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Vice President
Nuclear Operations

10CFR50.73

Detroit
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March 5, 1990
NRC-90-0044



Nuclear
Generation

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Reference: Fermi 2
NRC Docket No. 50-341
Facility Operating License No. NPF-43

Subject: Licensee Event Report (LER) No. 90-002

Please find enclosed LER No. 90-002, dated March 5, 1990, for a reportable event that occurred on February 2, 1990. A copy of this LER is also being sent to the Regional Administrator, USNRC Region III.

If you have any questions, please contact Joseph Pendergast, Compliance Engineer, at (313) 586-1682.

Sincerely,

Enclosure: NRC Forms 366, 366A

cc: A. B. Davis
J. R. Eckert
R. W. DeFayette/W. L. Axelson
W. G. Rogers
J. F. Stang

Wayne County Emergency
Management Division

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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Fermi 2										DOCKET NUMBER (2) 0 5 0 0 0 3 4 1										PAGE (3) 1 OF 4													
TITLE (4) Area Radiation Monitor Surveillance Procedure 44.080.301 Listed Incorrect Values for Alarm Setpoints																																	
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															
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OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5 (Check one or more of the following) (11)																															
1		20.402(b)										20.406(e)										50.73(a)(2)(iv)										73.71(b)	
POWER LEVEL (10)		20.406(a)(1)(i)										50.36(e)(1)										50.73(a)(2)(v)										73.71(e)	
1 1 0 0		20.406(a)(1)(ii)										50.36(e)(2)										50.73(a)(2)(vii)										OTHER (Specify in Abstract below and in Text, NRC Form 366A)	
		20.406(a)(1)(iii)										X 50.73(a)(2)(i)										50.73(a)(2)(viii)(A)											
		20.406(a)(1)(iv)										50.73(a)(2)(ii)										50.73(a)(2)(viii)(B)											
		20.406(a)(1)(v)										50.73(a)(2)(iii)										50.73(a)(2)(ix)											
LICENSEE CONTACT FOR THIS LER (12)																																	
NAME Joseph Pendergast, Compliance Engineer																TELEPHONE NUMBER 3 1 3 5 8 6 - 1 6 8 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)																X NO																	

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

ABSTRACT

On January 27, 1990, while performing corrective maintenance on the Area Radiation Monitors (ARMs) it was determined that data tables listed in the surveillance procedure 44.080.301, "Area Radiation Monitoring System, Functional Test", were not in agreement with Technical Specification Table 3.3.7.1-1.2a and b for alarm setpoints. On December 15, 1989, an ARM was left outside of the Technical Specification setpoint allowable value. The Technical Specification Table value is less than or equal to 0.5 mR/hr. The Control Room Direct Radiation Monitor alarm setpoint was left at 0.55 mR/hr. The as-found reading of the ARM alarm setpoint during the next test on January 12, was 0.5 mR/hr.

Surveillance procedure 44.080.301, was revised so that all alarm setpoints are conservative with respect to the Technical Specification. This was already in progress at the time of the event. Corrective maintenance was completed and the revised surveillance 44.080.301 was performed.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/86

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TEXT (If more space is required, use additional NRC Form 366A's) (17)

Initial Plant Conditions:

Operational Condition: 1 (Power Operation)
Reactor Power: 100 Percent
Reactor Pressure: 1013 psig
Reactor Temperature: 525 degrees Fahrenheit

Description of the Event:

On January 27, 1990, while performing corrective maintenance on the Area Radiation Monitors (ARMs) it was determined that data tables listed in the surveillance procedure 44.080.301, "Area Radiation Monitoring System, Functional Test", were not in agreement with Technical Specification Table 3.3.7.1-1.2a and b for alarm setpoints. The procedure was placed in suspense pending resolution.

A review of past performances of this surveillance was performed to determine if these monitors were ever left outside of their Technical Specification required alarm setpoints.

On January 27, the three monitors listed in the procedure were within their Technical Specification Allowable Values for alarm setpoints. However, on December 15, 1989, an ARM was left outside of the Technical Specification setpoint allowable value. The Technical Specification Table value is less than or equal to 0.5 mr/hr. The Control Room Direct Radiation Monitor alarm setpoint was left at 0.55 mr/hr. The as-found reading of the ARM alarm setpoint during the next test on January 12, was 0.5 mr/hr. It was left at this reading which is in accordance with the Technical Specification Allowable Value. On February 2, this was determined to be a reportable occurrence.

Cause of the Event:

The cause of the event has been determined to have several contributing factors:

1. Because Setpoint Calculations were not available, the setpoint in the procedure originally came from the I&C Specification sheets. These specification sheets treated the setpoints given in Technical Specification Table 3.3.7.1-1.2 as nominal not absolute.

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

2. Technical Specifications

- a. The Technical Specification Improvement Group (TSIG) noted these setpoint errors in their review. This was TSIG comment #139.
 - b. The TSIG considered this a nominal setpoint and not an absolute setpoint.
3. This change was considered discretionary by the TSIG. Discretionary changes were to be implemented during the periodic review process. The change to this procedure was in process at the time of the event.
 4. The cause of this event is considered cognitive, that is, Technicians (Utility Non-Licensed) and Senior Reactor Operators (Utility Licensed) involved in the TSIG failed to recognize the immediate need for the procedure change.

Analysis of the Event:

The objective of the ARMs is to provide Control Room and plant personnel with indication of gamma radiation levels within the plant. These monitors alarm only and serve no safety equipment control or initiation function.

These monitors are functionally tested every thirty-one days. This specific monitor's alarm set point had drifted back to its Technical Specification Allowable Value within the thirty-one day time frame. This alarm setpoint of 0.55 mR/hr was well below the 10CFR20 definition of a "Radiation Area" which must be posted at 2.5 mR/hr per the Code of Federal Regulations for areas with continuous access. The monitor would have still functioned to alert Control Room Operators and plant personnel to high or increasing radiation levels in the plant.

Corrective Actions:

1. 44.080.301 was revised so that all alarm setpoints are conservative with respect to Technical Specifications. This was already in progress at the time of the event.
2. Corrective maintenance was completed and the revised surveillance 44.080.301 was performed.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 2150-0104

EXPIRES: 6/30/86

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TEXT (If more space is required, use additional NRC Form 366A's) (17)

3. Potential Design Change (PDC) 11290 was generated by System Engineering requesting Setpoint Calculations for the Technical Specification related radiation monitors. These calculations will be completed by June 30, 1990.
4. History folder specification sheets were revised to reflect the new setpoints are in 44.080.301.

In addition, Quality Assurance Plant Safety has commenced a sample review of the resolution of the TSIG concerns as part of the closeout review for DER 87-0398, which documented the TSIG program findings. As part of this review, a specific check of the TSIG discretionary items for setpoint concern resolutions will be performed.

Previous Similar Events:

Licensee Event Reports 85-018, 85-036, 85-037, 85-040, 86-004, 86-008, 86-010, 86-010, 86-022, 86-039, 87-029, 87-044 and 87-048 (which reported the findings of the TSIG) have reported instances where inadequate or incorrect procedures have caused violations of the Technical Specifications.