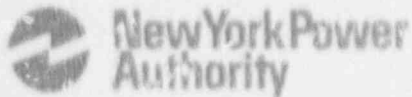


James A. FitzPatrick
Nuclear Power Plant
P.O. Box 41
Lycoming, New York 13093
315 342-3540



Harry P. Salmon, Jr.
Resident Manager

April 20, 1992
JAFF-92-0330

United States Nuclear Regulatory Commission
Document Control Desk
Mail Station P1-137
Washington, D.C. 20555

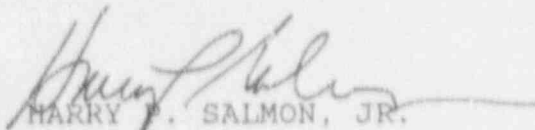
SUBJECT: DOCKET NO. 50-333
LICENSEE EVENT REPORT: 50-017-00 - Fire Damper
Deficiencies

Dear Sir:

This report is submitted in accordance with 10 CFR 50.73(a)(2)(ii) and (v).

Questions concerning this report may be addressed to Mr. W. Verne Childs at (315) 349-6071.

Very truly yours,


HARRY P. SALMON, JR.

HPS:WVC:lar

Enclosure

cc: USNRC, Region I
USNRC Resident Inspector
INPO Records Center

*Cont No
POLA 705470
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LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530) U.S. NUCLEAR REGULATORY COMMISSION WASHINGTON, DC 20545 AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104) OFFICE OF MANAGEMENT AND BUDGET WASHINGTON, DC 20503

FACILITY NAME (1): James A. FitzPatrick Nuclear Power Plant

DOCKET NUMBER (2): 0 5 0 0 0 3 3 3 1 OF 0 4
PAGE (3)

TITLE (4): Ventilation System Fire Dampers Found with Inadequate Thermal Expansion Clearance and No Evidence of Test Laboratory Approval

EVENT DATE (5)			LER NUMBER (6)		R.A.C.T. DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	SEQUENTIAL NUMBER	REGION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
03	20	92	017	000	04	20	92		0 5 0 0 0
									0 5 0 0 0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 50. (Check one or more of the following: (1))

OPERATING MODE (9): N	20.402(b)	20.405(i)	50.73(a)(2)(iv)	73.71(i)
POWER LEVEL (10): 0, 0, 0	20.406(a)(1)(iii)	50.36(i)(1)	X 50.73(a)(2)(ix)	73.71(j)
	20.407(a)(1)(ii)	50.36(i)(2)	50.73(a)(2)(x)	OTHER (Specify in Abstract below and in Text NRC Form 266A)
	20.405(a)(1)(iii)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(A)	
	20.405(a)(1)(ix)	X 50.73(a)(2)(iii)	50.73(a)(2)(viii)(B)	
	20.405(a)(1)(v)	50.73(a)(2)(iv)	50.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12):
NAME: W. Verne Childs, Senior Licensing Engineer
TELEPHONE NUMBER: 3 1 5 3 4 9 1 6 0 7 1
AREA CODE: 3 1 5

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13):

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC

SUPPLEMENTAL REPORT EXPECTED (14):
YES (If yes, complete EXPECTED SUBMISSION DATE): NO: X
EXPECTED SUBMISSION DATE (15):

ABSTRACT (Limit to 1400 words. Use appropriate titles, single space, typewritten text) (16):

EIIS Codes are in []

The plant was shutdown and in the cold condition for maintenance and refuel. On 3/20/92 during NRC Inspection 92-80 an inspector noted deficiencies on two fire dampers. The fire dampers of concern are located in ventilation ducts which penetrate the south wall of both the east and west electric bays. Both dampers were apparently installed during original plant construction without adequate clearance for thermal expansion and do not appear to be devices approved by a testing laboratory. Both deficiencies will be corrected by modifications. LER-91-010 describes similar fire damper deficiencies.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUIRES 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (1-160-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) James A. FitzPatrick Nuclear Power Plant	DECREE NUMBER (2) 0 6 0 0 0 3 3 3 9 2	LER NUMBER (5)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		0 1 7	0 1 0	0 2	OF	0 4

TEXT (if more space is required, use additional NRC Form 365A's) (17)

ELIS Codes are in []

Description

The plant was shutdown and in the cold condition for maintenance and refuel.

On March 20, 1992, as part of NRC Inspection 92-80 an inspector identified deficiencies associated with two dampers installed in the ventilation system for the east and west electric bays.

The west electric bay contains portions of both non-safety related and safety-related Division 1 4160 VAC and 600 VAC [EA, EB, EC, ED] power distribution systems and Reactor Protection System (RPS) [JC] motor-generator Set A [EE]. The east electric bay contains similar Division 2 equipment. The east and west electric bays are separated by a 3-hour rated concrete block fire wall while the floor, ceiling, and the walls to other plant areas are 3-hour rated reinforced concrete structures. Both electric bays are provided with combustion products ionization (smoke) detectors and heat detectors. Automatic carbon dioxide fire protection [KQ] is actuated by the heat detectors. The ventilation system is provided with several dampers which are actuated by the carbon dioxide system to allow the fire protection system to achieve and maintain the carbon dioxide concentration sufficient to extinguish postulated fires.

Dampers 67CD-3 and 67CD-4 are installed in the south wall of the east and west electric bays. Inspection of the dampers revealed the following deficiencies:

1. The damper installation did not provide clearance for expansion of the damper. A clearance of one eighth of an inch per linear foot between the damper and the opening in the wall should have been provided to accommodate thermal expansion to avoid potential binding. The space between the damper and the opening in the concrete wall was grouted during installation.
2. Dampers 67CD-3 and 67CD-4 do not appear to be approved devices. No "labeling" by rating organizations such as Factory Mutual or Underwriter's Laboratory is evident.

Both dampers were administratively declared inoperable. Technical Specification 3.12.F.2 requires an hourly roving patrol fire watch be established within one hour for a non-functional fire barrier penetration. A fire watch had previously been established for other fire damper deficiencies in the same area (see LER-91-010).

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATIONESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS
INFORMATION COLLECTION REQUEST 500 HRS. FORWARD
COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS
AND REPORTS MANAGEMENT BRANCH (P-630) U.S. NUCLEAR
REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO
THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE
OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) James A. FitzPatrick Nuclear Power Plant	DOCKET NUMBER (2) 0 5 0 0 0 3 3 3 9 2	LER NUMBER (6)		PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
			0 1 7	0 0	0 3 OF 0 4

TEXT (if more than one required, use additional NRC Form 306A's) (17)

Cause

The inadequate physical clearance for thermal expansion of the dampers was caused by an error during the original construction of the plant. Either the Architect Engineer failed to include expansion clearance in the design or construction craft personnel were not provided with instructions to maintain an expansion clearance during installation.

The cause of the lack of evidence that the dampers are of an approved design is also believed to be an original construction error.

Analysis

As noted above, the east and west electric bays contain portions of the Safety Division 1 and 2 electrical distribution systems. Failure of the dampers to properly close, or failure of the dampers to provide a 3-hour rated barrier to the spread of postulated fires could result in more damage than is assumed in the analyses for 10 CFR 50, Appendix R, and/or Branch Technical Position (BTP) 9.5-1. As a result, a report is required under 10 CFR 50.73(a)(2)(ii) due to a condition that is outside the design basis as described in the updated Final Safety Analysis Report (FSAR).

The portions of the safety-related power distribution systems contained in the electrical bays provide power to numerous safety-related systems required for safe shutdown, for the removal of residual heat, and for accident mitigation. As a result, the event also requires a report under 10 CFR 50.73(a)(2)(v)(A), (B), and (D).

Review of the event during preparation of the LER revealed that the 4-hour Emergency Notification System (ENS) report had not been made at the time of discovery on March 20, 1992. The NRC was notified via ENS at 1455 hours on April 20, 1992.

Corrective Action

1. No immediate action was required. An hourly roving patrol fire watch of both the east and west electric bays had previously been established as required by Technical Specification 3.12.F.2 for other deficiencies.
2. Fire dampers which have not been inspected to verify adequate expansion clearance and/or proper labeling will be inspected prior to start-up following the 1992 Refuel Outage.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 300 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-830), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20545, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (3)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
James A. FitzPatrick Nuclear Power Plant	0 5 0 0 0 3 3 3	9 2	- 0 1 7	- 0 0	0 4	OF 0 4

TEXT (if more space is required, use additional NRC Form 365A 2/ (17))

- Fire dampers 67CD-3 and -4 will be replaced with approved devices and installed per the manufacturer's recommendations prior to start-up, or justification for the existing condition (including appropriate compensatory action) will be completed prior to start-up.

Additional Information

Failed Components: None

Similar Events: LER-91-010 described a similar fire damper thermal expansion problem.