

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Salem Generating Station - Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 3 1 1	PAGE (3) 1 OF 0 4
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TITLE (4)  
T. S. 3.0.3 Entry - Both Cent. Charging Pumps Declared Inoperable; Equipment Concerns

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)		
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES		
0	7	26	8	8	0 1 5	0	8	0 9			
									DOCKET NUMBER(S) 0 5 0 0 0		

OPERATING MODE (9) 1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)											
POWER LEVEL (10) 0 9 1 7	20.402(b)			20.406(c)			50.73(a)(2)(iv)			73.71(b)		
	20.406(a)(1)(i)			50.36(c)(1)			50.73(a)(2)(v)			73.71(c)		
	20.406(a)(1)(ii)			50.36(c)(2)			50.73(a)(2)(vii)			OTHER (Specify in Abstract below and in Text, NRC Form 366A)		
	20.406(a)(1)(iii)			50.73(a)(2)(i)			50.73(a)(2)(viii)(A)					
	20.406(a)(1)(iv)			50.73(a)(2)(ii)			50.73(a)(2)(viii)(B)					
20.406(a)(1)(v)			50.73(a)(2)(iii)			50.73(a)(2)(x)						

LICENSEE CONTACT FOR THIS LER (12)									
NAME M. J. Pollack - LER Coordinator							TELEPHONE NUMBER 6 0 9 3 3 9 - 4 0 2 2		

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)										
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED (14)							EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO											

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On 7/26/88, Tech. Spec. Action Statement 3.5.2.a was entered in support of design modifications to No. 21 Centrifugal Charging Pump (CCP). At 1242 hours the same day, No. 21 Component Cooling Heat Exchanger (CCHX) was made inoperable due to significant Service Water (SW) leakage from downstream piping. With No. 21 CCHX inoperable, No. 22 CCP is technically inoperable. Subsequently with both CCPs inoperable, Tech. Spec. 3.0.3 was entered. The root cause of the inoperability of both CCPs has been attributed to equipment problems individual to each CCP. To exit Tech. Spec. 3.0.3, No. 21 CCP was returned to operable status prior to shutdown completion. The SW pipe leakage repair was completed on 7/28/88.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Salem Generating Station Unit 2	DOCKET NUMBER 5000311	LER NUMBER 88-015-00	PAGE 2 of 4
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PLANT AND SYSTEM IDENTIFICATION:

Westinghouse - Pressurized Water Reactor

Energy Industry Identification System (EIIS) codes are identified in the text as {xx}

IDENTIFICATION OF OCCURRENCE:

Technical Specification 3.0.3 entry - Both Centrifugal Charging Pumps declared inoperable due to equipment concerns

Event Date: 7/26/88

Report Date: 8/9/88

This report was initiated by Incident Report Nos. 88-286.

CONDITIONS PRIOR TO OCCURRENCE:

Mode 1 Reactor Power 97% - Unit Load 1080 MWe

DESCRIPTION OF OCCURRENCE:

On July 26, 1988 at 1242 hours, Technical Specification 3.0.3 was entered due to declared inoperability of both Centrifugal Charging Pumps (CCPs) {BQ}.

Technical Specification Action Statement 3.0.3 states:

"When a Limiting Condition for Operation is not met except as provided in the associated ACTION requirements, within one hour action shall be initiated to place the unit in a MODE in which the specification does not apply by placing it, as applicable, in:

1. At least HOT STANDBY within the next 6 hours,
2. At least HOT SHUTDOWN within the following 6 hours, and
3. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the ACTION may be taken in accordance with the specified time limits as measured from the time of failure to meet the Limiting Condition of Operation. Exceptions to these requirements are stated in the individual specifications."

On July 26, 1988, Technical Specification Action Statement 3.5.2.a was entered. No. 21 CCP was cleared and tagged to support design modifications.

On July 26, 1988 at 1242 hours, No. 21 Component Cooling Heat Exchanger (CCHX) {CC} was made inoperable due to Service Water (SW) piping {BI} leakage from nearby valves 21SW126 (CCHX Pressure Tap) and 21SW127 (CCHX SW Regulating Valve). With No. 21 CCHX inoperable,

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Salem Generating Station	DOCKET NUMBER	LER NUMBER	PAGE
Unit 2	5000311	88-015-00	3 of 4

DESCRIPTION OF OCCURRENCE: (cont'd)

No. 22 CCP is technically inoperable. Subsequently, with both CCPs inoperable, Technical Specification 3.0.3 was entered.

Technical Specification 3.5.2 states:

"Two independent ECCS subsystems shall be OPERABLE with each subsystem comprised of:

- a. One OPERABLE centrifugal charging pump,
- b. One OPERABLE safety injection pump,
- c. One OPERABLE residual heat removal heat exchanger,
- d. One OPERABLE residual heat removal pump, and
- e. An OPERABLE flow path capable of taking suction from the refueling water storage tank on a safety injection signal and transferring suction to the containment sump during the recirculation phase of operation."

Technical Specification Action Statement 3.5.2.a states:

"With one ECCS subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 72 hours or be in HOT SHUTDOWN within the next 12 hours."

APPARENT CAUSE OF OCCURRENCE:

The root cause of the inoperability of both CCPs has been attributed to equipment problems individual to each CCP.

As stated previously, No. 21 CCP had been cleared and tagged to support design modifications.

No. 22 CCP had been declared inoperable due to the inoperability of the No. 21 CCHX. No. 21 CCHX was made inoperable to mitigate the SW leakage.

ANALYSIS OF OCCURRENCE:

No. 21 CCHX SW flow is controlled by automatic adjustment of valve 21SW127. The temperature of the component cooling water coming through the CCHX is monitored. Based upon the temperature setpoint the valve position is adjusted. To mitigate the SW leakage, the temperature setpoint was increased. This resulted in minimizing the amount of SW flow through No. 21 CCHX effectively rendering it inoperable. No. 21 CCHX loads associated with the No. 22 CCP include the Mechanical Seal Heat Exchanger and the Seal Plate Gland Cooler.

One CCP is required to mitigate the consequences of several design

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Salem Generating Station	DOCKET NUMBER	LER NUMBER	PAGE
Unit 2	5000311	88-015-00	4 of 4

ANALYSIS OF OCCURRENCE: (cont'd)

base accidents by providing high head safety injection flow. Two CCPs are provided for 100% system redundancy. During the event described in this LER, No. 21 CCP was completely inoperable due to it being cleared and tagged. However, No. 22 CCP although declared inoperable, was never removed from service. Therefore, in the event of a design base accident requiring the functioning of a CCP, No. 22 CCP would have started and performed its function.

This report has been prepared as per the Code of Federal Regulations 10CFR 50.73(a)(2)(i)(B) due to entry into Technical Specification 3.0.3.

CORRECTIVE ACTION:

No. 21 CCP was released from its tag(s) and declared operable at 1341 hours on July 26, 1988. Subsequently, Technical Specification 3.0.3 was exited.

Investigation of the SW leakage near the 21SW126 valve revealed a cracked weld on the 3/4" instrument connection to the 20" pipe spool upstream of the valve. The cracked weld was subsequently repaired.


Investigation of the SW leakage at the 21SW127 valve revealed that the gasket seal had given way. Repairs were completed and Technical Specification Action Statement 3.7.3 (and 3.5.2.a) was exited on July 28, 1988 at 1035 hours.

Technical Specification 3.7.3 states:

"At least two independent component cooling water loops shall be OPERABLE."

Technical Specification Action Statement 3.7.3 states:

"With only one component cooling water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours."

  
General Manager -  
Salem Operations

MJP:pc

SORC Mtg. 88-064



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

Salem Generating Station

August 9, 1988


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

Dear Sir:

SALEM GENERATING STATION  
LICENSE NO. DPR-75  
DOCKET NO. 50-311  
UNIT NO. 2  
LICENSEE EVENT REPORT 88-015-00

This Licensee Event Report is being submitted pursuant to the requirements of the Code of Federal Regulations 10CFR 50.73(a)(2)(i)(B). This report is required within thirty days of discovery.

Sincerely yours,

  
J. M. Zupko, Jr.  
General Manager-  
Salem Operations

MJP:pc

Distribution

The Energy People