NRC FORM 366
(7-77)

LICENSEE EVENT REPORT

CONTROL BLOCK: | | | | | | | (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

Line	Field	Value
01	Licensee Code (2)	N J S G S 2
01	License Number (3)	0 0 - 0 0 0 0 0 - 0 0
01	License Type (4)	4 1 1 1 1
01	CAT (5)	
CON'T 01	Report Source (6)	L
01	Docket Number (7)	0 5 0 0 0 3 1 1
01	Event Date (8)	0 5 1 4 8 3
01	Report Date (9)	0 6 0 8 8 3

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 On two separate occasions, on May 14, and May 15, 1983, a Residual Heat Removal (RHR)
03 System suction valve was observed to have closed, thus eliminating flow in the operating
04 RHR loop. In each instance the operating pump was stopped, and Action Statement 3.4.1.4b
05 was entered. No reduction in Reactor Coolant System boron concentration occurred with
06 an RHR loop out of service. A loop was immediately restored to service. The events
07 constituted operation in a degraded mode in accordance with Technical Specification
08 6.9.1.9b.

Line 09	System Code (11)	Cause Code (12)	Cause Subcode (13)	Component Code (14)	Comp. Subcode (15)	Valve Subcode (16)
09	C F	A	A	I N S T R U	Y	Z

(17) LER/RO Report Number	Event Year		Sequential Report No.		Occurrence Code	Report Type		Revision No.
	8 3	—	0 2 4	/	0 3	L	—	0

Action Taken (18)	Future Action (19)	Effect on Plant (20)	Shutdown Method (21)	Hours (22)	Attachment Submitted (23)	NPRD-4 Form Sub. (24)	Prime Comp. Supplier (25)	Component Manufacturer (26)
H	Z	Z	Z	0 0 0 0	Y	Y	A	H 0 2 1

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 Investigation in the first case revealed that the No. 2B Vital Instrument Bus had been
11 de-energized for maintenance causing the RHR suction valve to close. In the second
12 case Comparator 2PC-405A-B apparently failed, causing the valve to close. Personnel
13 were counseled concerning the first incident and the comparator was replaced.
14

Line 15	Facility Status (28)	% Power (29)	Other Status (30)	Method of Discovery (31)	Discovery Description (32)
15	G	0 0 0	NA	A	Operator Observation

Line 16	Activity Released (33)	Content of Release (34)	Amount of Activity (35)	Location of Release (36)
16	Z	Z	NA	NA

PERSONNEL EXPOSURES

Line 17	Number (37)	Type (38)	Description (39)
17	0 0 0	Z	NA

PERSONNEL INJURIES

Line 18	Number (40)	Description (41)
18	0 0 0	NA

8306170153 830608
PDR ADOCK 05000311
S PDR

LOSS OF OR DAMAGE TO FACILITY (43)

Line 19	Type (42)	Description
19	Z	NA

IE22S 1/1

PUBLICITY

Line 20	Issued (44)	Description (45)	NRC USE ONLY
20	N	NA	

NAME OF PREPARER R. Frahm PHONE: (609) 935-6000 Ext. 4309

PSE&G

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

Salem Generating Station

June 9, 1983

Mr. J. Allan
Acting Regional Administrator
USNRC
Region 1
631 Park Avenue
King of Prussia, Pennsylvania 19406

Dear Mr. Allan:

LICENSE NO. DPR-75
DOCKET NO. 50-311
REPORTABLE OCCURRENCE 83-024/03L

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 83-024/03L. This report is required within thirty (30) days of the occurrence.

Sincerely yours,

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

RF:kls

CC: Distribution

IE22
1/1

Report Number: 83-024/03L

Report Date: 06-08-83

Occurrence Date: 05-14-83

Facility: Salem Generating Station Unit 2
Public Service Electric & Gas Company
Hancock's Bridge, New Jersey 08038

IDENTIFICATION OF OCCURRENCE:

Reactor Coolant System - Residual Heat Removal Loops - Loss of Operating Loop.

This report was initiated by Incident Reports 83-090 and 83-093.

CONDITIONS PRIOR TO OCCURRENCE:

Mode 5 - Rx Power 0 % - Unit Load 0 MWe.

DESCRIPTION OF OCCURRENCE:

On two separate occasions, at 1219 hours. May 14, and 1628 hours. May 15, 1983, a Residual Heat Removal (RHR) System suction valve was observed to have closed, thus eliminating flow in the operating RHR loop. In both cases, the Control Room Operator stopped the operating RHR pump; due to shutdown maintenance, the Auxiliary Alarm System typewriter was inoperable and therefore no RHR suction valve off-normal alarm was received on either occasion.

Due to the loss of RHR loop flow, in each case, Technical Specification Action Statement 3.4.1.4b was entered. In each instance, the valve was re-opened, flow was restored, and the RHR loop was returned to operation. No reduction in Reactor Coolant System (RCS) boron concentration occurred with an RHR loop out of service.

APPARENT CAUSE OF OCCURRENCE:

Investigation revealed that the first incident was due to a valve closure signal originating from de-energization of the RCS Loop Wide Range Pressure instrument. Power to the instrument was lost when No. 2B Vital Instrument Bus was de-energized and tagged out for maintenance; closure of Valve 2RH1 due to loss of the pressure channel was inadvertently overlooked at the time of the tagout.

In the second instance. the respective vital bus was maintained energized, and investigation revealed no bus transients. Comparator 2PC-405A-B in the RCS loop pressure instrument was replaced. and a strip chart recorder was connected to monitor the circuit operation. The recorder revealed no abnormalities; no other problems were observed after replacement of the comparator.

ANALYSIS OF OCCURRENCE:

Operability of the RHR loops is required to provide heat removal capability for removing decay heat. A single loop provides sufficient capability; single failure considerations require that two loops be operable. A single RHR pump also provides adequate flow to ensure mixing, prevent stratification and produce gradual reactivity changes during RCS boron concentration reductions.

As noted, in both instances, RHR flow was immediately restored, and no reduction in boron concentration occurred. The events therefore involved no risk to the health or safety of the public. The occurrences constituted operation in a degraded mode permitted by a limiting condition for operation and are reportable in accordance with Technical Specification 6.9.1.9b.

Action Statement 3.4.1.4b requires:

> With no RHR loop in operation, suspend all operations involving a reduction in boron concentration of the RCS and immediately initiate corrective action to return the required RHR loop to operation.

CORRECTIVE ACTION:

As noted, in both cases, no operations resulting in a reduction in boron concentration were performed. The Control Room Operator reopened the suction valve and restarted a pump to restore an RHR loop to operation. Action Statement 3.4.1.4b was terminated at 1250 hours, May 14, and at 1634 hours, May 15, 1983, respectively.

In the first instance, personnel involved in the tagout were counseled concerning the need to thoroughly determine the impact of a tagging operation on the plant status. The incident will also be addressed in a weekly operations directive. In the second case, as noted, no problems were observed following replacement of the comparator. No other action was deemed necessary in view of the apparently isolated nature of the problem.

FAILURE DATA:

Hagan Corporation
Signal Comparator Module
Model 118

Prepared By R. Frahm

J. M. Zupko

General Manager -
Salem Operations

SORC Meeting No. 83-077