NRC FORM 366
(7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

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

0 1	N J S G S 1 (2) LICENSEE CODE	0 0 - 0 0 0 0 0 - 0 0 (3) LICENSE NUMBER	4 1 1 1 1 (4) LICENSE TYPE	CAT (5)

CON'T

0 1	REPORT SOURCE L (6)	DOCKET NUMBER 0 5 0 0 0 2 7 2 (7)	EVENT DATE 1 1 2 8 8 3 (8)	REPORT DATE 1 2 1 3 8 3 (9)

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 At 0400 hours, November 28, 1983, 130' El. Air Lock interior door exhibited a leakage
0 3 rate greater than allowed by the technical specifications. The air lock was declared
0 4 inoperable and Technical Specification Action Statement 3.6.1.3 was entered. The
0 5 exterior door remained operable throughout the occurrence, and no undue risk to the
0 6 health or safety of the public was involved. Since the event constituted operation in
0 7 a degraded mode permitted by a limiting condition for operation, it is reportable in
0 8 accordance with Technical Specification 6.9.1.9b.

0 9	SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
	S A (11)	A (12)	B (13)	P E N E T R (14)	A (15)	Z (16)

(17) LER RO REPORT NUMBER

EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
8 3	—	0 5 9	/	0 3	L	—	0

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
E (18)	H (19)	Z (20)	Z (21)	0 0 0 0	Y (23)	Y (24)	A (25)	C 3 1 0 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 The outer seal of the interior door was not seated properly in its groove. It was
1 1 aligned and the air lock was retested with satisfactory results. Training will be
1 2 conducted for personnel in the proper use and operation of the air locks, and in the
1 3 area of air lock testing surveillance.
1 4

1 5	FACILITY STATUS	% POWER	OTHER STATUS (30)	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION (32)
	E (28)	1 0 0 (29)	N/A	B (31)	Routine Surveillance Testing

1 6	ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY (35)	LOCATION OF RELEASE (36)
	Z (33)	Z (34)	N/A	N/A

PERSONNEL EXPOSURES

1 7	NUMBER	TYPE	DESCRIPTION (39)
	0 0 0 (37)	Z (38)	N/A

PERSONNEL INJURIES

1 8	NUMBER	DESCRIPTION (41)
	0 0 0 (40)	N/A

8312300148 831213
PDR ADOCK 05000272
S PDR

LOSS OF OR DAMAGE TO FACILITY (43)

1 9	TYPE	DESCRIPTION
	Z (42)	N/A

PUBLICITY

2 0	ISSUED	DESCRIPTION (45)	NRC USE ONLY
	N (44)	N/A	

NAME OF PREPARER J. L. Rupp PHONE: (609) 339-4309

GPO 917-926

PSEG

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

Salem Generating Station

December 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 83-059/03L

Pursuant to the requirements of Salem Generating Station Unit No. 1, Technical Specifications, Section 6.9.1.9.b, we are submitting Licensee Event Report for Reportable Occurrence 83-059/03L. This report is required within thirty (30) days of the occurrence.

Sincerely yours,

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

JR:kll

CC: Distribution

1/1

IE22

Report Number: 83-059/03L

Report Date: 12-13-83

Occurrence Date: 11-28-83

Facility: Salem Generating Station Unit 1
Public Service Electric & Gas Company
Hancock's Bridge, New Jersey 08038

IDENTIFICATION OF OCCURRENCE:

Containment Systems - 130' El. Containment Air Lock - Inoperable.

This report was initiated by Incident Report 83-212

CONDITIONS PRIOR TO OCCURRENCE:

Mode 1 - Rx Power 100 % - Unit Load 1140 MWe.

DESCRIPTION OF OCCURRENCE:

At 0400 hours, November 28, 1983, during normal power operation, while performing routine air lock testing surveillance, the 130' Elevation Air Lock interior door exhibited a leakage rate greater than the maximum allowed by SP(O)4.6.1.3.a. The air lock was declared inoperable and Technical Specification Action Statement 3.6.1.3 was entered. The exterior door remained operable throughout the occurrence.

APPARENT CAUSE OF OCCURRENCE:

Investigation revealed that the outer seal on the interior door was not seated properly in the groove. Problems with seal leakage have been previously documented, and can in most instances be attributed to one of the following:

a. Improper operation of the air lock during normal use,
b. Improper operation of the air lock during routine testing, and
c. Performance of air lock testing with 47 psig test pressure.

Explanation: a. Swinging the door too rapidly results in the knife edges striking the seals, moving them out of proper position.

b. Pressurizing or bleeding off the test pressure too rapidly can cause the seals to move out of their proper position.

c. Testing with 47 psig (as presently required) is an excessive test pressure which aggravates the problem of unseating the seals during the testing process.

In all cases, the result is uneven seating of the knife edges, causing the seals to exhibit excessive leakage during subsequent testing.

ANALYSIS OF OCCURRENCE:

The limitations on closure and leak rate for the containment air locks are required to meet the restrictions on containment integrity and containment leak rate. Surveillance testing of air lock seals provide assurance that the overall air lock leakage will not become excessive due to seal damage during the intervals between air lock leakage tests.

Action Statement 3.6.1.3 requires:

> With an air lock inoperable, restore the air lock to operable status within 24 hours or be in at least hot standby within the next 6 hours and in cold shutdown within the following 30 hours.

Each door contains two seals. The test pressure is applied between the seals to ensure that there is not excessive leakage due to seal damage. Under actual emergency conditions with a pressure inside of the containment, the pressure against the door tends to seat the knife edges into the seals. Although the air lock door failed to meet the existing testing requirements, the seal was not damaged and the door would likely have provided a barrier during accident conditions. One door was maintained in an operable status throughout the occurrence, and the inoperable air lock was returned to an operable status within the time specified by the action requirement. No undue risk to the health or safety of the public was therefore involved in this occurrence. This event constituted operation in a degraded mode permitted by a limiting condition for operation and is therefore reportable in accordance with Technical Specification 6.9.1.9b.

CORRECTIVE ACTION:

The outer seal on the interior door was properly aligned in its groove; the air lock was retested with both doors exhibiting satisfactory leakage rates. The air lock was declared operable and Action Statement 3.6.1.3 was terminated at 0610 hours, November 28, 1983.

As previously documented in LER 83-050/03L, corrective actions are being addressed in the areas of proper air lock operation during normal use and performance of the routine air lock surveillance. Progress in these areas is being tracked in the Station Response Tracking System.

FAILURE DATA:

Chicago Bridge and Iron Co.
Personnel Air Lock
Door Seal

Prepared By J. Rupp

General Manager -
Salem Operations

SORC Meeting No. 83-148