



**PSEG**

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

Salem Generating Station

November 1, 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 89-030-00

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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PDR ADOCK 05000272  
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The Energy People

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) <b>Salem Generating Station - Unit 1</b>	DOCKET NUMBER (2) <b>0 5 0 0 0 2 7 2</b>	PAGE (3) <b>1 OF 0 4</b>
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TITLE (4)  
**Tech. Spec. Action Statement 3.0.5 Entry Due To Human Factors Design Concerns**

EVENT DATE (6)			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)
10	11	1989	89	030	00	11	10	1989			0 5 0 0 0
											0 5 0 0 0

OPERATING MODE (9) <b>1</b>	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)									
POWER LEVEL (10) <b>11010</b>	20.402(b)	20.406(e)	50.73(a)(2)(iv)	73.71(b)						
	20.406(a)(1)(ii)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)						
	20.406(a)(1)(iii)	50.36(e)(2)	50.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 388A)						
	20.406(a)(1)(iv)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)							
	20.406(a)(1)(v)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)							
		50.73(a)(2)(iii)	50.73(a)(2)(v)							

LICENSEE CONTACT FOR THIS LER (12)		TELEPHONE NUMBER	
NAME <b>M. J. Pollack - LER Coordinator</b>		AREA CODE <b>6 0 9</b>	<b>3 3 9 - 4 0 2 2</b>

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
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 10/11/89 at 1403 hours, Technical Specification Action Statement 3.0.5 was entered. No. 11 Containment Fan Coil Unit (CFCU) was inoperable (cleared and tagged) due to required maintenance when 1C Diesel Generator (D/G) {EK} was inadvertently tripped. The Technical Specification 3.6.2.3 Action Statements do not apply when two groups of CFCUs and one Containment Spray Header are inoperable. However, Technical Specification Action Statement 3.0.5 applies since one of the groups of CFCUs and the Containment Spray Header were declared inoperable solely due to inoperability of their emergency power supply. The root cause of this event has been attributed to human factors design concerns. 1C D/G was tripped when its emergency trip push button was inadvertently pushed. A worker had gone between erected scaffolding and the D/G control panel and in so doing brushed up against the push button, actuating the D/G trip. The D/G emergency push button extends approximately 3 inches out from the control panel. Subsequent review of this event has identified that better human factors design considerations could have prevented this event. A fifteen (15) minute operability run was successfully completed for 1C D/G. Subsequently, on 10/11/89 at 1423 hours, Technical Specification Action Statement 3.0.5 was exited. The worker involved in this event was counseled on the need to exercise caution when working near plant equipment. Due to the recurring nature of this event, engineering will review possible equipment modifications to prevent inadvertent actuation of the D/G emergency trip push button.

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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 entry due to human factors design concerns

Event Date: 10/11/89

Report Date: 11/01/89

This report was initiated by Incident Report No. 89-620.

CONDITIONS PRIOR TO OCCURRENCE:

Mode 1 Reactor Power 100% - Unit Load 1145 MWe

DESCRIPTION OF OCCURRENCE:

On October 11, 1989 at 1403 hours, Technical Specification Action Statement 3.0.5 was entered. No. 11 Residual Heat Removal (RHR) {BP} Pump and No. 11 Containment Fan Coil Unit (CFCU) {BK} were inoperable (cleared and tagged) due to required maintenance when 1C Diesel Generator (D/G) {EK} was inadvertently tripped. A worker (contractor) had inadvertently brushed up against the emergency trip push button for 1C D/G in the D/G area.

The Technical Specification 3.6.2.3 Action Statements do not apply when two groups of CFCUs and one Containment Spray Header are inoperable. However, Technical Specification Action Statement 3.0.5 applies since one of the groups of CFCUs and the Containment Spray Header were declared inoperable solely due to inoperability of their emergency power supply.

Technical Specification 3.6.2.3 states:

"Three independent groups of containment cooling fans shall be OPERABLE with two fan systems to each of two groups and one fan system to the third group."

Technical Specification 3.6.2.3 Action b states:

"With two groups of the above required containment cooling fans inoperable, and both containment spray systems OPERABLE, restore at least one group of cooling fans 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. Restore both above required groups of cooling fans to OPERABLE status within 7 days of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours."

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DESCRIPTION OF OCCURRENCE: (cont'd)

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."

APPARENT CAUSE OF OCCURRENCE:

The root cause of this event has been attributed to human factors design concerns.

As stated in the Description of Occurrence section, 1C D/G was tripped when its emergency trip push button was inadvertently pushed. Scaffolding had been erected in the D/G Control Room area in support of penetration seal work. The worker had gone past this scaffolding on the D/G control panel side and in so doing brushed up against the push button, actuating the D/G trip. The D/G emergency push button extends approximately 3 inches out from the control panel. Subsequent review of this event has identified that better human factors design considerations could have prevented the inadvertent actuation of the D/G emergency trip.

Inadvertent actuation of the emergency trip button has occurred in the past. In the past, the inadvertent actuation was attributed to personnel error. Scaffolding and other physical work/path restrictions were not always involved.

ANALYSIS OF OCCURRENCE:

The CFCUs and the Containment Spray System either independently or combinations thereof are designed to ensure that containment depressurization and cooling are available in the event of a LOCA. Acceptable combinations include 100% availability of either system or three (3) CFCUs and one (1) Containment Spray Header.

When 1C D/G was made inoperable, due to it being inadvertently tripped, Technical Specification Action Statement 3.0.5 was entered since the requirements of Technical Specification 3.6.2.3 Action b

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ANALYSIS OF OCCURRENCE: (cont'd)

could not be met. Only two (2) CFCUs and one (1) Containment Spray Header would have been operable in the event of a Mode 4 accident condition (i.e., Loss of Coolant Accident in conjunction with a station Blackout).

As identified in the Description of Occurrence section, when 1C D/G was tripped, No. 11 RHR pump was cleared and tagged for maintenance. The other RHR pump remained fully operable during this event. Its emergency power supply is 1B D/G. Either RHR pump is capable of providing 100% of design low head safety injection flow in support of a design base accident.

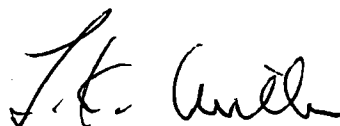
This event did not affect the health or safety of the public; however, due to the required entry into Technical Specification Action Statement 3.0.5, this event is reportable in accordance with Code of Federal Regulations 10CFR 50.73(a)(2)(i)(B).

CORRECTIVE ACTION:

A fifteen (15) minute operability run was successfully completed for 1C D/G. Subsequently, on October 11, 1989 at 1423 hours, twenty (20) minutes after entering Technical Specification Action Statement 3.0.5, the Action Statement was exited.

The worker involved in this event was counseled on the need to exercise caution when working near plant equipment.

Due to the recurring nature of this event, engineering will review possible equipment modifications to prevent inadvertent actuation of the D/G emergency trip push button. In the interim, as part of the scram reduction project initiated in September 1989, warning against inadvertent actuation of the emergency pushbutton will be posted and/or a temporary barrier preventing inadvertent access to the pushbutton will be erected. The interim measures will be in place by December 8, 1989.



General Manager -  
Salem Operations

MJP:pc

SORC Mtg. 89-106