

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Salem Generating Station - Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 2 7 2	PAGE (3) 1 OF 0 4
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TITLE (4)
TS Action Statement 3.0.5 Entered; Both Trains of ECCS Inop. Due To Equipment Concerns

EVENT DATE (5)			LER NUMBER (8)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)		
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES		DOCKET NUMBER(S)
0 1 2 7 8 9	8 9	0 0 5	0 0 0 2 2 4 8 9								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) 1 0 0	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)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)						
	20.406(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(ii)	50.73(a)(2)(viii)(A)							
	20.406(a)(1)(iv)	50.73(a)(2)(iii)	50.73(a)(2)(viii)(B)							
20.406(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)								

LICENSEE CONTACT FOR THIS LER (12)				TELEPHONE NUMBER			
NAME M. J. Pollack - LER Coordinator				AREA CODE 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 NRPDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRPDS	
B	L	A	E	H	T	R	E	2	3	2
				Y						

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

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

On 1/27/89, Technical Specification Action Statement 3.0.5 was entered due to both trains of Emergency Core Cooling Systems (ECCS) being inoperable. No. 11 Safety Injection (SI) Pump and No. 11 Centrifugal Charging Pump (CCP) were declared inoperable due to inoperability of the No. 12 Service Water (SW) header and No. 12 SI and No. 12 CCP were declared inoperable due to inoperability of the 1C Diesel Generator (DG). The No. 12 SW header had been made inoperable in support of repair of the No. 12A Component Cooling Heat Exchanger (CCHX) Service Water (SW) inlet piping. 1C D/G had been declared inoperable due to inoperability of its Lube Oil Heater. An Equipment Operator (EO) had discovered, during rounds, that the heater breaker was tripped and that the lube oil temperature was 85°F. The root cause of this event has been attributed to an equipment problem. As indicated in the Description of Occurrence section, the 1C D/G Lube Oil Heater had failed. The SW leakage on the No. 12A CCHX SW inlet piping has been attributed to erosion/corrosion affects. A blind flange was installed on the No. 12 CCHX SW inlet piping to return the SW header to Operable status thereby allowing the plant to exit Tech. Spec. Action Statement 3.0.5. The 1C D/G Lube Oil Heater has been replaced. Repairs to the No. 12 CCHX SW inlet piping have been completed. Investigation of the maintenance history of the Lube Oil Heater is not complete. PSE&G System Engineering will continue this investigation. Based upon investigation results, preventive maintenance requirements will be reviewed and modified/clarified as required.

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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 Action Statement 3.0.5 entered; both trains of Emergency Core Cooling Systems (ECCS) inoperable due to equipment concerns

Event Date: 1/27/89

Report Date: 2/24/89

This report was initiated by Incident Report No. 89-051.

CONDITIONS PRIOR TO OCCURRENCE:

Mode 1 Reactor Power 100% - Unit Load 1150 MWe

DESCRIPTION OF OCCURRENCE:

On January 27, 1989 at 1013 hours, Technical Specification Action Statement 3.0.5 was entered due to both trains of Emergency Core Cooling Systems (ECCS) {BQ} being inoperable. No. 11 Safety Injection (SI) Pump and No. 11 Centrifugal Charging Pump (CCP) were declared inoperable due to inoperability of the No. 12 Service Water (SW) header and No. 12 SI and No. 12 CCP were declared inoperable due to inoperability of the 1C Diesel Generator (DG) {EK}.

The No. 12 SW header had been made inoperable in support of repair of the No. 12A Component Cooling Heat Exchanger (CCHX) Service Water (SW) inlet piping.

1C D/G had been declared inoperable due to inoperability of its Lube Oil Heater {LA}. An Equipment Operator (EO) had discovered, during rounds, that the heater breaker was tripped and that the lube oil temperature was 85°F.

APPARENT CAUSE OF OCCURRENCE:

The root cause of this event has been attributed to an equipment problem. The 1C D/G Lube Oil Heater had failed. The sheath around the element wore through resulting in electrical arcing and failure of the heater element.

The SW leakage on the No. 12A CCHX SW inlet piping has been attributed to erosion/corrosion affects.

ANALYSIS OF OCCURRENCE:

The Technical Specification 3.5.2 Action Statements do not apply when

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ANALYSIS OF OCCURRENCE: (cont'd)

both trains of ECCS are declared inoperable. With one of the trains declared inoperable solely due to an inoperable emergency power supply, Technical Specification Action Statement 3.0.5 applies.

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 3.0.5 states:

"When a system, subsystem, train, component or device is determined to be inoperable solely because its emergency power source is inoperable, or solely because its normal power source is inoperable it may be considered OPERABLE for the purpose of satisfying the requirements of its applicable limiting Condition for Operation, provided: (1) its corresponding normal or emergency power source is OPERABLE; and (2) all of its redundant system(s), subsystem(s), train(s), component(s) and device(s) are OPERABLE, or likewise satisfy the requirements of this specification. Unless both conditions (1) and (2) are satisfied within 2 hours, action shall be initiated to place the unit in a MODE in which the applicable Limiting Condition for Operation 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.

This specification is not applicable in MODES 5 or 6."

When 1C D/G was declared inoperable, due to discovery of the failure of its' Lube Oil Heater, Technical Specification Action Statement 3.8.1.1.b was entered.

Due to the required entry into Technical Specification Action Statement 3.0.5, this event is reportable in accordance with Code of Federal Regulations 10CFR50.73(a)(2)(i)(B).

CORRECTIVE ACTION:

A blind flange was installed on the No. 12A CCHX SW inlet piping. This allowed the SW header to be released making No. 11 SI Pump and No. 11 CCP operable. With these pumps operable, Technical

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CORRECTIVE ACTION: (cont'd)

Specification Action Statement 3.0.5 was exited at 1218 hours the same day.

The 1C D/G Lube Oil Heater has been replaced. Subsequently, Technical Specification Action Statement 3.8.1.1.b was exited.

Investigation of the maintenance history of the Lube Oil Heater is not complete. PSE&G System Engineering will continue this investigation. Based upon investigation results, preventive maintenance requirements will be reviewed and modified/clarified as required.

Repairs to the No. 12 CCHX SW inlet piping have been completed. The SW header has been returned to operable status.

FAILURE DATA:

Lube Oil Heater

Chromalox
El Wiegand Div./Emerson Electric
P/N 196832



General Manager -
Salem Operations

MJP:pc

SORC Mtg. 89-014



PSEG

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

Salem Generating Station

February 24, 1989

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

Dear Sir:

SALEM GENERATING STATION
LICENSE NO. DPR-70
DOCKET NO. 50-272
UNIT NO. 1
LICENSEE EVENT REPORT 89-005-00

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 (30) days of discovery.

Sincerely yours,

L. K. Miller
General Manager-
Salem Operations

MJP:pc
Distribution

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