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JAFP-91-0075

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

SUBJECT: DOCKET NO. 50-333
LICENSEE EVENT REPORT: 90-028-00
Partial Isolation of Reactor
Building Ventilation

Dear Sir:

This Licensee Event Report is submitted in accordance with 10 CFR 50.73(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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NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
JAMES A. FITZPATRICK NUCLEAR POWER PLANT	0 5 0 0 0 3 3 3	1 OF 0 3

TITLE (4) Partial Isolation of Reactor Building Ventilation System Due to Personnel Error Contributed to by Step Location in Procedure

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 NAME	DOCKET NUMBER(S)
1 2	2 7	9 0	9 0	— 0 2 8	— 0 0	0 1	2 8	9 1		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	1 0 0	20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		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)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
Hamilton C. Fish	AREA CODE 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 NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED (14)

		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

EIIS Codes are in []

The plant was operating at full power on December 27, 1990. The reactor building ventilation exhaust radiation monitor [IL] was being removed from service as a prerequisite to preventive maintenance on the monitor sample pump. The technician touched a volt meter probe to the monitor high voltage circuit test connection to determine the voltage in accordance with procedure. The monitor spiked high resulting in isolation of the reactor building ventilation system [VA] and primary containment atmosphere sampling system [BB] and start of the standby gas treatment system [BH] at 0830. The systems were reset at 0835. The radiation monitor and volt meter were checked and determined to be operating properly. Voltage spikes are not an unusual occurrence when maintaining radiation monitor electronics. Corrective action will be to generate a specific procedure for this maintenance evolution. This procedure will describe the potential for spurious isolation as the radiation monitor is removed and returned to service.

EIIS Codes are in []

Description

The plant was operating at full power on December 27, 1990. A work request had been issued for routine preventive maintenance to grease the sample pump 17P-36B motor bearings for the reactor building exhaust ventilation exhaust [VA] radiation monitor B [IL]. Removal of the sample pump from service stops the air flow through the monitor and makes it inoperable. To maintain the isolation logic for the reactor building ventilation system in an operable condition, it is necessary to fail the inoperable monitor downscale.

The Instrument and Control (I&C) Department was requested to turn down then shut off the detector high voltage for the radiation monitor. Using a portion of an instrument surveillance test (ISP-18), "Reactor Building Exhaust Monitor Instrument Calibration", the I&C technician began by measuring and recording as-found detector high voltage. When the I&C technician touched the volt meter probe to the monitor test jack, the monitor readout display spiked high and the reactor building ventilation exhaust system B side isolated at 0830. All equipment functioned in accordance with design. In addition to the isolation of the B side reactor building ventilation system, the B side primary containment atmosphere sampling system [BB] isolated and the B standby gas treatment system [BH] started. The systems were restored to service at 0835.

Cause

The cause of the isolation was a voltage spike in the detector circuit of the radiation monitor. The spike occurred upon contact of the volt meter probe with the high voltage test jack. Radiation monitor circuits are traditionally sensitive to noise spikes during electronic maintenance and monitoring. No problems were found with either the volt meter or the radiation monitor during subsequent checks.

Discussion

During investigation of this ESF actuation, two issues were reviewed in detail:

- The first was the benefit of inhibiting the trip logic prior to removing the detector high voltage. This requires lifting leads due to the absence of installed switches. The plant personnel concluded that the potential for isolation or circuit miswiring during this evolution was on the same order as that of isolation from the detector high voltage reduction evolution. Thus, the current method of removing the radiation monitor from service will be continued.

- The second was the appropriateness of using the calibration procedure, ISP-18, for removing the radiation monitor from service for preventive maintenance of the sample pump. Although the procedure can be referenced and portions of it would provide adequate guidance, it was determined that it was more desirable to have the steps covering radiation monitor removal from service written into the maintenance procedure for sample pump maintenance. This would remove the need to redevelop the procedure each time a PM was performed.

Analysis

Isolation of the reactor building ventilation system by the reactor building exhaust ventilation radiation monitor is reportable under the provisions of 10 CFR 50.73(a)(2)(iv) as an activation of an Engineered Safety Feature [JE]. There were no system or equipment failures. The reactor building ventilation system isolation was performed in accordance with design. The isolation was reset within five minutes. The redundant monitoring system remained operable. There was no potential for adverse safety consequences from this event.

Corrective Action

1. The maintenance procedure for lubrication of sample pumps (MP-101.04) will be revised to include specific steps for removal and return to service of the associated radiation monitors. Included in this revision will be statements warning of the potential for isolations as voltage measurements are being performed.

2. A misplaced step in ISP-18 will be relocated correctly (found during review of incident).