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 LICENSEE CODE: NJSGS1 ② LICENSE NUMBER: 00-00000-00 ③ LICENSE TYPE: 41111 ④ CAT: ⑤

CON'T

0 1 REPORT SOURCE: L ⑥ DOCKET NUMBER: 05000272 ⑦ EVENT DATE: 102981 ⑧ REPORT DATE: 013086 ⑨

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES ⑩

0 2 On October 29, 1981, Technical Specification Action Statement 3.7.11.a was entered
0 3 and fourteen fire doors were declared inoperable following a special inspection.
0 4 Design changes were formulated to upgrade the fire doors in both Unit 1 and Unit 2.
0 5 However, various problems with their implementation and inadequate management
0 6 attention to the fire barrier problem allowed the conditions to be left unattended
0 7 for an excessive period of time.
0 8

0 9 SYSTEM CODE: AB ⑪ CAUSE CODE: X ⑫ CAUSE SUBCODE: Z ⑬ COMPONENT CODE: XXXXXX ⑭ COMP. SUBCODE: Z ⑮ VALVE SUBCODE: Z ⑯

⑰ LER/RO REPORT NUMBER: EVENT YEAR: 81 — SEQUENTIAL REPORT NO.: 106 / OCCURRENCE CODE: 03 REPORT TYPE: X — REVISION NO.: 1

ACTION TAKEN: C ⑱ FUTURE ACTION: H ⑲ EFFECT ON PLANT: Z ⑳ SHUTDOWN METHOD: Z ㉑ HOURS ㉒: 0000 ATTACHMENT SUBMITTED: Y ㉓ NPRD-4 FORM SUB.: Y ㉔ PRIME COMP. SUPPLIER: L ㉕ COMPONENT MANUFACTURER: Z999 ㉖

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS ㉗

1 0 At the request of PSE&G, UL performed an on-site inspection. As a result, 79 doors
1 1 were replaced, 125 frames were repaired, 49 frames were replaced and 5 new doors and
1 2 frames were installed to meet Appendix "R" requirements. Action Statement 3.7.11.a
1 3 was terminated on November 27, 1985.
1 4

1 5 FACILITY STATUS: E ㉘ % POWER: 097 ㉙ OTHER STATUS ㉚: N/A METHOD OF DISCOVERY: C ㉛ DISCOVERY DESCRIPTION ㉜: SPECIAL INSPECTION

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

1 7 PERSONNEL EXPOSURES NUMBER: 000 ㊲ TYPE: Z ㊳ DESCRIPTION ㊴: N/A

1 8 PERSONNEL INJURIES NUMBER: 000 ㊵ DESCRIPTION ㊶: N/A

8602100132 860130
PDR ADOCK 05000272
S PDR

1 9 LOSS OF OR DAMAGE TO FACILITY TYPE: Z ㊷ DESCRIPTION ㊸: N/A

2 0 PUBLICITY ISSUED: N ㊹ DESCRIPTION ㊺: N/A NRC USE ONLY

NAME OF PREPARER J. L. Rupp IE22 1/1 PHONE: 609-339-4309

GPO 917-926

PSE&G

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

Salem Generating Station

January 30, 1986

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Dear Sir:

SALEM GENERATING STATION
LICENSE NO. DPR-70
DOCKET NO. 50-272
UNIT NO. 1
LICENSEE EVENT REPORT 81-106/03X-1
SUPPLEMENTAL REPORT

This update report is being submitted pursuant to the requirements of Technical Specification 6.9.1.9.b and 6.9.2.

Sincerely yours,

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

JLR:ama

C Distribution

IE22
1/1

Report Number: 81-106/03X-1

Report Date: 01/30/86

Occurrence Date: 10/29/81

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

IDENTIFICATION OF OCCURRENCE:

Penetration Fire Barriers - Inoperable

This report was initiated by Incident Report 81-431

CONDITIONS PRIOR TO OCCURRENCE:

Mode 1 - Rx Power 097 % - Unit Load 1040 MWe

DESCRIPTION OF OCCURRENCE:

On October 29, 1981, upon completion of a fire door inspection, it was determined that fourteen (14) doors did not meet the acceptance criteria and were in need of repair. At 0001 hours, Technical Specification Action Statement 3.7.11.a was entered and the doors were declared inoperable.

Technical Specification 3.7.11.a requires:

> With one or more of the required Fire Barrier Penetrations inoperable, within one hour either establish a continuous fire watch on at least one side of the affected penetration, or verify the operability of fire detectors on at least one side of the inoperable fire barrier and establish an hourly fire watch patrol. Restore the inoperable Fire Barrier Penetration(s) to operable status within seven (7) 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 thirty (30) days.

In accordance with the action requirements, the applicable fire detectors were verified to be operational and an hourly fire watch patrol was established. Although repairs were effected to the identified doors, three (3) of the doors remained in an inoperable status due to cable runs and ventilation problems which prevented them from closing properly. As a result, the action statement remained in effect, and twenty-four (24) hour fire watches were established while the fire barrier problems were investigated. On November 25, 1981, in accordance with the requirements of Technical Specification 6.9.2, the event was reported to the Commission in LER 81-106/03L.

Design Change Requests (DCR's) 1EC-1333 and 2EC-1519 were subsequently issued to upgrade the fire doors in both Unit 1 and Unit 2. However, problems such as material procurement and constant revisions to add newly identified doors precluded the satisfactory completion of these design changes in a timely fashion.

DESCRIPTION OF OCCURRENCE: (cont'd)

All doors associated with these DCR's were installed and functional in the manual mode of operation by January 31, 1984. However, some of the doors required further design modifications to make them functional in the automatic mode as they were intended. In addition, some of the newly installed doors were subsequently damaged and required further repairs. As a result, the action statements remained in affect, and the twenty-four (24) hour fire watches were maintained.

APPARENT CAUSE OF OCCURRENCE:

Improper operation of the fire doors by some personnel (aggravated by the large number of contractor personnel on-site at that time) increased the amount of maintenance needed to keep the fire doors in an operable condition. This, coupled with operational problems associated with the Auxiliary Building Ventilation System, created pressure differentials which impacted proper fire door operation. Additionally, inadequate management attention to the fire barrier problem allowed the conditions to be left unattended for an excessive period of time.

ANALYSIS OF OCCURRENCE:

This event constituted operation in a degraded mode, permitted by a limiting condition for operation. The action requirements were complied with, and fire watches were maintained on a twenty-four hour basis. This event therefore involved no undue risk to the health or safety of the public. However, it is reportable in accordance with Technical Specification 6.9.1.9.b and 3.7.11.a. This update report is being submitted to document the corrective action taken as a result of this occurrence.

CORRECTIVE ACTION:

At the request of PSE&G, the rating agency (UL) performed an onsite walkdown in August 1984 and documented their findings in report NC75501 84NK20298, dated October 19, 1984. The audit report indicated that every Technical Specification fire door had at least one deficiency. Subsequently, PSE&G established the following comprehensive program to meet all UL fire door and fire door frame requirements:

1. Design Change Requests 1EC-2025, 2EC-2026, 1EC-2027 and 2EC-2028 were implemented with the following results:
   a. 79 doors were replaced
   b. 125 frames were repaired
   c. 49 frames were replaced
   d. 5 new doors and frames were installed to meet Appendix "R" requirements
   e. 1 door and frame which had been installed as a temporary construction access was removed and the fire barrier wall was sealed per NFPA requirements

CORRECTIVE ACTION: (cont'd)

   f. 1 door which had been installed to create a vestibule (and was not located in a fire barrier wall) was removed

2. A fire door hardware spare parts folio has been established.

3. A computer program delineating every fire door number, location, size, label type, hardware items, materials of construction and fire door hardware folio numbers has been established.

4. A standard alpha-numerical identification system has been established per Field Directive No. S-C-M200-MFD-297.

5. UL reviewed and accepted the following Field Directives:

   a. S-C-M200-MFD-298-R0, "UL Approved Non-Metallic Door Signs on All Doors at Salem Generating Station"

   b. S-C-M200-MFD-304-R0, "Use of UL Approved Method of Attaching Conduit Penetration to Fire Door Frames at Salem Generating Station"

   c. S-C-M200-MFD-307-R1, "Inspection of UL Rated Doors, Frames And Hardware at Salem Units 1 and 2"

6. A review of the pressure differential problem was initiated. Certain improper operations of the ventilation systems were identified and corrected, resulting in improvements in the differential pressure problem. In addition, an auxiliary operating procedure (AOP-VENT-1) was developed and implemented. This procedure provides guidance on reducing identified differential pressure problems in the Auxiliary Building. Training was conducted on this procedure in the "Auxiliary Building Vital Ventilation" lesson during Segment 1 of the 1985/86 Licensed Operator Requalification Program.

7. An audiovisual tape has been prepared by PSE&G on the importance of fire doors. The tape has been made a part of the General Employee Indoctrination Program.

This program was successful, and on November 27 and December 2, 1985, Technical Specification Action Statements 3.7.11.a were terminated for Unit 1 and Unit 2, respectively. Increased attention to fire barrier requirements by management, operations and maintenance personnel has resulted in the early identification and correction of subsequent fire barrier problems.

Prepared By J. L. Rupp

General Manager -
Salem Operations

SORC Meeting No. 86-003