

# LICENSEE EVENT REPORT

CONTROL BLOCK: 1

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

01 N 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 37 CAT 56

CON'T

01 REPORT SOURCE 1 6 0 5 0 0 0 3 1 1 7 0 8 1 4 8 3 8 0 9 0 9 8 3 9  
7 8 DOCKET NUMBER 66 69 EVENT DATE 74 75 REPORT DATE 80

## EVENT DESCRIPTION AND PROBABLE CONSEQUENCES 10

02 On two separate occasions, August 14 and 15, 1983, surveillance testing of the 100 El.  
03 Containment Air Lock was unsatisfactory. In each case the air lock was declared in-  
04 operable and Action Statement 3.6.1.3 was entered. On the first occasion, investigation  
05 revealed that only the air flow test gauge cover had broken; the cover was replaced and  
06 the air lock was satisfactorily tested. In the second instance, the outer door seals  
07 were observed to leak excessively. In each case, one operable door was maintained  
08 closed to provide containment integrity. The events constituted operation in a degraded  
7 8 9 mode per Technical Specification 6.9.1.9b. 80

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

## CAUSE DESCRIPTION AND CORRECTIVE ACTIONS 27

10 The problem with the gauge cover was apparently isolated in nature and did not render  
11 the air lock inoperable. In the second instance the outer door outer seal was  
12 replaced; the seal was apparently damaged due to improper operation of the door. In  
13 each case the air lock tested satisfactorily and the action statement was terminated.  
14 Administrative steps to improve air lock operation are underway.  
7 8 9 80

15 C 28 0 0 0 29 NA 30 METHOD OF DISCOVERY 31 B 31 Surveillance Testing 32  
7 8 9 FACILITY STATUS 10 11 % POWER 12 13 OTHER STATUS 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

16 Z 33 Z 34 NA 35 AMOUNT OF ACTIVITY 36 LOCATION OF RELEASE 37  
7 8 9 ACTIVITY CONTENT RELEASED OF RELEASE 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

17 0 0 0 37 Z 38 NA 39  
7 8 9 PERSONNEL EXPOSURES NUMBER 10 11 TYPE 12 13 DESCRIPTION 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

18 0 0 0 40 NA 41  
7 8 9 PERSONNEL INJURIES NUMBER 10 11 DESCRIPTION 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

19 Z 42 NA 43  
7 8 9 LOSS OF OR DAMAGE TO FACILITY TYPE 10 11 DESCRIPTION 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

20 N 44 NA 45  
7 8 9 PUBLICITY ISSUED DESCRIPTION 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

NAME OF PREPARER R. Frahm

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PDR ADOCK 05000311  
S PDR

NRC USE ONLY



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

Salem Generating Station

September 9, 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 83-045/03L

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 83-045/03L. This report is required within  
thirty (30) days of the occurrence.

Sincerely yours,

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

RF:k11 *932*

CC: Distribution

Report Number: 83-045/03L

Report Date: 09-09-83

Occurrence Dates: 08-14-83  
08-15-83

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

#### IDENTIFICATION OF OCCURRENCE:

Containment Systems - 100 ft. El. Containment Air Lock - Inoperable.

This report was initiated by Incident Reports 83-149 and 83-150.

#### CONDITIONS PRIOR TO OCCURRENCE:

08-14-83 - Mode 3 - Rx Power 0 % - Unit Load 0 MWe.

08-15-83 - Mode 3 - Rx Power 0 % - Unit Load 0 MWe.

#### DESCRIPTION OF OCCURRENCE:

At 0620 hours, August 14, 1983, during routine startup operation, an operator heard a cracking noise while shutting the outer door of the 100 ft. El. Containment Air Lock. Upon searching for the source of the noise, the operator discovered that the inner door airflow gauge was broken. The associated air lock was declared inoperable and Technical Specification Action Statement 3.6.1.3a was entered. Investigation of the problem revealed only the gauge cover had broken. The cover was replaced, and the airlock was satisfactorily tested.

The next day, at 0405 hours, August 15, 1983, during routine surveillance testing of the airlock, the outer door seals were found to leak excessively. The air lock was declared inoperable and Technical Specification Action Statement 3.6.1.3a was entered a second time. In all cases, the airlock doors were closed and tagged as appropriate, and one operable door was maintained closed at all times to provide containment integrity. Repairs were completed and the airlock was restored to an operable status within the time interval specified by the action requirements.

#### APPARENT CAUSE OF OCCURRENCE:

Breakage of the seal test airflow devices preventing air lock testing has not been a problem in the past, and the first case was assumed to be a relatively isolated problem. It should be noted that the problem with the gauge did not affect the operability of the door itself but only prevented performance of the seal leakage surveillance.

Problems with seal leakage have been previously noted and are apparently due to improper operation of the air lock. Swinging the door too rapidly results in the knife edges striking the seals, moving them out of proper position. The resulting uneven seating of the knife edges causes the seals to exhibit excessive leakage during subsequent testing. Operating the door latch mechanism too rapidly or

APPARENT CAUSE OF OCCURRENCE: (cont'd)

leaving the test air aligned to the seal may result in a differential pressure across the seals which can push a seal out of its seating groove. Subsequent closing of the door may result in damage to the seal. Finally, testing with 47 psig (as presently performed) does not closely simulate actual seal performance; a License Change Request has been submitted to lower the pressure to a more reasonable value.

ANALYSIS OF OCCURRENCE:

The limitations on closure 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 3.6.1.3a requires:

With one containment air lock door inoperable, maintain at least the operable air lock door closed and either restore the inoperable air lock door to operable status within 24 hours or lock the operable door closed. Operation may then continue until performance of the next required overall air lock leakage test provided that the operable air lock door is verified to be locked closed at least once per 31 days. Otherwise, be in at least hot standby within the next 6 hours and in cold shutdown within the following 30 hours.

As noted, in each case, the air lock was returned to an operable status in a timely fashion, and one door was maintained operable at all times. No undue risk to the health or safety of the public was therefore involved in the occurrence. The event 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.

CORRECTIVE ACTION:

In the first instance, as noted, the gauge was repaired and the 100 ft. El. Air Lock was satisfactorily tested. The air lock was declared operable at 1120 hours, August 14, 1983 and Action Statement 3.6.1.3a was terminated.

In the second case, the outer seal on the 100 ft. El. Air Lock outer door was replaced, and the air lock was satisfactorily tested. At 1000 hours, August 15, 1983, the air lock was declared operable and Action Statement 3.6.1.3a was terminated for the second time.

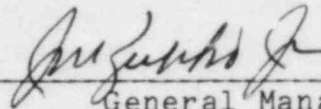
To improve operation of the air lock doors, existing air lock training of personnel will be reinforced. A review will be conducted to more clearly identify department responsibilities for operation and testing of the air locks, and appropriate changes will be made to administrative and procedural controls (see LER 83-034/03L).

FAILURE DATA:

Chicago Bridge and Iron Co.  
Personnel Air Lock  
Air Flow Indicator  
Door Seal

Prepared By R. Frahm

SORC Meeting No. 83-116



General Manager -  
Salem Operations