

CONTROL BLOCK: 

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1

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

CON'T

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0	8	
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09		SYSTEM CODE S F		11	CAUSE CODE B		12	CAUSE SUBCODE A		13	COMPONENT CODE V A L V E X					14	COMP. SUBCODE A		15	VALVE SUBCODE D		16				
7	8	9	10		11		12		13					18		19		20								
17		LER RD REPORT NUMBER		EVENT YEAR 8 1		21	22	SEQUENTIAL REPORT NO. 0 9 7		24	26	OCCURRENCE CODE 0 1		28	29	REPORT TYPE X		30	REVISION NO. 1		32					
ACTION TAKEN F		18	FUTURE ACTION F		19	EFFECT ON PLANT Z		20	SHUTDOWN METHOD Z		21	HOURS 0 0 0 0		22	ATTACHMENT SUBMITTED Y		23	NPRD-4 FORM SUB. Y		24	PRIME COMP. SUPPLIER A		25	COMPONENT MANUFACTURER L 2 0 0		26
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1	4	allow individual leakoff monitoring.
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FACILITY STATUS				% POWER				OTHER STATUS				METHOD OF DISCOVERY				DISCOVERY DESCRIPTION			
1	5	D	28	0	0	0	29	N/A				A	31	Operational Event					

[illegible]

PERSONNEL EXPOSURE NUMBER		TYPE	DESCRIPTION
1	7	000(37)Z(38)	N/A

PERSONNEL INJURIES		DESCRIPTION (41)	
NUMBER			
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2	0	0	0
3	0	0	0
4	0	0	0
5	0	0	0
6	0	0	0
7	0	0	0
8	0	0	0
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93	0	0	0
94	0	0	0
95	0	0	0
96	0	0	0
97	0	0	0
98	0	0	0
99	0	0	0
100	0	0	0

7 8 9 11 12 80

LOSS OF OR DAMAGE TO FACILITY (43)

TYPE DESCRIPTION

8308030380 830629

8308030380 05000272

TE22

7 8 9 10 N/A  
PDR ADDON PDR  
S  
PUBLICITY  
ISSUED DESCRIPTION (45)  
NRC USE ONLY  
80

NRC USE ONLY

ISSUED		DESCRIPTION	
2	0	N	44
7		8	
9		10	
N/A		68	
69		80	

NAME OF PREPARER R. Frahm

PHONE: (609) 339-4309



**PSEG**

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

Salem Generating Station

July 13, 1983

Dr. Thomas E. Murley  
Regional Administrator  
USNRC  
Region 1  
631 Park Avenue  
King of Prussia, Pennsylvania 19406

Dear Dr. Murley:

LICENSE NO. DPR-70  
DOCKET NO. 50-272  
REPORTABLE OCCURRENCE 81-097/01X-1  
SUPPLEMENTAL REPORT

Pursuant to the requirements of Salem Generating Station  
Unit No. 1 Technical Specifications, Section 6.9.1.8e,  
we are submitting supplemental Licensee Event Report for  
Reportable Occurrence 81-097/01X-1.

Sincerely yours,

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

RF:kls

CC: Distribution

Report Number: 81-097/01X-1  
Report Date: 06-29-83  
Occurrence Date: 11-06-81  
Facility: Salem Generating Station Unit 1  
Public Service Electric & Gas Company  
Hancock's Bridge, New Jersey 08038

IDENTIFICATION OF OCCURRENCE:

Emergency Core Cooling Systems - Boron Injection Tank Inlet Valves - Inoperable.

This report was initiated by Incident Report 81-445.

CONDITIONS PRIOR TO OCCURRENCE:

Mode 3 - Rx Power 0 % - Unit Load 0 MWe.

DESCRIPTION OF OCCURRENCE:

On November 6, 1981, during routine Mode 3 operation, an inadvertent safety injection actuation occurred and Boron Injection Tank Inlet Valves 1SJ4 and 1SJ5 failed to open fully. Prompt notification of the NRC Resident Inspector was performed, with written confirmation transmitted within the next 24 hours.

APPARENT CAUSE OF OCCURRENCE:

The valves did not open fully due to increased mechanical drag caused by a buildup of crystallized boron around the valve stem. The valve torque setting in the open direction, recommended by the manufacturer to be set between 2 and 3.5 on the adjustment dial, was set at the low end of the range (dial setting of 2). The increased drag tripped the torque switch.

ANALYSIS OF OCCURRENCE:

The operability of the boron injection system as part of the Emergency Core Cooling System (ECCS) ensures that sufficient negative reactivity is injected into the core to counteract any positive increase in reactivity caused by Reactor Coolant System (RCS) cooldown. RCS cooldown can be caused by inadvertent depressurization, a loss-of-coolant accident, or a steam line rupture.

The occurrence constituted a failure or malfunction of one or more components which prevents or could prevent, by itself, the fulfillment of the functional requirements of system(s) used to cope with accidents analyzed in the FSAR. As such it is reportable in accordance with Technical Specification 6.9.1.8e.

CORRECTIVE ACTION:

The boron buildup was removed, and the torque settings, in open direction, of Valves 1SJ4 and 1SJ5 were increased from 2 to 3. The valves were cycled and surveillance testing was satisfactorily performed. In addition, Valves 1SJ12 and 1SJ13 were inspected for boron buildup and cleaned, and the torque settings were adjusted to a setting of 3. Finally, the corresponding Salem Unit 2 valves were also inspected and torque settings adjusted where deemed necessary.

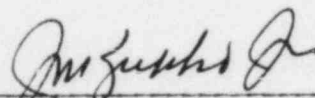
Based on a subsequent engineering evaluation of the problem, Design Change Requests 1EC-1611 and 2EC-1612 were issued to repack the valves with an improved Grafoil-type packing. The change was completed on Unit 2 during the recent unit refueling outages, all valves involved were repacked with the improved packing. Completion of Unit 1 valves is scheduled for the next extended shutdown.

In order to further insure stem leakage does not interfere with valve operation, Design Change Requests 1EC-1649 and 2EC-0752 will be issued to modify the valve leak-off lines to allow individually monitoring leak-off. A procedure for weekly inspection for boron buildup will be implemented; the procedure requires cleaning of the valve stem in the event buildup is discovered.

FAILURE DATA:

Limitorque Corporation  
AC Motor Operator  
1SJ4 and 1SJ5

Prepared By R. Frahm



General Manager -  
Salem Operations

SORC Meeting No. 83-086