



**PSEG**

Public Service Electric and Gas Company P.O. Box 236 Hancocks Bridge, New Jersey 08038-0236

**Nuclear Business Unit**

March 11, 1997

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

Attn: Document Control Desk

MONTHLY OPERATING REPORT  
SALEM NO. 2  
DOCKET NO: 50-311

In compliance with Section 6.9.1.6, Reporting Requirements for the Salem Technical Specifications, the original monthly operating report for the month of February is being sent to you.

Sincerely yours,

David F. Garchow  
General Manager -  
Salem Operations

VS:pc  
Enclosures

C Mr. H. J. Miller  
Regional Administrator USNRC, Region 1  
475 Allendale Road  
King of Prussia, PA 19046

*IE24*

9703240185 970228  
PDR ADOCK 05000311  
R PDR

The power is in your hands.



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**

**DESIGN CHANGE PACKAGE**

50.59 S/E S96-167, 2EC-3590,  
Pkg. 1, Rev 1 Addition of  
Thermal Overpressure Device on  
CFCU Return Piping

This design change package installs a relief valve upstream of each of the five SW223 valves in the service water outlet lines from the CFCUs.

**SORC:** 97-022

50.59 S/E S96-208, 2EC-3590,  
Pkg. 2, Rev. This DCP installs a  
relief valve across SW223 &  
SW76 valves to address the  
overpressure condition

Engineering Evaluation S-C-SW-MEE-1138 addresses the Westinghouse Nuclear Safety Advisory Letter (NSAL) 96-003 concern that the CFCU coils and the associated piping could be overpressurized due to potential heat transfer to the stagnant service water in the CFCU coils following a postulated LOCA or MSLB and LOOP event. Package 01 of this DCP installs a relief valve across SW223 & SW76 valves to address the overpressure condition as evaluated in the above engineering evaluation.

**SORC:** 97-022

50.59 S/E S97-042, 2EC-3570,  
Pkg. 1, Rev. 0 Nitrogen Purge  
Blanket

This modification does not impact the capacity, capability or the response time of the AFST, the AFW system or the AFW equipment. In addition, this modification does not impact any other safety related equipment or system. The modifications implemented by this DCP are intended to improve the system reliability and increase component life by controlling the amount of dissolved Oxygen in the Auxiliary Feedwater System.

**SORC:** 97-024

50.59 S/E S97-047, 2EC-3590,  
Pkg. 8, Rev.0 Service Water  
System No. 21 Header Check  
Valve Installation

This design change package modifies the No. 21 Service Water Nuclear Header 16" CFCU supply piping by adding a redundant check valve downstream of existing check valve to prevent backleakage of the header.

**SORC:** 97-026

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
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**DESIGN CHANGE PACKAGE**

50.59 S/E S97-048, 2EC-3590,  
Pkg. 9, Rev. 0 Service Water  
System No. 22 Header Check  
Valve Installation

This design change package modifies the No. 22 Service Water Nuclear Header 16" CFCU supply piping by adding a redundant check valve downstream of existing check valve, 22SW51 to prevent backleakage of the header.

**SORC: 97-026**

**MINOR - MODIFICATION**

50.59 S/E S97-022, Masoneilan  
Air Operator, Retainer Clip S-96-  
032, Rev. 0

The purpose of this Minor Mod is to enhance the method of assuring the manual handwheel declutching pin stays in place and does not accidentally allow the handwheel to become engaged.

**SORC: 97-018**

**MISCELLANEOUS**

50.59 S/E S-97-041 on  
Engineering Evaluation S-2-CH-  
MEE-1175 Rev. 0

The purpose of this evaluation is to provide engineering support for an Operability Determination in the event that a chillier fails in the Unit 2 Auxiliary Building Chilled Water (CH) system with Salem Unit 2 in modes three and four, and the Unit 1 CH system having at least two chillers and one pump available in mode undefined.

**SORC: 97-023**

50.59 S/E S97-053 on Turbine  
Bypass Valve Control Loops  
Test (TS2.SE-SU.RCP-0002(Q)).  
Revision 0

The proposed test injects signals into the Hagan Control System, monitors the response of the controllers, and verifies proper operation of the turbine bypass steam dump valves in response to the control signals.

**SORC: 97-028**

**PROCEDURE**

50.59 S/E TS2.SE-SU.CN-  
0001(Q), Condensate Pump  
Performance Test

This is a one-time test of the condensate pumps to establish their performance curves (total flow vs. differential pump head).

**SORC: 97-023**

**10CFR50.59 EVALUATIONS**  
**MONTH: FEBRUARY 1997**

**DOCKET NO: 50-311**  
**NAME: UNIT 2**  
**CONTACT: N. CONICELLA**  
**TELEPHONE: 609-339-2124**

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

<b>ITEM</b>	<b>SUMMARY</b>
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**PROCEDURE**

50.59 S/E S96-036 on Procedure S1(2).OP-SO.SF-0005(Q) & TRIS Operation of Refueling Water Purification System to RWST in Modes 1-6 and	The following Technical Specifications and basis were reviewed:3/4.1.2.1 Boration Systems Flow Paths - Shutdown; 3/4.1.2.2 Reactivity Control Systems Flow Paths.  <b>SORC: 97-019</b>
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50.59 S/E S97-030, on Procedure S1.OP.SO-ABV.0001, Rev. 2, Operation of the Unit 1 Aux. Building Ventilation with Loss of Supply Fans	This temporary procedure revision is being created as a contingency for the potential loss of ABV exhaust fan 11 (1VHE45) during the 1C buss outage exhaust fan 13 (1VHE47) is powered by the 1C buss.  <b>SORC: 97-022</b>
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50.59 S/E S97-033,on Procedure S2.OP-ST.SJ-0005(Q), Rev. 7 on Inservice Testing Safety Injection Valves Modes 5-6	The proposed procedure revision will allow for stroke time testing of the SJ45 valves with an operable RHR loop Inservice.The proposed procedure revision will reflect installation of jumpers to allow opening of the 21SJ45 and 22SJ45 valves without closing the 2RH1 or 2RH2 valves and opening the respective SJ44 valves.  <b>SORC: 97-020</b>
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50.59 S/E S97-044, on Procedure TS2.SE-SU.SW-0002(Q)	Basically, this test involves splitting the operation of Service Water System in two separate headers (the headers are usually cross-tied in the Service Water Intake Structure).  <b>SORC: 97-024</b>
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50.59 S/E S97-045 on Procedure TS2.SE-SU.RCP-0004(Q), Rev. 0 Tuning of Letdown Heat Exchanger Temperature	This test will be performed to Mode 2. It will test and, if necessary, tune the controller for valve 2CC71.  <b>SORC: 97-029</b>
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**10CFR50.59 EVALUATIONS  
MONTH: FEBRUARY 1997**

**DOCKET NO: 50-311  
NAME: UNIT 2  
CONTACT: N. CONICELLA  
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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**

**PROCEDURE**

50.59 S/E S97-050, on Procedures NC.EP-EP.ZZ-0801(Q), Rev. 0 Emergency News Center Operations and NC.EP-EPZZ-0806(Q), ENC

Proposed changes to the Nuclear Business Unit's Emergency Plan, Section 13.3 of the Hope Creek and Salem Final Updated Safety Analysis Reports (SAR), would reduce the initial Emergency News Center (ENC) staffing from 26 to 22 positions.

**SORC: 97-029**

**TEMPORARY MODIFICATION**

50.59 S/E 97-027 (T/Mod 97-001) Installation of Blind Spacers in the No. 21 SW Nuclear Header CFCU Supply/Return and the SW Supply/Return to the No. 21, No. 22 CFCUs

Due to the existing configuration of the Service Water (SW) supply and return piping for the Containment Fan Coil Units (CFCUs), the potential exists for water hammer in the SW return lines and drainage of the SW supply lines following a Loss of Offsite Power (LOOP). DCP 2EC-3590 has been initiated to modify the SW piping to address these concerns.

**SORC: 97-019**

50.59 S/E S96-231, (T/Mod 96-037) Removal of Valve 1DF126 Internals

The 1DF126 pressure regulator is not functioning either because of malfunction of the regulator itself or the feedback loop from the backpressure control tank. This package presented to extend time period from 2/27/97 to 4/1/97.

**SORC: 97-028**

50.59 S/E S97-038, (T/Mod 96-020) Rev. 0 Temporary Installation of Surge Monitoring Equipment at 4Kv SWGR Bus 2H (2SWGR2HD) Cubical 2H7D

Installation of the voltage monitor and associated voltage probes at cubicle 2H7D IAW this T-Mod will provide the desired voltage surge data for future engineering review.

**SORC: 97-029**

**10CFR50.59 EVALUATIONS  
MONTH: FEBRUARY 1997**

**DOCKET NO: 50-311  
NAME: UNIT 2  
CONTACT: N. CONICELLA  
TELEPHONE: 609-339-2124**

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
<b>UFSAR</b>	
50.59 S/E 96-122 and UFSAR Change 96-139, Containment Isolation Systems	License amendments removed Table 3.6-1, Containment isolation Valves from T.S. and the information from that Table is now maintained in the UFSAR. In support of that change, a review was performed of the existing Tables in the UFSAR for completeness. The proposed UFSAR change clarifies the double isolation barriers for each of the mechanical penetrations at Salem.  <b>SORC: 97-019</b>
50.59 S/E S97-002 on UFSAR change Notice 96-207 Revision of table 9.3-6 as a corrective action for PIR 96032155	This temporary procedure revision is being created as a contingency for the potential loss of ABV exhaust fan 11 (1VHE45) during the 1C buss outage exhaust fan 13 (1VHE47) is powered by the 1C buss.  <b>SORC: 97-022</b>
50.59 S/E S97-035, on UFSAR Section 13.7 Salem & 13.6 Hope Creek, Salem-Hope Creek Security Plan, Revision 9	This change involves the proposed configuration of the Hand Geometry Reader system in the Security Center, the elimination of badge issue cubicles, and the description of the changed primary use of the auxiliary guardhouse.  <b>SORC: 97-025</b>
50.59 S/E S97-040 on UFSAR CN 97-15 for Tables 9.2-3 & 9.2-4 CC System	T/S 3/4.1.2, "Boration Systems" provides analysis for the loss of a charging pump. No credit is taken for the functionality of the PD charging pump during any condition except during normal shutdown conditions, which is bounded by the loss of a charging pump. This UFSAR Change notice allows the reduction of the CCW flow to the PD Charging Pump oil cooler and Fluidic Drive cooler to ensure during PD Charging Pump operation the oil temperatures are within vendor specified tolerances.  <b>SORC: 97-023</b>

OPERATING DATA REPORT

Docket No: 50-311  
 Date: 03/10/97  
 Telephone: 339-2735

Completed by: Robert Phillips

Operating Status

1. Unit Name	<u>Salem No. 2</u>	<u>Notes</u>
2. Reporting Period	<u>February 1997</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>672</u>	<u>1416</u>	<u>134567</u>
12. No. of Hrs. Rx. was Critical	<u>0</u>	<u>0</u>	<u>78083.6</u>
13. Reactor Reserve Shutdown Hrs.	<u>0</u>	<u>0</u>	<u>0</u>
14. Hours Generator On-Line	<u>0</u>	<u>0</u>	<u>75229.5</u>
15. Unit Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
16. Gross Thermal Energy Generated (MWH)	<u>0</u>	<u>0</u>	<u>187781005</u>
17. Gross Elec. Energy Generated (MWH)	<u>0</u>	<u>0</u>	<u>78648898</u>
18. Net Elec. Energy Gen. (MWH)	<u>-9429</u>	<u>-15732</u>	<u>74680599</u>
19. Unit Service Factor	<u>0</u>	<u>0</u>	<u>55.5</u>
20. Unit Availability Factor	<u>0</u>	<u>0</u>	<u>55.5</u>
21. Unit Capacity Factor (using MDC Net)	<u>0</u>	<u>0</u>	<u>49.8</u>
22. Unit Capacity Factor (using DER Net)	<u>0</u>	<u>0</u>	<u>49.4</u>
23. Unit Forced Outage Rate	<u>100</u>	<u>100</u>	<u>31.3</u>

24. Shutdowns scheduled over next 6 months (type, date and duration of each)  
Refueling extension.

25. If shutdown at end of Report Period, Estimated Date of Startup:  
Second quarter of 1997.

AVERAGE DAILY UNIT POWER LEVEL

Docket No.: 50-311  
Unit Name: Salem #2  
Date: 03/10/97  
Telephone: 339-2735

Completed by: Robert Phillips

Month February 1997

Day Average Daily Power Level  
(MWe-NET)

1	<u>0</u>
2	<u>0</u>
3	<u>0</u>
4	<u>0</u>
5	<u>0</u>
6	<u>0</u>
7	<u>0</u>
8	<u>0</u>
9	<u>0</u>
10	<u>0</u>
11	<u>0</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>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>        </u>
30	<u>        </u>
31	<u>        </u>



UNIT SHUTDOWN AND POWER REDUCTIONS  
 REPORT MONTH February 1996

DOCKET NO.: 50-272  
 UNIT NAME: Salem 2  
 DATE: 02/10/97  
 COMPLETED BY: Robert Phillips  
 TELEPHONE: 609-339-2735

NO.	DATE	TYPE <sup>1</sup>	DURATION (HOURS)	REASON <sup>2</sup>	METHOD OF SHUTTING DOWN REACTOR	LICENSE EVENT REPORT #	SYSTEM CODE <sup>4</sup>	COMPONENT CODE <sup>5</sup>	CAUSE AND CORRECTIVE ACTION TO PREVENT RECURRENCE
3859	2-1-97	F	744	F,C	4	-----	ZZ	ZZZZ	Refueling Schedule Extension

<sup>1</sup>  
 F: Forced  
 S: Scheduled

<sup>2</sup>  
 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)

<sup>3</sup>  
 Method:  
 1-Manual  
 2-Manual Scram  
 3-Automatic Scram  
 4-Continuation of Previous Outage  
 5-Load Reduction  
 9-Other

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

<sup>5</sup>  
 Exhibit 1 - Same Source

Refueling Information  
Month: February, 1997

Docket No. 50-311  
Unit Name: Salem 2  
Contact: D. Tisdall  
Telephone: 609-339-1538

Month: February, 1997

1. Refueling information has changed from last month: Yes: No: X

2. Scheduled date for next refueling: Currently in outage.

Scheduled date for restart following refueling: To Be Determined

3. a. Will Technical Specification changes or other license amendments be required?

Yes: No: X Not Determined to Date:

b. Has the reload fuel design been reviewed by the Station Operating Review committee?

Yes: X No: If no, when is it scheduled? \_\_\_\_\_

4. Scheduled date (s) for submitting proposed licensing action: N/A

5. Important licensing considerations associated with refueling:


6. Number of Fuel Assemblies:

a. Incore: 193

b. In Spent Fuel Storage: 584

7. Present Licensed spent fuel storage capacity: 1632

Future spent fuel storage capacity: 1632

8. Date of last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity: October, 2016

SALEM GENERATING STATION  
MONTHLY OPERATING SUMMARY - UNIT 2  
FEBRUARY 1997

SALEM UNIT 2

The unit remained shutdown for the entire period. According to commitments from PSE&G and a subsequent confirmatory action letter from the NRC, the unit will remain shutdown pending completion of the following actions:

- Appropriately address long standing equipment reliability and operability issues.
- After the work is completed, conduct a restart readiness review to determine for ourselves the ability of the unit to operate in a safe, event free manner.
- After the restart review, meet with the NRC and communicate the results of that review.