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REGULATORY DOCKET FILE COPY

Public Service Electric and Gas Company

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

March 7, 1978

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

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

(1 Copy)

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

(2 Copies)

Enc. The Energy People
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AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-272
UNIT Salem No. 1
DATE March 7, 1978
COMPLETED BY J.M. Zupko, Jr.
TELEPHONE 609-365-7000

MONTH February, 1978

DAY AVERAGE DAILY POWER LEVEL (MWe-NET)

1	<u>1096</u>
2	<u>1043</u>
3	<u>1010</u>
4	<u>1102</u>
5	<u>1103</u>
6	<u>1070</u>
7	<u>1033</u>
8	<u>979</u>
9	<u>1045</u>
10	<u>999</u>
11	<u>665</u>
12	<u>1072</u>
13	<u>982</u>
14	<u>1071</u>
15	<u>1108</u>
16	<u>1096</u>

DAY AVERAGE DAILY POWER LEVEL (MWE-NET)

17	<u>1101</u>
18	<u>1101</u>
19	<u>1090</u>
20	<u>1102</u>
21	<u>1113</u>
22	<u>1081</u>
23	<u>1035</u>
24	<u>1051</u>
25	<u>1096</u>
26	<u>1098</u>
27	<u>1013</u>
28	<u>1086</u>
29	<u>-----</u>
30	<u>-----</u>
31	<u>-----</u>

OPERATING DATA REPORT

DOCKET NO.: 50-272

DATE: March 7, 1978

COMPLETED BY: J.M. Zupko, Jr.

TELEPHONE: 609-365-7000 X507

OPERATING STATUS

1. Unit Name: Salem No. 1
2. Reporting Period: February, 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:

Notes:

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

	This Month	Year to Date	Cumulative
11. Hours In Reporting Period	672	1416	5757
12. Number Of Hours Reactor Was Critical	672	1168.5	3711.7
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	672	1107.5	3,538.1
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	2,139,163	3,425,316	10,120,536
17. Gross Electrical Energy Generated (MWH)	735,410	1,174,410	3,206,067
18. Net Electrical Energy Generated (MWH)	708,353	1,123,835	3,179,010
19. Unit Service Factor	100.0	78.2	61.5
20. Unit Availability Factor	100.0	78.2	61.5
21. Unit Capacity Factor (Using MDC Net)	97.7	73.6	51.2
22. Unit Capacity Factor (Using DER Net)	96.7	72.8	50.7
23. Unit Forced Outage Rate	0	21.8	15.8
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):			

25. If Shut Down At End of Report Period, Estimated Date of Startup: N/A

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

8-1-7.R2

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH February, 1978DOCKET NO.: 50-272UNIT NAME: Salem No. 1DATE: March 7, 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
78-21	2-2-78	F	0	A	4 (A)	-----	HH	Filter	Clean #12 Condensate Pump Strainer.
78-22	2-3-78	F	0	A	4 (A)	-----	HH	Filter	Clean #12 Condensate Pump Strainer.
78-23	2-7-78	M	0	A	4 (A)	-----	HH	Filter	Clean #11, 12 Condensate Pump Strainer.
78-24	2-8-78	F	0	A	4 (A)	-----	HH	Filter	Clean #12, 13 Condensate Pump Strainers.
78-25	2-9-78	F	0	A	4 (A)	-----	HH	Filter	Clean #11, 12, 13 Condensate Pump Strainers.
78-27	2-10-78	F	0	A	4 (A)	-----	HH	Filter	Clean #11 Steam Generator Feed Pump Strainer.
78-28	2-12-78	F	0	A	4 (A)	-----	HH	Filter	Clean #11 Condensate Pump Strainer.
78-30	2-23-78	F	0	A	4 (A)	-----	HH	Filter	Clean #11,12,13 Condensate Pump 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.

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH February, 1978DOCKET NO.: 50-272UNIT NAME: Salem No. 1DATE: March 7, 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
78-31	2-26-78	F	0	A	4(A)	-----	HH	Filter	Clean #11, 12, 13 Condensate Pump Strainer.

SUMMARY OF SAFETY RELATED MAINTENANCE

DEPARTMENT MAINTENANCE

REPORT MONTH February, 1978

DOCKET NO.: 50-272

UNIT NAME: Salem No. 1

DATE: March 7, 1978

COMPLETED BY: J.M. Zupko, Jr.

TELEPHONE: 609-365-7000 X507

WORK ORDER NO.	EQUIPMENT	FAILURE DESCRIPTION	CORRECTIVE ACTION
MD-2435	#11 SW Strainer	Leak in backwash line.	Repaired line.
OD-7968	Boric Acid Evap.	Inspect rupture disc.	Replaced rupture disc.
OD-8117	Valve 12SW122	Packing leak.	Tightened packing gland.
MD-2497	#15 Service Water Pump Strainer.	Runs continuously	Recalibrated controls.
MD-2494	S.E.C. Section "A"	Trouble light not working.	Replaced light bulb.
OD-6331	Valve 1NF71	Packing leak .	Repacked valve.
OD-7090	Valves 1SJ2 and 1SJ30.	Packing leaks.	Repacked valves.
OD-3651	Valve 1CV68	Packing leak.	Repacked valve.
OP-163	Valve 11MS130	Packing leak.	Repacked valve.
OD-7669	Valve 11MS3 and 11MS5.	Packing leak.	Repacked valves.
OP-164	Valve 11MS6	Packing leak.	Repacked valve.
MD-2470	Valve 13RC28	Packing leak.	Repacked valve.
OD-8144	#13 Chiller	Chiller oil is emulsified.	Changed filter.
OD-8081	#13 Service Water Strainer.	Packing and plate leaks.	Tightened packing and plates.
MD-2495	#14 Service Water Travelling Screen	Screen will not run in auto.	Recalibrated control.

SUMMARY OF SAFETY RELATED MAINTENANCE 17

DEPARTMENT MAINTENANCE

REPORT MONTH February, 1978

DOCKET NO.: 50-272

UNIT NO.: Salem No. 1

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WORK ORDER NO.	EQUIPMENT	FAILURE DESCRIPTION	CORRECTIVE ACTION
OD-8348	#12 Aux. Bldg. Supply Fan.	Coil leak.	Repaired coil leak.
MD-1298	125 Volt D.C. Battery Charger.	2B1 does not meet specs.	Replaced firing module.
OD-7435	Valve 11SJ56	Valve cover leaking.	Replaced valve cover gasket.
SU-612	#12 Aux. Feed Pump	Contacts do not open on 4 KV Breaker.	Replaced DLMS Switch in breaker.
OP-173	RHR Valves	Misc. RHR Valve packing leaks.	Repacked valves
MD-2418	12MS10 Valve	Packing leak.	Repacked valve.
OD-8234	Valve 1CV57	Valve indicator broken.	Replaced indicator pin.
OP-0203	#14 Stm. Gen.	Replace snubber.	Replaced snubber.
OD-8185	Valve 1CV49	Yoke bushing stripped.	Installed new yoke bushing.
OD-8219	#13 Charging Pump	#2 Cylinder Head leaking.	Replaced head gasket.
OD-8049	#11 Boric Acid Trans. Pump	Pump seal leaking.	Replaced pump seal.
OD-8073	Valve 12SW25	Replace missing set screw.	Replaced set screw.
MD-2418	Valve 12MS10	Packing leak.	Repacked valve.
OD-8074	Boric Acid Evap.	Inspect rupture disc.	Replaced rupture disc.

SUMMARY OF SAFETY RELATED MAINTENANCE

DEPARTMENT MAINTENANCEREPORT MONTH February, 1978DOCKET NO.: 50-272UNIT NAME: Salem No. 1DATE: March 7, 1978COMPLETED BY: J.M. Zupko, Jr.TELEPHONE: 609-365-7000 X507

WORK ORDER NO.	EQUIPMENT	FAILURE DESCRIPTION	CORRECTIVE ACTION
OD-8134	#15 Service Water Traveling Screen.	Strainer not running Properly.	Recalibrated control.
MD-2461	Valve 12RC24	Packing leak.	Repacked valve.
OD-7238	Valve 12RC25	Unable to move valve.	Adjusted packing.
MD-2442	Valve 1SS104 and 1SS107.	Packing leaks.	Repacked valves.
OD-5265	Valve 12RH55	Packing leak.	Repacked valve.
OD-7573	Valve 12GB1	Packing leak.	Repacked valve.
OD-6842	Valve 1PS9	Packing leak.	Repacked valve.
OD-8023	Valve 13RC25	Packing leak.	Repacked valve.
MD-2520	Valve 1BR116 and 1BR110.	Valves plugged with boric acid.	Unplugged valves 1BR110, 1BR116
MD-1056	1A and 1B Diesels.	Jacket water heaters leaking.	Changed jacket water heaters.
OD-8190	1B Diesel	Jacket water heater leaking.	Changed jacket water heater.
MD-2511	Valve 1BR115	Inspect for clogging.	Cleaned valve and line.
MD-2510	Valve 1BR114	Diaphragm leaking.	Replaced diaphragm.
MD-2506	1A Diesel	Jacket water header leaking.	Replaced jacket water heater.
OD-7222	#14 Accumulator Level Sensor.	Leaking flange.	Installed new gasket.

SUMMARY OF SAFETY RELATED MAINTENANCE

DEPARTMENT PERFORMANCE

REPORT MONTH February, 1978

DOCKET NO.: 50-272

UNIT NAME: Salem No. 1

DATE: March 7, 1978

COMPLETED BY: J.M. Zupko, Jr.

TELEPHONE: 609-365-7000 X507

WORK ORDER NO.	EQUIPMENT	FAILURE DESCRIPTION	CORRECTIVE ACTION
PD-4475	#12 Steam Gen. Level Channel III	Improper bistable trip action.	Replaced bistable ILC 528 A/B
PD-4471	RMS 1R14	Low high voltage on detector.	Cleaned high voltage connector.
PD-4449	#14 Steam Gen. F.W. Flow.	Alarm blinking.	Recalibrated.
PD-4431	#13 Aux. Feed Pump Disch. Press. Indication.	Indication not working.	Recalibrated.
PD-4327	1ST Stage Press. Indication.	Redundant channels do not agree.	Recalibrated.
OD-8118	RMS 1R17B	Instrument failed.	Replaced connector.
OD-8094	Aux. Feed Pump Suct. Press.	Redundant channels do not agree.	Recalibrated.
OD-8080	#11 Aux. Feed Flow Indication.	No indicated flow.	Recalibrated.
OD-8045	#13 Aux. Feed Feed Pump.	Train "B" signal off.	Replaced contacts.
OD-8017	Valve 11MS18	Valve will not open.	Replaced diaphragm.
OD-7999	#11 Accumulator Press. Channel B.	Low pressure alarm at incorrect setpoint.	Recalibrated.
OD-7855	Temp. Ref. Recorder.	Recorder reads low.	Replaced LTC505.
OD-6888	Valve 12MS10	Valve will not operate in auto.	Replaced relay.

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SUMMARY OF SAFETY RELATED MAINTENANCE

UNIT NAME: Salem No. 1

DEPARTMENT PERFORMANCE

DATE: March 7, 1978

REPORT MONTH February, 1978

COMPLETED BY: J.M. Zupko, Jr.

TELEPHONE: 609-365-7000 X507

WORK ORDER NO.	EQUIPMENT	FAILURE DESCRIPTION	CORRECTIVE ACTION
OD-8114	Pressurizer Level Channel II	Indication drifts.	Replace strain gauge and re-calibrate.
OD-7983	Valve 11RH29	Valve would not open.	Replaced actuator arm.
OD-8277	Valve 12SW122	Control air tubing leaking.	Replaced tubing.
OD-8165	#11 Steam Gen. Steam Flow.	False alarm indication.	Recalibrated.
OD-7406	#13 Steam Gen. Steam Flow Channel II.	Redundant channels do not agree.	Recalibrated.
PD-4522	R.C. Temp. #11 Loop	Module 1TC411 found out of spec. on functional test.	Recalibrated.
OD-8130	Cont. Diff. Press. Gauge.	Gauge reads high.	Recalibrated.

MAJOR PLANT MODIFICATIONS
REPORT MONTH February, 1978

DOCKET NO.: 50-272
UNIT NAME: Salem No. 1
DATE: March 7, 1978
COMPLETED BY: J.M. Zupko, Jr.
TELEPHONE: 609-365-7000 X507

*DCR NO.	PRINCIPLE SYSTEM	SUBJECT
ED-0083	Circulating Water	Fabricate and install concentric column stabilizers for all screen wash and bearing lube pumps.
ED-0171	Circulating Water	Modify traveling screens by mechanically strengthening and modifying baskets and providing four speed drives.
ED-0199	Security	Install vibration detectors on gates 69-4 and 69-5
ED-0321	Service Water Structure	Modify service water enclosure to allow installation of end end fish escape stop gates.
MD-0090	CVCS Primary Water Recovery	Install heat tracing on both outlet lines to prevent freezing.
OD-0007	Steam Generator Blowdown	Extend exhaust piping on No. 12 SGBD tank to minimize icing of ventilation system.
PD-0041	Service Water	Heat trace instrument tubing to prevent freezing.
PD-0098	Condensate	Add high hotwell reject line to No. 14 TGA building drain sump.
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REFUELING INFORMATION

DOCKET NO.: 50-272

UNIT: Salem #1

DATE: March 7, 1978

COMPLETED BY: J.M. ZUPKO, JR.

TELEPHONE: 609-365-7000 X507

MONTH: February, 1978

1. Refueling information has changed from last month: N/A

YES _____ NO _____

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

OPERATING SUMMARY

SALEM #1

February, 1978

The plant operated at essentially full power through-out the month except for several load reductions to clean condensate pump strainers and one load reduction to clean feed pump strainers.

- 2-2 Load reduced to 70% to clean condensate pump strainers.
- 2-3 Load reduced to 70% to clean condensate pump strainers.
- 2-7 Load reduced to 70% to clean condensate pump strainers.
- 2-8 Load reduced to 70% to clean condensate pump strainers.
- 2-9 Load reduced to 70% to clean condensate pump strainers.
- 2-10 Load reduced to 50% to clean steam generator feed and condensate pump strainers.
- 2-12 Load reduced to 70% to clean condensate pump strainers.
- 2-23 Load reduced to 70% to clean condensate pump strainers.
- 2-27 Load reduced to 70% to clean condensate pump strainers.