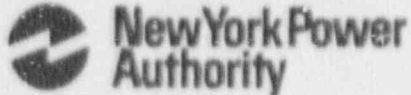


James A. FitzPatrick  
Nuclear Power Plant  
P.O. Box 41  
Lycoming, New York 13093  
315 342-3840



William Fernandez II  
Resident Manager

February 7, 1991  
JAAP-91-0096

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

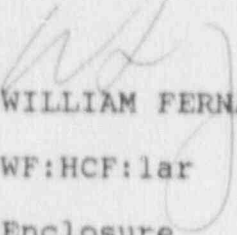
SUBJECT: DOCKET NO. 50-333  
LICENSEE EVENT REPORT: 91-001-00  
Primary Containment Isolation  
System - Spurious Activation

Dear Sir:

This report is submitted in accordance with 10CFR50.73(a)(2)(iv).

Questions concerning this report may be addressed to  
Mr. Hamilton Fish at (315) 349-6013.

Very truly yours,

  
WILLIAM FERNANDEZ

WF:HCF:lar

Enclosure

cc: USNRC, Region I  
USNRC Resident Inspector  
INPO Records Center  
American Nuclear Insurers

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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) **JAMES A. FITZPATRICK NUCLEAR POWER PLANT** DOCKET NUMBER (8) **0 6 0 0 0 3 3 3 3 1** PAGE (9) **1** OF **3**

TITLE (4) **Spurious Partial Activation of Primary Containment Isolation System Due to Electric Noise While Calibrating Adjacent Instrument**

EVENT DATE (6)			LER NUMBER (5)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (9)		
MONTH	DAY	YEAR	YEAR	SUBJECTAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER (8)	
01	09	91	91	001	00	02	07	91		0 6 0 0 0 0 0 0 0 0	

OPERATING MODE (3) **N** THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)

<input type="checkbox"/> 20.400(a)	<input type="checkbox"/> 20.400(a)	<input checked="" type="checkbox"/> 20.79a(2)(iv)	<input type="checkbox"/> 75.71a)
<input type="checkbox"/> 20.400a(1)(b)	<input type="checkbox"/> 20.30(a)(1)	<input type="checkbox"/> 20.79a(2)(v)	<input type="checkbox"/> 75.71b)
<input type="checkbox"/> 20.400a(1)(c)	<input type="checkbox"/> 20.30(a)(2)	<input type="checkbox"/> 20.79a(2)(vi)	<input type="checkbox"/> OTHER (Specify in Abstract below and in Part 3BBA of Form 880A)
<input type="checkbox"/> 20.400a(1)(d)	<input type="checkbox"/> 20.79a(2)(i)	<input type="checkbox"/> 20.79a(2)(vii)(A)	
<input type="checkbox"/> 20.400a(1)(e)	<input type="checkbox"/> 20.79a(2)(ii)	<input type="checkbox"/> 20.79a(2)(vii)(B)	
<input type="checkbox"/> 20.400a(1)(f)	<input type="checkbox"/> 20.79a(2)(iii)	<input type="checkbox"/> 20.79a(2)(viii)	
<input type="checkbox"/> 20.400a(1)(g)	<input type="checkbox"/> 20.79a(2)(iv)	<input type="checkbox"/> 20.79a(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME **Hamilton C. Fish** TELEPHONE NUMBER **3 1 5 3 4 9 - 6 0 1 3**

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)

MONTH	DAY	YEAR

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

EIIS Codes are in [ ]

A false primary containment high radiation isolation [JM] signal occurred at 1105 on 1/9/91 while the plant was operating at full power. The six primary containment isolation valves which are activated by this signal were already in the closed position. The trip was reset at 1109. Redundant instrumentation confirmed that radiation levels were normal. An electrical noise signal was generated when contacting a volt meter probe with the high voltage test connection during a calibration of an unrelated instrument. The unrelated instrument was physically located about one foot above the electronic drawer for the primary containment high radiation monitor which generated the false signal. Calibration procedures for radiation monitoring instruments will be revised to note that the possibility of spurious trip signal being transmitted to adjacent instruments exists. During the 1991 Refueling Outage the panel containing the radiation monitors will be thoroughly inspected and analyzed to determine if improvements in noise suppression are possible.

Related LER: 90-028

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) <b>JAMES A. FITZPATRICK NUCLEAR POWER PLANT</b>	DOCKET NUMBER (2)  0 5 0 0 0 3 3 3	LER NUMBER (5)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		9 1	0 0 1	0 0	0 2	OF 0 3

TEXT (if more space is required, use additional NRC Form 305A's) (17)

EIIIS Codes are in []

Description

The plant was operating at full power on January 9, 1991. Calibration of the service water process radiation monitor [IL] was in progress. The procedure required that a digital volt meter be attached to the high voltage output and common. At 1105 as the technician placed a volt meter probe in contact with the detector high voltage output to measure the voltage, the primary containment high range radiation monitor B [JM] spiked low and high and alarmed for fail, alert, and high high. Primary containment high range radiation monitor A indicated normal radiation levels. The six primary containment isolation valves which receive close signals from the high range radiation monitor were already closed. Therefore, no action occurred beyond the activation of the trip signal. Primary containment high range radiation monitor B was reset at 1109 and provided normal readings.

Cause

The cause of the false high radiation trip on the B monitor is attributed to electrical signal noise from the contact of the volt meter probe with the test connection on the service water process monitor. The electronic instrument drawer for the service water process radiation monitor is located in the same instrument panel and about one foot above the instrument unit for the primary containment high range radiation monitor B. A drawer for an unrelated monitor is located between them. The instrument drawer for primary containment high range radiation monitor A (which did not activate) is located at the same level as (and adjacent to) the drawer for primary containment high range monitor B, but about 2-1/2 feet away from the service water monitor in an adjacent instrument rack. The service water process radiation monitor and the primary containment high range monitor use different and isolated primary power supply sources. The service water radiation monitor uses 24 VDC and the primary containment monitor uses 120 VAC. No relays were operated during the testing of the service water monitor and no arcing was observed during the voltage measurement. After reset of the containment monitor, the step was repeated without activation of the containment monitor. Repeated pushing of the containment monitor reset button did not cause activation thus ruling out a loose connection in that circuit.

Due to the transient nature of spurious false activations, repeating the actions thought to have caused false signals is frequently (as in this case) not successful in reproducing the observed event.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

ACTIVITY NAME (1) <b>JAMES A. FITZPATRICK NUCLEAR POWER PLANT</b>	DOCKET NUMBER (2)  0 5 0 0 0 3 3 3	LER NUMBER (6)			PAGE (3)  9 1 -- 0 0 1 -- 0 0 0 3 OF 0 3
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	

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

Analysis

The activation of a portion of the primary containment isolation system is reportable under the provisions of 10CFR50.73(a)(2)(iv) as an activation of an Engineered Safety Feature [JE]. There were no system or equipment failures. The isolation valves which received the close signal were already in the closed (isolated) position. The signal was a false signal. There was no potential for adverse safety consequences from this event.

Corrective Action

1. Instrument calibration procedures for radiation monitors will be revised to include a note that spurious trip signals may result from instrument drawers immediately adjacent to the drawer in which a calibration is being performed.
2. During the 1991 Refueling Outage the panel containing the radiation monitors will be inspected and analyzed to determine if improvements are possible to enhance noise suppression.

Additional Information

Related LER: 90-028 in which an electrical noise spike resulting from voltage measurement on a radiation monitor resulted in a partial isolation of the reactor building ventilation system.