



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

Salem Generating Station

November 5, 1990

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 90-039-00

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,

A handwritten signature in cursive script, appearing to read "S. LaBruna".

S. LaBruna  
General Manager -  
Salem Operations

MJP:pc

Distribution

9011080212 901105  
FDR ADUCK 05000311  
S FDC

The Energy People

IE22

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 1 OF 0 5
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TITLE (4)  
**Tech. Spec. 3.5.2.c Noncompliance Due To Personnel Error**

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		DOCKET NUMBER(S)
1	0	6	9	0	9	0	3	9			0 5 0 0 0
						1	1	0			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 5 6	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 356A)						
	20.406(a)(1)(iii)	<input checked="" type="checkbox"/> 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)(ix)								

LICENSEE CONTACT FOR THIS LER (12)	
NAME M. J. Pollack - LER Coordinator	TELEPHONE NUMBER 6 0 9 3   3 9 - 2 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 10/6/90 at 1600 hours, Operations Department personnel discovered (during routine rounds) that the breaker for the 22SJ44 valve (No. 22 RHR Pump Containment Sump Suction Valve) motor operator was open. The breaker is required to be maintained closed to support remote operation of the 22SJ44 valve to mitigate the consequences of postulated Loss-Of-Coolant Accidents. Tech. Spec. 3.5.2.c requires that the flow path for taking suction from the Containment Sump to the Reactor Coolant System (RCS) be operable. With the 22SJ44 breaker open, this flow path is not operable. On 10/3/90 at 0345 hours, the 22 RHR Pump was removed from service in support of maintenance. As part of the pump tagout, the 22SJ44 breaker is opened. On 10/5/90 at 0854 hours, the 22 RHR Pump was returned to service and declared operable. However, the 22SJ44 breaker was left open in accordance with the Tagging Request Information System (TRIS), a computerized data base for identifying component position which identified the normal breaker position is open. The breaker remained open for 15 minutes beyond the time constraint of Tech. Spec. 3.5.2.c Action a. The root cause of this event is attributed to personnel error. Necessary administrative changes were not made to support implementation of Tech. Spec. Amendment No. 69 in June 1990. The 22SJ44 breaker was closed upon initial identification of it being open. The TRIS data base has been revised to identify the normal positioning of the 21 and 22SJ44 breakers to normally closed. This event will be reviewed with applicable station personnel. The administrative controls associated with Tech. Spec. Amendment implementation will be strengthened.

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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 3.5.2.c noncompliance due to personnel error

Discovery Date: 10/06/90

Report Date: 11/05/90

This report was initiated by Incident Report No. 90-757.

CONDITIONS PRIOR TO OCCURRENCE:

Mode 1 Reactor Power 56% - Unit Load 500 MWe  
Unit load was reduced to support maintenance on the No. 22 Steam Generator Feedwater Pump

DESCRIPTION OF OCCURRENCE:

On October 6, 1990 at 1600 hours, Operations Department personnel discovered (during routine rounds) that the breaker for the 22SJ44 valve (No. 22 RHR Pump Containment Sump Suction Valve) motor operator was open. The breaker is required to be maintained closed to support remote operation of the 22SJ44 valve to mitigate the consequences of postulated Loss-Of-Coolant Accidents (LOCAs).

Technical Specification 3.5.2.c requires that the flow path for taking suction from the Containment Sump to the Reactor Coolant System (RCS) {AB} be operable. Therefore, with the 22SJ44 breaker open, this flow path is not operable.

On October 3, 1990 at 0345 hours, the 22 RHR Pump was removed from service in support of maintenance. As part of the pump tagout, the 22SJ44 breaker is opened (to prevent inadvertent flow from the Containment Sump during work on the 22 RHR Pump). On October 5, 1990 at 0854 hours, the 22 RHR Pump was returned to service and declared operable. However, the 22SJ44 breaker was left open in accordance with the Tagging Request Information System (TRIS), a computerized data base for identifying component position. TRIS identified that the breaker normal position (during power operation) is open. The breaker remained open for approximately fifteen (15) minutes in excess of Technical Specification 3.5.2 Action "a" requirements.

Technical specification 3.5.2 states:

"Two independent ECCS subsystems shall be OPERABLE with each subsystem comprised of the following injection systems:

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DESCRIPTION OF OCCURRENCE: (cont'd)

Technical Specification 3.5.2.c states:

"One OPERABLE residual heat removal pump and associated residual heat removal heat exchanger and flow path capable of taking suction from the refueling water storage tank on a safety injection signal and recirculation phase of operation and;

1. Discharging into each RCS cold leg, and; upon manual initiation,
2. Discharging into two RCS hot legs."

Technical Specification 3.5.2 Action 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 this event is attributed to personnel error. All necessary administrative changes were not made to support implementation of Technical Specification Amendment No. 69.

In June 1990, Technical Specification Amendment No. 69 was implemented. This Amendment provides for implementation of semiautomatic switchover of the Emergency Core Cooling System (ECCS) from the injection phase to the recirculation phase. Prior to Amendment implementation the SJ44 valves were kept closed and the associated valve motor operator breakers were kept open. Emergency Operating Procedures (EOPs) would address operation of the breakers (and valves) to accommodate ECCS actions. With the Amendment's implementation, the valves remained closed; however, the breakers would now be kept normally closed. The appropriate procedures (e.g., EOPs, Integrated Operating Procedures, ... etc.) were revised and the breakers closed.

Investigation, of this event, revealed that the TRIS computerized data base was not revised (with Amendment implementation). This data base identifies the normal positioning of breakers and valves in the plant. The SJ44 valve breaker normal position, during power operation, remained "open".

A contributing factor to this event was that sufficient management administrative control was not provided to ensure that applicable processes, programs, and procedures are updated in support of an Amendment's implementation. This was determined to be a weakness in the Amendment implementation process.

ANALYSIS OF OCCURRENCE:

The ECCS incorporates the use of high head safety injection (Centrifugal Charging Pumps), intermediate head safety injection

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ANALYSIS OF OCCURRENCE: (cont'd)

pumps (SI Pumps) and low head safety injection pumps (Residual Heat Removal Pumps). There are two of each type of pump where either pump will provide 100% of the flow requirements during ECCS operation.

Upon completion of the injection phase of ECCS (when the Refueling Water Storage Tank low level alarm setpoint is reached), the recirculation phase begins. During the postulated worst case scenario, this occurs approximately 13 minutes after the accident sequence begins. To accommodate this phase, the SJ44 valves are opened to allow flow from the Containment Sump to the Reactor via the Residual Heat Removal (RHR) System. Each flow path, from the Containment Sump, is independent and is capable of providing 100% of the flow requirements to mitigate the consequences of a postulated accident.

Operations Department procedures do address what actions to take in the event the SJ44 valve fails to open. These actions include verification of breaker position. Therefore, if a postulated accident were to have occurred, existing procedures would have prompted Operations personnel to identify that the 22SJ44 valve breaker was open allowing expeditious breaker closure.

As indicated by the Description of Occurrence, the 22SJ44 valve breaker remained open for approximately fifteen (15) minutes in excess of Technical Specification 3.5.2 Action a requirements. Also, the No. 21 RHR Containment Sump to Reactor flowpath remained operable during the time the 22 RHR Containment Sump to Reactor flowpath was inoperable (due to breaker misposition). Therefore, this event did not affect the health or safety of the public. However, since the Technical Specifications were not fully complied with, this event is reportable in accordance with Code of Federal Regulations 10CFR 50.73(a)(2)(i)(B).

CORRECTIVE ACTION:

The 22SJ44 breaker was closed upon initial identification of it being open.

The TRIS data base has been revised to identify the normal positioning of the 21 and 22SJ44 breakers to normally closed.

This event has been reviewed by Operations Department management. Those personnel involved in the cause of this event will be held accountable.

This event will be reviewed with applicable station personnel. The need to ensure that all applicable administrative documents are updated when administrative requirements are changed (e.g., Technical Specification Amendments) will be stressed.

The administrative controls associated with Technical Specification Amendment implementation will be strengthened. Administrative

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CORRECTIVE ACTION: (cont'd)

Procedure AP-12, "Technical Specification Surveillance Program" will be revised to ensure that guidance necessary and the verification of changes required, for the implementation of Amendments, is provided.

An additional evaluation will be performed to assess whether other errors were made during the implementation of Technical Specification Amendments.



General Manager -  
Salem Operations

MJP:pc

SORC Mtg. 90-152