

LICENSEE EVENT REPORT (LER)

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| FACILITY NAME (1) Fermi 2 | | | | | | | | | | DOCKET NUMBER (2) 0 5 0 0 0 3 4 1 1 OF 0 6 | | | | | | | | | | PAGE 13 | |
| TITLE (4) Inadequacies in Technical Specification Surveillances found during during Surveillance Review | | | | | | | | | | | | | | | | | | | | | |
| 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) | | | | | | | | |
| | | | | | | | | | N/A | | | | 0 5 0 0 0 | | | | | | | | |
| 1 0 | 0 8 | 8 7 | 8 7 | 0 4 | 8 | 0 2 | 0 3 | 2 8 | N/A | | | | 0 5 0 0 0 | | | | | | | | |
| OPERATING MODE (9) | | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 6 (Check one or more of the following) (11) | | | | | | | | | | | | | | | | | | | |
| 4 | | 20.402(b) | | | | 20.406(a) | | | | 80.73a(2)(iv) | | | | 73.71(b) | | | | | | | |
| POWER LEVEL (10) | | 0 0 0 | | | | 20.406(a)(1)(i) | | | | 80.73a(2)(v) | | | | 73.71(a) | | | | | | | |
| | | 20.406(a)(1)(ii) | | | | 80.73a(2)(vi) | | | | 80.73a(2)(vii)(A) | | | | OTHER (Specify in Abstract Below and in Text, NRC Form 365A) | | | | | | | |
| | | 20.406(a)(1)(iii) | | | | 80.73a(2)(viii) | | | | 80.73a(2)(ix)(B) | | | | | | | | | | | |
| | | 20.406(a)(1)(iv) | | | | 80.73a(2)(ix)(C) | | | | 80.73a(2)(x) | | | | | | | | | | | |
| LICENSEE CONTACT FOR THIS LER (12) | | | | | | | | | | | | | | | | | | | | | |
| NAME Patricia Anthony, Compliance Engineer | | | | | | | | | | TELEPHONE NUMBER | | | | | | | | | | | |
| | | | | | | | | | | AREA CODE 3 1 3 | | | | 5 8 6 - 1 6 1 7 | | | | | | | |
| COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13) | | | | | | | | | | | | | | | | | | | | | |
| CAUSE | SYSTEM | COMPONENT | MANUFAC TURER | REPORTABLE TO NRC | | CAUSE | SYSTEM | COMPONENT | MANUFAC TURER | REPORTABLE TO NRC | | | | | | | | | | | |
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| 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)

A review of the Technical Specification surveillance procedures has discovered several violations of the Technical Specifications. It was discovered that the requirement to perform a channel check for the Reactor Protection System drywell high pressure instrumentation was not included in any surveillance procedure. Additionally, the requirement to perform a channel functional test as part of the channel calibration of the Electrical Protection Assembly breakers had not been properly incorporated into procedures. Finally, inadequate testing of the loss of power logic was found which impacted the operability of the emergency diesel generators. The plant was shutdown as a result of the last concern.

These conditions were caused by incomplete or inadequate surveillance procedures. The corrective actions include revising the appropriate procedures. All Technical Specification surveillance procedures are scheduled to be reviewed by June 30, 1988 as part of the technical specification enhancement program.

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APPROVED OMB NO 3150-0104
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TEXT (If more space is required, use additional NRC Form 305A (a) (17))

Previously, Detroit Edison committed to perform a review of Technical Specification surveillances as part of its Technical Specification enhancement program. This report will describe the findings of that program that constitute violations of the Technical Specifications.

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Description of the Event:

- 1) On October 8, 1987 at 1400 hours, it was discovered that the technical specification requirement to perform a channel check for the Reactor Protection System (RPS) drywell high pressure instruments (PT) was not being met. The plant was in Operational Condition 4 at the time with reactor power at zero percent, reactor pressure at 0 psig and reactor temperature at 133 degrees Fahrenheit. Table 4.3.1.1-1 item 7 and Table 4.3.2.1-1 item 1.b require that the channel check be performed for these channels at least once per 12 hours when in the specified Operational Conditions. None of the RPS drywell high pressure channels were included in surveillance procedure 24.000.02, "Shiftly, Daily, Weekly and Situation Required Surveillances".

The Technical Specification Table 4.3.1.1-1 states that each RPS instrumentation channel shall be demonstrated operable by the performance of the channel check, channel functional test and channel calibration for certain operational conditions and at the frequencies shown in the table. Table 4.3.1.1-1 item 7 requires that a channel check be performed for RPS drywell high pressure instruments in Operational Conditions 1 and 2.

The Technical Specification Table 4.3.2.1-1 states that each isolation actuation instrumentation channel shall be demonstrated operable by the performance of the channel check and channel functional tests at the frequencies shown in Table 4.3.2.1-1. Table 4.3.2.1-1 item 1.b requires that channel checks be performed for the RPS drywell high pressure instruments in Operational Conditions 1, 2 and 3.

The surveillance procedure 24.000.02 attachment 3 did not meet these requirements. There were no channel checks performed for pressure instruments C71-N650 A, B, C and D in Operational Conditions 1, 2 and 3.

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

The immediate action was to notify the Nuclear Shift Supervisor and to perform a channel check from instruments C71-N650 A, B, C and D to verify compliance with the channel check requirements in the Technical Specifications Table 4.3.1.1-1 item 7 and Table 4.3.2.1-1 item 1.b.

- 2) The Electrical Protection Assembly (EPA)(BKR) breakers calibration surveillance was reviewed as part of the improvement program. On February 3, 1988 at 1000 hours, the review revealed that a Technical Specification requirement had not been properly incorporated into the testing program. The plant was in Operational Condition 1 at the time with reactor power at 85 percent, reactor pressure at 970 psig and reactor temperature at 520 degrees Fahrenheit. As defined in the Technical Specifications, a channel functional test is required as part of a channel calibration. Technical Specification 4.8.4.4.b requires a channel calibration be performed for the EPA breakers. After completion of procedure 42.610.02, "Electrical Protection Assembly Calibration" on June 23, 1986, the functional test procedure 42.610.01, "Electrical Protection Assembly Functional Test" was not performed since it was not indicated as necessary. The next channel functional test was completed on January 14, 1987, during the routinely scheduled six month surveillance. The last channel functional test had been performed on April 1, 1986.
- 3) On February 26, 1988 at 1250 hours, it was determined that the logic functional testing performed for the Emergency Core Cooling System (ECCS) actuation instrumentation associated with the loss of power logic for the 4160 volt emergency buses (EB) (BU) was inadequate. It did not verify the breaker (BKR) trips initiated by the loss of voltage or degraded grid voltage. Additionally, it failed to verify the emergency diesel generator (EDG) (EK) actuation initiated by the load shedding loss of voltage or degraded grid voltage. This is contrary to the requirements of Technical Specification 4.3.3.2.

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

At the time of this discovery, the plant was in Operational Condition 1 at 81 percent reactor power with reactor pressure at 975 psig and reactor temperature at 522 degrees Fahrenheit. Since this placed all of the emergency diesel generators in a questionable operability status, a shutdown commenced in accordance with Technical Specification 3.0.3. The plant was placed in shutdown condition at 0039 hours on February 27, 1988. A sequence of events test was performed on February 28, 1988 in order to verify the operability of the Division I 4160 volt emergency buses undervoltage load shedding circuits up to the relays which must energize in order to start the emergency diesel generators in an emergency condition. Completion of this testing placed the plant in compliance with Technical Specification 3.3.3.

Cause of the Event:

The cause of these events was an incomplete or inadequate surveillance procedures. The "Shiftly, Daily, Weekly and Situation Required Surveillances" procedure did not require performance of the channel check for instruments C71-N650 A, B, C, and D at least every 12 hours. These instruments indicate drywell pressure. The channel functional test was not incorporated in the channel calibration for the EPA breakers. In one instance, the channel calibration requirement was assumed to be met, but the channel functional test was not performed for approximately six months. The operability requirements for the ECCS actuation instrumentation had not been considered in the development of the 4160 volt bus procedure.

Analysis of Event:

- 1) The RPS drywell high pressure channel check was performed successfully on the first attempt. The channel functional and channel calibration surveillance requirements had been performed since the receipt of the operating license. This ensured a level of reliability in the instrumentation. This indicated that the instruments were functioning properly. In addition drywell pressure channel check surveillance requirements

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

have routinely been performed for Emergency Core Cooling and Accident Monitoring Systems (IP). As a result, this condition did not affect the safe operation of the plant. This event was not contributed to by any components, systems, structures or conditions of the workplace.

- 2) The channel functional testing for the EPA breakers is being performed on a six month basis as required by Technical Specification 4.8.4.4.a. The channel calibration testing is specified to be performed on an eighteen month basis. This channel testing was scheduled and performed as required, but the required channel functional testing was not performed. While the operability testing requirements were not met, the availability of the EPA breaker was ensured when the subsequent testing that was performed satisfactorily confirmed the EPA breakers operability.
- 3) While the emergency diesel generators had not been properly surveillance tested per the Technical Specifications, the circuit had been tested during the pre-operational testing and the loss of offsite power test. The integrity of the circuit up to the relays (RLY), which must energize in order for the diesels to start in an emergency condition, had been verified previously. Control of maintenance activities maintained the integrity of the circuits. Therefore, the emergency diesel generators were functional and available for service as proven by other testing even though the required testing for operability had not been completed.

Since completion of the required testing, no degradation to plant safety was found to have resulted from the failure to perform these surveillances. All of the equipment tested successfully by passing its surveillance requirements.

Corrective Actions:

- 1) The corrective action was to revise the Technical Specification surveillance procedure 24.000.02, "Shiftly, Daily, Weekly and Situation Required Surveillances" for Operational Conditions 1 through 4 to include C71-N650 A, B, C and D as part of the drywell pressure channel check for Reactor Protection System/Nuclear Steam Supply Shutoff System.

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U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

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TEXT (If more space is required, use additional NRC Form 386A's) (17)

As part of the enhancement program, surveillance procedures 24.000.02 and 24.000.03, "Mode 5 Shiftly, Daily, Weekly and Situation Required Surveillances", were reviewed in order to verify that other appropriate Technical Specification surveillance requirements were met.

- 2) In the case of the EPA breaker channel calibration, the immediate remedial corrective action taken was to revise the Surveillance Performance Form for the channel calibration to include a requirement that the channel functional test also be completed. As long term corrective action procedure 42.610.02 will be revised to include a channel functional test following the channel calibration. The procedure revision will be completed by June 30, 1988.
- 3) The testing performed under a sequence of events test verified the operability of the Division I circuits. Procedures 42.302.04, "Calibration and Logic System Functional Testing of Division II 4160 Volt Emergency Bus Undervoltage Circuits" was revised to verify the operability of the Division II circuits and performed. Procedure 42.302.02, "Calibration of Division I 4160 Volt Emergency Bus Undervoltage Circuits" will be revised to verify the operability of the Division I circuitry prior to restart from the present outage.

Through the overall enhancement program, all Technical Specification surveillance procedures are scheduled to be reviewed to ensure Technical Specification compliance. The activity in this area is currently targeted to be completed by June 30, 1988. This schedule may be extended to include other needed procedure improvements to assure that the intended quality goals are not reduced.

Previous Similar Events:

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

Detroit
Edison

William S. Orser
Vice President
Nuclear Operations

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Nuclear
Operations

10CFR50.73

March 28, 1988
NRC-88-0085

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. 88-048-02

Please find enclosed LER No. 88-048-02, dated March 28, 1988, for the reportable findings of a review of Technical Specification surveillances. A copy of this LER is also being sent to the Regional Administrator, USNRC Region III.

If you have any questions, please contact Patricia Anthony at (313) 586-1617.

Sincerely,

Enclosure: NRC Forms 366, 366A

cc: A. B. Davis
J. R. Eckert
E. G. Greenman
T. R. Quay
W. G. Rogers

Wayne County Emergency
Management Division

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