PSEG

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

Salem Generating Station

May 12, 1994

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

Dear Sir:

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 copy of the monthly operating reports for the month of April 1994 are being sent to you.

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

Sincerely yours,

General Manager -
Salem Operations

RH:mp

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

Enclosures

8-1-7.R4

The power is in your hands.

IE24

AVERAGE DAILY UNIT POWER LEVEL

Docket No.: 50-311
Unit Name: Salem #2
Date: 05-10-94
Telephone: 339-2122

Completed by: Mike Morroni

Month April 1994

Day	Average Daily Power Level (MWe-NET)	Day	Average Daily Power Level (MWe-NET)
1	665	17	633
2	615	18	618
3	603	19	636
4	709	20	635
5	645	21	640
6	705	22	662
7	518	23	742
8	412	24	764
9	428	25	770
10	431	26	811
11	321	27	794
12	303	28	813
13	472	29	803
14	485	30	245
15	564	31	
16	581		

OPERATING DATA REPORT

Docket No: 50-311
Date: 05/10/94
Completed by: Mike Morroni
Telephone: 339-2122

Operating Status

1.	Unit Name	Salem No. 2	Notes
2.	Reporting Period	April 1994	
3.	Licensed Thermal Power (MWt)	3411	
4.	Nameplate Rating (Gross MWe)	1170	
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 None.

	This Month	Year to Date	Cumulative
11. Hours in Reporting Period	719	2879	109992
12. No. of Hrs. Rx. was Critical	719	2802	72081.6
13. Reactor Reserve Shutdown Hrs.	0	0	0
14. Hours Generator On-Line	719	2718.3	69607.8
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1540893.6	7734552.0	170197491.4
Gross Elec. Energy Generated (MWH)	462090	2511130	73057648
18. Net Elec. Energy Gen. (MWH)	431914	2387344	69514621
19. Unit Service Factor	100	94.4	63.3
20. Unit Availability Factor	100	94.4	63.3
21. Unit Capacity Factor (using MDC Net)	54.3	75.0	57.1
22. Unit Capacity Factor (using DER Net)	53.9	74.4	56.7
23. Unit Forced Outage Rate	0	5.6	22.1

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

Refueling outage scheduled to start October 15, 1994 and last 60 days.

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

N/A

UNIT SHUTDOWN AND POWER REDUCTIONS
REPORT MONTH APRIL 1994

DOCKET NO.: 50-272
UNIT NAME: Salem #2
DATE: 05-10-94
COMPLETED BY: Mike Morroni
TELEPHONE: 339-2122

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
0582	4-7-94	F	14.0	A	5	----------	HF	PUMPXX	INTAKE SYSTEM PROBLEMS
0593	4-11-94	F	8.2	A	5	----------	SH	VALVEX	INADVERTANT SEC ACTUATION
0592	4-11-94	F	17.0	A	5	----------	CH	PUMPXX	22 SGFP GOVERNOR
0705	4-30-94	F	16.0	A	5	----------	CB	INSTRU	REACTOR COOLANT - 21 RL FLOW TRANSMITTER

1
F: Forced
S: Scheduled

2
Reason
A-Equipment Failure (explain)
B-Maintenance or Test
C-Refueling
D-Requlatory 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-Continuation of Previous Outage
5-Load Reduction
9-Other

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

5
Exhibit 1 - Same Source

10CFR50.59 EVALUATIONS
MONTH: - APRIL 1994

DOCKET NO: 50-311
UNIT NAME: SALEM 2
DATE: MAY 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

2EC-3268	Pkgs 1&2	"Installation Of Manway And Davit For No. 21 CCHX" - DCP 2EC-3268 entails the installation of an 18" diameter manway and davit on the turnaround side (front) closure head for No. 21 CCHX. In addition, the entire head (wetted side only) will be reclad with a 3/8" thick 90-10 Copper Nickel liner. A new turnaround end closure head will be fabricated and installed on No. 22 CCHX. The new closure head will be designed and fabricated to the same specifications as the modified head on No. 21 CCHX and will include a manway and davit arrangement. The manways are being added to allow cleaning of the turnaround side tubes and tubesheet of No. 21 & 22 CCHX at power, without having to remove the 72" diameter (7900 LB) heat exchanger must be performed during a 72 Hr Tech Spec action statement (3/4.7.4 "Service Water System"). The new manways are similar to the manways installed on the existing S.W. inlet/outlet (rear) closure heads of No. 21 & 22 CCHX's which are used for cleaning the S.W. inlet side tubes and tube sheet. The margin of safety of the component cooling heat exchangers is defined, in part, by the requirements imposed by the ASME code. The design requirements for the proposed modification have been satisfied. The function of No. 21 & 22 CCHX's has not changed. In addition, the proposed modification is being performed during No. 21 & 22 SW nuclear header maintenance outage as allowed by Technical Specification 3.9.8.2 provided the requirements of the subject Technical Specification are satisfied. The margin of safety is, therefore, unaffected. (SORC 94-027)
2EC-3278	Pkg 1	"Pressurizer Upgrades" - A.) Replacement of Pressurizer Spray Bypass Valves: 2PS2 and 2PS4 will be replaced in their current location. The associated manual remote valve operators and their flexible shafts will be permanently removed.

10CFR50.59 EVALUATIONS
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(cont'd)

ITEM	SUMMARY
	B.) Replacement of Cables: Power cables 2A3YACA-A and 2B3YAJA-B and control cables 2A3YAC2B-AT and 2B3YAJ2B-BT, in the pressurizer cubicle, for the MOVs of Pressurizer PORV Stop (Block) Valves 2PR6 and 2PR7 will be replaced with high temperature IEEE 323 and 383 qualified Rockbestos "Firewall SR" cable. Cables 2A3YACA-A and 2B3YAJA-B will be increased in size from 3/C #12 to 3/C #8 to improve voltage regulation. C.) Replacement and Relocation of E/P Transducers for Pressurizer Spray Valves: Transducers 2PS1-CONV and 2PS3-CONV for pressurizer spray valves 2PS1 and 2PS3, respectively, will be replaced, retagged 2IP5739 and 2IP5741 and will be relocated to a new panel outside the pressurizer cubicle. Existing cables to the transducers will be pulled back and rerouted to the new panel. Control air supply tubing will be rerouted from the vicinity of the valves to the new panel located outside the pressurizer cubicle. Pneumatic air signal tubing will be routed from the E/Ps in the new panel to the positioners on the valves. Existing valves on the control air supply headers to the 2PS1 and 2PS3 valves will be tagged 2CA1964 and 2CA1965 respectively. The pressurizer spray valves, the pressurizer spray valve transducers and the pressurizer spray valve bypass valves are not discussed in any of the Technical Specifications or their design bases. Technical Specification 3/4.4.5 requires two PORVs and their block valves to be operable in Modes 1, 2 and 3. The replacement of the EQ power and control cables to the PORV block valves 2PR6 and 2PR7 will be implemented during Mode 5 with the RCS drained and vented. Therefore, this modification will not reduce the margin of safety as defined in the basis for any Technical Specification. (SORC 94-027)
2EC-3179 Pkg 5	"Salem Fire Damper Upgrade" - The design scope for this package includes the replacement & relocation of existing fire dampers in the Unit 2 Switchgear & Penetration Area Ventilation (SPAV) System. The function, basic configuration and operation of the system will not be altered and the codes, standards, qualification and design criteria of the original

ITEM	SUMMARY
	system will apply. Fire dampers 2CVF-601, 2CVF-602, 2CVF-603, & 2CVF-810 will be replaced with new fire dampers rated for 3.0 hours and relocated to the fire barrier. New duct sections will be installed in these dampers' present locations. Fire damper 2CVF-815 is a new 3 hour damper that will be located in an existing sleeve in the fire barrier. Penetration seal activities required to support this modification involves breaching and resealing a penetration to route temporary power and lighting and the breaching and repair of the penetration seal to facilitate cable removal. The basis for the Technical Specifications does not address either the fire protection features or the SPAV system. The replaced or new fire dampers associated the SPAV system perform no safety related functions. Since the area temperatures are suitable for the safety related equipment located in the area served by the SPAV system, the equipment is available during this modification. There is no reduction in the margin of safety as defined in the basis for any Technical Specification. (SORC 94-036)
2EC-3179 Pkg 7	"Salem Fire Damper Upgrade" - The design scope for this package Unit 2 includes the addition of a new fire damper and modification of an existing fire damper in the Control Area Air Conditioning System (CAACS). The function, basic configuration and operation of the system will not be altered and the codes, standards, qualification and design criteria of the original system will apply. Fire damper 2CAF-202 will be modified to obtain a 1.5 hour rating. Damper 2CAF-203 presently functions as a fire damper & also as a gas control damper interconnected to the Halon 1301 Fire Extinguishing System for the Relay Room. Its fire damper function will be replaced with a ne 1.5 hour rated fire damper 2CAF-208 and will be located within the fire barrier. Damper 2CAF-203 will remain as the gas control damper required for the Halon 1301 Fire Extinguishing System; if necessary, this damper will be removed temporarily for access during installation and later returned to its existing

ITEM	SUMMARY

location. Fire damper 2CAF-202 and the ductwork between it and the fire barrier will be wrapped with a fire wrap for a 1.5 hour fire rating. Fire damper 2CAF-208, which is located in the fire barrier, will not require fire wrap. Existing fire wrap on damper 2CAF-203 is no longer required and will be removed. The basis for the Technical Specifications does not address the fire protection features. The Technical Specifications discuss the surveillance requirements for the Control Room Emergency Air Conditioning System (EACS). Since replaced or modified fire dampers associated with the CAAC system perform no safety related functions; these modifications do not affect the safety related system which is required for safe shutdown. There is no reduction in the margin of safety as defined in the basis for any Technical Specification. (SORC 94-036)

B. Procedures and Revisions

S2.OP-SO.CC-0002(Q) "21 & 22 Component Cooling Heat Exchanger Operations" - These changes will limit the total service water flow if the Service Water (SW) system is challenged by an accident scenario that coincides with a single active component failure of the CCHX flow or temperature control devices. These are temporary restrictions which will be in place only up to a river temperature of 70° Fahrenheit. DCPs 1EC-3316 and 2EC-3274 will be installed prior to the river temperature reaching 70°. These two DCPs will address the excess flow through the CCHXs resulting from a flow control device failure, by means of a fixed restriction (manual valve permanently throttled). Engineering Calculation S-C-SW-MDC-1347 demonstrates that with these operating procedure revisions, the CCHX will satisfy normal plant operating conditions for the rejection of heat and will also perform the required design function for heat rejection from the Component Cooling System during the most limiting accident scenario. This proposal will result in no reduction in SWS flow to the CCHXs. This flow reduction does not reduce the capability of the CCHXs to perform

10CFR50.59 EVALUATIONS
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TELEPHONE: (609)339-5162

(cont'd)

ITEM	SUMMARY
	their intended design function. There is no reduction in the margin of safety as defined in the bases for any Technical Specification. (SORC 94-032)

SALEM GENERATING STATION
MONTHLY OPERATING SUMMARY - UNIT 2
APRIL 1994

SALEM UNIT NO. 2

Reactor power varied during the period as a precautionary measure due to the continuous challenges of heavy grass at the circulator inlet area. Reactor power was gradually increased from approximately 40% to approximately 80% over the period from April 11-29, 1994, as river grass conditions improved. On April 29, 1994, power was reduced to approximately 25% for repairs to a reactor coolant system flow transmitter. The Unit continued operating at reduced power throughout the remainder of the period as repairs were performed.

REFUELING INFORMATION
MONTH: - APRIL 1994

DOCKET NO: 50-311
UNIT NAME: SALEM 2
DATE: MAY 10, 1994
COMPLETED BY: R. HELLER
TELEPHONE: (609)339-5162

MONTH APRIL 1994

1. Refueling information has changed from last month:
   YES _____ NO X

2. Scheduled date for next refueling: OCTOBER 15, 1994

3. Scheduled date for restart following refueling: DECEMBER 13, 1994

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?: OCTOBER 94

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 492

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: March 2003