

AVERAGE DAILY UNIT POWER LEVEL

Completed by J. P. Ronafalvy

Docket No. 50-272
 Unit Name Salem # 1
 Date Dec. 10, 1984
 Telephone 609-935-6000
 Extension 4455

Month November 1984

Day Average Daily Power Level
 (MWe-NET)

1	<u>420</u>
2	<u>785</u>
3	<u>555</u>
4	<u>134</u>
5	<u>817</u>
6	<u>250</u>
7	<u>0</u>
8	<u>0</u>
9	<u>342</u>
10	<u>876</u>
11	<u>8</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>86</u>
23	<u>755</u>
24	<u>935</u>
25	<u>969</u>
26	<u>935</u>
27	<u>806</u>
28	<u>797</u>
29	<u>894</u>
30	<u>894</u>
31	<u> </u>

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OPERATING DATA REPORT

Docket No. 50-272
 Date Dec. 10, 1984
 Telephone 935-6000
 Extension 4455

Completed by J. P. Ronafalvy

Operating Status

1. Unit Name	<u>Salem No. 1</u>	<u>Notes</u>
2. Reporting Period	<u>November 1984</u>	
3. Licensed Thermal Power (MWt)	<u>3338</u>	
4. Nameplate Rating (Gross MWe)	<u>1135</u>	
5. Design Electrical Rating (Net MWe)	<u>1090</u>	
6. Maximum Dependable Capacity (Gross MWe)	<u>1124</u>	
7. Maximum Dependable Capacity (Net MWe)	<u>1079</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>720</u>	<u>8040</u>	<u>65065</u>
12. No. of Hrs. Reactor was Critical	<u>438.3</u>	<u>2044.7</u>	<u>35195.9</u>
13. Reactor Reserve Shutdown Hrs.	<u>0</u>	<u>54.5</u>	<u>3088.4</u>
14. Hours Generator On-Line	<u>366.7</u>	<u>1770.1</u>	<u>33548.0</u>
15. Unit Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
16. Gross Thermal Energy Generated (MWH)	<u>903559</u>	<u>5092629</u>	<u>100912000</u>
17. Gross Elec. Energy Generated (MWH)	<u>288570</u>	<u>1673990</u>	<u>33289090</u>
18. Net Elec. Energy Generated (MWH)	<u>261671</u>	<u>1529672</u>	<u>31500984</u>
19. Unit Service Factor	<u>50.9</u>	<u>22.0</u>	<u>51.5</u>
20. Unit Availability Factor	<u>50.9</u>	<u>22.0</u>	<u>51.5</u>
21. Unit Capacity Factor (using MDC Net)	<u>33.7</u>	<u>17.6</u>	<u>44.8</u>
22. Unit Capacity Factor (using DER Net)	<u>33.3</u>	<u>17.5</u>	<u>44.4</u>
23. Unit Forced Outage Rate	<u>49.1</u>	<u>68.9</u>	<u>33.6</u>
24. Shutdowns scheduled over next 6 months (type, date and duration of each)	<u>N/A</u>		

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>

8-1-7.R2

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UNIT SHUTDOWN AND POWER REDUCTIONS
REPORT MONTH November 1984

Docket No. 50-272
Unit Name Salem No.1
Date Dec. 10, 1984
Telephone 609-935-6000
Extension 4455

Completed by J.P. Ronafalvy

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
84-202	10-30	F	14.2	A	5	-	HA	XXXXXX	Loss of Vacuum/High Back Pressure
84-204	11-01	F	8.4	A	5	-	HA	XXXXXX	Loss of Vacuum/High Back Pressure
84-206	11-01	F	3.4	A	5	-	HA	XXXXXX	Loss of Vacuum/High Back Pressure
84-210	11-02	F	5.2	A	5	-	HH	PUMPXX	Feedwater Heater Drain Pumps
84-212	11-03	F	3.9	A	5	-	HA	INSTRU	Stator Windings Terminals Bushings
84-214	11-03	F	20.5	A	5	-	HA	INSTRU	Stator Windings Terminals Bushings
84-216	11-04	F	5.9	A	1	-	HA	INSTRU	Stator Windings Terminals Bushings
84-222	11-06	F	72.8	A	3	-	HA	INSTRU	Turbine Governing System Control
84-228	11-11	F	274.6	A	3	-	HA	INSTRU	Turbine Governing System Control
84-234	11-27	F	34.3	A	5	-	HA	INSTRU	Other Steam Turbine Problems

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 Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG 0161)

5 Exhibit 1
Salem as Source

MAJOR PLANT MODIFICATIONS
REPORT MONTH November 1984

DOCKET NO.: 50-272
UNIT NAME: Salem 1
DATE: December 10, 1984
COMPLETED BY: J. Ronafalvy
TELEPHONE: 609/339-4455

*DCR NO.	PRINCIPLE SYSTEM	SUBJECT
1ET-1166	Incore Instrumentation	Disconnect the P-250 computer from the incore flux mapping system. Connect to the flux mapping system a Hewlett-Packard multiprogrammer will be mounted in Rack #77.
1EC-1488	Security	Make additions and modifications as required to improve overall efficiency of the existing security system.
1EC-1735	Security	Install high mast (100') lighting fixtures and upgrade existing yard and perimeter lighting.
1EC-1809	Reactor Coolant-Pump Monitors	Modify the shaft vibration monitor system to eliminate erroneous vibration monitor readings. Changes include improving design of bracket, replacing M90 probes with M93 (M93A) probes, and isolate drivers from ground.
1SC-0051	Storage Facility	Install compressed gas storage facility.
1SC-1331	Chilled Water	Install an additional suction gauge no greater than 40 psi for 11 and 12 Chilled Water Pumps. Gauges for use during 4.0.5.P testing of the pumps.

MAJOR PLANT MODIFICATIONS
REPORT MONTH NOVEMBER 1984

DOCKET NO.: 50-272
UNIT NAME: Salem 1
DATE: December 10, 1984
COMPLETED BY: J. Ronafalvy
TELEPHONE: 609/339-4455

*DCR NO. SAFETY EVALUATION 10 CFR 50.59

- 1ET-1166 This DCR permits a portable computer to obtain data from non-safety grade instrumentation. No unreviewed safety or environmental questions are involved.
- 1EC-1488 This DCR provides additional security barriers. It will not add any structural item that could inhibit the safe shutdown of the NSSS equipment. This modification will not alter any plant process or discharge and will not affect the existing environmental impact of the plant. No unreviewed safety or environmental questions are involved.
- 1EC-1735 This DCR upgrades the yard security lighting. No unreviewed safety or environmental questions are involved.
- 1EC-1809 This DCR modifies the shaft vibration monitor system. No unreviewed safety or environmental questions are involved.

*DCR - Design Change Request

1SC-0051 This DCR installs a compressed gas storage facility. The following precautions have been incorporated:

1. Only non-combustible materials are permitted to be used;
2. Adequate separation from other buildings and equipment;
3. The facility is to be surrounded by a 7' high chain link fence;
4. Storage stalls are divided by concrete block walls;
5. A pitched floor is used to prevent accumulation of water;
6. Single slope roof design is used to prevent the accumulation of gas;
7. Pad eyes and pipe railings are provided for chains to secure the gas bottles in an upright position; and
8. Storage stalls are well ventilated.

No unreviewed safety or environmental questions are involved.

1SC-1331 All potential, realistic failure modes have been considered and found to be not applicable. In accordance with ASME Section XI gauges are no more than four (4) times the reference value. No unreviewed safety or environmental questions are involved.

*DCR - Design Change Request

PSE&G SALEM GENERATING STATION
SAFETY RELATED WORK ORDER LOG

SALEM UNIT 1

WO NO	DEPT	UNIT	EQUIPMENT IDENTIFICATION
0099124181 SMD		1	NO. 15 SERVICE WATER PUMP STRAINER FAILURE DESCRIPTION: MOTOR IS TRIPPING OUT CONSTANTLY CORRECTIVE ACTION: REPLACE MOTOR
84-07-02-069-9 SIC		1	1R3 FAILURE DESCRIPTION: PERIODICALLY SPIKES HIGH CORRECTIVE ACTION: REPLACED DETECTOR: ADJUSTED ZERO
84-07-01-048-1 SIC		1	1R24A SEAL INJ. FILTER FAILURE DESCRIPTION: MONITOR IS FAILED HIGH CORRECTIVE ACTION: REPLACED DETECTOR
0099122561 SIC		1	1R15 FAILURE DESCRIPTION: DETECTOR IS ALARMING FOR NO REASON CORRECTIVE ACTION: REPLACED DETECTOR

SALEM UNIT 1

WO NO	DEPT	UNIT	EQUIPMENT IDENTIFICATION
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84-11-23-065-1

SMD

1

NO. 11 SERVICE WATER PUMP STRAINER

FAILURE DESCRIPTION: BROKEN SHEAR PIN

CORRECTIVE ACTION: REPLACED SHEAR KEY, BARREL SEAL PLATES AND O-RINGS

84-11-26-086-1

SMD

1

VALVE NO. 12SW24

FAILURE DESCRIPTION: DIAPHRAGM IS LEAKING

CORRECTIVE ACTION: REPLACED DIAPHRAGM

0099124092

SMD

1

AUX. FEED STORAGE TANK RECIRC PUMP

FAILURE DESCRIPTION: PUMP SEIZED

CORRECTIVE ACTION: REPLACED MECHANICAL SEAL

0099125765

SMD

1

NO. 11 B. A. TRANSFER PUMP

FAILURE DESCRIPTION: LEAK UNDER PUMP INSULATION

CORRECTIVE ACTION: REPLACED SEAL

84-10-31-002-3

SMD

1

NO. 11 WASTE GAS COMPRESSOR

FAILURE DESCRIPTION: DOES NOT START ON SIGNAL FROM 104 PANEL

CORRECTIVE ACTION: REPLACED CONTROL COIL IN BREAKER

SALEM UNIT 1

WO NO	DEPT	UNIT	EQUIPMENT IDENTIFICATION
009901361-4	SIC	1	NO. 11 LOOP HOT LEG RTD - NARROW RANGE (TE411A)
			FAILURE DESCRIPTION: RTD FAILED
			CORRECTIVE ACTION: REPLACED RTD
0099128900	SMD	1	NO. 11 CHILLED WATER RECIRC. PUMP
			FAILURE DESCRIPTION: WATER LEAKING THROUGH PUMP SEALS
			CORRECTIVE ACTION: REBUILT PUMP
84-10-30-075-3	SIC	1	NO. 13 STEAM GENERATOR FEED FLOW RECORDER
			FAILURE DESCRIPTION: INDICATOR SIGNAL NOT BEING TRACKED PROPERLY
			CORRECTIVE ACTION: REPLACED SERVO AMP
0099026741	SIC	1	CONTAINMENT APD PUMP
			FAILURE DESCRIPTION: SAMPLE PUMP FOR 1R11A, 1R12A AND 1R12B IS SEIZED
			CORRECTIVE ACTION: NEW PUMP INSTALLED
84-05-24-125-6	SMD	1	VALVE 14AF126
			FAILURE DESCRIPTION: VALVE BROKEN, WILL NOT CLOSE
			CORRECTIVE ACTION: REPLACED VALVE

SALEM UNIT 1

WO NO	DEPT	UNIT	EQUIPMENT IDENTIFICATION
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0099122251

SIC

1

VALVE 1CV172

FAILURE DESCRIPTION: VALVE WILL NOT STAY IN AUTO

CORRECTIVE ACTION: REPLACED 800 MFD CORP. ON SERVO SET-POINT STATION

84-09-01-012-7

SMD

1

VALVE 11RS30

FAILURE DESCRIPTION: VALVE LEAKS

CORRECTIVE ACTION: REPLACED VALVE AS PER DCR 1ED-0351

84-09-07-061-8

SIC

1

RWST HI/LO LEVEL

FAILURE DESCRIPTION: OVERHEAD ANNUNCIATOR D-35 IS ILLUMINATED
WITH LEVEL IN SPEC.CORRECTIVE ACTION: RECALIBRATED

0099021323

SMD

1

1A DIESEL EXPANSION TANK LEVEL

FAILURE DESCRIPTION: LEVEL IS STUCK IN THE LOW POSITION

CORRECTIVE ACTION: REPLACED LEVEL DEVICE

84-09-19-019-2

SMD

1

NO. 11SW24 BACKWASH VALVE

FAILURE DESCRIPTION: VALVE NOT STROKING PROPERLY

CORRECTIVE ACTION: REPLACED VALVE BODY AND INSTALLED NEW DIAPHRAGM

SALEM GENERATING STATION
MONTHLY OPERATING SUMMARY - UNIT NO. 1
OCTOBER 1984

The period began with the reactor at 84% power experiencing Condenser vacuum problems. On 11/01/84, the vacuum leak was discovered and repaired. At 1323 hours, on 11/03/84, the Unit began load reduction, from 85% power to 25% power, due to high differential temperature in the stator coils. Following investigations and test and with Westinghouse concurrence the three thermocouples in question were declared unreliable and would be repaired at the next available opportunity. At 1300 hours, on 11/04/84 a controlled shutdown commenced as a result of periodic low-low flow alarm indications on the Stator Water System. Investigations revealed the method utilized to periodically purge the Stator Water System, which utilized a pressure gage found to be out of calibration, resulted in cavitation of the Stator Water Pumps. The gage was replaced and more conservative limits established for the purge operation. The Unit was re-synchronized at 1925 hours on 11/04/84. On 11/06/84 at 0645, a Reactor Trip occurred from #13 Steam Generator Low-Low Level. The trip was due to operation of the Electro-Hydraulic Control (EHC) System which resulted in a complete load reduction from 86% power. Extensive investigation including simulated operation of the EHC System could not produce the exact cause of the transient. Following instrumentation of various signals associated with the EHC System the Unit was returned to service on 11/09/84 at 0732. On 11/11/84 at 0109, the Unit experienced a trip from 93% reactor power as a result of #13 Steam Generator Low-Low Level. Conditions surrounding the trip were similar to those experienced on 11/06/84. The Unit was brought to cold shutdown (Mode 5) to repair non-isolable steam leaks associated with a turbine stop valve, a safety injection check valve and two main steam isolation by-pass valves. Further extensive research and testing was conducted to determine the initiating problem that resulted in the past two reactor trips from No. 13 Steam Generator Low-Low Level. Simulated input signals to the EHC System revealed proper functioning of that system. No failed components were identified. Several cards in the EHC System that could have initiated the sequence of events, leading to the two (2) reactor trips, were replaced.

The reactor began heatup on 11/17/84 and entered Mode 3 on 11/18/84 at 0421 hours. With the completion of required surveillances, the reactor was brought critical on 11/20/84 at 1935 hours and synchronized on 11/22/84 at 1148 hours. During startup and power operation additional monitoring (to that established previously) of the EHC System to detect any abnormalities was performed. This monitoring is continuing. As the period ended, the Unit was operating at 85% of rated power to evaluate Generator stator coil differential temperature readings.

REFUELING INFORMATION

COMPLETED BY: J. RonafalvyDOCKET NO.: 50-272UNIT NAME: Salem 1DATE: December 10, 1984TELEPHONE: 609/935-6000EXTENSION: 4455Month November 1984

1. Refueling information has changed from last month:

YES _____ NO X

2. Scheduled date for next refueling:
- February 22, 1986

3. Scheduled date for restart following refueling:
- May 4, 1986

4. A) Will Technical Specification changes or other license amendments be required?

YES _____ NO _____
NOT DETERMINED TO DATE 10/1/84

- B) Has the reload fuel design been reviewed by the Station Operating Review Committee?

YES _____ NO X
If no, when is it scheduled? January 1986

5. Scheduled date(s) for submitting proposed licensing action:
-
- January 1986 if required

6. Important licensing considerations associated with refueling:
-
- NONE

7. Number of Fuel Assemblies:

A) Incore 193
B) In Spent Fuel Storage 296

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

December 10, 1984

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 November 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

JR: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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