

# AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-272

UNIT Salem #1

DATE February 11, 1980

COMPLETED BY L. K. Miller

TELEPHONE 609-365-7000

X 507

MONTH January 1980

## DAY AVERAGE DAILY POWER LEVEL (MWe-NET)

1	342
2	319
3	369
4	370
5	515
6	598
7	507
8	763
9	788
10	980
11	1,100
12	908
13	1,023
14	299
15	0
16	630

## DAY AVERAGE DAILY POWER LEVEL (MWE-NET)

17	924
18	943
19	1,047
20	833
21	1,069
22	1,092
23	379
24	96
25	856
26	1,069
27	1,084
28	1,021
29	1,048
30	1,114
31	1,114

OPERATING DATA REPORT

DOCKET NO.: 50-272  
 DATE : February 11, 1980  
 COMPLETED BY: L. K. Miller  
 TELEPHONE: 365-7000 X507

OPERATING STATUS

1. Unit Name: Salem #1
2. Reporting Period: January 1980
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: NONE

	This Month	Year to Date	Cumulative
11. Hours In Reporting Period	744	744	22,705
12. Number Of Hours Reactor Was Critical	696.4	696.4	10,784.4
13. Reactor Reserve Shutdown Hours	0	0	22.7
14. Hours Generator On-Line	681.7	681.7	10,212.8
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1,789,716	1,789,716	29,326,013
17. Gross Electrical Energy Generated (MWH)	586,080	586,080	9,753,580
18. Net Electrical Energy Generated (MWH)	556,282	556,282	9,185,872
19. Unit Service Factor	91.6	91.6	45.0
20. Unit Availability Factor	91.6	91.6	45.0
21. Unit Capacity Factor (Using MDC Net)	69.3	69.3	37.5
22. Unit Capacity Factor (Using DER Net)	68.6	68.6	37.1
23. Unit Forced Outage Rate	8.4	8.4	43.4
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: 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	6/20/77

UNIT SHUTDOWNS AND POWER REDUCTIONS  
REPORT MONTH January 1980

DOCKET NO.: 50-272  
UNIT NAME: Salem #1  
DATE: February 11, 1980  
COMPLETED BY: L. K. Miller  
TELEPHONE: 609-365-7000 X507

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
80-001	1/1/80	F	0	D	5	- - -	SH	ZZZZZZ	NRC Tech. Specs./Reg. Guides
80-002	1/3/80	F	0	D	5	- - -	SH	ZZZZZZ	NRC Tech. Specs./Reg. Guides
80-003	1/5/80	F	0	D	5	- - -	SH	ZZZZZZ	NRC Tech. Specs./Reg. Guides
80-004	1/7/80	F	0	D	5	- - -	SH	ZZZZZZ	NRC Tech. Specs./Reg. Guides
80-005	1/8/80	F	0	D	5	- - -	SH	ZZZZZZ	NRC Tech. Specs./Reg. Guides
80-009	1/11/80	F	0	A	5	- - -	HH	HTEXCH	Clean Condensate Pumps Suction Strainers
80-015	1/14/80	F	37.1	A	3	- - -	RB	ZZZZZZ	Nuclear Instrumentation (Spurious noise spide on Power Range Channel N-43 while N-44 was in test).
80-017	1/17/80	F	0	A	5	- - -	HH	HTEXCH	Clean Condensate Pumps Suction Strainers
80-019	1/20/80	F	0	A	5	- - -	HH	HTEXCH	Clean Condensate Pumps Suction Strainers

<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 I-Same  
Source

## UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH January 1980DOCKET NO.: 50-272UNIT NAME: Salem #1DATE: February 11, 1980COMPLETED BY: L. K. MillerTELEPHONE: 609-365-7000 X507

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
80-022	1/23/80	F	0	A	5	- - -	HH	HTEXCH	Clean Condensate Pumps Suction Strainers
80-024	1/23/80	F	25.2	A	3	- - -	HH	TRANSF	Loss of Auxiliary Transformer
80-026	1/27/80	F	0	A	5	- - -	HH	HTEXCH	Clean Condensate Pumps Suction Strainers

MAJOR PLANT MODIFICATION  
REPORT MONTH January 1980

DOCKET NO.: 50-272  
UNIT NAME Salem #1  
DATE: February 11, 1980  
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*DCR NO.	PRINCIPLE SYSTEM	SUBJECT
1ED-0191	Sampling	Install Feedwater O <sub>2</sub> Analyzer
1ED-0343	Cathodic Protection	Install Ground Beds at S.W. Structure
1EC-0438	Circulating Water	Modify Controls for Manual Operation
1EC-0465	Control Air	Remove and Replace Piping for Condenser Retubing
1EC-0561	Main Turbine Lube Oil	Install Lube Oil Filter
1EC-0568	Fire Protection	Install Additional Aux. Building Hose Reel
1EC-0623	MSIV	Remove Overload Jumpers on Hydraulic Pump
1EC-0678	Containment Ventilation	Modify 1VC5 & 6 to Improve Operation
1EC-0683	4KV Vital Busses	Change Relay Setting
1EC-0699	Containment Sump	Install Vortex Baffles and Reset Level Switches
1MD-0051	Reactor Head	Modify Themocouple Trays
1PD-0037	Aux. Temperature Indication	Replace Bristol Recorders with the Doric
1SC-0018	Communications	Install S.P. Phone at Pressurizer
1SC-0025	Fuel Handling	Modify Fuel Transfer System in Accordance With Westinghouse WRAPS Package
1SC-0046	Fire Protection	Replace HP Turbine Fire Detector
1SC-0064	Overhead Annunciator	Modify Alarm Windows D-37 and D-45
1SC-0112	Control Room	Install Improved Clock

## MAJOR PLANT MODIFICATION

REPORT MONTH January 1980DOCKET NO.: 50-272UNIT NAME: Unit #1DATE: February 11, 1980COMPLETED BY: L. K. MillerTELEPHONE: 609-365-7000 X507

*DCR NO.	10CFR50.59. SAFETY EVALUATION
1ED-0191	This change is not safety related and does not affect safety related equipment.
1ED-0343	This DCR will not affect any safety function of the system involved. The proposed changes do not involve any of the criteria associated with an unreviewed safety question per 10CFR 50.59.
1EC-0438	This system is not safety related. The change increases the flexibility of operation without impairing reliability. The type of materials employed in this change are identical to those used in the current design.
1EC-0465	This design change does not affect any presently performed safety analysis nor does it create any new safety hazards. The bases of the Technical Specifications are not affected.
1EC-0561	This design change will not require a change to the Tech. Specs. or FSAR. The additional filter equipment nor the surrounding equipment is safety related. This modification will improve the main turbine lube oil cleanliness and increase reliability.
1EC-0568	The installation of the hose station required by this DCR has been previously reviewed and it has been found that it does not present an unresolved safety question. No additional fire hazard is introduced by the addition of this hose station. It improves the plant safety features against fire.
1EC-0623	The modification does not change the functional operation of the system nor degrade its performance.
1EC-0678	The reworked valves will not adversely affect existing safety equipment or invalidate existing safety analysis. This design change will assure that the valve closes when required to.
1EC-0683	This change does not alter the functional design of the system. It reflects preferred method of applying protective relays. The existing design was necessary only because seismic data on preferred design was not previously available. No modifications affecting fire systems are made.
1EC-0699	Implementation of this DCR will insure a safer shutdown of the NSSS equipment following an accident involving a breach in the primary coolant system by providing anti-vortex baffles in the reactor building sump pit on the suction side of the residual heat removal pumps.
1MD-0051	Modifying the two cable trays does not involve any safety questions.

## MAJOR PLANT MODIFICATION

REPORT MONTH January 1980DOCKET NO.: 50-272UNIT NAME: Salem #1DATE: February 11, 1980COMPLETED BY: L. K. MillerTELEPHONE: 609-365-7000 X507

*DCR NO.	10CFR50.59. SAFETY EVALUATION
1PD-0037	The system and instruments involved in this change are not safety related but the instruments are mounted in a Class I cabinet (1RP1). Class I cabinet requirements have been considered for 1RP1 and have not been altered by this change.
1SC-0018	This DCR will not affect any safety function of the system involved. The proposed changes do not involve any of the criteria associated with an unresolved safety question per 10CFR 50.59.
1SC-0025	This design change does not affect any presently performed safety analysis nor does it create any new safety hazards. The bases of the Tech. Specs. are not affected.
1SC-0046	This is not a safety related system and has no effect upon the safe shut-down capability of the plant.
1SC-0064	This change is not functionally safety related and supports a design analysis revising the alarms so that the alarm windows remain "black" unless both the reactor power is above 50% and the quadrant power tilt ration exceeds 1.02. It is classified as safety related because the work performed will be in a safety related cabinet.
1SC-0112	This design change is not safety related and does not affect any safety related systems or the safe shutdown of the unit.

SALEM GENERATING STATION  
MONTHLY REPORT OF SAFETY RELATED REPAIRS

0001

WORK ORDER	DATE WRITTEN	PROBLEM DESCRIPTION	DATE COMPLETED	DESCRIPTION OF REPAIR
		*****		
		*** MAINTENANCE DEPARTMENT WORK ***		
		*****		
900236	09 14 79	FLANGE LEAK NEAR VALVE 11SW223	10 02 79	WELD REPAIRED PIPE AND APPLIED BELZONA COATING
900632	12 16 78	VALVE 11SJ143 HAS PACKING LEAK	04 11 79	REPACKED
901258	03 21 79	VALVE 11MS167 REPACK	05 10 79	REPACKED
901366	04 14 79	VALVE 12GB4 REWORK	04 15 79	MACHINED DISC AND SEAT INSTALLED NEW GASKETS REPACKED
901619	04 30 79	VALVE 13MS11 REWORK	05 24 79	DISASSEMBLED LAPPED ASSEMBLED
901620	04 30 79	VALVE 13MS12 REWORK	05 23 79	DISASSEMBLED LAPPED ASSEMBLED
901621	04 30 79	VALVE 13MS13 REWORK	05 29 79	DISASSEMBLED LAPPED ASSEMBLED
901622	04 30 79	VALVE 13MS14 REWORK	05 29 79	DISASSEMBLED LAPPED ASSEMBLED
901623	04 30 79	VALVE 13MS15 REWORK	05 30 79	DISASSEMBLED LAPPED ASSEMBLED
901629	03 21 79	VALVE 12MS167 REPACK	05 10 79	REPACKED
901630	03 21 79	VALVE 13MS167 REPACK	05 10 79	REPACKED
901631	03 21 79	VALVE 14MS167 REPACK	05 10 79	REPACKED
901725	04 27 79	VALVE 11SJ34 LEAKS THRU	05 14 79	LOOSTENED HANGER BOLT
902801	04 11 79	VALVE 14GB4 FAILED LEAK RATE TEST	04 16 79	MACHINED DISC & SEAT INSTALLED NEW GASKETS REPACKED



SALEM GENERATING STATION  
MONTHLY REPORT OF SAFETY RELATED REPAIRS

0002

WORK ORDER	DATE WRITTEN	PROBLEM DESCRIPTION	DATE COMPLETED	DESCRIPTION OF REPAIR
903061	04 21 79	VALVE 14AF23 HAS PACKING LEAK	12 08 79	REPLACED BONNET SEAL REPACKED
903829	02 26 79	16 SERVICE WATER PUMP INSPECT & REPAIR	03 05 79	PUMP DISMANTLED AND SENT TO OUTSIDE VENDOR FOR WORK
905924	07 03 79	VALVE 15W223 BINDING	08 21 79	REPOSITIONED BELL CRANK REPACKED
913739	10 27 79	1A DIESEL GENERATOR EXHAUST MANIFOLD LEAKS		INSTALLED NEW GASKETS
914344	11 15 79	VALVE 11MS45 HAS PACKING LEAK		REPACKED
914345	11 15 79	VALVE 12AF23 HAS PACKING LEAK	12 07 79	REPACKED REPLACED BONNET SEAL
914346	11 15 79	VALVE 12BE22 HAS PACKING LEAK	12 07 79	REPACKED
914349	11 15 79	VALVE 14MS130 HAS PACKING LEAK		REPACKED
914391	12 31 79	11 CHILLED WATER PUMP RUNNING HOT	01 01 80	REPLACED BEARINGS
914417	01 03 80	11 CHILLED WATER PUMP OILER LEAKING	01 04 80	REPLACED MECHANICAL SEAL REPLACED OIL SEALS
914456	01 04 80	11 CHILLED WATER PUMP TRIPPING	01 05 80	REPLACED OVERLOADS
914574	01 14 80	VALVE 11SW24 FLANGE LEAK	01 15 80	INSTALLED NEW VALVE BODY
915871	08 15 79	VALVE 11RH26 HAS PACKING LEAK	08 17 79	REPACKED
915878	08 15 79	VALVE 11RH40 HAS PACKING LEAK	08 17 79	REPACKED
915880	08 15 79	VALVE 11RH18 HAS PACKING LEAK	08 17 79	REPACKED
916090	12 13 79	VALVE 14AF21 LEAKS THRU	12 19 79	SHIPPED FOR REPAIR RETURNED TO SERVICE
916092	12 14 79	VALVE 11AF21 LEAKS THRU	12 19 79	REPLACED INTERNALS REPACKED
917436	11 06 79	VALVE 13SW264 LEAKS THRU	11 22 79	REPLACED DIAPHRAGM
917502	11 11 79	15 CONTAINMENT FAN COIL ROUGHING FILTERS DIRTY		REPLACED FILTERS
917563	11 15 79	14 CONTAINMENT FAN COIL ROUGHING FILTERS DIRTY	11 26 79	REPLACED FILTERS
918851	01 16 80	13 AUXILIARY FEEDWATER PUMP START LIGHT DOES NOT LIGHT	01 17 80	REPAIRED LIMIT SWITCHES ON VALVES 1MS132 AND 1MS52

SALEM GENERATING STATION  
MONTHLY REPORT OF SAFETY RELATED REPAIRS

0003

WORK ORDER	DATE WRITTEN	PROBLEM DESCRIPTION	DATE COMPLETED	DESCRIPTION OF REPAIR
919398	11 25 79	VALVE 12MS168 HAS PACKING LEAK	12 05 79	REPACKED
919399	11 25 79	VALVE 14MS168 HAS PACKING LEAK	12 06 79	REPACKED
919450	11 26 79	VALVE 1PS2 HAS BROKEN REACH ROD	11 28 79	REPAIRED REACH ROD
919464	11 27 79	VALVE 12SJ40 HAS PACKING LEAK	11 28 79	REPACKED
919539	12 01 79	11 BORIC ACID TRANSFER PUMP SEAL LEAKING	12 04 79	REPLACED MECHANICAL SEAL
919590	12 21 79	11 STEAM GENERATOR SNUBBERS SIGHTGLASS LEAKING	12 21 79	DRAINED OIL TIGHTENED SIGHT GLASS FILLED OIL AND TIGHTENED PACKING
919592	12 21 79	VITAL HEAT TRACING HEAT TAPE 0602B NOT WORKING	12 26 79	REPAIRED
919593	12 21 79	VITAL HEAT TRACING HEAT TAPE 0622A DOES NOT WORK	12 27 79	REPAIRED HEAT TAPE
919611	11 15 79	REACTOR HEAD INSTRUMENT PORT CUNOSEAL REPLACE GASKETS	11 17 79	INSTALLED NEW CUNOSEAL GASKETS
919615	11 16 79	VALVE 11RC21 HAS PACKING LEAK	11 21 79	REPACKED
919616	11 16 79	VALVE 11RC23 HAS PACKING LEAK	11 20 79	REPACKED
919620	11 16 79	VALVE 11RC17 HAS PACKING LEAK	11 21 79	REPACKED
919621	11 16 79	VALVE 11RC20 HAS PACKING LEAK	11 21 79	REPACKED
919622	11 16 79	VALVE 11RC25 HAS PACKING LEAK	11 21 79	REPACKED
919627	11 16 79	VALVE 13RC17 HAS PACKING LEAK	11 22 79	REPACKED
919632	11 16 79	VALVE 1PS13 HAS PACKING LEAK		REPACKED
919671	11 16 79	VALVE 14MS27 HAS PACKING LEAK	11 18 79	REPACKED
919673	11 16 79	VALVE 12MS10 HAS PACKING LEAK	11 18 79	REPACKED
919675	11 16 79	VALVE 12MS18 HAS PACKING LEAK	11 17 79	REPACKED
919676	11 16 79	VALVE 14MS18 HAS PACKING LEAK	11 17 79	REPACKED
919681	11 16 79	VALVE 14AF23 HAS PACKING LEAK	11 21 79	REPACKED
919700	11 18 79	VALVE 1CV2 HAS PACKING LEAK	11 22 79	REPACKED

WORK ORDER	DATE WRITTEN	PROBLEM DESCRIPTION	DATE COMPLETED	DESCRIPTION OF REPAIR
919701	11 18 79	VALVE 125J154 HAS PACKING LEAK	11 21 79	REPACKED
919702	11 18 79	VALVE 15J149 HAS PACKING LEAK	11 21 79	REPACKED
919703	11 18 79	VALVE 135J138 HAS PACKING LEAK	11 21 79	REPACKED
919708	11 20 79	AIRLOCK ELEVATION 100 INSPECT INNER DOOR GASKET	11 20 79	REVERSED INNER AND OUTER DOOR SEALS
919725	11 24 79	VALVE 14RC26 HAS PACKING LEAK	11 24 79	REPACKED
919753	11 30 79	VALVE 13RC24 HAS PACKING LEAK	12 05 79	REPACKED
919754	11 30 79	VALVE 13RC28 HAS PACKING LEAK	12 05 79	REPACKED CLEANED BORON OFF VALVE
919769	12 05 79	VALVE 13RC25 HAS PACKING LEAK	12 05 79	REPACKED
919770	12 05 79	VALVE 12AF21 LEAKS THRU	12 12 79	REPLACED STEM CAGE AND SEAT OF VALVE INSTALLED NEW GASKETS AND REPACKED
919772	12 05 79	VALVE 1CV79 HAS PACKING LEAK	12 05 79	REPACKED
919774	12 05 79	16 SERVICE WATER PUMP INVESTIGATE HIGH VIBRATION	12 21 79	REBUILT PUMP, LOWER ASSEMBLY REBUILT BY A&A COMPANY
919783	12 06 79	VALVE 11MS9 HAS PACKING LEAK	11 08 79	REPACKED
919784	12 06 79	VALVE 11MS168 HAS PACKING LEAK	12 07 79	REPACKED
919785	12 06 79	VALVE 13MS168 HAS PACKING LEAK	12 07 79	REPACKED
919786	12 06 79	VALVE 13MS45 HAS PACKING LEAK	12 08 79	REPACKED
919788	12 06 79	VALVE 14MS199 HAS PACKING LEAK	12 07 79	REPACKED
929769	12 17 79	VALVE 1CV238 HAS BONNET LEAK	01 02 80	INSTALLED NEW DIAPHRAGM FIXED BUSHING
929862	12 22 79	VALVE 11SW23 NO OPEN INDICA- TION IN CONTROL ROOM	12 04 79	REPLACED RELAY 33X-3
929877	12 23 79	16 SERVICE WATER STRAINER BROKEN SHEAR PIN	12 24 79	REPLACED SHEAR KEY AND BARREL SEAL PLATE
929922	12 27 79	VALVE 11MS167 WON'T OPEN	12 27 79	ADJUSTED PACKING
929933	12 27 79	CONTAINMENT SPRAY ADDITIVE TANK MANWAY LEAKING	12 31 79	INSTALLED GASKET ON ADDITIVE FILLPIPE

## MONTHLY REPORT OF SAFETY RELATED REPAIRS

0005

WORK ORDER	DATE WRITTEN	PROBLEM DESCRIPTION	DATE COMPLETED	DESCRIPTION OF REPAIR
929935	12 29 79	12 FUEL HANDLING BUILDING EXHAUST FAN HAS BROKEN BELT	12 29 79	REPLACED BROKEN BELTS
929941	12 28 79	11 RESIDUAL HEAT REMOVAL SUMP ALARMS ON OVERFLOW	01 02 80	REPAIRED MICRO SWITCH ON ACTUATING DEVICE
931957	12 30 79	13 STEAM FLOW VENT VALVE NEAR TRANSMITTER FT532 HAS BONNET LEAK	12 30 79	REPLACED BONNET OF SAMPLE VALVE
931971	01 03 80	1A SAFEGUARD EMERGENCY CABINET INSPECTION BY VENDOR	01 03 80	REPLACED BAD RELAY
931997	01 08 80	PENETRATION I-25 & I-26 RECHARGE AND CHECK FOR LEAKS	01 09 80	RECHARGED FOUND NO LEAKS
*****				
*** PERFORMANCE DEPARTMENT WORK ***				
*****				
905424	08 16 79	N-31 SOURCE RANGE SENSITIVE TO ELECTRICAL NOISE	12 13 79	REBUILT CABLE PLUGS REPLACED JACK ON PHD CIRCUIT
911838	10 11 79	N31 DETECTOR EXCESSIVE NOISE	10 19 79	REPLACED N31 AND N35 DETECTORS REBUILT TRIAXIAL PLUGS AT DRAWERS
914397	01 01 80	SIGNAL ISOLATOR IN N-43 OUT OF CALIBRATION	01 01 80	REPLACED SIGNAL ISOLATOR QM203A SERIAL Q0455 WITH Q0453
914476	01 06 80	R31B FAILED FUEL PROTECTION READS LOW	01 06 80	REPLACED BOARD 1PB1 CALIBRATED DRAWER
914491	01 07 80	13 STEAM GENERATOR FEEDWATER FLOW CHANNEL II MIDRANGE FAILED	01 07 80	REPLACED AMPLIFIER BOARD RECALIBRATED
914521	01 09 80	VALVE 145W232 LIMIT SWITCH ARM BENT		STRAIGHTENED LIMIT SWITCH VERIFIED OPERATION
915296	11 12 79	N41 CABLES SHORTED	11 14 79	LOCATED SHORT AND CLEARED IT
915322	12 05 79	N31 DETECTOR VERIFY PROPER DETECTOR VOLTAGE AND METER ACCURACY	12 05 79	REPLACED CABLE PLUG ON HIGH VOLTAGE POWER SUPPLY

SALEM GENERATING STATION  
MONTHLY REPORT OF SAFETY RELATED REPAIRS

0006

WORK ORDER	DATE WRITTEN	PROBLEM DESCRIPTION	DATE COMPLETED	DESCRIPTION OF REPAIR
915615	11 15 79	N-42 SOURCE RANGE OUT OF SPEC	11 30 79	REPLACED MODULE XA5904RB WITH MODULE FROM UNIT 2
919394	11 24 79	VALVE 12SW223 DOES NOT CONTROL FLOW TO 12 CONTAINMENT FAN COIL UNIT	11 25 79	BLEW DOWN TRANSMITTER FA31652-1 AND FA354021 REPLACED AMPLIFIER IN FA354021
919591	12 20 79	VALVE 13AF21 DOES NOT REGULATE	12 22 79	REPLACED SQUARE ROOT EXTRACTOR FA3971 IAW DR# PD-0958
929776	12 18 79	AUDIO COUNT RATE SOUND DISTORTED	12 19 79	DISASSEMBLED AND CLEANED
929806	12 14 79	12 REACTOR COOLANT PUMP LOW SEAL LEAK OFF FLOW INDICATOR/TRANSMITTER STICKS	12 18 79	CLEANED AND FLUSHED FLOAT REINSTALLED FLANGE WITH NEW GASKET
929820	12 07 79	INSTRUMENT 1R18 FAILED LOW.	12 07 79	SOLDERED BAD CONNECTIONS
929894	12 25 79	VALVE 14MS18 DOES NOT CLOSE	12 26 79	REPLACED SOLENOID VALVE SV-583
TOTAL LINES = 000170				

SALEM UNIT #1  
OPERATING SUMMARY  
JANUARY 1980

- 1/1 At 40% power, steady state conditions for entire day.
- 1/2 At 0330, commenced inserting rods by dilution to 140 steps to swing  $\Delta I$  negative in preparation for a flux map. Power remained at 40% for the whole day.
- 1/3 At 0500 on 1/3/80, waiting for  $\Delta I$  to stabilize for power coefficient test. Between 0640 and 0740, turbine load being increased then decreased. At 0750, commenced increasing power to 47% at 3% per hour. The reactor remained at 47% for the remainder of the day.
- 1/4 Power remained at 47% for the entire day.
- 1/5 Power being increased from 48% to 60% on 1/5/80 in preparation for  
thru next physics test. Once physics test was complete, power was reduced  
1/6 to 50% by 2400 on 1/6/80 to clean feed pump strainers and to evaluate  
quadrant power tilt.
- 1/7 Power remained at 50% until authorization was given to go to 80%.  
thru At 2200 on 1/7/80, power escalation began at approximately 3% per hour.
- 1/8 Power was held at 80% for physics testing. At 2115 on 1/8/80, reactor  
power reduction began from 80% to 65% power to clean condensate pump  
strainers.
- 1/9 At 1200 on 1/9/80, power escalation began at 1.5% per hour to 95% which  
thru is the next physics testing plateau. Power remained at 95% through  
1/10 1/10 while physics testing was in progress.
- 1/11 Still performing physics testing. At 0630 on 1/11/80, commenced power  
thru reduction at 3% per hour down to 70% to clean condensate pump strainers.
- 1/12 At 2100, with strainers cleaned, power escalation began at 3% per hour  
reactor thermal power. Power remained at 95% for the remainder of this  
period.

- 1/13 At 95% power until 1400 when load reduction in order to perform governor valve closure of #12 stop valve was commenced. Load reduction terminated at 93% power and remained there for the remainder of the day.
- 1/14 Power escalated from 93% to 95%. At 0956 on 1/14/80, reactor tripped from 95% on a false high neutron flux rate trip signal. Reactor remained subcritical until 1013 on 1/15/80 when reactor was taken critical. Remained at zero power until reactor tripped at 1630 on steam generator low low level. Reactor brought critical until it tripped again at 1900 on steam generator low low level. Reactor brought critical and power escalation began. At 2400 on 1/15/80, power was 18.2%.
- 1/16 Power escalation continued. At 1234, experienced turbine load swing due to E.H. control system malfunction. Turbine placed in manual. At 2400, reactor power was at 89.5%.
- 1/17 Power reached 95% at 0400. At 1620, commenced dropping load to 70% to allow cleaning of main feedwater pump strainers. Power reduced to 55% to keep plant stabilized while cleaning strainers. At 2200, commenced increasing load to 95% at 5% per hour.
- 1/18 Load increase in progress. Load stabilized at 95% by 1600 and stayed there for the remainder of the day.
- 1/19 Load was stabilized at 95% power until 2010 when load reduction was commenced at 5% per hour.
- 1/20 Load reduction in progress at 5% per hour. Load stabilized at 70% by 0200 to allow cleaning of condensate pump strainers. Load increase commenced at 1245 at 3% per hour. Load at 100% by 2330.
- 1/21 Load stabilized at 100%.
- 1/22 Load stabilized at 100%. Load reduction commenced at 2200 to allow cleaning of condensate pump strainers.

1/23 Load decrease in progress. Stabilized load at 70% at 0100. Condensate strainers cleaned and increasing load by 0345 at 3% per hour. Unit trip from 96% at 1029. 1H 460 volt group transformer dropped out of service which resulted in the tripping of a steam generator feedwater pump and a reactor trip on low steam generator water level. Unit down for the remainder of the day.

1/24 Reactor critical and load increase commenced at 1130. Load being increased over the remainder of the day.

1/25 Load increase in progress to 100%. Load stabilized at 100% by 1900.

1/26 Load stabilized at 100% power for the day.

1/27 Load stabilized at 100% until 2030 when a load decrease was commenced to 70% by 2300 to allow cleaning of condensate pump strainers.

1/28 Load increase commenced at 0115 from 70%. Load stabilized at 100% by 1030 for the remainder of the day.

1/29 Load stabilized at 100% until 2100 when load was decreased to 95%. Load reduced to maintain adequate NPSH to steam generator feedwater pumps which was dropping because of increasing differential pressure across the condensate polishing system. Load stabilized at 95% while back-flushing operations continue with the condensate polishing system to reduce the differential pressure across the polisher vessels. Load increased and stabilized at 100% by 1020 for the remainder of the day.

1/30 Load stabilized at 100% for the day.

1/31 Load stabilized at 100% for the day.



# REFUELING INFORMATION

DOCKET NO.: 50-272

UNIT: Salem #1

DATE: February 11, 1980

COMPLETED BY: L. K. Miller

TELEPHONE: 609-365-7000

X507

MONTH: January 1980

1. Refueling information has changed from last month:

YES X NO       

2. Scheduled date of next refueling: September 20, 1980

3. Scheduled date for restart following refueling: November 16, 1980

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

NOT DETERMINED TO-DATE January 1980

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

If no, when is it scheduled? August 1980

5. Scheduled date(s) for submitting proposed licensing action: August 1980 (If required)

6. Important licensing considerations associated with refueling: NONE

7. Number of Fuel Assemblies:

A. In-Core 193

B. In Spent Fuel Storage 40

8. Present licensed spent fuel storage capacity: 264

Future spent fuel storage capacity: 1,170

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



**PSEG**

Public Service Electric and Gas Company P.O. Box 168 Hancocks Bridge, New Jersey 08038

Salem Nuclear Generating Station

February 11, 1980

Director, Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, DC 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 January 1980 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. Midura  
Manager - Salem Generating Station

LKM:vd

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

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

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Enclosures  
Page 1 of 18  
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# AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-272

UNIT Salem #1

DATE February 11, 1980

COMPLETED BY L. K. Miller

TELEPHONE 609-365-7000

X 507

MONTH January 1980

## DAY AVERAGE DAILY POWER LEVEL (MWe-NET)

1	342
2	319
3	369
4	370
5	515
6	598
7	507
8	763
9	788
10	980
11	1,100
12	908
13	1,023
14	299
15	0
16	630

## DAY AVERAGE DAILY POWER LEVEL (MWE-NET)

17	924
18	943
19	1,047
20	833
21	1,069
22	1,092
23	379
24	96
25	856
26	1,069
27	1,084
28	1,021
29	1,048
30	1,114
31	1,114

OPERATING DATA REPORT

DOCKET NO.: 50-272

DATE : February 11, 1980

COMPLETED BY: L. K. Miller

TELEPHONE: 365-7000 X507

OPERATING STATUS

1. Unit Name: Salem #1
2. Reporting Period: January 1980
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: NONE

	This Month	Year to Date	Cumulative
11. Hours In Reporting Period	744	744	22,705
12. Number Of Hours Reactor Was Critical	696.4	696.4	10,784.4
13. Reactor Reserve Shutdown Hours	0	0	22.7
14. Hours Generator On-Line	681.7	681.7	10,212.8
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1,789,716	1,789,716	29,326,013
17. Gross Electrical Energy Generated (MWH)	586,080	586,080	9,753,580
18. Net Electrical Energy Generated (MWH)	556,282	556,282	9,185,872
19. Unit Service Factor	91.6	91.6	45.0
20. Unit Availability Factor	91.6	91.6	45.0
21. Unit Capacity Factor (Using MDC Net)	69.3	69.3	37.5
22. Unit Capacity Factor (Using DER Net)	68.6	68.6	37.1
23. Unit Forced Outage Rate	8.4	8.4	43.4
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: 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	6/20/77

UNIT SHUTDOWNS AND POWER REDUCTIONS  
REPORT MONTH January 1980

DOCKET NO.: 50-272  
UNIT NAME: Salem #1  
DATE: February 11, 1980  
COMPLETED BY: L. K. Miller  
TELEPHONE: 609-365-7000 X507

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
80-001	1/1/80	F	0	D	5	- - -	SH	ZZZZZZ	NRC Tech. Specs./Reg. Guides
80-002	1/3/80	F	0	D	5	- - -	SH	ZZZZZZ	NRC Tech. Specs./Reg. Guides
80-003	1/5/80	F	0	D	5	- - -	SH	ZZZZZZ	NRC Tech. Specs./Reg. Guides
80-004	1/7/80	F	0	D	5	- - -	SH	ZZZZZZ	NRC Tech. Specs./Reg. Guides
80-005	1/8/80	F	0	D	5	- - -	SH	ZZZZZZ	NRC Tech. Specs./Reg. Guides
80-009	1/11/80	F	0	A	5	- - -	HH	HTEXCH	Clean Condensate Pumps Suction Strainers
80-015	1/14/80	F	37.1	A	3	- - -	RB	ZZZZZZ	Nuclear Instrumentation (Spurious noise spike on Power Range Channel N-43 while N-44 was in test).
80-017	1/17/80	F	0	A	5	- - -	HH	HTEXCH	Clean Condensate Pumps Suction Strainers
80-019	1/20/80	F	0	A	5	- - -	HH	HTEXCH	Clean Condensate Pumps Suction Strainers

<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 I-Same  
Source

UNIT SHUTDOWNS AND POWER REDUCTIONS  
REPORT MONTH January 1980

DOCKET NO.: 50-272  
UNIT NAME: Salem #1  
DATE: February 11, 1980  
COMPLETED BY: L. K. Miller  
TELEPHONE: 609-365-7000 X507

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
80-022	1/23/80	F	0	A	5	- - -	HH	HTEXCH	Clean Condensate Pumps Suction Strainers
80-024	1/23/80	F	25.2	A	3	- - -	HH	TRANSF	Loss of Auxiliary Transformer
80-026	1/27/80	F	0	A	5	- - -	HH	HTEXCH	Clean Condensate Pumps Suction Strainers

MAJOR PLANT MODIFICATION  
REPORT MONTH January 1980

DOCKET NO.: 50-272  
UNIT NAME: Salem #1  
DATE: February 11, 1980  
COMPLETED BY: L. K. Miller  
TELEPHONE: 609-365-7000 X507

*DCR NO.	PRINCIPLE SYSTEM	SUBJECT
1ED-0191	Sampling	Install Feedwater O <sub>2</sub> Analyzer
1ED-0343	Cathodic Protection	Install Ground Beds at S.W. Structure
1EC-0438	Circulating Water	Modify Controls for Manual Operation
1EC-0465	Control Air	Remove and Replace Piping for Condenser Retubing
1EC-0561	Main Turbine Lube Oil	Install Lube Oil Filter
1EC-0568	Fire Protection	Install Additional Aux. Building Hose Reel
1EC-0623	MSIV	Remove Overload Jumpers on Hydraulic Pump
1EC-0678	Containment Ventilation	Modify 1VC5 & 6 to Improve Operation
1EC-0683	4KV Vital Busses	Change Relay Setting
1EC-0699	Containment Sump	Install Vortex Baffles and Reset Level Switches
1MD-0051	Reactor Head	Modify Themocouple Trays
1PD-0037	Aux. Temperature Indication	Replace Bristol Recorders with the Doric
1SC-0018	Communications	Install S.P. Phone at Pressurizer
1SC-0025	Fuel Handling	Modify Fuel Transfer System in Accordance With Westinghouse WRAPS Package
1SC-0046	Fire Protection	Replace HP Turbine Fire Detector
1SC-0064	Overhead Annunciator	Modify Alarm Windows D-37 and D-45
1SC-0112	Control Room	Install Improved Clock

MAJOR PLANT MODIFICATION  
REPORT MONTH January 1980

DOCKET NO.: 50-272  
UNIT NAME: Unit #1  
DATE: February 11, 1980  
COMPLETED BY: L. K. Miller  
TELEPHONE: 609-365-7000 X507

*DCR NO.	10CFR50.59.	SAFETY EVALUATION
1ED-0191		This change is not safety related and does not affect safety related equipment.
1ED-0343		This DCR will not affect any safety function of the system involved. The proposed changes do not involve any of the criteria associated with an unreviewed safety question per 10CFR 50.59.
1EC-0438		This system is not safety related. The change increases the flexibility of operation without impairing reliability. The type of materials employed in this change are identical to those used in the current design.
1EC-0465		This design change does not affect any presently performed safety analysis nor does it create any new safety hazards. The bases of the Technical Specifications are not affected.
1EC-0561		This design change will not require a change to the Tech. Specs. or FSAR. The additional filter equipment nor the surrounding equipment is safety related. This modification will improve the main turbine lube oil cleanliness and increase reliability.
1EC-0568		The installation of the hose station required by this DCR has been previously reviewed and it has been found that it does not present an unresolved safety question. No additional fire hazard is introduced by the addition of this hose station. It improves the plant safety features against fire.
1EC-0623		The modification does not change the functional operation of the system nor degrade its performance.
1EC-0678		The reworked valves will not adversely affect existing safety equipment or invalidate existing safety analysis. This design change will assure that the valve closes when required to.
1EC-0683		This change does not alter the functional design of the system. It reflects preferred method of applying protective relays. The existing design was necessary only because seismic data on preferred design was not previously available. No modifications affecting fire systems are made.
1EC-0699		Implementation of this DCR will insure a safer shutdown of the NSSS equipment following an accident involving a breach in the primary coolant system by providing anti-vortex baffles in the reactor building sump pit on the suction side of the residual heat removal pumps.
1MD-0051		Modifying the two cable trays does not involve any safety questions.



## MAJOR PLANT MODIFICATION

REPORT MONTH January 1980DOCKET NO.: 50-272UNIT NAME: Salem #1DATE: February 11, 1980COMPLETED BY: L. K. MillerTELEPHONE: 609-365-7000 X507

*DCR NO.	10CFR50.59. SAFETY EVALUATION
1PD-0037	The system and instruments involved in this change are not safety related but the instruments are mounted in a Class I cabinet (1RP1). Class I cabinet requirements have been considered for 1RP1 and have not been altered by this change.
1SC-0018	This DCR will not affect any safety function of the system involved. The proposed changes do not involve any of the criteria associated with an unresolved safety question per 10CFR 50.59.
1SC-0025	This design change does not affect any presently performed safety analysis nor does it create any new safety hazards. The bases of the Tech. Specs. are not affected.
1SC-0046	This is not a safety related system and has no effect upon the safe shut-down capability of the plant.
1SC-0064	This change is not functionally safety related and supports a design analysis revising the alarms so that the alarm windows remain "black" unless both the reactor power is above 50% and the quadrant power tilt ration exceeds 1.02. It is classified as safety related because the work performed will be in a safety related cabinet.
1SC-0112	This design change is not safety related and does not affect any safety related systems or the safe shutdown of the unit.

SALEM GENERATING STATION  
MONTHLY REPORT OF SAFETY RELATED REPAIRS

0001

WORK ORDER	DATE WRITTEN	PROBLEM DESCRIPTION	DATE COMPLETED	DESCRIPTION OF REPAIR
		*****		
		*** MAINTENANCE DEPARTMENT WORK ***		
		*****		
900236	09 14 79	FLANGE LEAK NEAR VALVE 115W223	10 02 79	WELD REPAIRED PIPE AND APPLIED BELZONA COATING
900632	12 16 78	VALVE 115J143 HAS PACKING LEAK	04 11 79	REPACKED
901258	03 21 79	VALVE 11M5167 REPACK	05 10 79	REPACKED
901366	04 14 79	VALVE 12GB4 REWORK	04 15 79	MACHINED DISC AND SEAT INSTALLED NEW GASKETS REPACKED
901619	04 30 79	VALVE 13M511 REWORK	05 24 79	DISASSEMBLED LAPPED ASSEMBLED
901620	04 30 79	VALVE 13M512 REWORK	05 23 79	DISASSEMBLED LAPPED ASSEMBLED
901621	04 30 79	VALVE 13M513 REWORK	05 29 79	DISASSEMBLED LAPPED ASSEMBLED
901622	04 30 79	VALVE 13M514 REWORK	05 29 79	DISASSEMBLED LAPPED ASSEMBLED
901623	04 30 79	VALVE 13M515 REWORK	05 30 79	DISASSEMBLED LAPPED ASSEMBLED
901629	03 21 79	VALVE 12M5167 REPACK	05 10 79	REPACKED
901630	03 21 79	VALVE 13M5167 REPACK	05 10 79	REPACKED
901631	03 21 79	VALVE 14M5167 REPACK	05 10 79	REPACKED
901725	04 27 79	VALVE 115J34 LEAKS THRU	05 14 79	LOOSTENED HANGER BOLT
902801	04 11 79	VALVE 14GB4 FAILED LEAK RATE TEST	04 16 79	MACHINED DISC & SEAT INSTALLED NEW GASKETS REPACKED

SALEM GENERATING STATION  
MONTHLY REPORT OF SAFETY RELATED REPAIRS

0002

WORK ORDER	DATE WRITTEN	PROBLEM DESCRIPTION	DATE COMPLETED	DESCRIPTION OF REPAIR
903061	04 21 79	VALVE 14AF23 HAS PACKING LEAK	12 08 79	REPLACED BONNET SEAL REPACKED
903829	02 26 79	16 SERVICE WATER PUMP INSPECT & REPAIR	03 05 79	PUMP DISMANTLED AND SENT TO OUTSIDE VENDOR FOR WORK
905924	07 03 79	VALVE 15W223 BINDING	08 21 79	REPOSITIONED BELL CRANK REPACKED
913739	10 27 79	1A DIESEL GENERATOR EXHAUST MANIFOLD LEAKS		INSTALLED NEW GASKETS
914344	11 15 79	VALVE 11MS45 HAS PACKING LEAK		REPACKED
914345	11 15 79	VALVE 12AF23 HAS PACKING LEAK	12 07 79	REPACKED REPLACED BONNET SEAL
914346	11 15 79	VALVE 12BF22 HAS PACKING LEAK	12 07 79	REPACKED
914349	11 15 79	VALVE 14MS130 HAS PACKING LEAK		REPACKED
914391	12 31 79	11 CHILLED WATER PUMP RUNNING HOT	01 01 80	REPLACED BEARINGS
914417	01 03 80	11 CHILLED WATER PUMP OILER LEAKING	01 04 80	REPLACED MECHANICAL SEAL REPLACED OIL SEALS
914456	01 04 80	11 CHILLED WATER PUMP TRIPPING	01 05 80	REPLACED OVERLOADS
914574	01 14 80	VALVE 11SW24 FLANGE LEAK	01 15 80	INSTALLED NEW VALVE BODY
915871	08 15 79	VALVE 11RH26 HAS PACKING LEAK	08 17 79	REPACKED
915878	08 15 79	VALVE 11RH40 HAS PACKING LEAK	08 17 79	REPACKED
915880	08 15 79	VALVE 11RH18 HAS PACKING LEAK	08 17 79	REPACKED
916090	12 13 79	VALVE 14AF21 LEAKS THRU	12 19 79	SHIPPED FOR REPAIR RETURNED TO SERVICE
916092	12 14 79	VALVE 11AF21 LEAKS THRU	12 19 79	REPLACED INTERNALS REPACKED
917436	11 06 79	VALVE 13SW264 LEAKS THRU	11 22 79	REPLACED DIAPHRAGM
917502	11 11 79	15 CONTAINMENT FAN COIL ROUGHING FILTERS DIRTY		REPLACED FILTERS
917563	11 15 79	14 CONTAINMENT FAN COIL ROUGHING FILTERS DIRTY	11 26 79	REPLACED FILTERS
918851	01 16 80	13 AUXILIARY FEEDWATER PUMP START LIGHT DOES NOT LIGHT	01 17 80	REPAIRED LIMIT SWITCHES ON VALVES 1MS132 AND 1MS52

SALEM GENERATING STATION  
MONTHLY REPORT OF SAFETY RELATED REPAIRS

0003

WORK ORDER	DATE WRITTEN	PROBLEM DESCRIPTION	DATE COMPLETED	DESCRIPTION OF REPAIR
919398	11 25 79	VALVE 12MS168 HAS PACKING LEAK	12 05 79	REPACKED
919399	11 25 79	VALVE 14MS168 HAS PACKING LEAK	12 06 79	REPACKED
919450	11 26 79	VALVE 1P52 HAS BROKEN REACH ROD	11 28 79	REPAIRED REACH ROD
919464	11 27 79	VALVE 12SJ40 HAS PACKING LEAK	11 28 79	REPACKED
919539	12 01 79	11 BORIC ACID TRANSFER PUMP SEAL LEAKING	12 04 79	REPLACED MECHANICAL SEAL
919590	12 21 79	11 STEAM GENERATOR SNUBBERS SIGHTGLASS LEAKING	12 21 79	DRAINED OIL TIGHTENED SIGHT GLASS FILLED OIL AND TIGHTENED PACKING
919592	12 21 79	VITAL HEAT TRACING HEAT TAPE 0602B NOT WORKING	12 26 79	REPAIRED
919593	12 21 79	VITAL HEAT TRACING HEAT TAPE 0622A DOES NOT WORK	12 27 79	REPAIRED HEAT TAPE
919611	11 15 79	REACTOR HEAD INSTRUMENT PORT CUNOSEAL REPLACE GASKETS	11 17 79	INSTALLED NEW CUNOSEAL GASKETS
919615	11 16 79	VALVE 11RC21 HAS PACKING LEAK	11 21 79	REPACKED
919616	11 16 79	VALVE 11RC23 HAS PACKING LEAK	11 20 79	REPACKED
919620	11 16 79	VALVE 11RC17 HAS PACKING LEAK	11 21 79	REPACKED
919621	11 16 79	VALVE 11RC20 HAS PACKING LEAK	11 21 79	REPACKED
919622	11 16 79	VALVE 11RC25 HAS PACKING LEAK	11 21 79	REPACKED
919627	11 16 79	VALVE 13RC17 HAS PACKING LEAK	11 22 79	REPACKED
919632	11 16 79	VALVE 1P513 HAS PACKING LEAK		REPACKED
919671	11 16 79	VALVE 14MS27 HAS PACKING LEAK	11 18 79	REPACKED
919673	11 16 79	VALVE 12MS10 HAS PACKING LEAK	11 18 79	REPACKED
919675	11 16 79	VALVE 12MS18 HAS PACKING LEAK	11 17 79	REPACKED
919676	11 16 79	VALVE 14MS18 HAS PACKING LEAK	11 17 79	REPACKED
919681	11 16 79	VALVE 14AF23 HAS PACKING LEAK	11 21 79	REPACKED
919700	11 18 79	VALVE 1CV2 HAS PACKING LEAK	11 22 79	REPACKED

WORK ORDER	DATE WRITTEN	PROBLEM DESCRIPTION	DATE COMPLETED	DESCRIPTION OF REPAIR
919701	11 18 79	VALVE 12SJ154 HAS PACKING LEAK	11 21 79	REPACKED
919702	11 18 79	VALVE 15SJ149 HAS PACKING LEAK	11 21 79	REPACKED
919703	11 18 79	VALVE 13SJ138 HAS PACKING LEAK	11 21 79	REPACKED
919708	11 20 79	AIRLOCK ELEVATION 100 INSPECT INNER DOOR GASKET	11 20 79	REVERSED INNER AND OUTER DOOR SEALS
919725	11 24 79	VALVE 14RC26 HAS PACKING LEAK	11 24 79	REPACKED
919753	11 30 79	VALVE 13RC24 HAS PACKING LEAK	12 05 79	REPACKED
919754	11 30 79	VALVE 13RC28 HAS PACKING LEAK	12 05 79	REPACKED CLEANED BORDON OFF VALVE
919769	12 05 79	VALVE 13RC25 HAS PACKING LEAK	12 05 79	REPACKED
919770	12 05 79	VALVE 12AF21 LEAKS THRU	12 12 79	REPLACED STEM CAGE AND SEAT OF VALVE INSTALLED NEW GASKETS AND REPACKED
919772	12 05 79	VALVE 1CV79 HAS PACKING LEAK	12 05 79	REPACKED
919774	12 05 79	16 SERVICE WATER PUMP INVESTIGATE HIGH VIBRATION	12 21 79	REBUILT PUMP, LOWER ASSEMBLY REBUILT BY A&A COMPANY
919783	12 06 79	VALVE 11MS9 HAS PACKING LEAK	11 08 79	REPACKED
919784	12 06 79	VALVE 11MS168 HAS PACKING LEAK	12 07 79	REPACKED
919785	12 06 79	VALVE 13MS168 HAS PACKING LEAK	12 07 79	REPACKED
919786	12 06 79	VALVE 13MS45 HAS PACKING LEAK	12 08 79	REPACKED
919788	12 06 79	VALVE 14MS199 HAS PACKING LEAK	12 07 79	REPACKED
929769	12 17 79	VALVE 1CV238 HAS BONNET LEAK	01 02 80	INSTALLED NEW DIAPHRAGM FIXED BUSHING
929862	12 22 79	VALVE 11SW23 NO OPEN INDICA- TION IN CONTROL ROOM	12 04 79	REPLACED RELAY 33X-3
929877	12 23 79	16 SERVICE WATER STRAINER BROKEN SHEAR PIN	12 24 79	REPLACED SHEAR KEY AND BARREL SEAL PLATE
929922	12 27 79	VALVE 11MS167 WON'T OPEN	12 27 79	ADJUSTED PACKING
929933	12 27 79	CONTAINMENT SPRAY ADDITIVE TANK MANWAY LEAKING	12 31 79	INSTALLED GASKET ON ADDITIVE FILLPIPE

## MONTHLY REPORT OF SAFETY RELATED REPAIRS

0005

WORK ORDER	DATE WRITTEN	PROBLEM DESCRIPTION	DATE COMPLETED	DESCRIPTION OF REPAIR
929935	12 29 79	12 FUEL HANDLING BUILDING EXHAUST FAN HAS BROKEN BELT	12 29 79	REPLACED BROKEN BELTS
929941	12 28 79	11 RESIDUAL HEAT REMOVAL SUMP ALARMS ON OVERFLOW	01 02 80	REPAIRED MICRO SWITCH ON ACTUATING DEVICE
931957	12 30 79	13 STEAM FLOW VENT VALVE NEAR TRANSHITTER FT532 HAS BONNET LEAK	12 30 79	REPLACED BONNET OF SAMPLE VALVE
931971	01 03 80	1A SAFEGUARD EMERGENCY CABINET INSPECTION BY VENDOR	01 03 80	REPLACED BAD RELAY
931997	01 08 80	PENETRATION I-25 & I-26 RECHARGE AND CHECK FOR LEAKS	01 09 80	RECHARGED FOUND NO LEAKS
*****				
*** PERFORMANCE DEPARTMENT WORK ***				
*****				
905424	08 16 79	N-31 SOURCE RANGE SENSITIVE TO ELECTRICAL NOISE	12 13 79	REBUILT CABLE PLUGS REPLACED JACK ON PHD CIRCUIT
911838	10 11 79	N31 DETECTOR EXCESSIVE NOISE	10 19 79	REPLACED N31 AND N35 DETECTORS REBUILT TRIAXIAL PLUGS AT DRAWERS
914397	01 01 80	SIGNAL ISOLATOR IN N-43 OUT OF CALIBRATION	01 01 80	REPLACED SIGNAL ISOLATOR QM203A SERIAL Q0455 WITH Q0453
914476	01 06 80	R31B FAILED FUEL PROTECTION READS LOW	01 06 80	REPLACED BOARD IPB1 CALIBRATED DRAWER
914491	01 07 80	13 STEAM GENERATOR FEEDWATER FLOW CHANNEL II MIDRANGE FAILED	01 07 80	REPLACED AMPLIFIER BOARD RECALIBRATED
914521	01 09 80	VALVE 145W232 LIMIT SWITCH ARM BENT		STRAIGHTENED LIMIT SWITCH VERIFIED OPERATION
915296	11 12 79	N41 CABLES SHORTED	11 14 79	LOCATED SHORT AND CLEARED IT
915322	12 05 79	N31 DETECTOR VERIFY PROPER DETECTOR VOLTAGE AND METER ACCURACY	12 05 79	REPLACED CABLE PLUG ON HIGH VOLTAGE POWER SUPPLY

SALEM GENERATING STATION  
MONTHLY REPORT OF SAFETY RELATED REPAIRS

0006

WORK ORDER	DATE WRITTEN	PROBLEM DESCRIPTION	DATE COMPLETED	DESCRIPTION OF REPAIR
915615	11 15 79	N-42 SOURCE RANGE OUT OF SPEC	11 30 79	REPLACED MODULE XA5904RB WITH MODULE FROM UNIT 2
919394	11 24 79	VALVE 12SW223 DOES NOT CONTROL FLOW TO 12 CONTAINMENT FAN COIL UNIT	11 25 79	BLEW DOWN TRANSMITTER FA31652-1 AND FA354021 REPLACED AMPLIFIER IN FA354021
919591	12 20 79	VALVE 13AF21 DOES NOT REGULATE	12 22 79	REPLACED SQUARE ROOT EXTRACTOR FA3971 IAW DR# PD-0958
929776	12 18 79	AUDIO COUNT RATE SOUND DISTORTED	12 19 79	DISASSEMBLED AND CLEANED
929806	12 14 79	12 REACTOR COOLANT PUMP LOW SEAL LEAK OFF FLOW INDICATOR/TRANSMITTER STICKS	12 18 79	CLEANED AND FLUSHED FLOAT REINSTALLED FLANGE WITH NEW GASKET
929820	12 07 79	INSTRUMENT IR18 FAILED LOW	12 07 79	SOLDERED BAD CONNECTIONS
929894	12 25 79	VALVE 14MS18 DOES NOT CLOSE	12 26 79	REPLACED SOLENOID VALVE SV-583

TOTAL LINES = 000170

SALEM UNIT #1  
OPERATING SUMMARY  
JANUARY 1980

- 1/1 At 40% power, steady state conditions for entire day.
- 1/2 At 0330, commenced inserting rods by dilution to 140 steps to swing  $\Delta I$  negative in preparation for a flux map. Power remained at 40% for the whole day.
- 1/3 At 0500 on 1/3/80, waiting for  $\Delta I$  to stabilize for power coefficient test. Between 0640 and 0740, turbine load being increased then decreased. At 0750, commenced increasing power to 47% at 3% per hour. The reactor remained at 47% for the remainder of the day.
- 1/4 Power remained at 47% for the entire day.
- 1/5 Power being increased from 48% to 60% on 1/5/80 in preparation for  
thru next physics test. Once physics test was complete, power was reduced  
1/6 to 50% by 2400 on 1/6/80 to clean feed pump strainers and to evaluate  
quadrant power tilt.
- 1/7 Power remained at 50% until authorization was given to go to 80%.  
thru At 2200 on 1/7/80, power escalation began at approximately 3% per hour.
- 1/8 Power was held at 80% for physics testing. At 2115 on 1/8/80, reactor  
power reduction began from 80% to 65% power to clean condensate pump  
strainers.
- 1/9 At 1200 on 1/9/80, power escalation began at 1.5% per hour to 95% which  
thru is the next physics testing plateau. Power remained at 95% through  
1/10 1/10 while physics testing was in progress.
- 1/11 Still performing physics testing. At 0630 on 1/11/80, commenced power  
thru reduction at 3% per hour down to 70% to clean condensate pump strainers.
- 1/12 At 2100, with strainers cleaned, power escalation began at 3% per hour  
reactor thermal power. Power remained at 95% for the remainder of this  
period.



- 1/13 At 95% power until 1400 when load reduction in order to perform governor valve closure of #12 stop valve was commenced. Load reduction terminated at 93% power and remained there for the remainder of the day.
- 1/14 Power escalated from 93% to 95%. At 0956 on 1/14/80, reactor tripped from 95% on a false high neutron flux rate trip signal. Reactor remained subcritical until 1013 on 1/15/80 when reactor was taken critical. Remained at zero power until reactor tripped at 1630 on steam generator low low level. Reactor brought critical until it tripped again at 1900 on steam generator low low level. Reactor brought critical and power escalation began. At 2400 on 1/15/80, power was 18.2%.
- 1/16 Power escalation continued. At 1234, experienced turbine load swing due to E.H. control system malfunction. Turbine placed in manual. At 2400, reactor power was at 89.5%.
- 1/17 Power reached 95% at 0400. At 1620, commenced dropping load to 70% to allow cleaning of main feedwater pump strainers. Power reduced to 55% to keep plant stabilized while cleaning strainers. At 2200, commenced increasing load to 95% at 5% per hour.
- 1/18 Load increase in progress. Load stabilized at 95% by 1600 and stayed there for the remainder of the day.
- 1/19 Load was stabilized at 95% power until 2010 when load reduction was commenced at 5% per hour.
- 1/20 Load reduction in progress at 5% per hour. Load stabilized at 70% by 0200 to allow cleaning of condensate pump strainers. Load increase commenced at 1245 at 3% per hour. Load at 100% by 2330.
- 1/21 Load stabilized at 100%.
- 1/22 Load stabilized at 100%. Load reduction commenced at 2200 to allow cleaning of condensate pump strainers.

1/23 Load decrease in progress. Stabilized load at 70% at 0100. Condensate strainers cleaned and increasing load by 0345 at 3% per hour. Unit trip from 96% at 1029. 1H 460 volt group transformer dropped out of service which resulted in the tripping of a steam generator feedwater pump and a reactor trip on low steam generator water level. Unit down for the remainder of the day.

1/24 Reactor critical and load increase commenced at 1130. Load being increased over the remainder of the day.

1/25 Load increase in progress to 100%. Load stabilized at 100% by 1900.

1/26 Load stabilized at 100% power for the day.

1/27 Load stabilized at 100% until 2030 when a load decrease was commenced to 70% by 2300 to allow cleaning of condensate pump strainers.

1/28 Load increase commenced at 0115 from 70%. Load stabilized at 100% by 1030 for the remainder of the day.

1/29 Load stabilized at 100% until 2100 when load was decreased to 95%. Load reduced to maintain adequate NPSH to steam generator feedwater pumps which was dropping because of increasing differential pressure across the condensate polishing system. Load stabilized at 95% while back-flushing operations continue with the condensate polishing system to reduce the differential pressure across the polisher vessels. Load increased and stabilized at 100% by 1020 for the remainder of the day.

1/30 Load stabilized at 100% for the day.

1/31 Load stabilized at 100% for the day.

# REFUELING INFORMATION

DOCKET NO.: 50-272

UNIT: Salem #1

DATE: February 11, 1980

COMPLETED BY: L. K. Miller

TELEPHONE: 609-365-7000

X507

MONTH: January 1980

1. Refueling information has changed from last month:

YES X NO       

2. Scheduled date of next refueling: September 20, 1980

3. Scheduled date for restart following refueling: November 16, 1980

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

NOT DETERMINED TO-DATE January 1980

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

If no, when is it scheduled? August 1980

5. Scheduled date(s) for submitting proposed licensing action: August 1980 (If required)

6. Important licensing considerations associated with refueling: NONE

7. Number of Fuel Assemblies:

A. In-Core 193

B. In Spent Fuel Storage 40

8. Present licensed spent fuel storage capacity: 264

Future spent fuel storage capacity: 1,170

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



**PSEG**

Public Service Electric and Gas Company P.O. Box 168 Hancocks Bridge, New Jersey 08038

Salem Nuclear Generating Station

February 11, 1980

Director, Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, DC 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 January 1980 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. Midura  
Manager - Salem Generating Station

LKM:vd

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

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

1903-1978

Enclosures

Page 1 of 18

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# AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-272

UNIT Salem #1

DATE February 11, 1980

COMPLETED BY L. K. Miller

TELEPHONE 609-365-7000

X 507

MONTH January 1980

## DAY AVERAGE DAILY POWER LEVEL (MWe-NET)

1	342
2	319
3	369
4	370
5	515
6	598
7	507
8	763
9	788
10	980
11	1,100
12	908
13	1,023
14	299
15	0
16	630

## DAY AVERAGE DAILY POWER LEVEL (MWE-NET)

17	924
18	943
19	1,047
20	833
21	1,069
22	1,092
23	379
24	96
25	856
26	1,069
27	1,084
28	1,021
29	1,048
30	1,114
31	1,114

# OPERATING DATA REPORT

DOCKET NO.: 50-272

DATE : February 11, 1980

COMPLETED BY: L. K. Miller

TELEPHONE: 365-7000 X507

## OPERATING STATUS

1. Unit Name: Salem #1
2. Reporting Period: January 1980
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: NONE

	This Month	Year to Date	Cumulative
11. Hours In Reporting Period	744	744	22,705
12. Number Of Hours Reactor Was Critical	696.4	696.4	10,784.4
13. Reactor Reserve Shutdown Hours	0	0	22.7
14. Hours Generator On-Line	681.7	681.7	10,212.8
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1,789,716	1,789,716	29,326,013
17. Gross Electrical Energy Generated (MWH)	586,080	586,080	9,753,580
18. Net Electrical Energy Generated (MWH)	556,282	556,282	9,185,872
19. Unit Service Factor	91.6	91.6	45.0
20. Unit Availability Factor	91.6	91.6	45.0
21. Unit Capacity Factor (Using MDC Net)	69.3	69.3	37.5
22. Unit Capacity Factor (Using DER Net)	68.6	68.6	37.1
23. Unit Forced Outage Rate	8.4	8.4	43.4
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: N/A
26. Units In Test Status (Prior to Commercial Operation):

INITIAL CRITICALITY  
INITIAL ELECTRICITY  
COMMERCIAL OPERATION

Forecast	Achieved
9/30/76	12/11/76
11/1/76	12/25/76
12/20/76	6/20/77

UNIT SHUTDOWNS AND POWER REDUCTIONS  
REPORT MONTH January 1980

DOCKET NO.: 50-272  
UNIT NAME: Salem #1  
DATE: February 11, 1980  
COMPLETED BY: L. K. Miller  
TELEPHONE: 609-365-7000 X507

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
80-001	1/1/80	F	0	D	5	- - -	SH	ZZZZZZ	NRC Tech. Specs./Reg. Guides
80-002	1/3/80	F	0	D	5	- - -	SH	ZZZZZZ	NRC Tech. Specs./Reg. Guides
80-003	1/5/80	F	0	D	5	- - -	SH	ZZZZZZ	NRC Tech. Specs./Reg. Guides
80-004	1/7/80	F	0	D	5	- - -	SH	ZZZZZZ	NRC Tech. Specs./Reg. Guides
80-005	1/8/80	F	0	D	5	- - -	SH	ZZZZZZ	NRC Tech. Specs./Reg. Guides
80-009	1/11/80	F	0	A	5	- - -	HH	HTEXCH	Clean Condensate Pumps Suction Strainers
80-015	1/14/80	F	37.1	A	3	- - -	RB	ZZZZZZ	Nuclear Instrumentation (Spurious noise spide on Power Range Channel N-43 while N-44 was in test).
80-017	1/17/80	F	0	A	5	- - -	HH	HTEXCH	Clean Condensate Pumps Suction Strainers
80-019	1/20/80	F	0	A	5	- - -	HH	HTEXCH	Clean Condensate Pumps Suction Strainers

<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

UNIT SHUTDOWNS AND POWER REDUCTIONS  
REPORT MONTH January 1980

DOCKET NO.: 50-272  
UNIT NAME: Salem #1  
DATE: February 11, 1980  
COMPLETED BY: L. K. Miller  
TELEPHONE: 609-365-7000 X507

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
80-022	1/23/80	F	0	A	5	- - -	HH	HTEXCH	Clean Condensate Pumps Suction Strainers
80-024	1/23/80	F	25.2	A	3	- - -	HH	TRANSF	Loss of Auxiliary Transformer
80-026	1/27/80	F	0	A	5	- - -	HH	HTEXCH	Clean Condensate Pumps Suction Strainers



MAJOR PLANT MODIFICATION  
REPORT MONTH January 1980

DOCKET NO.: 50-272  
UNIT NAME Salem #1  
DATE: February 11, 1980  
COMPLETED BY: L. K. Miller  
TELEPHONE: 609-365-7000 X507

*DCR NO.	PRINCIPLE SYSTEM	SUBJECT
1ED-0191	Sampling	Install Feedwater O <sub>2</sub> Analyzer
1ED-0343	Cathodic Protection	Install Ground Beds at S.W. Structure
1EC-0438	Circulating Water	Modify Controls for Manual Operation
1EC-0465	Control Air	Remove and Replace Piping for Condenser Retubing
1EC-0561	Main Turbine Lube Oil	Install Lube Oil Filter
1EC-0568	Fire Protection	Install Additional Aux. Building Hose Reel
1EC-0623	MSIV	Remove Overload Jumpers on Hydraulic Pump
1EC-0678	Containment Ventilation	Modify 1VC5 & 6 to Improve Operation
1EC-0683	4KV Vital Busses	Change Relay Setting
1EC-0699	Containment Sump	Install Vortex Baffles and Reset Level Switches
1MD-0051	Reactor Head	Modify Themocouple Trays
1PD-0037	Aux. Temperature Indication	Replace Bristol Recorders with the Doric
1SC-0018	Communications	Install S.P. Phone at Pressurizer
1SC-0025	Fuel Handling	Modify Fuel Transfer System in Accordance With Westinghouse WRAPS Package
1SC-0046	Fire Protection	Replace HP Turbine Fire Detector
1SC-0064	Overhead Annunciator	Modify Alarm Windows D-37 and D-45
1SC-0112	Control Room	Install Improved Clock

## MAJOR PLANT MODIFICATIONS

REPORT MONTH January 1980DOCKET NO.: 50-272UNIT NAME: Unit #1DATE: February 11, 1980COMPLETED BY: L. K. MillerTELEPHONE: 609-365-7000 X507

*DCR NO.	10CFR50.59 SAFETY EVALUATION
1ED-0191	This change is not safety related and does not affect safety related equipment.
1ED-0343	This DCR will not affect any safety function of the system involved. The proposed changes do not involve any of the criteria associated with an unreviewed safety question per 10CFR 50.59.
1EC-0438	This system is not safety related. The change increases the flexibility of operation without impairing reliability. The type of materials employed in this change are identical to those used in the current design.
1EC-0465	This design change does not affect any presently performed safety analysis nor does it create any new safety hazards. The bases of the Technical Specifications are not affected.
1EC-0561	This design change will not require a change to the Tech. Specs. or FSAR. The additional filter equipment nor the surrounding equipment is safety related. This modification will improve the main turbine lube oil cleanliness and increase reliability.
1EC-0568	The installation of the hose station required by this DCR has been previously reviewed and it has been found that it does not present an unresolved safety question. No additional fire hazard is introduced by the addition of this hose station. It improves the plant safety features against fire.
1EC-0623	The modification does not change the functional operation of the system nor degrade its performance.
1EC-0678	The reworked valves will not adversely affect existing safety equipment or invalidate existing safety analysis. This design change will assure that the valve closes when required to.
1EC-0683	This change does not alter the functional design of the system. It reflects preferred method of applying protective relays. The existing design was necessary only because seismic data on preferred design was not previously available. No modifications affecting fire systems are made.
1EC-0699	Implementation of this DCR will insure a safer shutdown of the NSSS equipment following an accident involving a breach in the primary coolant system by providing anti-vortex baffles in the reactor building sump pit on the suction side of the residual heat removal pumps.
1MD-0051	Modifying the two cable trays does not involve any safety questions.

## MAJOR PLANT MODIFICATIONS

REPORT MONTH January 1980DOCKET NO.: 50-272UNIT NAME: Salem #1DATE: February 11, 1980COMPLETED BY: L. K. MillerTELEPHONE: 609-365-7000 X507

*DCR NO.	10CFR50.59. SAFETY EVALUATION
1PD-0037	The system and instruments involved in this change are not safety related but the instruments are mounted in a Class I cabinet (1RP1). Class I cabinet requirements have been considered for 1RP1 and have not been altered by this change.
1SC-0018	This DCR will not affect any safety function of the system involved. The proposed changes do not involve any of the criteria associated with an unresolved safety question per 10CFR 50.59.
1SC-0025	This design change does not affect any presently performed safety analysis nor does it create any new safety hazards. The bases of the Tech. Specs. are not affected.
1SC-0046	This is not a safety related system and has no effect upon the safe shutdown capability of the plant.
1SC-0064	This change is not functionally safety related and supports a design analysis revising the alarms so that the alarm windows remain "black" unless both the reactor power is above 50% and the quadrant power tilt ration exceeds 1.02. It is classified as safety related because the work performed will be in a safety related cabinet.
1SC-0112	This design change is not safety related and does not affect any safety related systems or the safe shutdown of the unit.

SALEM GENERATING STATION  
MONTHLY REPORT OF SAFETY RELATED REPAIRS

0001

WORK ORDER	DATE WRITTEN	PROBLEM DESCRIPTION	DATE COMPLETED	DESCRIPTION OF REPAIR
		*****		
		*** MAINTENANCE DEPARTMENT WORK ***		
		*****		
900236	09 14 79	FLANGE LEAK NEAR VALVE 115W223	10 02 79	WELD REPAIRED PIPE AND APPLIED BELZONA COATING
900632	12 16 78	VALVE 115J143 HAS PACKING LEAK	04 11 79	REPACKED
901258	03 21 79	VALVE 115S167 REPACK	05 10 79	REPACKED
901366	04 14 79	VALVE 12GB4 REWORK	04 15 79	MACHINED DISC AND SEAT INSTALLED NEW GASKETS REPACKED
901619	04 30 79	VALVE 13MS11 REWORK	05 24 79	DISASSEMBLED LAPPED ASSEMBLED
901620	04 30 79	VALVE 13MS12 REWORK	05 23 79	DISASSEMBLED LAPPED ASSEMBLED
901621	04 30 79	VALVE 13MS13 REWORK	05 29 79	DISASSEMBLED LAPPED ASSEMBLED
901622	04 30 79	VALVE 13MS14 REWORK	05 29 79	DISASSEMBLED LAPPED ASSEMBLED
901623	04 30 79	VALVE 13MS15 REWORK	05 30 79	DISASSEMBLED LAPPED ASSEMBLED
901629	03 21 79	VALVE 12MS167 REPACK	05 10 79	REPACKED
901630	03 21 79	VALVE 13MS167 REPACK	05 10 79	REPACKED
901631	03 21 79	VALVE 14MS167 REPACK	05 10 79	REPACKED
901725	04 27 79	VALVE 115J34 LEAKS THRU	05 14 79	LOOSTENED HANGER BOLT
902801	04 11 79	VALVE 14GB4 FAILED LEAK RATE TEST	04 16 79	MACHINED DISC & SEAT INSTALLED NEW GASKETS REPACKED

SALEM GENERATING STATION  
MONTHLY REPORT OF SAFETY RELATED REPAIRS

0002

WORK ORDER	DATE WRITTEN	PROBLEM DESCRIPTION	DATE COMPLETED	DESCRIPTION OF REPAIR
903061	04 21 79	VALVE 14AF23 HAS PACKING LEAK	12 08 79	REPLACED BONNET SEAL REPACKED
903829	02 26 79	16 SERVICE WATER PUMP INSPECT & REPAIR	03 05 79	PUMP DISMANTLED AND SENT TO OUTSIDE VENDOR FOR WORK
905924	07 03 79	VALVE 15W223 BINDING	08 21 79	REPOSITIONED BELL CRANK REPACKED
913739	10 27 79	1A DIESEL GENERATOR EXHAUST MANIFOLD LEAKS		INSTALLED NEW GASKETS
914344	11 15 79	VALVE 11HS45 HAS PACKING LEAK		REPACKED
914345	11 15 79	VALVE 12AF23 HAS PACKING LEAK	12 07 79	REPACKED REPLACED BONNET SEAL
914346	11 15 79	VALVE 12BE22 HAS PACKING LEAK	12 07 79	REPACKED
914349	11 15 79	VALVE 14MS130 HAS PACKING LEAK		REPACKED
914391	12 31 79	11 CHILLED WATER PUMP RUNNING HOT	01 01 80	REPLACED BEARINGS
914417	01 03 80	11 CHILLED WATER PUMP OILER LEAKING	01 04 80	REPLACED MECHANICAL SEAL REPLACED OIL SEALS
914456	01 04 80	11 CHILLED WATER PUMP TRIPPING	01 05 80	REPLACED OVERLOADS
914574	01 14 80	VALVE 11SW24 FLANGE LEAK	01 15 80	INSTALLED NEW VALVE BODY
915871	08 15 79	VALVE 11RH26 HAS PACKING LEAK	08 17 79	REPACKED
915878	08 15 79	VALVE 11RH40 HAS PACKING LEAK	08 17 79	REPACKED
915880	08 15 79	VALVE 11RH18 HAS PACKING LEAK	08 17 79	REPACKED
916090	12 13 79	VALVE 14AF21 LEAKS THRU	12 19 79	SHIPPED FOR REPAIR RETURNED TO SERVICE
916092	12 14 79	VALVE 11AF21 LEAKS THRU	12 19 79	REPLACED INTERNALS REPACKED
917436	11 06 79	VALVE 13SW264 LEAKS THRU	11 22 79	REPLACED DIAPHRAGM
917502	11 11 79	15 CONTAINMENT FAN COIL ROUGHING FILTERS DIRTY		REPLACED FILTERS
917563	11 15 79	14 CONTAINMENT FAN COIL ROUGHING FILTERS DIRTY	11 26 79	REPLACED FILTERS
918851	01 16 80	13 AUXILIARY FEEDWATER PUMP START LIGHT DOES NOT LIGHT	01 17 80	REPAIRED LIMIT SWITCHES ON VALVES 1MS132 AND 1MS52

SALEM GENERATING STATION  
MONTHLY REPORT OF SAFETY RELATED REPAIRS

0003

WORK ORDER	DATE WRITTEN	PROBLEM DESCRIPTION	DATE COMPLETED	DESCRIPTION OF REPAIR
919398	11 25 79	VALVE 12MS168 HAS PACKING LEAK	12 05 79	REPACKED
919399	11 25 79	VALVE 14MS168 HAS PACKING LEAK	12 06 79	REPACKED
919450	11 26 79	VALVE 1PS2 HAS BROKEN REACH ROD	11 28 79	REPAIRED REACH ROD
919464	11 27 79	VALVE 12SJ40 HAS PACKING LEAK	11 28 79	REPACKED
919539	12 01 79	11 BORIC ACID TRANSFER PUMP SEAL LEAKING	12 04 79	REPLACED MECHANICAL SEAL
919590	12 21 79	11 STEAM GENERATOR SNUBBERS SIGHTGLASS LEAKING	12 21 79	DRAINED OIL TIGHTENED SIGHT GLASS FILLED OIL AND TIGHTENED PACKING
919592	12 21 79	VITAL HEAT TRACING HEAT TAPE 0602B NOT WORKING	12 26 79	REPAIRED
919593	12 21 79	VITAL HEAT TRACING HEAT TAPE 0622A DOES NOT WORK	12 27 79	REPAIRED HEAT TAPE
919611	11 15 79	REACTOR HEAD INSTRUMENT PORT CUNOSEAL REPLACE GASKETS	11 17 79	INSTALLED NEW CUNOSEAL GASKETS
919615	11 16 79	VALVE 11RC21 HAS PACKING LEAK	11 21 79	REPACKED
919616	11 16 79	VALVE 11RC23 HAS PACKING LEAK	11 20 79	REPACKED
919620	11 16 79	VALVE 11RC17 HAS PACKING LEAK	11 21 79	REPACKED
919621	11 16 79	VALVE 11RC20 HAS PACKING LEAK	11 21 79	REPACKED
919622	11 16 79	VALVE 11RC25 HAS PACKING LEAK	11 21 79	REPACKED
919627	11 16 79	VALVE 13RC17 HAS PACKING LEAK	11 22 79	REPACKED
919632	11 16 79	VALVE 1PS13 HAS PACKING LEAK		REPACKED
919671	11 16 79	VALVE 14MS27 HAS PACKING LEAK	11 18 79	REPACKED
919673	11 16 79	VALVE 12MS10 HAS PACKING LEAK	11 18 79	REPACKED
919675	11 16 79	VALVE 12MS18 HAS PACKING LEAK	11 17 79	REPACKED
919676	11 16 79	VALVE 14MS18 HAS PACKING LEAK	11 17 79	REPACKED
919681	11 16 79	VALVE 14AF23 HAS PACKING LEAK	11 21 79	REPACKED
919700	11 18 79	VALVE 1CV2 HAS PACKING LEAK	11 22 79	REPACKED

SALEM GENERATING STATION  
MONTHLY REPORT OF SAFETY RELATED REPAIRS

0004

WORK ORDER	DATE WRITTEN	PROBLEM DESCRIPTION	DATE COMPLETED	DESCRIPTION OF REPAIR
919701	11 18 79	VALVE 125J154 HAS PACKING LEAK	11 21 79	REPACKED
919702	11 18 79	VALVE 15J149 HAS PACKING LEAK	11 21 79	REPACKED
919703	11 18 79	VALVE 138J138 HAS PACKING LEAK	11 21 79	REPACKED
919708	11 20 79	AIRLOCK ELEVATION 100 INSPECT INNER DOOR GASKET	11 20 79	REVERSED INNER AND OUTER DOOR SEALS
919725	11 24 79	VALVE 13RC26 HAS PACKING LEAK	11 24 79	REPACKED
919753	11 30 79	VALVE 13RC24 HAS PACKING LEAK	12 05 79	REPACKED
919754	11 30 79	VALVE 13RC28 HAS PACKING LEAK	12 05 79	REPACKED CLEANED BORON OFF VALVE
919769	12 05 79	VALVE 13RC25 HAS PACKING LEAK	12 05 79	REPACKED
919770	12 05 79	VALVE 12AF21 LEAKS THRU	12 12 79	REPLACED STEM CAGE AND SEAT OF VALVE INSTALLED NEW GASKETS AND REPACKED
919772	12 05 79	VALVE 1CV79 HAS PACKING LEAK	12 05 79	REPACKED
919774	12 05 79	16 SERVICE WATER PUMP INVESTIGATE HIGH VIBRATION	12 21 79	REBUILT PUMP, LOWER ASSEMBLY REBUILT BY A&A COMPANY
919783	12 06 79	VALVE 11MS9 HAS PACKING LEAK	11 08 79	REPACKED
919784	12 06 79	VALVE 11MS168 HAS PACKING LEAK	12 07 79	REPACKED
919785	12 06 79	VALVE 13MS168 HAS PACKING LEAK	12 07 79	REPACKED
919786	12 06 79	VALVE 13MS45 HAS PACKING LEAK	12 08 79	REPACKED
919788	12 06 79	VALVE 14MS199 HAS PACKING LEAK	12 07 79	REPACKED
929769	12 17 79	VALVE 1CV238 HAS BONNET LEAK	01 02 80	INSTALLED NEW DIAPHRAGM FIXED BUSHING
929862	12 22 79	VALVE 11SW23 NO OPEN INDICA- TION IN CONTROL ROOM	12 04 79	REPLACED RELAY 33X-3
929877	12 23 79	16 SERVICE WATER STRAINER BROKEN SHEAR PIN	12 24 79	REPLACED SHEAR KEY AND BARREL SEAL PLATE
929922	12 27 79	VALVE 11MS167 WON'T OPEN	12 27 79	ADJUSTED PACKING
929933	12 27 79	CONTAINMENT SPRAY ADDITIVE TANK MANWAY LEAKING	12 31 79	INSTALLED GASKET ON ADDITIVE FILLPIPE

## MONTHLY REPORT OF SAFETY RELATED REPAIRS

0005

WORK ORDER	DATE WRITTEN	PROBLEM DESCRIPTION	DATE COMPLETED	DESCRIPTION OF REPAIR
929935	12 29 79	12 FUEL HANDLING BUILDING EXHAUST FAN HAS BROKEN BELT	12 29 79	REPLACED BROKEN BELTS
929941	12 28 79	11 RESIDUAL HEAT REMOVAL SUMP ALARMS ON OVERFLOW	01 02 80	REPAIRED MICRO SWITCH ON ACTUATING DEVICE
931957	12 30 79	13 STEAM FLOW VENT VALVE NEAR TRANSMITTER FT532 HAS BONNET LEAK	12 30 79	REPLACED BONNET OF SAMPLE VALVE
931971	01 03 80	1A SAFEGUARD EMERGENCY CABINET INSPECTION BY VENDOR	01 03 80	REPLACED BAD RELAY
931997	01 08 80	PENETRATION I-25 & I-26 RECHARGE AND CHECK FOR LEAKS	01 09 80	RECHARGED FOUND NO LEAKS
*****				
*** PERFORMANCE DEPARTMENT WORK ***				
*****				
905424	08 16 79	N-31 SOURCE RANGE SENSITIVE TO ELECTRICAL NOISE	12 13 79	REBUILT CABLE PLUGS REPLACED JACK ON PHD CIRCUIT
911838	10 11 79	N31 DETECTOR EXCESSIVE NOISE	10 19 79	REPLACED N31 AND N35 DETECTORS REBUILT TRIAXIAL PLUGS AT DRAWERS
914397	01 01 80	SIGNAL ISOLATOR IN N-43 OUT OF CALIBRATION	01 01 80	REPLACED SIGNAL ISOLATOR QM203A SERIAL Q0455 WITH Q0453
914476	01 06 80	R31B FAILED FUEL PROTECTION READS LOW	01 06 80	REPLACED BOARD 1PB1 CALIBRATED DRAWER
914491	01 07 80	13 STEAM GENERATOR FEEDWATER FLOW CHANNEL II MIDRANGE FAILED	01 07 80	REPLACED AMPLIFIER BOARD RECALIBRATED
914521	01 09 80	VALVE 145W232 LIMIT SWITCH ARM BENT		STRAIGHTENED LIMIT SWITCH VERIFIED OPERATION
915296	11 12 79	N41 CABLES SHORTED	11 14 79	LOCATED SHORT AND CLEARED IT
915322	12 05 79	N31 DETECTOR VERIFY PROPER DETECTOR VOLTAGE AND METER ACCURACY	12 05 79	REPLACED CABLE PLUG ON HIGH VOLTAGE POWER SUPPLY



SALEM GENERATING STATION  
MONTHLY REPORT OF SAFETY RELATED REPAIRS

0006

WORK ORDER	DATE WRITTEN	PROBLEM DESCRIPTION	DATE COMPLETED	DESCRIPTION OF REPAIR
915615	11 15 79	N-42 SOURCE RANGE OUT OF SPEC	11 30 79	REPLACED MODULE XA5904RB WITH MODULE FROM UNIT 2
919394	11 24 79	VALVE 12SW223 DOES NOT CONTROL FLOW TO 12 CONTAINMENT FAN COIL UNIT	11 25 79	BLEW DOWN TRANSMITTER FA31652-1 AND FA354021 REPLACED AMPLIFIER IN FA354021
919591	12 20 79	VALVE 13AF21 DOES NOT REGULATE	12 22 79	REPLACED SQUARE ROOT EXTRACTOR FA3971 IAW DR# PD-0958
929776	12 18 79	AUDIO COUNT RATE SOUND DISTORTED	12 19 79	DISASSEMBLED AND CLEANED
929806	12 14 79	12 REACTOR COOLANT PUMP LOW SEAL LEAK OFF FLOW INDICATOR/TRANSMITTER STICKS	12 18 79	CLEANED AND FLUSHED FLOAT REINSTALLED FLANGE WITH NEW GASKETS
929820	12 07 79	INSTRUMENT IR18 FAILED LOW.	12 07 79	SOLDERED BAD CONNECTIONS
929894	12 25 79	VALVE 14MS18 DOES NOT CLOSE	12 26 79	REPLACED SOLENOID VALVE SV-583

TOTAL LINES = 000170

SALEM UNIT #1  
OPERATING SUMMARY  
JANUARY 1980

- 1/1 At 40% power, steady state conditions for entire day.
- 1/2 At 0330, commenced inserting rods by dilution to 140 steps to swing  $\Delta I$  negative in preparation for a flux map. Power remained at 40% for the whole day.
- 1/3 At 0500 on 1/3/80, waiting for  $\Delta I$  to stabilize for power coefficient test. Between 0640 and 0740, turbine load being increased then decreased. At 0750, commenced increasing power to 47% at 3% per hour. The reactor remained at 47% for the remainder of the day.
- 1/4 Power remained at 47% for the entire day.
- 1/5 Power being increased from 48% to 60% on 1/5/80 in preparation for  
thru next physics test. Once physics test was complete, power was reduced  
1/6 to 50% by 2400 on 1/6/80 to clean feed pump strainers and to evaluate  
quadrant power tilt.
- 1/7 Power remained at 50% until authorization was given to go to 80%.  
thru At 2200 on 1/7/80, power escalation began at approximately 3% per hour.  
1/8 Power was held at 80% for physics testing. At 2115 on 1/8/80, reactor  
power reduction began from 80% to 65% power to clean condensate pump  
strainers.
- 1/9 At 1200 on 1/9/80, power escalation began at 1.5% per hour to 95% which  
thru is the next physics testing plateau. Power remained at 95% through  
1/10 1/10 while physics testing was in progress.
- 1/11 Still performing physics testing. At 0630 on 1/11/80, commenced power  
thru reduction at 3% per hour down to 70% to clean condensate pump strainers.  
1/12 At 2100, with strainers cleaned, power escalation began at 3% per hour  
reactor thermal power. Power remained at 95% for the remainder of this  
period.

- 1/13 At 95% power until 1400 when load reduction in order to perform governor valve closure of #12 stop valve was commenced. Load reduction terminated at 93% power and remained there for the remainder of the day.
- 1/14 Power escalated from 93% to 95%. At 0956 on 1/14/80, reactor tripped from 95% on a false high neutron flux rate trip signal. Reactor remained subcritical until 1013 on 1/15/80 when reactor was taken critical. Remained at zero power until reactor tripped at 1630 on steam generator low low level. Reactor brought critical until it tripped again at 1900 on steam generator low low level. Reactor brought critical and power escalation began. At 2400 on 1/15/80, power was 18.2%.
- 1/16 Power escalation continued. At 1234, experienced turbine load swing due to E.H. control system malfunction. Turbine placed in manual. At 2400, reactor power was at 89.5%.
- 1/17 Power reached 95% at 0400. At 1620, commenced dropping load to 70% to allow cleaning of main feedwater pump strainers. Power reduced to 55% to keep plant stabilized while cleaning strainers. At 2200, commenced increasing load to 95% at 5% per hour.
- 1/18 Load increase in progress. Load stabilized at 95% by 1600 and stayed there for the remainder of the day.
- 1/19 Load was stabilized at 95% power until 2010 when load reduction was commenced at 5% per hour.
- 1/20 Load reduction in progress at 5% per hour. Load stabilized at 70% by 0200 to allow cleaning of condensate pump strainers. Load increase commenced at 1245 at 3% per hour. Load at 100% by 2330.
- 1/21 Load stabilized at 100%.
- 1/22 Load stabilized at 100%. Load reduction commenced at 2200 to allow cleaning of condensate pump strainers.

1/23 Load decrease in progress. Stabilized load at 70% at 0100. Condensate strainers cleaned and increasing load by 0345 at 3% per hour. Unit trip from 96% at 1029. 1H 460 volt group transformer dropped out of service which resulted in the tripping of a steam generator feedwater pump and a reactor trip on low steam generator water level. Unit down for the remainder of the day.

1/24 Reactor critical and load increase commenced at 1130. Load being increased over the remainder of the day.

1/25 Load increase in progress to 100%. Load stabilized at 100% by 1900.

1/26 Load stabilized at 100% power for the day.

1/27 Load stabilized at 100% until 2030 when a load decrease was commenced to 70% by 2300 to allow cleaning of condensate pump strainers.

1/28 Load increase commenced at 0115 from 70%. Load stabilized at 100% by 1030 for the remainder of the day.

1/29 Load stabilized at 100% until 2100 when load was decreased to 95%. Load reduced to maintain adequate NPSH to steam generator feedwater pumps which was dropping because of increasing differential pressure across the condensate polishing system. Load stabilized at 95% while back-flushing operations continue with the condensate polishing system to reduce the differential pressure across the polisher vessels. Load increased and stabilized at 100% by 1020 for the remainder of the day.

1/30 Load stabilized at 100% for the day.

1/31 Load stabilized at 100% for the day.

# REFUELING INFORMATION

DOCKET NO.: 50-272  
 UNIT: Salem #1  
 DATE: February 11, 1980  
 COMPLETED BY: L. K. Miller  
 TELEPHONE: 609-365-7000  
 X507

MONTH: January 1980

1. Refueling information has changed from last month:

YES X NO       

2. Scheduled date of next refueling: September 20, 1980

3. Scheduled date for restart following refueling: November 16, 1980

4. A. Will Technical Specification changes or other license  
 amendments be required? YES        NO         
 NOT DETERMINED TO-DATE January 1980

B. Has the reload fuel design been reviewed by the Station Operating  
 Review Committee? YES        NO X  
 If no, when is it scheduled? August 1980

5. Scheduled date(s) for submitting proposed licensing action:  
August 1980 (If required)

6. Important licensing considerations associated with refueling:  
NONE  
        
        
        
      

7. Number of Fuel Assemblies:  
 A. In-Core 193  
 B. In Spent Fuel Storage 40  
 8. Present licensed spent fuel storage capacity: 264  
 Future spent fuel storage capacity: 1,170  
 9. Date of last refueling that can be discharged to the spent fuel  
 pool assuming the present licensed capacity: September 1982