

AVERAGE DAILY UNIT POWER LEVEL

Completed by L. K. Miller

Docket No. 50-311
 Unit Name Salem # 2
 Date Sept. 10, 1983
 Telephone 609-935-6000
 Extension 4455

Month August 1983

Day Average Daily Power Level
 (MWe-NET)

1	<u>17</u>
2	<u>196</u>
3	<u>590</u>
4	<u>854</u>
5	<u>943</u>
6	<u>1044</u>
7	<u>1079</u>
8	<u>1083</u>
9	<u>1090</u>
10	<u>1085</u>
11	<u>358</u>
12	<u>0</u>
13	<u>0</u>
14	<u>0</u>
15	<u>0</u>

Day Average Daily Power Level
 (MWe-NET)

16	<u>0</u>
17	<u>996</u>
18	<u>1085</u>
19	<u>41</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>

Pg. 8,1-7 R1



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

Salem Generating Station

September 10, 1983

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 August 1983 are being sent to you.

Average Daily " - Power Level
Operating Data Report
Unit Shutdowns and Power Reductions
Major Plant Modification
Summary of Safety Related Maintenance
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
Page 1 of 13
8-1-7.R4

IE24
11

OPERATING DATA REPORT

Docket No. 50-311
 Date Sept. 10, 1983
 Telephone 935-6000
 Extension 4455

Completed by L. K. Miller

Operating Status

1. Unit Name	Salem No. 2	Notes	
2. Reporting Period	August 1983		
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		
	This Month	Year to Date	Cumulative
11. Hours in Reporting Period	744	5831	16537
12. No. of Hrs. Reactor was Critical	306.9	932.3	11387.9
13. Reactor Reserve Shutdown Hrs.	0	3.3	38.9
14. Hours Generator On-Line	274.8	766.8	11104
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	816136.8	1979184	32495733
17. Gross Elec. Energy Generated (MWH)	262300	528940	10545190
18. Net Elec. Energy Generated (MWH)	243959	457866	10031513
19. Unit Service Factor	36.9	13.2	67.1
20. Unit Availability Factor	36.9	13.2	67.1
21. Unit Capacity Factor (using MDC Net)	29.6	7.1	54.8
22. Unit Capacity Factor (using DER Net)	29.4	7.0	54.4
23. Unit Forced Outage Rate	63.0	49.0	8.9
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):			
	Forecast	Achieved	
Initial Criticality	6/30/80	8/2/80	
Initial Electricity	9/1/80	6/3/81	
Commercial Operation	9/24/81	10/13/81	

8-1-7.R2

UNIT SHUTDOWN AND POWER REDUCTIONS
REPORT MONTH AUGUST 1983

Docket No. 50-311
Unit Name Salem No.2
Date Sept. 10, 1983
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
83-057	7/28	F	248.5	B	1	---	HF	PUMPXX	Circulating Water Pumps
83-062	8/01	"	29.5	"	"	"	RB	CRDRVE	Nuclear Control Rod Drive Power Supplies
83-064	8/05	"	4.0	"	"	"	HF	FILTER	Traveling Screens/ Trash Racks/ Canal Screens
83-066	8/06	"	5.0	"	"	"	"	"	" "
83-068	8/06	"	2.7	"	"	"	"	"	" "
83-070	8/07	"	1.2	"	"	"	CCX	MECFUN	Control Valves Turbine
83-072	8/07	"	3.0	"	"	"	"	"	" "

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 1983DOCKET NO: 50-311UNIT NAME: SALEM 2DATE: SEPTEMBER 10, 1983COMPLETED BY: L. K. MILLERTELEPHONE: (609) 935-6000 Ext. 4455

*DCR NO.	PRINCIPLE SYSTEM	SUBJECT
2EC-1534	Building and Equipment Drains, Flood and Sump Pumps	Change nuclear classification of containment sump pumps from Nuclear Class III to Non-Nuclear Safety.
2EC-1661	Safety Injection	Replace valve 23SJ23 (Mark #FA-17) with a 1" Yarway valve (Mark #FA-130).
2SC-0800	Auxiliary Annunciator	Provide a permanent fix to repair and replace existing obsolete equipment for the auxiliary annunciator.
2SC-0864	Steam Generator Blowdown	Improve the durability of the short piping run between valves 23GB924 (typical) and the main condenser. Revise pipe configuration, schedule or material specification as required.

* DESIGN CHANGE REQUEST
8-1-7.R1

MAJOR PLANT MODIFICATIONS
REPORT MONTH AUGUST

DOCKET NO.: 50-311
UNIT NAME: Salem 2
DATE: September 10, 1983
COMPLETED BY: L.K. Miller
TELEPHONE: 609/935-6000 X4455

*DCR NO.	10CFR50.59	SAFETY EVALUATION
2EC-1534	The containment sump pumps are not part of a safety related system and do not affect the safe shutdown of the plant. The DCR has no effect on the plant discharge. No unreviewed safety or environmental questions are involved.	
2EC-1661	This design change will replace an existing valve with a valve capable of maintaining a positive shutoff which is necessary to properly calibrate the transmitter. No unreviewed safety or environmental questions are involved.	
2SC-0800	This DCR will update the present system with a more reliable configuration. No unreviewed safety or environmental questions are involved.	
2SC-0864	This DCR will upgrade the piping with a more erosion resistant material. 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	
922380	PD	2	RMS CHANL BUS 2R41B	
			FAILURE DESCRIPTION:	2R41B IS FAILED LOCALLY. 830517
			CORRECTIVE ACTION:	CHANNEL BUS INTERMITTANT FAILURE. CHECKED CHANNEL SAT AND RETURNED TO SERVICE. REPLACED TEST JACK AND CLEARED RAMS CHANNEL. FUNCTIONAL COMPLETE 6/21/83. 830630
922412	MD	2	VALVOP, 2RH4	
			FAILURE DESCRIPTION:	HANDWHEEL WILL NOT ENGAGE FOR MANUAL OPERATION.
			CORRECTIVE ACTION:	CHANGED OPERATOR, TEST SAT.
922560	PD	2	VALVOP, 2PS1 & 2PS3	
			FAILURE DESCRIPTION:	VALVES WILL NOT MAKE INCREASE LIMIT NOR WILL DECREASE LIMIT GO OUT. DEMAND INDICATION CYCLES NORMALLY. 830508
			CORRECTIVE ACTION:	REPLACED VALVOP DIAPHRAGM AND 5-100 PSI REGULATORS ON 2PS1 AND 2PS3. REPLACED DEFECTIVE E/P TRANSDUCER ON 2PS3. CHECKED OPERATION FROM CONTROL ROOM SAT. 830511
922572	MD	2	VALVE 2PS2	
			FAILURE DESCRIPTION:	VALVE LEAKS. 830509
			CORRECTIVE ACTION:	DISASSEMBLED VALVE. REPLACED DIAPHRAGM AND PACKING. 830525
922574	MD	2	VALVE 22SW50	
			FAILURE DESCRIPTION:	VALVE WILL NOT MOVE. HANDWHEEL TURNS BUT DOES NOT FEEL ENGAGED TO DISK. 830509
			CORRECTIVE ACTION:	REPLACED BROKEN KEY IN GEARBOX MECHANISM. 830510

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

SALEM UNIT NO. 2

WO NO	DEPT	UNIT	EQUIPMENT IDENTIFICATION	
922719	PD	2	VALVE 2WL71	
			FAILURE DESCRIPTION:	VALVE WILL NOT OPERATE. 830602
			CORRECTIVE ACTION:	INCREASED AIR PRESSURE TO INPUT OF ACTUATOR OF 2WL71 TO APPROX 90 LBS. ACTUATOR THEN BEGAN TO OPERATE. STROKED VALVE OPEN/CLOSED 5 TIMES. 830603
922787	MD	2	VALVOP, 2SJ4	
			FAILURE DESCRIPTION:	VALVE SEAT APPEARS TO BE LEAKING THROUGH. 830321
			CORRECTIVE ACTION:	RESET TORQUE SWITCH TO 2 AS PER ENG LETTER. 830331
922793	MD	2	21 CHARGING PUMP	
			FAILURE DESCRIPTION:	PUMP MAY HAVE RUN WITH AN EMPTY OIL RESERVOIR. 830322
			CORRECTIVE ACTION:	INBOARD AND OUTBOARD RADIAL BRGS OK. THRUST BRG DAMAGED BUT NOT WIPED. CLEANED OIL LINES, HOUSING AND SUMP. INSTALLED NEW THRUST SHOES AND VERIFIED THRUST. 830322
922840	MD	2	VALVE 2CV171	
			FAILURE DESCRIPTION:	BODY TO BONNET LEAK. 830316
			CORRECTIVE ACTION:	REPLACED BONNET. 830418
922872	MD	2	21 COMP COOLING PUMP	
			FAILURE DESCRIPTION:	OUTBOARD BEARING LEAKS EXCESSIVELY. 830326
			CORRECTIVE ACTION:	INSTALLED NEW MECHANICAL SEAL AND OUTBOARD SEAL. 830424

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

SALEM UNIT 2

WO NO	DEPT	UNIT	EQUIPMENT IDENTIFICATION
922743	MD	2	26 SERVICE WTR PUMP
			FAILURE DESCRIPTION: LINE DOWNSTREAM OF 26SW24 BACKWASH VALVE HAS $\frac{1}{2}$ " HOLE IN IT. 830609
			CORRECTIVE ACTION: DISASSEMBLED & REPAIRED 4" LINE W/WELD AND PLASTIC METAL FOR WEAR. ASSEMBLED PIPING WITH NEW GASKETS. 830621
932832	MD	2	2B DIESEL JKT WTR LK
			FAILURE DESCRIPTION: SMALL JACKET WATER LEAK ON EXPANSION TANK VENT LINE WHERE IT ENTERS BY TURBOCHARGER. LEAK IS ON THREADED SECTION OF PIPE. 830625
			CORRECTIVE ACTION: REPLACED BROKEN PIPE WITH A UNION AND NIPPLE AND NEW GASKET. 830809
932871	MD	2	25 SW PMP STRNR LK
			FAILURE DESCRIPTION: 25 SW PUMP STRAINER BACKWASH LINE IS LEAKING BETWEEN 25SW24 AND STRAINER. 830624
			CORRECTIVE ACTION: REMOVED LINE FOR WELDING & BELZONA REPAIRS, THEN REINSTALLED. 830627
933763	MD	2	23MS68
			FAILURE DESCRIPTION: 23MS68 HAS A PLUG MISSING BEFORE PACKING GLAND. REPLACE PLUG. 830808
			CORRECTIVE ACTION: USING WAGELock FITTING PUT A VLV IN PLUG HOLE, CLOSED VLV AND CAPPED THE END. 830808

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

SALEM UNIT 2

WO NO	DEPT	UNIT	EQUIPMENT IDENTIFICATION	
933897	MD	2	23 SW PUMP	
			FAILURE DESCRIPTION:	DO NOT HAVE CNTRL PWR ON PMP. DID NOT GET START LIGHT & COULD NOT STOP PMP FROM CONTROL ROOM. 830729
			CORRECTIVE ACTION:	FEMALE 125VDC CNTRL BLOCK COCKED NOT ALLOWING GOOD CONTACT & CAUSING OPEN CIRCUIT. ADJUST BLOCK AND RAISED CUBICLE ELEVATOR SW TO ALLOW GOOD CONTACT. 830730
900545	PD	2	24 ACCUMULATOR	
			FAILURE DESCRIPTION:	EXCESSIVE DEVIATION BETWEEN CHANNELS. 820511
			CORRECTIVE ACTION:	TRANSMITTER ROOT VALVES LEAKING THROUGH. CANNOT CALIBRATE TRANS AT POWER. TRANSMITTERS CALIBRATED ON 830423
907421	MD	2	21 CFCU MOTOR COOLER	
			FAILURE DESCRIPTION:	LEAK IN MOTOR COOLER. 820908
			CORRECTIVE ACTION:	INSTALLED NEW COOLER. 820908
908662	MD	2	23 S WTR STRAINER	
			FAILURE DESCRIPTION:	OPEN AND INSPECT. 820910
			CORRECTIVE ACTION:	INSPECTED, CLEANED & REPLACED WORN PARTS. 830521
910013	MD	2	VALVE, 22MS168	
			FAILURE DESCRIPTION:	REPAIR STEAM LEAK. 820728
			CORRECTIVE ACTION:	WELDED STEAM CUTS IN BODY GASKET SEATING SURFACE. LAPPED AREA AND REGASKETED. 830314

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

SALEM UNIT 2

WO NO	DEPT	UNIT	EQUIPMENT IDENTIFICATION	
919902	PD	2	2LC-732A1B	
			FAILURE DESCRIPTION:	COMPARATOR TRIP POINT OUT OF SPEC. 830208
			CORRECTIVE ACTION:	REPLACED TWO CAPACITORS IN 2LC-732A/B. 830208
922127	PD	2	VALVOP, 2CV7	
			FAILURE DESCRIPTION:	VALVE WILL NOT OPEN. 830123
			CORRECTIVE ACTION:	FOUND LEAKING SOLENOID VALVE SV425 AND FEED WIRES 15 AND 16 IN TP22-2 CABINET REVERSED. REPLACED SOLENOID VALVE AND REVERSED FEED WIRES. 830124
922206	PD	2	NIS PR CH 2N41	
			FAILURE DESCRIPTION:	CHANNEL READS 18% IN PANEL; CONSOLE INDICATION FAILED HIGH AT 120%. 830209
			CORRECTIVE ACTION:	REPLACED DEFECTIVE POWER SUPPLY NQ-302. TEST SAT. 830209

SALEM UNIT 2

OPERATIONS SUMMARY REPORT

AUGUST 1983

Unit No. 2 began the month in a power escalation following a trip of the reactor which occurred on July 29, 1983. On August 1, during the power escalation, No. 2 Reactor tripped due to a spurious actuation of 2A Safeguards Equipment Controller (SEC). The SEC actuation caused a loss of the equipment associated with the 2A Vital Bus. The rod control system alternate power supply failed to supply control power to two control rod banks following swap-over from the deenergized 2A Vital Bus. This caused the control banks to fall into the core, tripping the reactor on a nuclear instrument negative rate trip.

A reactor startup was commenced on August 2, and the unit was operating at full power on August 6. The majority of reactor zero power physics and power escalation testing was completed between August 1 and August 11. Unit No. 2 continued to operate at full power until the trip of Unit No. 1 on August 11, due to the accumulation of excessive grass on the Circulator Water Screens. Following the trip of Unit No. 1, grass began building up on the Unit No. 2 Circulating Water Screens, causing a loss of five of the six circulators. Unit load was rapidly reduced, the generator was unloaded, and the generator breakers were opened. The turbine was tripped while reactor power was above the P-7 permissive setpoint resulting in an automatic reactor trip.

Following the reactor trip of August 11, the decision was made to cool down to facilitate the replacement of the failed Intermediate Range Channel N35 Detector.

During the cooldown for repairs to Intermediate Range N35, the master controller for pressurizer pressure failed high. This caused both pressurizer spray valves to fully open, resulting in a rapid decrease of pressurizer pressure, which initiated a safety injection on low pressurizer pressure.

The reactor was again critical on August 16, and operating at full power on August 17. Unit No. 2 continued to operate at full power until August 19 when the discovery of a hydrogen leak into the generator stator cooling water system forced a shutdown of the unit.

Subsequent investigation revealed that there were six leaks on the general internal "T" connections where cooling water lines from the stator tie into the header. The cause of the leaks appears to be due to vibration fatigue caused by a resonance frequency problem. Additional resonance frequency testing disclosed several loosened phase leads on the exciter end of the generator. Unit No. 2 remained shutdown through the end of August, as repairs to the generator continued. Unit No. 2 is currently scheduled to return to power on September 26, 1983.

REFUELING INFORMATION

COMPLETED BY: L.K. MillerDOCKET NO.: 50-311UNIT NAME: Salem 2DATE: September 10, 1983TELEPHONE: 609/935-6000EXTENSION: 4455Month August 1983

1. Refueling information has changed from last month:

YES X NO

2. Scheduled date for next refueling:
- September 28, 1984

3. Scheduled date for restart following refueling:
- December 8, 1984

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

YES NO
NOT DETERMINED TO DATE 9/1/83

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

YES NO X
If no, when is it scheduled? August 1984

5. Scheduled date(s) for submitting proposed licensing action:
-
- August 1984 (if required)

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

7. Number of Fuel Assemblies:

A) Incore 193B) 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