



PSEG

Public Service Electric and Gas Company

Salem Generating Station P.O. Box #168 Hancocks Bridge, New Jersey 08038

April 10, 1978

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

U.S. NRC
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SERVICES UNIT


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 March, 1978 are being sent to you.

Average Daily Unit Power Level
Operating Data Report
Unit Shutdowns and Power Reductions
Major Plant Modification
Summary of Safety Related Maintenance
Operating Summary
Refueling Information

Sincerely yours,


H. J. Heller
Manager - Salem Generating Station

JMZ:jcm

cc: Mr. Boyce H. Grier
Director of U. S. NRC
Office of Inspection and Enforcement
Region I
631 Park Avenue
King of Prussia, PA 19406

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

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OPERATING DATA REPORT

DOCKET NO.: 50-272

DATE: April 10, 1978

COMPLETED BY: J.M. Zupko, Jr.

TELEPHONE: 609-365-7000 X507

OPERATING STATUS

1. Unit Name: Salem No. 1
2. Reporting Period: March, 1978
3. Licensed Thermal Power (Mwt): 3338
4. Nameplate Rating (Gross MWe): 1135
5. Design Electrical Rating (Net MWe): 1090
6. Maximum Dependable Capacity (Gross MWe): 1124
7. Maximum Dependable Capacity (Net MWe): 1079
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reason:
None

Notes:

9. Power Level To Which Restricted, If Any (Net MWe): None
10. Reasons For Restrictions, If Any: _____

	This Month	Year to Date	Cumulative
11. Hours In Reporting Period	744	2160	6601
12. Number Of Hours Reactor Was Critical	354.2	1522.7	4065.9
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	352.6	1460.1	3890.7
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1,080,163	4,505,479	11,200,699
17. Gross Electrical Energy Generated (MWH)	374,090	1,548,500	3,734,810
18. Net Electrical Energy Generated (MWH)	354,613	1,475,405	3,715,333
19. Unit Service Factor	47.4	67.6	58.9
20. Unit Availability Factor	47.4	67.6	58.9
21. Unit Capacity Factor (Using MDC Net)	44.2	63.3	52.1
22. Unit Capacity Factor (Using DER Net)	43.7	62.7	51.6
23. Unit Forced Outage Rate	52.6	32.4	21.3
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): <u>None</u>			

25. If Shut Down At End of Report Period, Estimated Date of Startup: 5/21/78
26. Units In Test Status (Prior to Commercial Operation):

	Forecast	Achieved
INITIAL CRITICALITY	9/30/76	12/11/76
INITIAL ELECTRICITY	11/1/76	12/25/76
COMMERCIAL OPERATION	12/20/76	6/30/77

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AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-272
 UNIT Salem No. 1
 DATE April 10, 1978
 COMPLETED BY J.M. Zupko, Jr.
 TELEPHONE 609-365-7000 X507

MONTH March, 1978

DAY AVERAGE DAILY POWER LEVEL (MWe-NET)

1	1116
2	1115
3	1057
4	758
5	1042
6	409
7	835
8	1090
9	1054
10	1117
11	1115
12	1103
13	1023
14	1059
15	1010
16	9

DAY AVERAGE DAILY POWER LEVEL (MWE-NET)

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

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH March, 1978DOCKET NO.: 50-272UNIT NAME: Salem No. 1DATE: April 10, 1978COMPLETED BY: J.M. Zupko, Jr.TELEPHONE: 609-365-7000 X507

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
78-32	3-3-78	F	0	A	4 (A)	--	HH	Filter	Clean Cond. and Stm.Gen. Feed Pump Suction Strainers.
78-33	3-5-78	F	0	A	4 (A)	--	HA	Instru	Frozen feeler line on turbine impulse pressure channel.
78-34	3-6-78	F	10.9	G	3	--	HA	ZZZZZZ	Turbine - Reactor Trip caused by per- sonnel error during routine trouble- shooting of turbine alarm and trip circuitry.
78-35	3-8-78	F	0	A	4 (A)	--	HH	Filter	Clean 11, 12, 13 Cond.Pump Suction Strainers.
78-36	3-12-78	F	0	B	4 (A)	--	HA	ZZZZZZ	Turbine valve test.
78-37	3-13-78	F	0	A	4 (A)	--	HH	Filter	Clean 11 Cond Pump Suction Strainer.
78-38	3-13-78	F	0	A	4 (A)	--	HH	Filter	Clean 11 Cond Pump Suction Strainer.

¹
F: Forced
S: Scheduled

²
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 (Explain)

³
Method:
1-Manual
2-Manual Scram.
3-Automatic Scram.
4-Other (Explain)

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

⁵
Exhibit 1-Same
Source

NOTES: A. Load Reduction
B. Continuation of previous outage.

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UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH March, 1978DOCKET NO.: 50-272UNIT NAME: Salem No. 1DATE: April 10, 1978COMPLETED BY: J.M. Zupko, Jr.TELEPHONE: 609-365-7000 X507

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
78-39	3-14-78	F	0	A	4 (A)	--	HA	Turbin	High vibration, Main Turbine Bearing No. 3.
78-40	3-15-78	F	380.5	A	1	--	HA	Turbin	High vibration, Main Turbine Bearing No. 3. Unit shut-down to make necessary turbine repairs.

MAJOR PLANT MODIFICATIONS
REPORT MONTH March, 1978

DOCKET NO.: 50-272
UNIT NAME: Salem #1
DATE: April 10, 1978
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*DCR NO.	PRINCIPLE SYSTEM	SUBJECT
ED-0051	Computer Inverter	Replace Power Supply
ED-0077	Heating Steam	Add Atmospheric Vent to Condensate Receiver.
ED-0124	Safety Injection	Stiffen Baseplate on No. 12 S.I. Pump Motor
ED-0129	Part Length Rods	Remove Annunciator D241
ED-0138	Plumbing	Add Float Switch Alarm in Relay Room Pipe Enclosure.
OD-0010	Auxiliary Alarm	Change State of Sampling System Valve Alarm.

* DESIGN CHANGE REQUEST

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MAJOR PLANT MODIFICATIONS

REPORT MONTH March, 1978DOCKET NO.: 50-272UNIT NAME: Salem #1DATE: April 10, 1978COMPLETED BY: J.M. Zupko, Jr.TELEPHONE: 609-365-7000 X507

*DCR NO.	10CFR50.59 SAFETY EVALUATION
	Unless indicated otherwise, no change to the FSAR or Technical Specifications are involved nor does the Design Change involve an Unreviewed Safety Question.
ED-0051	Safety related equipment will not be affected.
ED-0077	This design change does not effect any presently performed safety analyses nor does it create any new hazards. The Bases of the Tech. Specs. are not affected.
ED-0124	Change will reduce vibrations but will not effect other performance characteristics. Performance of motors' safety function will not be affected by this change. Therefore, the criteria of an unreviewed safety question is not satisfied.
ED-0129	Safety related equipment will not be affected.
ED-0138	This design change does not in any way alter the function of the pipe enclosure. An unreviewed safety question is not involved.
OD-0010	Safety related equipment will not be affected.

SUMMARY OF SAFETY RELATED MAINTENANCE

DEPARTMENT PerformanceREPORT MONTH March, 1978UNIT NAME: Salem #1DATE: April 10, 1978COMPLETED BY: J. M. Zupko, Jr.TELEPHONE: 609-365-7000 X507

WORK ORDER NO.	EQUIPMENT	FAILURE DESCRIPTION	CORRECTIVE ACTION
PD-3807	S.S.P.S. Relays	Verify correct relays installed.	Verified as instructed.
PD-4540	#13 Chiller Temp. Controller	Check temperature control.	Verified Controller set-point.
PD-4545	Valves 12SW92 & 12SW93.	Restroke valves.	Restroked valves.
OD-8309	#13 Aux. F.W. Pump.	Disch. press. indication not working.	Replaced transmitter power switch.
OD-8231	N.I.S. N-47	Redundant recorder channels do not agree.	Recalibrated recorder.
OD-8129	1st Stage Pressure Indication.	Redundant channels do not agree.	Recalibrated indication.
OD-8408	11 Batch Tank	Level indication fluctuates.	Increased air flow to bubbler.
PD-4558	1FT523	Transmitter found out of spec.	Recalibrated 1FT-523.
PD-4569	Module 1FC521A & B.	1FC521A&B found out of spec on functional test.	Replaced capacitors & recalibrated.
PD-4579	Valve 12SW58	Open indication not working.	Adjusted limit switch.
PD-4581	Module 1PC456B& D.	1PC456B & D found out of spec. on functional test.	Adjusted set points.
PD-4590	N.I.S. N-43	Functional test out of spec.	Recalibrated.

SUMMARY OF SAFETY RELATED MAINTENANCE

DEPARTMENT MaintenanceREPORT MONTH March, 1978UNIT NAME: Salem #1DATE: April 10, 1978COMPLETED BY: J. M. Zupko, Jr.TELEPHONE: 609-365-7000 X507

WORK ORDER NO.	EQUIPMENT	FAILURE DESCRIPTION	CORRECTIVE ACTION
OD-8462	15 Service Water Pump	4KV breaker spring won't charge.	Repositioned striker plate
OD-8443	11 Chiller	Head gasket leaking.	Replaced head gasket.
MD-2559	Valve 1CV18	Packing leak.	Tightened packing gland.
OD-8375	4KV Relay Enclosure	Plastic relay case broken.	Replaced relay.
OD-8438	Elev. 130 Containment Air Lock	Inside door has cracked roller.	Replaced roller bearing.
OD-8268	Steam Generator Snubber.	Tank sight glass leaking.	Tightened all sight glass.
OD-8439	1A28V DC Bus	Ground on 1A 28VDC Bus.	Repaired pin on lamp circuit.
OD-6054	#12 Waste Gas Comp.	Motor appears burnt out.	Installed new motor.
MD-2517	Valve 12 & 14 MS168	Packing leak.	Repacked valves.
MD-2526	Valve 12MS199	Packing leak.	Repacked valve.
OD-8307	Valve 11MS18	Grease plug leaking.	Welded grease plug in body
MD-2571	Valve 1SJ12 & 1SJ13.	Packing leaks.	Repacked valves.
OD-8793	Boric Acid	Evap. condenser leaking.	Plugged vent cond. tube.
OD-8601	1A Diesel	No alarm indication on local annunciator panel.	Replaced fuse in Annunciator Panel.
OD-8589	15 Water Pump	Packing leak.	Repacked pump.

UNIT NAME: Salem #1

UNIT NAME: Salem #1

DATE: April 10, 1978

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MONTHLY OPERATING SUMMARY

SALEM I

MARCH, 1978

- 3-1 The unit operated at full load until 3-3.
- 3-3 At 1744 a load reduction of 5% per hour was initiated to reduce load to 50% to clean feed and condensate pump suction strainers.
- 3-4 At 1140 a load increase of 5% per hour was initiated. The unit reached 100% load at 2200.
- 3-5 At 0211 the unit experienced a load rejection from 100% to 68% when a sensing line for turbine first stage pressure froze. The unit was returned to full power at 1130.
- 3-6 At 0836 a reactor/turbine trip occurred from 100% power, when an electrician trouble shooting a turbine thrust bearing alarm shorted out two contacts in the auto-stop oil circuit. The reactor was taken critical at 1800 and the unit synchronized at 1923.
- 3-7 The unit reached 100% load at 1800.
- 3-8 At 1929 a load reduction of 5% per hour was initiated to reduce load to 70% to clean condensate pump suction strainers.
- 3-9 At 0115 a load increase of 5% per hour was initiated. The unit reached 100% load at 0722. The unit stayed at full power until 3-12.
- 3-12 At 0001 the unit started a load reduction to 89% to perform a periodic turbine valve test. The unit returned to full power at 0630.
- 3-13 At 1558 a load reduction was initiated to reduce load to 70% to clean condensate pump suction strainers. At 2305 began to return

to full load. The unit reached 100% load at 0500 on 3-14.

3-14 At 1858 a load reduction was started to reduce load to 82% due to high vibration in No. 3 Main Turbine Bearing.

3-15 The unit reached 100% load at 0430. At 1830 a load reduction at 10% per hour was initiated to take the unit off the line due to high turbine bearing vibration.

3-16 The unit was taken off the line at 0327. An outage was started to make turbine repairs.

REFUELING INFORMATION

DOCKET NO.: 50-272
 UNIT: Salem No. 1
 DATE: April 10, 1978
 COMPLETED BY: J. M. Zupko, Jr.
 TELEPHONE: 609-365-7000 X507

MONTH: March, 1978

1. Refueling information has changed from last month:

YES _____ NO X

2. Scheduled date of next refueling: February 6, 1979

3. Scheduled date for restart following refueling: April 3, 1979

4. A. Will Technical Specification changes or other license
 amendments be required? YES _____ NO _____

NOT DETERMINED TO-DATE March, 1978

B. Has the reload fuel design been reviewed by the Station Operating
 Review Committee? YES _____ NO X

If no, when is it scheduled? November, 1978

5. Scheduled date(s) for submitting proposed licensing action:

December, 1978 if required.

6. Important licensing considerations associated with refueling:

None

7. Number of Fuel Assemblies:

A. In-Core 193

B. In Spent Fuel Storage 0

8. Present licensed spent fuel storage capacity: 264

Future spent fuel storage capacity: 1170

9. Date of last refueling that can be discharged to the spent fuel
 pool assuming the present licensed capacity: April, 1982