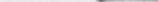


**LICENSEE EVENT REPORT**

CONTROL BLOCK: 

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0	1	N	J	S	G	S	2	2	0	0	-	0	0	0	0	0	-	0	0	3	4	1	1	1	1	4			5							
7	8	9	LICENSEE CODE					14	15	LICENSE NUMBER										25	26	LICENSE TYPE					30	31	32	33	34	35	36	37	38	39

CON'T

0 1  
2 8

REPORT SOURCE L L 6 L 7

60 61

0 0 3 1 1 1 7 0 9 2 9 8 3 8 1 0 2 4 8 3 9

68 69 74 75

BUCKET NUMBER EVENT DATE REPORT DATE

## EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 On September 29, 1983, during routine power operation, the Control Room Operator

0 3 switched control of RCS pressure from Pressurizer Channel III to Channel I. The

0 4 pressure demand signal dropped causing the pressurizer spray valves to open and RCS

0 5 pressure to drop to 2185 PSIA. The operator took manual control of the valves and

0 6 restored pressure to the allowable band. RCS pressure was restored to the normal band

0 7 in less than 2 hours, in compliance with the Technical Specifications. This occurrence

0 8 constituted operation in a degraded mode permitted by a limiting condition for operation

and is reportable in accordance with Technical Specification 6.9.1.9b.

SYSTEM CODE		CAUSE CODE		CAUSE SUBCODE		COMPONENT CODE						COMP. SUBCODE		VALVE SUBCODE			
0	9	C	B	B	A	I	N	S	T	R	U	C	Z				
7	8	9	10	11	12	13	14	15	16	17	18	19	20				
LER RO REPORT NUMBER		EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE		REPORT TYPE		REVISION NO.							
17	8	3	0	5	1	0	3	L	0								
21	22	23	24	25	26	27	28	29	30	31	32						
ACTION TAKEN		FUTURE ACTION		EFFECT ON PLANT		SHUTDOWN METHOD		HOURS		ATTACHMENT SUBMITTED		NPRD-4 FORM SUB.		PRIME COMP. SUPPLIER		COMPONENT MANUFACTURER	
E	A	Z	Z	0	0	0	0	Y	N	A	H	0	1	5			
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47			

## CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 Investigation of the problem revealed that a difference existed between the two channel  
1 1 signal isolator outputs to the pressurizer controller. Although the individual  
1 2 instruments were within allowable limits for calibration, the difference was amplified  
1 3 by the pressure controller, which caused a pressure transient. The isolator outputs  
1 4 were adjusted to eliminate the difference and the pressure controller is scheduled to  
7 8 9 be replaced during the present maintenance shutdown. 80

1 5 E 28 0 9 9 29 NA 30  
 7 8 9 10 11 12 13 44  
 ACTIVITY CONTENT  
 RELEASED OF RELEASE AMOUNT OF ACTIVITY 35  
 1 6 Z 33 Z 34 NA  
 7 8 9 10 11 12 13 44  
 METHOD OF DISCOVERY 31 Operator Observations 32  
 45 46 80  
 LOCATION OF RELEASE 36  
 45 80

PERSONNEL EXPOSURES			
NUMBER	TYPE	DESCRIPTION	
1 7	0 0 0 (37)	2 (38) NA	(39)

PERSONNEL INJURIES		NUMBER		DESCRIPTION	
1	R	0	0	0	NA

8311180271 831024  
05000344

LOSS OF OR DAMAGE TO FACILITY (43)  
TYPE DESCRIPTION  
1 9 2 (42) NA

7 8 9 10 68 69 80

PUBLICITY

ISSUED DESCRIPTION (45)

2 0 N (44) NA

NRC USE ONLY

R. Frahm

NAME OF PREPARER

PHONE: (609) 935-6000 Ext. 4309



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

Salem Generating Station

October 24, 1983

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

Dear Dr. Murley:

LICENSE NO. DPR-75  
DOCKET NO. 50-311  
REPORTABLE OCCURRENCE 83-051/03L

Pursuant to the requirements of Salem Generating Station Unit No. 2, Technical Specifications, Section 6.9.1.9.b, we are submitting Licensee Event Report for Reportable Occurrence 83-051/03L. This report is required within thirty (30) days of the occurrence.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "J. M. Zupko, Jr.", is written above the typed name.

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

RF:k11 *202*

CC: Distribution

Report Number: 83-051/03L  
Report Date: 10-24-83  
Occurrence Date: 09-29-83  
Facility: Salem Generating Station Unit 2  
Public Service Electric & Gas Company  
Hancock's Bridge, New Jersey 08038

IDENTIFICATION OF OCCURRENCE:

DNB Parameters - Pressurizer Pressure - Out-of-Specification.

This report was initiated by Incident Report 83-179

CONDITIONS PRIOR TO OCCURRENCE:

Mode 1 - Rx Power 99 % - Unit Load 1150 MWe.

DESCRIPTION OF OCCURRENCE:

At approximately 0002 hours, September 29, 1983, during routine power operation, the Control Room Operator switched the control of Reactor Coolant System (RCS) pressure from Pressurizer Pressure Channel III to Channel I. The pressure demand signal dropped and the Pzr Htr On Press Lo overhead annunciator and RC Pressure High Deviation console alarm were observed. Pressurizer spray valves opened fully causing RCS pressure to drop rapidly. The operator immediately took manual control of the valves and commenced to restore pressure to within the normal control band. Since pressurizer pressure decreased below the Technical Specification limit of 2220 PSIA, Action Statement 3.2.5 was entered, retroactive to the time of the occurrence. Pressure was increased until 0020 hours, when it returned to within specification. The minimum pressure reached was 2185 PSIA.

APPARENT CAUSE OF OCCURRENCE:

Investigation of the problem revealed that a difference existed between the two channel signal isolator outputs to the pressurizer pressure controller. Although within allowable calibration tolerance for the individual instruments, the difference was amplified by the pressure controller circuitry and caused a pressure transient when control was switched from one channel to the other.

ANALYSIS OF OCCURRENCE:

In accordance with the Technical Specification basis for Limiting Condition for Operation 3.2.5, compliance with the Specification limits assure DNB parameters are within the steady state envelope of operation assumed in the transient and accident analyses of the FSAR. The limits are consistent with the initial FSAR assumptions, and have been analytically demonstrated to maintain a minimum DNBR of 1.30 throughout each analyzed transient. The FSAR does not consider, however, events starting during transients which are already in progress.

ANALYSIS OF OCCURRENCE: (cont'd)

## Action Statement 3.2.5 requires:

With any of the DNB parameters exceeding its limit, restore the parameter to within its limit within 2 hours, or reduce thermal power to less than 5% of rated thermal power within the next 4 hours.

The 2 hour limit contained in the action statement ensures that, following unexpected transients of the type involved in this occurrence, DNB parameters are returned within the envelope assumed in the FSAR. In this instance, pressurizer pressure was within the DNB limit within 2 hours and consequently, no undue risk to the health or safety of the public was involved.

The occurrence constituted operation in a degraded mode permitted by a limiting condition for operation, and was reportable in accordance with Technical Specification 6.9.1.9b. It should also be noted that in the event the operator had failed to notice the decreasing pressure, a Pressurizer Pressure Low trip would have initiated a reactor shutdown at 1880 PSIA, maintaining a minimum DNBR of 1.30 as demonstrated by the FSAR.

CORRECTIVE ACTION:

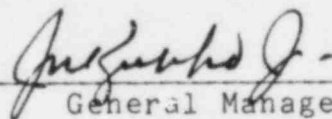
As noted, pressurizer pressure returned to within specification at 0020 hours, September 29, 1983, and Action Statement 3.2.5 was terminated. The signal isolator outputs were adjusted to eliminate the difference and no signal transients were observed upon switching controller inputs. The pressurizer pressure control instrument was satisfactorily tested with no further problems noted. Due to the isolated nature of the problem, no further action was deemed necessary at this time. As the result of a previous, apparently unrelated problem it was decided that the controller would be replaced at the next convenient opportunity; replacement is scheduled for the present maintenance shutdown.

FAILURE DATA:

Hagan Corporation  
Controller Input Module  
Model 124

Prepared By R. Frahm

SORC Meeting No. 83-129



General Manager -  
Salem Operations