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NRC-88-0169

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

References: (1) Fermi 2
NRC Docket No. 50-341
NRC License No. NPF-43

(2) Notice of Violation, NRC Inspection Report 88012 dated, July 25, 1988

(3) Licensee Event Report 88-012, NRC-88-0062 dated April 15, 1988

(4) Licensee Event Report 87-038, NRC-87-0156 dated September 14, 1987

Subject: Response to Notice of Violation

Enclosed is the response to 4 of the 5 violations contained in reference 2. As noted in reference 2, no response is required for the notice of violation cited in paragraph 4.

The response contains discussion of corrective actions taken in the areas of Reactor Protection System instrumentation operability, use of independent verification and the requirement for positive operator actions in the event a Technical Specification trip system fails to its tripped condition.

Additionally, the fifth violation in the area of control room administrative controls is addressed on a generic basis. The decision to take this approach was based on additional NRC concerns in this area in subsequent inspections and management review of this area. Each administrative control system exercised in the control room has been or will be reviewed for adequacy. Additional or revised controls are being developed as deficiencies are identified. The full review is expected to be completed by December 31, 1988.

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

Sincerely,

B Ralph Sylvia

cc: A. B. Davis
R. C. Knop
T. R. Quay
W. G. Rogers
Region III

RESPONSE TO NRC INSPECTION REPORT NO. 50-341/88012

Statement Of Violation 88012-02:

Fermi Unit 2 Technical Specifications Section 2.2.1 requires that the reactor protection system instrumentation setpoints be set consistent with the trip setpoint values shown in Table 2.2.1-1. Table 2.2.1-1 specifies the maximum setpoint for each of the four Drywell Pressure Channels as 1.88 psig.

Contrary to the above, during the period of October 16, 1986 to March 16, 1988, the Drywell High Pressure Channel C instrument was inoperable in that the instrument rack valve was partially closed generating an actuation setpoint of approximately 2.38 psig.

Corrective Action Taken and Results Achieved:

As described in reference 3, the Drywell High Pressure Channel C instrument was restored to service following completion of local leak rate testing on March 16, 1988. Prior to starting up from the Local Leak Rate Test (LLRT) Outage in May of 1988, the following corrective actions were taken:

The system operating procedure 23.137, "Nuclear Boiler System" was revised to include the four isolation valves associated with Drywell High Pressure Channel instruments in the instrument line-ups.

A review of the instrument and control surveillances (Series 44) was performed in order to ensure all Technical Specification related transmitters are included in an instrument line-up.

A requirement was added to the appropriate procedures to perform instrument line-ups prior to startup from outages over 30 days long. Prior to startup from the LLRT Outage these instrument line-ups were performed.

Training was provided to maintenance personnel on expected performance relating to restoration to service and second verifications.

Required reading describing this event was issued to both the maintenance and operations departments.

Guidance was provided to licensed operators on the need to be aware of instrumentation discrepancies even if the instruments meet their channel check requirements.

Corrective Actions to be Taken to Avoid Further Violations:

Prior to startup from the first refueling outage, more specific instrument line-up sheets will be developed. These will be incorporated in the line-up procedures to provide better direction during performance of line-ups. These sheets include a requirement for a second verification.

Date When Full Compliance Was Achieved:

Detroit Edison has been in full compliance with the Technical Specification 2.2.1 requirements since restart from the Local Leak Rate Testing Outage.

RESPONSE TO NRC INSPECTION REPORT NO. 50-341/88012

Statement Of Violation 88012-10:

Fermi Unit 2 Technical Specifications Section 6.8.1 requires that written procedures be established, implemented, and maintained covering activities such as, but no limited to, surveillance, equipment control and test activities of safety-related equipment.

POM 44.010.039 includes restoration to service of the rack and instrument valves as well as independent verification of the valve position.

POM 41.000.09 provides guidelines to personnel for removing equipment from service, working on it, returning it to service, and requires independent verification of valve positions.

Procedure POM 12.000.080, Conduct of Electrical Field Activities, Paragraph 7.5.1, states "An independent second check of restoring to normal shall be performed for all interim alterations performed under work orders designated as Safety-Related on the work order package Attachment A."

Contrary to the above:

a. On October 16, 1986, POM 44.010.039 was not adhered to in that the rack isolation valve for the Channel "C" RPS Drywell High Pressure Instrument (C71N050C) was not returned to its proper position.

b. On March 15, 1988, a utility-non-licensed and utility-licensed individual indicated via POM 41.000.09 that the above rack valve had been verified open when in fact neither individual actually verified the rack valve position.

c. On April 1, 1988, utility electricians did not independently verify restoration of connectors at D075F117 and D075F118 associated with safety related work request C232880209.

Corrective Actions Taken and Results Achieved:

In response to the instances described in items a and b, Detroit Edison provided training to maintenance personnel on performance of restoration to service and second verification. Required reading concerning the event described in item b was issued to both the operations and maintenance departments.

Corrective Actions Taken and Results Achieved (cont'):

The individuals involved in the March 15, 1988 instance were disciplined in accordance with company policy. Investigation into the instance described in item c determined that the interim alteration checklist had been inappropriately used. No terminations were disconnected to perform the work. The failure to perform the second verification of restoration was identified during package review for closure. On May 16, 1988, a second verification of proper restoration was performed prior to the Nuclear Shift Supervisor closing the package on May 17, 1988.

Corrective Actions To Be Taken to Avoid Further Violations:

An article on the proper use of the interim alterations checklist will be included in the August maintenance newsletter.

Date When Full Compliance Was Achieved:

Detroit Edison has been in full compliance with the requirements for independent verification since completion of the Local Leak Rate Testing Outage in May of 1988.

RESPONSE TO NRC INSPECTION REPORT NO. 50-341/88012

Statement Of Violation 88012-09:

Technical Specification 3.3.3 Table 3.3.3-1 requires two channels per trip system to be operable when in cold shutdown and the associated ECCS is operable. If the number of channels is less than the minimum stated in the Table, then Action 30 of the Technical Specifications Table is invoked. The action states "For one trip system, place that trip system in the tripped condition within 1 hour or declare the associated ECCS inoperable."

Contrary to the above, on April 22, 1988, plant operators did not place a channel of core spray reactor pressure in a tripped condition by 1718 when it was discovered inoperable at 1618 in that the failure mechanism of the instrument was relied upon as the tripped condition even though there was no positive channel reset associated with the instrument channel.

Corrective Action Taken and Results Achieved:

A night order was issued to all shifts on May 5, 1988 which stated:

Whenever the Technical Specifications require an instrument to be placed in the tripped condition, positive action must be taken to place that instrument in the tripped condition. Reliance on the instrument failure mode to define the instrument as being in the tripped condition is not satisfactory.

A standing order was subsequently issued on August 24, 1988, with the same words as stated above.

Corrective Actions to be Taken to Avoid Further Violations:

Detroit Edison is developing Technical Specification related instrumentation trip sheets and appropriate implementing procedures. These will provide the necessary information in order for the operators to meet the Technical Specification action statements for instrument channels in the tripped condition. This action is expected to be completed by September 30, 1988.

Date When Full Compliance Was Achieved:

Full compliance has been in effect since the night order addressing this event was issued on May 5, 1988.

Statement Of Violation 88012-08:

10 CFR 50, Appendix B, Criterion V states in part: "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings....."

Procedure POM 12.000.86, "Data Collection for Diagnostic Testing", requires that Sequence of Events (SOE) tests be used to provide instructions for (1) engineering evaluation and data collection to determine the need for repairs or modifications and (2) operation of a system or component for troubleshooting purposes. The SOE is to be coordinated by the Technical Engineer and approved by the Onsite Review Organization (OSRO).

Procedure POM 23.621, "Main Control Room Annunciator and Sequence Recorder," Section 4.7.1.3 requires the permission of the Nuclear Shift Supervisor (NSS) to defeat an alarm. Attachment 1, Page 2 of 2 provides the documentation of that approval.

Procedure POM 12.000.082, "Emergency Diesel Generator Start/Failure Log Preparation and Evaluation," Section 5.1.2 requires the time/date when a diesel is unloaded and shutdown.

Plant Order EFO-8080, "Operator Aids," identifies operator graphics (otherwise known as drawings) as an operator aid, requires each operator aid to have a serial number, and requires a monthly review of the operator aid list for correctness and need.

Contrary to the above:

a. On August 15, 1987, a handwritten SOE was used for data collection and troubleshooting purposes as documented in Deviation Event Report 87-304 and the SOE was not OSRO approved nor coordinated by the Technical Engineer.

b. Two alarms were defeated without NSS approval in that Attachment 1, Page 2 of 2 was not signed by the NSS.

c. Emergency diesel generator unloading and shutdown times were not documented for all generator runs.

d. Serial numbers had not been assigned to operator graphics.

e. The operator aid log was not being audited on a monthly basis.

Corrective Actions Taken and Results Achieved:

These items are recognized to represent a general weakness in the administrative controls exercised in the control room. Management acknowledges that the stated conditions did exist and has implemented a broad based effort to address the issue. As an initial step, the control room reference materials were reviewed for their necessity and status. Those materials that were deemed unnecessary have been removed and the remaining materials have been labelled and/or updated as appropriate.

In order to address the specific concerns cited in this violation, Detroit Edison has taken the following actions:

Item a. Preventive maintenance activities consisting of inspections, cleaning, lubrication and electrical testing were performed on motor operated valves P44-F601B, P44-F603B, P44-F606B and P44F604. A requirement for stroking these valves provided an opportunity to obtain differential pressure data. A data sheet was generated requesting that differential pressure readings and valve position indication be recorded during the stroking of these valves in an attempt to understand the response of system parameters due to routine valve manipulations. This data sheet did not appear to fit the criteria of POM 12.000.86 and therefore, was not intended to be a Sequence of Events. This data sheet did, however, appear to provide a sequence of valve manipulation and was interpreted by shift personnel to, in fact, be a Sequence of Events.

A hardware modification was made as described in reference 4 which eliminated the need to obtain differential pressure data. DER 87-304 and POM 12.000.86 were reviewed by the individuals responsible for the data sheet and they fully understand the requirements and intended application for performance of Sequence of Events.

Items b. and c. The review of the control room records has been made and entries have been made to resolve these discrepancies.

Items d. and e. The operator graphics presently in the plant are being removed. This is expected to be completed on September 1, 1988. Once the operator graphics are removed, it won't be necessary to perform monthly audits.

Corrective Actions to Be Taken to Avoid Further Violations:

As part of the resolution of the control room administrative control weaknesses, operations administrative procedures are currently being rewritten. A key objective of this effort is to reduce the number of procedures and consolidate information for ease of use. This effort will be completed by the end of October 1988. As procedures are revised, training will be provided to insure greater understanding of the revised procedures. This training will be completed by December 1988.

The Operations Engineer is currently working closely with members of the shift organization in an effort to review and audit each control room administrative system. Where appropriate, action is being taken to correct problems that are found. This review should be completed by the end of December, 1988.

An individual with SRO experience at another BWR has been assigned to assist the Operations Engineer in reviewing operations activities and in assisting in implementation of corrective action where necessary.

To specifically address the incidents described in items b and c, plant personnel have verified Nuclear Shift Supervisor approval of all defeated annunciators by conducting a one time audit and auditing the Emergency Diesel Generator Log for unloading and shutdown time entries.

Similar events to item d will be prevented by establishing a new administrative procedure to replace plant order EFO-8080. This procedure will more stringently control use and audit of operator graphics. The procedure revision has been approved, training will be provided, and the procedure will be fully implemented by December 31, 1988.

To insure timely identification and control of administrative problems a new operations audit procedure is being developed to consolidate all audit requirements and implement a new scheduling system. This procedure will be fully implemented by December 30, 1988.

Date When Full Compliance Will Be Achieved:

The review of all control room administrative systems will be completed by December 31, 1988. As problems are being identified, corrective actions are being taken to resolve the problems.