



PSEG

Public Service Electric and Gas Company P.O. Box 236 Hancocks Bridge, New Jersey 08038

Salem Generating Station

October 12, 1994

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

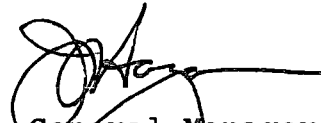
Dear Sir:

MONTHLY OPERATING REPORT
SALEM NO. 1
DOCKET NO. 50-272

In compliance with Section 6.9.1.6, Reporting Requirements for the Salem Technical Specifications, the original copy of the monthly operating reports for the month of September 1994 are being sent to you.

Average Daily Unit Power Level
Operating Data Report
Unit Shutdowns and Power Reductions
10CFR50.59 Evaluations
Operating Summary
Refueling Information

Sincerely yours,



General Manager -
Salem Operations

RH:pc

cc: Mr. Thomas T. Martin
Regional Administrator USNRC
Region I
631 Park Avenue
King of Prussia, PA 19046

Enclosures

8-1-7.R4

240080

The Energy People

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PDR ADDCK 05000272
R PDR

AVERAGE DAILY UNIT POWER LEVEL

Docket No.: 50-272
 Unit Name: Salem #1
 Date: 10/10/94
 Telephone: 339-5142

Completed by: Mike Morroni

Month September 1994

Day Average Daily Power Level
(MWe-NET)

Day Average Daily Power Level
(MWe-NET)

1	<u>543</u>
2	<u>605</u>
3	<u>782</u>
4	<u>1087</u>
5	<u>1096</u>
6	<u>1091</u>
7	<u>1085</u>
8	<u>1093</u>
9	<u>1104</u>
10	<u>1099</u>
11	<u>1141</u>
12	<u>1066</u>
13	<u>1083</u>
14	<u>1113</u>
15	<u>1113</u>
16	<u>1099</u>

17	<u>1116</u>
18	<u>1100</u>
19	<u>1060</u>
20	<u>1015</u>
21	<u>959</u>
22	<u>959</u>
23	<u>1002</u>
24	<u>969</u>
25	<u>1092</u>
26	<u>1108</u>
27	<u>1101</u>
28	<u>1110</u>
29	<u>1099</u>
30	<u>1126</u>
31	<u>-----</u>

OPERATING DATA REPORT

Docket No: 50-272
 Date: 10/10/94
 Telephone: 339-5142

Completed by: Mike Morroni

Operating Status

1. Unit Name	<u>Salem No. 1</u>	<u>Notes</u>
2. Reporting Period	<u>September 1994</u>	
3. Licensed Thermal Power (Mwt)	<u>3411</u>	
4. Nameplate Rating (Gross MWe)	<u>1170</u>	
5. Design Electrical Rating (Net MWe)	<u>1115</u>	
6. Maximum Dependable Capacity (Gross MWe)	<u>1149</u>	
7. Maximum Dependable Capacity (Net MWe)	<u>1106</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>6551</u>	<u>151248</u>
12. No. of Hrs. Rx. was Critical	<u>720</u>	<u>4378.6</u>	<u>99510.6</u>
13. Reactor Reserve Shutdown Hrs.	<u>0</u>	<u>0</u>	<u>0</u>
14. Hours Generator On-Line	<u>720</u>	<u>3659.3</u>	<u>95547.2</u>
15. Unit Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
16. Gross Thermal Energy Generated (MWH)	<u>2314372.8</u>	<u>12125515.2</u>	<u>302897829.2</u>
17. Gross Elec. Energy Generated (MWH)	<u>776560</u>	<u>3666840</u>	<u>100202810</u>
18. Net Elec. Energy Gen. (MWH)	<u>744311</u>	<u>3434721</u>	<u>95372274</u>
19. Unit Service Factor	<u>100</u>	<u>55.9</u>	<u>63.2</u>
20. Unit Availability Factor	<u>100</u>	<u>55.9</u>	<u>63.2</u>
21. Unit Capacity Factor (using MDC Net)	<u>93.5</u>	<u>47.4</u>	<u>57.0</u>
22. Unit Capacity Factor (using DER Net)	<u>92.7</u>	<u>47.0</u>	<u>56.6</u>
23. Unit Forced Outage Rate	<u>0</u>	<u>35.9</u>	<u>21.7</u>

24. Shutdowns scheduled over next 6 months (type, date and duration of each)
Refueling outage scheduled to start 4-8-95 and last 60 days.

25. If shutdown at end of Report Period, Estimated Date of Startup:
N/A.

10CFR50.59 EVALUATIONS
MONTH: - SEPTEMBER 1994

DOCKET NO: 50-272
UNIT NAME: SALEM 1
DATE: OCTOBER 10, 1994
COMPLETED BY: R. HELLER
TELEPHONE: (609) 339-5162

The following items were evaluated in accordance with the provisions of the Code of Federal Regulations 10CFR50.59. The Station Operations Review Committee has reviewed and concurs with these evaluations.

ITEM

SUMMARY

A. Design Change Packages

1EC-3324 Pkg 1	"RG 1.97 Neutron Flux Recorder Installation" - This DCP will install one dual pen recorder in main control room panel 1RP1 to provide recording capability to Neutron Flux Channel C. Installation of this recorder will meet the requirements of RG 1.97 for this variable. The installed recorder will meet the Seismic category I and Class 1E requirements for this installation. The installation of this recorder will bring the neutron flux variable into full compliance with the RG 1.97 requirements. This DCP will not make any changes which affect the operability or the availability of this instrument channel. No LCO or surveillance requirements will be changed as a result of this DCP. There is no reduction in the margin of safety as defined in the basis for any Technical Specification. (SORC 94-070)
1EC-3324 Pkg 6	"RG 1.97 Containment Isolation Valve Indication and Control Modifications" - This DCP was developed to provide electrical separation of RG 1.97 CIV control and indication circuits from non-safety related (NSR) and safety related (SR) / non-EQ loads. This separation will ensure compliance with the necessary requirements delineated in the design basis and licensing commitments relative to electrical separation and RG 1.97. The proposed changes will improve system reliability. There is no reduction in the margin of safety as defined in the basis for any Technical Specification. (SORC 94-070)
1EA-1071 Pkg 1	"Revise valve Numbering on Panel Nos. 309-1 and 309-2"- This DCP provides resolution to EWR No. 062-94-1903. The DCP involves revisions to P&ID Nos. 205244 and 205344 as well as Arrangement Drawing Nos. 205680 and 239631 covering Steam Generator Blowdown Sample Panel Nos. 309-1 and 309-2. Except for changing and/or adding new

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ITEM

SUMMARY

valve tags, no physical work is involved with this DCP. There is no reduction in the margin of safety as defined in the basis for any Technical Specification. (SORC 94-071)

1EC-3346 Pkg 1

"Salem Rod Cluster Control Assembly (RCCA) Replacement" - The 53 original Westinghouse RCCAs for each Salem Unit will be replaced by BWFC RCCAs with compatible and better nuclear and mechanical designs. The new RCCAs are identical in form, fit and function to the original RCCAs except for improved material properties, reliability and durability; a slight reduction in the diameter at the tip of the absorber rod, and wear resistance protection. The replacement RCCA spider is a one piece machined casting rather than brazed. The RCCA clad is a low containment 316L stainless steel rather than 304 stainless steel. The end plugs are 308L stainless steel rather than 304L stainless steel. Since power distribution is always re-calculated for each cycle, due to adequate control rod worth of BWFC control rods, the acceptable power distribution limits are always maintained. Since operability of the control rod position indicators is required to determine control rod position and thereby ensure compliance with the control rod alignment and insertion limits, the potential effects of rod misalignment on an associated accident is minimal. Since current Salem RCCA and the BWFC RCCA critical parameters are the same, the margin of safety of any Technical Specification will not be reduced. (SORC 94-072)

1EC-3237 Pkg 1

"Unit 1 TAC Heat Exchanger Discharge Piping Replacement" - The discharge piping for both TAC heat exchangers will be replaced between the discharge nozzle at the water box outlet up to the ST900 valves. An orifice plate in these sections of pipe will be rebored to a larger diameter in accordance with calculation S-2-SW-MDC-1234. The new pipe material will be SPS27H, comprised of approximately 25% Ni, 21% Cr, and 6% Mo. Additionally, several root and drain valves will

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ITEM	SUMMARY
	<p>be replaced with new valves. This proposal does not reduce the margin of safety as defined in the basis for any Technical Specification. The Technical Specification has no applicability to Service Water in the Turbine Building. (SORC 94-074)</p>
1EC-3239 Pkg 1	<p>"SW Pipe Replacement - Station Air Compressors" - The purpose of this DCP is to replace corroded pipe with a new material much less susceptible to crevice corrosion and MIC attack. Additionally, the end result of the objective is to increase reliability by avoiding down time and to ensure system function through flow testing. This DCP begins at the distribution header off the ST1 valve and terminates at the discharge floor flange to circulation water. The network of piping feeding the three SACs will be replaced. This proposal does not reduce the margin of safety as defined in the basis for any Technical Specification. The Technical Specification has no applicability to Service Water in the Turbine Building. (SORC 94-074)</p>
1EC-3301 Pkg 1	<p>"Steam Generator Blowdown System Upgrade" - This DCP modifies the Steam Generator Blowdown System as follows: 1.) Replaces steam generator blowdown valves with upgraded models; 2.) Install a 1" bypass line with valve around the GB9 valves; 3.) Modify piping and relocate the GB9 valves for better accessibility; 4.) Increase the size of valves GB185, GB923 and GB924 from 2" to 3", and relocate for the reconfigured 3" piping; 5.) Replace existing 2" carbon steel piping downstream of GB923 valve with 3" stainless steel. Replace modified piping upstream of GB923 with 3" chrome-moly alloy for enhanced erosion resistance; and 6.) Replace 3" carbon steel piping at the old GB9 valve locations and in the piping risers at the new 11/12GB9 locations with chrome-molly. These changes are to improve the valve and piping reliability. These changes are all in the non-Q portion of the S/G blowdown system. Other than for improved valve design and material upgrades,</p>

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ITEM

SUMMARY

all the original design requirements are being maintained. There is no reduction in the margin of safety as defined in the basis for any Technical Specification. (SORC 94-074)

1EC-3365 Pkg 1

"Replacement of Containment Isolation Valves 1VC5 & 1VC6" - This modification replaces two Pressure/Vacuum Relief Containment Isolation Valves (CIV), 1VC5 & 1VC6. The specific description of the valves does not appear in the UFSAR but a general statement is made in Section 9.4.4.2.7 that "Each ventilation isolation valve is equipped with a permanently bonded rubber seat...". The replacement valves will be hard seated (metal to metal) construction. In addition, Section 9.4.4.3.1 discusses corrective action taken to ensure that the existing valves close within two seconds. The valve actuators did not have sufficient torque to move the valve from full open (90°) position to the closed (0°) position. Therefore, the existing valves are limited to 60°. The new valve actuators will have sufficient torque to move the valves from the full open (90°) to the closed (0°) position without corrective action being necessary. This modification will also remove valve 1VC15 and its associated motor operator and controls since the valve no longer serves any function. The integrity of the primary containment will be enhanced since the replacement valves are torque seated and provide an improved seal for containment isolation service. There is no reduction in the margin of safety as defined in the basis for any Technical Specification. (SORC 94-074)

(cont'd)

ITEM

SUMMARY

B. Temporary Modifications (T-Mods)

T-Mod 94-072

"Temporary Valve Tagging of 1ST2T, 1ST3T and 1ST4T" - The purpose of this modification is to relabel/retag the existing old valves 1ST2, 1ST3 and 1ST4 as temporary valves 1ST2T, 1ST3T and 1ST4T to facilitate implementation of the service water piping upgrades under DCP 1EC-3239. Double valves (new permanent as part of the piping upgrades) will be installed directly adjacent to the existing valves under Phase I of the DCP. This will produce a boundary for piping replacement and ensure uninterrupted service water supplies to the station air compressors. There are no Technical Specifications associated with the Station Air or Control Air Systems. There is no reduction in the margin of safety as defined in the basis for any Technical Specification.
(SORC 94-074)

T-Mod 94-073

"Installation of Temporary SW Supply and Return headers for SA Compressors" - The purpose of this modification is to supply service water to the Station Air Compressors (SACs) located in Unit 1 Turbine Building to support implementation of DCP 1EC-3239, which will replace the existing SAC service water piping as part of the overall service water system upgrade project. There are no Technical Specifications associated with the Station Air or Control Air Systems. There is no reduction in the margin of safety as defined in the basis for any Technical Specification.
(SORC 94-074)

T-Mod 94-074

"Installation of No. 1 Station Air Compressor Tie-In" - The purpose of this modification, in conjunction with T-Mod 94-073, is to supply service water to the Station Air Compressors (SACs) located in Unit 1 Turbine Building to support implementation of DCP 1EC-3239, which will replace the existing SAC service water piping as part of the overall service water system upgrade project. There are no Technical Specifications

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ITEM	SUMMARY
	associated with the Station Air or Control Air Systems. There is no reduction in the margin of safety as defined in the basis for any Technical Specification. (SORC 94-074)
T-Mod 94-075	"Installation of No. 2 Station Air Compressor Tie-In" - The purpose of this modification, in conjunction with T-Mod 94-073, is to supply service water to the Station Air Compressors (SACs) located in Unit 1 Turbine Building to support implementation of DCP 1EC-3239, which will replace the existing SAC service water piping as part of the overall service water system upgrade project. There are no Technical Specifications associated with the Station Air or Control Air Systems. There is no reduction in the margin of safety as defined in the basis for any Technical Specification. (SORC 94-074)
T-Mod 94-076	"Installation of No. 3 Station Air Compressor Tie-In" - The purpose of this modification, in conjunction with T-Mod 94-073, is to supply service water to the Station Air Compressors (SACs) located in Unit 1 Turbine Building to support implementation of DCP 1EC-3239, which will replace the existing SAC service water piping as part of the overall service water system upgrade project. There are no Technical Specifications associated with the Station Air or Control Air Systems. There is no reduction in the margin of safety as defined in the basis for any Technical Specification. (SORC 94-074)
C. Procedures	
S1.OP-SO.CC-0002(Q)	"11 & 12 Component Cooling Heat Exchanger Operation" - Rev. 3 - the purpose of this revision is to add steps to inform the NCO of CCHX status following liquid release. Additionally, this revisions added sections 5.2 & 5.7 for restoration of 11 & 12 CCHXs during SEC Mode Op III Blackout/Accident Loading per Engineering Evaluation DEF-90-01434/S-C-SW-MDC-1390, Component

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ITEM

SUMMARY

Cooling System Temperature Setpoints for SEC Mode III. This revision does not affect the design safety function of any system, structure or component. The reduction of the service water rate through the CC heat exchangers during recirculation phase of the SEC Mode III will increase the margin of safety, under certain postulated scenarios, by ensuring that the service water pumps have adequate NPSH available during this mode concurrent with a postulated worst case single failure. There is no reduction in the margin of safety as defined in the basis for any Technical Specification. (SORC 94-071)

NC.NA-AP.ZZ-0047(Q)

"Nuclear Support Facility Management Program" - Rev. 1 - The purpose of this revision is to delete the procedure. The pertinent requirements of this procedure are now addressed in Procedure NC.NA-BP.ZZ-0003(Z), Nuclear Support Facility Management Program". There is no reduction in the margin of safety as defined in the basis for any Technical Specification. (SORC 94-072)

SALEM GENERATING STATION
MONTHLY OPERATING SUMMARY - UNIT 1
SEPTEMBER 1994

SALEM UNIT NO. 1

The Unit began the period in a power escalation following synchronization on August 31, 1994. On September 2, 1994, power was reduced to 40% to repair a reheat steam valve leak. The Unit was returned to 100% power on September 3, 1994, and continued to operate at essentially full power throughout the remainder of the period.

REFUELING INFORMATION
MONTH: - SEPTEMBER 1994

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UNIT NAME: SALEM 1
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TELEPHONE: (609)339-5162

MONTH SEPTEMBER 1994

1. Refueling information has changed from last month:
YES _____ NO X
2. Scheduled date for next refueling: APRIL 8, 1995
3. Scheduled date for restart following refueling: JUNE 6, 1995
4. a) Will Technical Specification changes or other license amendments be required?:
YES _____ NO _____
NOT DETERMINED TO DATE X
- b) Has the reload fuel design been reviewed by the Station Operating Review Committee?:
YES _____ NO X
If no, when is it scheduled?: MARCH 1995
5. Scheduled date(s) for submitting proposed licensing action:
N/A
6. Important licensing considerations associated with refueling:

7. Number of Fuel Assemblies:
 - a. Incore 193
 - b. In Spent Fuel Storage 732
8. Present licensed spent fuel storage capacity: 1170
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: September 2001