performed. The results of the investigation revealed degradation of three hangers, three struts, and two sets of trunions. All the damaged items were repaired. Subsequently, problems were encountered with Valve 2PR6, an isolation valve for the Pressurizer Power Operated Relief Valve 2PR1. The isolation valve was returned to operable status following replacement of the valve disc. Unit No. 2 was returned to service on April 23, at 1554 hours, and subsequently tripped at 1600 hours due to a Hi-Hi level in No. 23 Steam Generator. On April 24, a unit startup was performed and the turbine latched at 0923 hours. At 0927 hours, the turbine tripped due to a steam flow/feed flow mismatch on No. 21 Steam Generator. Unit No. 2 remained in Mode 4 to facilitate inspections of Nos. 24 and 25 Containment Fan Coil Unit motors for possible stator support bar weld cracks. No weld failures or degradations were found. Subsequently, on April 27, Unit No. 2 was synchronized at 1920 hours. At 1923 hours, a reactor trip occurred due to a Hi-Hi level condition in No. 23 Steam Generator. A unit startup was commenced on April 28. As a result of testing, it was determined that No. 23 Feedwater Flow Nozzle was not functioning properly and the unit was shutdown on the 29th, for repairs. On April 29, radiography of the nozzle confirmed that the nozzle had broken loose from its design location, thus providing erroneous flow indication. The nozzle section of the pipe is expected to be replaced with a similar section from No. 13 Steam Generator. Unit No. 2 is expected to return to service May 5, 1984.

REFUELING INFORMATION

COMPLETED BY: L.K. MillerDOCKET NO.: 50-311UNIT NAME: Salem 2DATE: May 10, 1984TELEPHONE: 609/935-6000EXTENSION: 4455Month April 1984

1. Refueling information has changed from last month:
YES _____ NO X
2. Scheduled date for next refueling: January 5, 1985
3. Scheduled date for restart following refueling: March 17, 1985
4. A) Will Technical Specification changes or other license amendments be required?
YES _____ NO _____
NOT DETERMINED TO DATE 5/1/84
- B) Has the reload fuel design been reviewed by the Station Operating Review Committee?
YES _____ NO X
If no, when is it scheduled? November 1984
5. Scheduled date(s) for submitting proposed licensing action:
December 1984 (if required)
6. Important licensing considerations associated with refueling:
NONE
7. Number of Fuel Assemblies:
A) Incore 193
B) In Spent Fuel Storage 72
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: March 2000

8-1-7.R4



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

Salem Generating Station

May 10, 1984

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

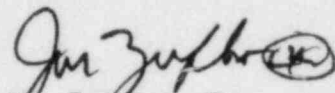
Dear Sir:

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

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 April 1984 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.
General Manager - Salem Operations

LKM:sbh

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

Director, Office of Management
Information and Program Control
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Enclosures
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