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June 21, 1990  
JAFF-90-0481

United States Nuclear Regulatory Commission  
Document Control Desk  
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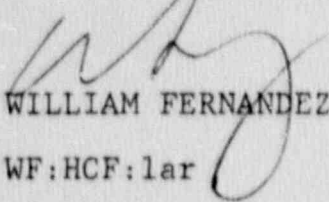
SUBJECT: DOCKET NO. 50-333  
LICENSEE EVENT REPORT: 90-017-00  
Level Instrument Setpoint Drift

Dear Sir:

This Licensee Event Report is submitted in accordance with  
10 CFR 50.73(a)(2)(i).

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 (2) **050003333** PAGE (3) **1 OF 3**

TITLE (4) **Instrument Setpoint Drift Exceeds Technical Specification Limit for High Pressure Coolant Injection Turbine Trip on High Reactor Water Level**

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 (8)
05	26	90	90	017	00	06	21	90			05000
THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)											

OPERATING MODE (9) <b>R</b>	POWER LEVEL (10) <b>0.00</b>	89.400(b) _____ 89.400(b)(1)(H) _____ 89.400(b)(1)(M) _____ 89.400(b)(1)(N) _____ 89.400(b)(1)(O) _____ 89.400(b)(1)(P) _____	89.400(a) _____ 89.501(a)(1) _____ 89.501(a)(2) _____ 89.701(a)(1)(H) _____ 89.701(a)(1)(M) _____ 89.701(a)(1)(N) _____ 89.701(a)(1)(O) _____	89.701(a)(2)(H) _____ 89.701(a)(2)(M) _____ 89.701(a)(2)(N) _____ 89.701(a)(2)(O) _____ 89.701(a)(2)(P) _____ 89.701(a)(2)(Q) _____	72.710(a) _____ 72.710(b) _____ OTHER (Specify in Abstract Area and in Text, NRC Form 200A)
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LICENSEE CONTACT FOR THIS LER (12)  
 NAME: **Hamilton C. Fish** TELEPHONE NUMBER: **315 349-6013**  
 AREA CODE: **315**

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

C-USE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC
X	BJ	LT	R369	Y					

SUPPLEMENTAL REPORT EXPECTED (14)  YES (If yes, complete EXPECTED SUBMISSION DATE)  NO  
 EXPECTED SUBMISSION DATE (16) MONTH: \_\_\_\_\_ DAY: \_\_\_\_\_ YEAR: \_\_\_\_\_

ABSTRACT (Limit to 1,000 words, i.e., approximately fifteen single-spaced typewritten lines) (15)

EIIS Codes are in []

The reactor was shutdown for refueling on 3/31/90. An Instrument Surveillance Procedure, "Reactor Level (ECCS) Transmitter Calibration and Functional Test (ATTS)", was performed on 5/26/90. The test found that the high reactor water level trip point on a transmitter for the High Pressure Coolant Injection (HPCI) [BJ] turbine was 0.2 inches (0.3 percent of range) above the setpoint value required by Technical Specifications. The safety function prevents potential water carryover damage to turbines by shutdown of HPCI to prevent excessively high reactor water level. The transmitter was recalibrated and surveillance was temporarily increased from once per cycle to once every six months until three consecutive as-found readings are within specifications unless a consistent non-conservative trend in the direction of the setpoint drift indicates a need for earlier replacement. The upward setpoint drift of 0.2 inches was not significant to safety since it would not have resulted in a measurable increase in moisture carryover should a high level situation have occurred. More than five feet remained between the trip setpoint and the steam lines.

Related LERs: 85-014, 85-015, and 86-008.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) <b>JAMES A. FITZPATRICK NUCLEAR POWER PLANT</b>	DOCKET NUMBER (2) <b>0 5 0 0 0 3 3 3</b>	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		<b>9 0</b>	<b>- 0 1 7</b>	<b>- 0 0</b>	<b>0 2</b>	<b>OF</b>	<b>0 3</b>

TEXT (if more space is required, use additional NRC Form 288A (1/17))

EIIS Codes are in []

Description

The reactor was shutdown on March 31, 1990 for a refueling outage. Instrument Surveillance Procedure, ISP-276A, "Reactor Level (ECCS) Transmitter Calibration and Functional Test (ATTS)", was performed on May 26, 1990. At 11:00 A.M. during performance of the surveillance test the transmitter for the high reactor water level trip of the High Pressure Coolant Injection (HPCI) [BJ] turbine was found to be out of calibration. The as-found setpoint value could have resulted in an actual water level of 222.7 inches above Top of Active (TAF) at the time of tripping. This is 0.2 inches (0.3 percent of range) above the Technical Specification value of less than or equal to 222.5 inches TAF found in Table 3.2-2, "Instrumentation That Initiates or Controls the Core and Containment Cooling Systems", Item 3. The instrument was recalibrated.

The transmitter was previously calibrated on September 26, 1989 following initial installation as part of the Analog Transmitter Trip System (ATTS) modification.

Cause

This transmitter was manufactured after July 11, 1989 and is therefore considered less likely to experience the loss of fill oil which was characteristic of earlier transmitters from this vendor. No specific cause for this small setpoint drift was established.

Analysis

The as-found trip point of this instrument would have delayed the trip of the HPCI system until reactor water level rose to a value 0.2 inches above the trip point required by Technical Specifications. Accordingly, it is reported as a condition prohibited by Technical Specifications under the provisions of 10 CFR 50.73(a)(2)(i)(B). The safety function of this device is to prevent potential carryover water damage to turbines from high reactor water level. This is accomplished by generating a turbine trip signal which results in closing of the steam supply isolation valve from the reactor to HPCI. The slight increase in trip setpoint of 0.2 inches would have had no effect on the ability of the transmitter to perform its safety function of preventing carryover. This slight increase is not significant when compared to the magnitude of the instantaneous water level variation due to boiling in the reactor vessel and the remaining distance of five and one-half feet between the high level trip setpoint and the elevation of the main steam line nozzles.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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TEXT (IF MORE THAN 8 REPORTS, USE ADDITIONAL NRC Form 2000's) (17)

Corrective Action

The transmitter has been included in the program for weekly monitoring of Rosemount transmitters for loss of sensor fill oil. The frequency of performance of the calibration surveillance has been temporarily increased from once per operating cycle to once every six months until three consecutive "as-found" calibration checks are within specified limits. The direction of the drift of the as-found setpoint will be monitored. Replacement of the transmitter will be evaluated if a defined non-conservative drift trend is identified.

Additional Information

1. Component Information

Name/Function: Reactor High Water Level Trip Transmitter for High Pressure Coolant Injection Turbine

Plant Identification: 02-3LT-83C

Vendor: Rosemount

Model: 1153DB4RC

Normal Trip Setpoint: 221.2 Inches Above TAF

Range: 164.5 to 224.5 Inches Above TAF

NPRDS Vendor Code: R369

NPRDS Component Code: IXMITR

2. Related LERs: 85-014, 85-015, and 86-008