

James A. FitzPatrick
Nuclear Power Plant
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Harry P. Salmon, Jr.
Resident Manager

April 16, 1993
JAFP-93-0224

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

SUBJECT: DOCKET NO. 50-333
LICENSEE EVENT REPORT: 92-003-01 - MOVs
Administratively Inoperable
Due to Installation of Wrong
Key

Dear Sir:

This updated report is submitted voluntarily. The change in reporting criteria was made after an evaluation was performed by Limitorque.

Questions concerning this report may be addressed to Mr. Paul McGuire at (315) 349-6362.

Very truly yours,

A handwritten signature in cursive script, appearing to read 'Harry P. Salmon, Jr.'.

HARRY P. SALMON, JR.

HPS:WVC:tld
Enclosure

cc: USNRC, Region 1
USNRC Resident Inspector
INPO Records Center

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LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 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 (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				PAGE (3) 1 OF 4									
TITLE (4) MOVs Administratively Inoperable Due to Installation of Wrong Key																							
EVENT DATE (5)			LER NUMBER (6)				REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)													
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES				DOCKET NUMBER(S)										
0	1	0	8	9	2	9	2	0	0	3	0	1	0	4	1	6	9	3	0	5	0	0	0
OPERATING MODE (9) N		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following): (11)																					
POWER LEVEL (10) 0 0 0		20.402(b)				20.405(c)				50.73(a)(2)(iv)				73.71(b)									
		20.405(a)(1)(i)				50.35(c)(1)				50.73(a)(2)(v)				73.71(c)									
		20.405(a)(1)(ii)				50.36(c)(2)				50.73(a)(2)(vi)				<input checked="" type="checkbox"/> OTHER (Specify in Abstract below and in Text, NRC Form 306A)									
		20.405(a)(1)(iii)				50.73(a)(2)(i)				50.73(a)(2)(vii)(A)				Voluntary									
		20.405(a)(1)(iv)				50.73(a)(2)(ii)				50.73(a)(2)(viii)(B)													
		20.405(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(ix)													
LICENSEE CONTACT FOR THIS LER (12)																							
NAME Mr. Paul McGuire, Senior Licensing Engineer										TELEPHONE NUMBER AREA CODE 3 1 5 3 4 9 - 6 3 6 2													
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)										EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR									
YES (If yes, complete EXPECTED SUBMISSION DATE): <input checked="" type="checkbox"/> NO																							

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

EIIIS Codes are in []

The plant was shutdown and in the cold condition for maintenance and refuel. On January 8, 1992, it was thought that an incorrect motor pinion key had been installed in core spray system [BM] injection and primary containment [NH] isolation valves 14MOV-12A&B for a period of 5 to 6 months between July, 1991, and late December, 1991, or early January, 1992. It was thought that the wrong keys were obtained as a result of information provided by the valve operator vendor (Limitorque). The valves functioned normally during monthly testing to meet Technical Specification and Inservice Test Program requirements. This updated report is being submitted after Limitorque performed a root cause analysis of how and why the wrong part number was supplied. The vendor has determined that the keys installed in the core spray system injection and primary containment isolation valves were correct and reflected a "like for like" item. This configuration change was made in January, 1983. This LER is being changed to a voluntary LER.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 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) <table border="1"><thead><tr><th>YEAR</th><th>SEQUENTIAL NUMBER</th><th>REVISION NUMBER</th></tr></thead><tbody><tr><td>9 2</td><td>0 0 3</td><td>0 1</td></tr></tbody></table>	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	9 2	0 0 3	0 1	PAGE (3) 0 2 OF 0 4
YEAR	SEQUENTIAL NUMBER	REVISION NUMBER							
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TEXT (If more space is required, use additional NRC Form 366A's) (17)

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Description

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

On January 8, 1992, it was thought that an incorrect motor pinion gear key had been installed in low pressure core spray system [BM] injection valves 14MOV-12A&B for 5 to 6 months. The in question key was installed in 14MOV-12B on July 6, 1991, and in 14MOV-12A on July 15, 1991.

In 1987, ten (10) motor pinion gear keys for Limitorque SMB-2 valve operators used in both safety-related and non-safety-related applications were purchased using a vendor part number received from the vendor. Plant material control policy intentionally maintains the motor pinion gear key in stock for safety-related applications but allows in either safety-related or non-safety-related applications. This policy reduces the number of stocked items and reduces the probability of a key intended for non-safety-related use being used in a safety-related application because all of the keys in stock are for use in either application.

On December 19, 1991, while preparing to order parts to support valve operator overhauls and testing required by Generic Letter 89-10, Procurement Engineering identified a discrepancy between the part number for the ten (10) keys purchased in 1987 and a "critical components" listing issued by the valve operator vendor on October 9, 1990, and contacted the vendor concerning the discrepancy. The vendor responded on December 20, 1991, and confirmed that the part number shown in the critical components listing was correct.

On December 20, 1991, warehouse issue records and inventory were examined to determine the location of the ten (10) keys. Eight (8) keys were still in stock. Two (2) keys had been issued for core spray valves 14MOV-12A and B.

Core spray system loop A valve 14MOV-12A valve operator was repaired by replacing the motor pinion gear key and was returned to service on December 30, 1991, in the standby mode of operation following post-work testing. Core spray loop B injection valve 14 MOV-12B valve operator was repaired on March 6, 1992.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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

Examination of the plant records revealed that the valve operators for 14MOV-12A&B were both overhauled early in July, 1991, while the plant was shutdown and were returned to service following testing on July 15, and 6, 1991, respectively.

Valves 14MOV-12A&B were tested for operability as required by Technical Specification 4.5.A.1.d prior to start-up in August, 1991, and during routine monthly tests six (6) times. The valves functioned normally each time.

After a thorough investigation of the circumstances surrounding this incident and the configuration of SMB-2 actuator motor pinion group, Limitorque has determined that the key provided to New York Power Authority was indeed correct and reflected an identical replacement or "like for like" item. The configuration change from the JE-1 ½ by 20 square end key to the JG-1 ½ by 22 one end round and one end square key was made in January of 1983. Therefore, both keys qualified and in addition, the original key supplied to New York Power Authority (NYPA) as a part of the actuator shipped in 1971 was indeed a JE-1 ½ by 20 with two square ends.

Limitorque instructions to their personnel, at the time, were to provide an identical item where identical items were available. This was accomplished by reviewing the original order. That information was then forwarded to NYPA for their use in procurement.

It should also be noted that the JG-1 ½ by 22 key is an acceptable and equivalent replacement part. This key is made of the same material. The only distinguishing physical characteristic is that the key is ¼ of an inch longer and has one end rounded, which takes into account the additional key space available in the motor shaft as a result of milling the keyway.

An entry into the Institute for Nuclear Power Operations (INPO) Network system was made to alert others to the potential problem.

Cause

The event was caused by the fact that the Procurement Engineering personnel were not informed of the design change made by Limitorque to the key.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 60.0 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 (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

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DOCKET NUMBER (2)

LER NUMBER (6)

PAGE (3)

James A. FitzPatrick
Nuclear Power Plant

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TEXT (If more space is required, use additional NRC Form 306A's) (17)

Analysis

Valves 14MOV-12A&B open upon receipt of logic signals which indicate a Loss of Coolant Accident (LOCA) has taken place and reactor pressure has decreased to less than 450 psig to mitigate accidents described in the Final Safety Analysis Report (FSAR). In addition, the valves are primary containment isolation vales. The valves were proven to function in surveillance testing. Based on the review performed by Limitorque, the valves were operable, and an LER was not required. This LER is being changed to voluntary based on this submittal.

Corrective Actions

1. The Procurement Engineering Group has updated their records to reflect the design change made by Limitorque.

Additional Information

Failed Components:

None

Previous Similar Events:

No previous events involving the purchase or installation of wrong parts due to the vendor providing the wrong part number have occurred at this facility.

Reason for Update:

- 1) Report the evaluation conducted by Limitorque.
- 2) Change the reporting criteria to voluntary