

**LICENSEE EVENT REPORT**

CONTROL BLOCK: 

|  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|
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|--|--|--|--|--|--|--|

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(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              |   |   |   |   | 14 | 15 |   |   |   |              |   |   |   |   |   |   | 25 | 26 |   |   |   |   |   | 30 |  | 57 | CAT | 58 |
| LICENSEE CODE |   | LICENSE NUMBER |   |   |   |   |    |    |   |   |   | LICENSE TYPE |   |   |   |   |   |   |    |    |   |   |   |   |   |    |  |    |     |    |

CON'T

0 1 7 8 REPORT SOURCE 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

1 6 0 5 0 0 0 3 1 1 7 1 2 0 2 8 3 8 1 2 3 0 8 3 9

DOCKET NUMBER EVENT DATE REPORT DATE

## EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 | On December 2, 1983, while performing surveillance testing on the Low Pressure CO2

0 3 | Fire Suppression System, the pilot valve for 2FP377 did not completely seat following

0 4 | a satisfactory "Puff-Test" of the Vital Switchgear Rooms. The area was retested, and

0 5 | the pilot valve seated properly following the test. Failure of the pilot valve to

0 6 | reseal following system operation did not render the system inoperable, and therefore

0 7 | involved no undue risk to the health or safety of the public.

08 | \_\_\_\_\_ 7 8 9

7 8 9 10 11 12 13 14 15 16

(17) LER RO REPORT NUMBER  
 EVENT YEAR  
 8 3  
 21 22  
 23  
 SEQUENTIAL REPORT NO.  
 0 6 4  
 24 25 26  
 27  
 OCCURRENCE CODE  
 0 3  
 28 29  
 REPORT TYPE  
 L  
 30  
 31  
 REVISION NO.  
 0  
 32

|              |    |               |    |                 |    |                 |    |       |   |   |   |                      |    |                  |    |                      |    |                        |    |   |   |   |
|--------------|----|---------------|----|-----------------|----|-----------------|----|-------|---|---|---|----------------------|----|------------------|----|----------------------|----|------------------------|----|---|---|---|
| ACTION TAKEN |    | FUTURE ACTION |    | EFFECT ON PLANT |    | SHUTDOWN METHOD |    | HOURS |   |   |   | ATTACHMENT SUBMITTED |    | NPRD-4 FORM SUB. |    | PRIME COMP. SUPPLIER |    | COMPONENT MANUFACTURER |    |   |   |   |
| X            | 18 | Z             | 19 | Z               | 20 | Z               | 21 | G     | 0 | 0 | 0 | 22                   | Y  | 23               | N  | 24                   | A  | 25                     | X  | 9 | 9 | 9 |
| 33           |    | 34            |    | 35              |    | 36              |    | 37    |   |   |   | 40                   | 41 |                  | 42 |                      | 43 |                        | 44 |   |   |   |

## CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 | Improper seating was apparently due to frost on the pilot valve seat due to the

1 1 | rapidly expanding CO2. Following a system retest, the valve seated properly.

1 2 | Satisfactory operation of the system was unaffected by the occurrence.

1 3 |

1 4 |

| FACILITY STATUS |   |        | % POWER |    |        | OTHER STATUS (30) |    |    | METHOD OF DISCOVERY |                      |    | DISCOVERY DESCRIPTION (32) |    |  |
|-----------------|---|--------|---------|----|--------|-------------------|----|----|---------------------|----------------------|----|----------------------------|----|--|
| 1               | 5 | G (28) | 0       | 0  | 0 (29) | NA                |    |    | B (31)              | Surveillance Testing |    |                            |    |  |
| 2               | 8 | 9      | 10      | 11 | 12     | 13                | 14 | 15 | 16                  | 17                   | 18 | 19                         | 20 |  |

ACTIVITY CONTENT  
RELEASED OF RELEASE AMOUNT OF ACTIVITY (35)

1 6 2 33 2 34 NA

7 8 9 10 11 44

LOCATION OF RELEASE (36)

NA 45 80

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

| PERSONNEL INJURIES |   | NUMBER |   | DESCRIPTION |    |
|--------------------|---|--------|---|-------------|----|
| 1                  | 8 | 4      | 0 | 40          | NA |

| LOSS OF OR DAMAGE TO FACILITY |   |             |      |    |  |
|-------------------------------|---|-------------|------|----|--|
| TYPE                          |   | DESCRIPTION |      |    |  |
| 1                             | 9 | Z           | (42) | NA |  |

PUBLICITY  
ISSUED DESCRIPTION (45)  
2 0 N (44) NA  
7 8 9 10  
S PDR  
8401130333 831230  
PDR AD0CK 05000311  
S PDR  
NRC USE ONLY  
68 69 80

NAME OF PREPARER J. L. Rupp

PHONE: (609) 339-4309



**PSEG**

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

Salem Generating Station

December 30, 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 83-064/03L

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 83-064/03L. This report is required within thirty (30) days of the occurrence.

Sincerely yours,

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

JR:k11

CC: Distribution

Report Number: 83-064/03L  
Report Date: 12-30-83  
Occurrence Date: 12-02-83  
Facility: Salem Generating Station Unit 2  
Public Service Electric & Gas Company  
Hancock's Bridge, New Jersey 08038

IDENTIFICATION OF OCCURRENCE:

Low Pressure CO<sub>2</sub> Fire Suppression Systems - Inoperable

This report was initiated by Incident Report 83-220

CONDITIONS PRIOR TO OCCURRENCE:

Mode 5 - Rx Power 000 % - Unit Load 0000 MWe

DESCRIPTION OF OCCURRENCE:

On December 2, 1983, during a maintenance shutdown, 18-month surveillance testing was being performed on the Low Pressure CO<sub>2</sub> Fire Suppression Systems. After completing a satisfactory "Puff Test" on the 64' Elevation Vital Switchgear Room, the pilot valve for 2FP377 did not completely seat. This resulted in a small amount of gas leaking from the pilot valve. 2FP377 is the master control valve which supplies CO<sub>2</sub> to the 64' and 84' Elevation Vital Switchgear Rooms and to the 78' Elevation Electrical Penetration Area via the area selector valves. Not immediately knowing if the leaking pilot valve would prevent 2FP377 from functioning properly, the system was declared inoperable and Technical Specification Action Statement 3.7.10.3.a. was entered at 1915 hours, December 2, 1983. Fire watches were stationed in accordance with the action requirements.

APPARENT CAUSE OF OCCURRENCE:

2FP377 pilot valve is solenoid operated. When the solenoid de-energizes, the pilot valve opens directing CO<sub>2</sub> pilot gas to 2FP377. This pilot gas overcomes spring pressure to open 2FP377 and supply CO<sub>2</sub> suppression gas to the switchgear rooms and the electrical penetration area. After system operation, the pilot valve shuts and ports within the valve are lined up to bleed the pilot gas from 2FP377.

The pilot valve did not completely seat following system operation, causing a small amount of pilot gas to continually bleed from the valve. A "Puff Test" of the 64' Elevation Vital Switchgear Room was again performed. Following this test, the pilot valve fully seated. Apparently, frost on the seat caused by the expanding CO<sub>2</sub> prevented the pilot valve from fully seating.

ANALYSIS OF OCCURRENCE:

The operability of the fire suppression systems ensures that adequate fire suppression capability is available to confine and extinguish fires occurring in any portion of the facility where safety-related equipment is located. The fire suppression system consists of the water system, spray, and/or sprinklers, CO<sub>2</sub>, and fire hose stations. The collective capability of the fire suppression systems is adequate to minimize potential damage to safety-related equipment and is a major element in the facility fire protection program.

Technical Specification Action Statement 3.7.10.3.a. states:

With one or more of the required CO<sub>2</sub> systems inoperable, within one (1) hour establish a continuous fire watch with backup fire suppression equipment for those areas in which redundant systems or components could be damaged; for other areas, establish an hourly fire watch patrol. Restore the system to operable status within 14 days or, in lieu of any other report required by Specification 6.9.1, prepare and submit a special report to the Commission pursuant to Specification 6.9.2 within the next 30 days outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to operable status.

In accordance with the action requirements, fire patrol watches were stationed, and redundant fire systems were operable throughout the occurrence. The failure of 2FP377 pilot valve to fully reseal following the satisfactory test did not prevent its design function, and therefore did not render the CO<sub>2</sub> System inoperable. This was demonstrated by the satisfactory retest. This system is not automatically operated. It is initiated (if required) by either a push-button which de-energizes the pilot valve solenoid, or by manual operation of the pilot valve. This occurrence did not result in undue risk to the health or safety of the public. Because the event constituted operation of the unit in a degraded mode permitted by a limiting condition for operation, the occurrence is reportable in accordance with Technical Specification 6.9.1.9.b.

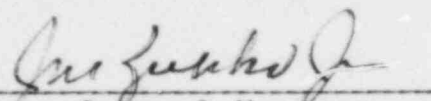
CORRECTIVE ACTION:

As previously stated, a "Puff Test" was performed again on 64' Elevation Vital Switchgear Room. Following the retest, the pilot valve seated properly. The CO<sub>2</sub> Systems were declared operable, and Action Statement 3.7.10.3.a. was terminated at 2205 hours, December 2, 1983. No other action was deemed necessary.

FAILURE DATA:

Not Applicable

Prepared By J. Rupp

  
General Manager -  
Salem Operations

SORC Meeting No. 83-154