Douglas R. Gipson
Senior Vice President
Nuclear Generation

Detroit Edison

Fermi 2
6400 North Dixie Highway
Newport, Michigan 48166
(313) 586-5249

10 CFR 2.201

December 23, 1996
NRC-96-0140

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

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

2) NRC Inspection Report 50-341/96007,
dated November 22, 1996

Subject: Reply to Notices of Violation (96007-02, 96007-05, 96007-06, 96007-07, and 96007-08)

Enclosed is Detroit Edison's response to the Notices of Violation (NOVs) contained in Reference 2. We admit the violations did occur and do not intend to dispute any of the facts or circumstances.

Detroit Edison is concerned by the continuing problem with procedure adequacy and adherence to procedures in the maintenance area. The following actions will be taken to improve these areas:

1. Management expectations were reinforced through shop meetings and group discussions. At these meetings the importance of procedural adherence, communication, and teamwork was stressed.

2. An enhanced method to keep maintenance personnel informed of new procedural requirements and changes to existing requirements is being developed. The method will include identification of required reading, tracking to ensure completion, and training as appropriate. The training program review committees for the various maintenance disciplines will provide oversight. Implementation is expected by the end of January 1997.

300018

IE01

3. A self assessment to evaluate maintenance procedural adherence will be performed in the first quarter of 1997. The assessment team will include supervisors and craftsmen from the three maintenance disciplines. Additional corrective actions may be developed based on the results of the assessment.

4. Additionally, training sessions for continuing training, presented by individuals involved in performance problems, have been developed as a result of some of the events noted in inspection reports. This practice will continue.

The following additional commitments are being made in this letter in response to the violations:

5. A Maintenance Procedure will be developed for blocking and returning to service the RHR Complex Dampers. System Operating Procedure 23.420 "Residual Heat Removal Complex Heating and Ventilation", will also be revised to incorporate references to this new maintenance procedure.

6. Maintenance Conduct Manual MMA 08, "Scaffolding" will be upgraded to ensure the inspection of scaffolds is properly documented.

Should you have any questions regarding this response, please contact Ronald C. Wittschen, Compliance Engineer at (313) 586-1267.

Sincerely,

cc: M. J. Jordan
A. B. Beach
A. J. Kugler
A. Vegel
Region III

Response to Notice of Violation 50-341/96007-02

Statement of Notice of Violation

10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires in part, that activities affecting quality shall be accomplished in accordance with procedures appropriate to the circumstances.

Contrary to the above, on September 5, 1996, System Operating Procedure 23.420, Revision 18, "Residual Heat Removal Complex Heating and Ventilation," a procedure prescribing an activity affecting quality, was not appropriate to the circumstances. Specifically, the procedure was inadequate in that it failed to ensure that a temporary blocking device was removed from Emergency Diesel Generator 11 Switchgear Room Damper X4103-F109.

Reason for the Violation

On July 12, 1996 Emergency Diesel Generator (EDG) 11 Switchgear Room Return Damper X4103-F104 was found open, when it should have been shut. It was declared inoperable, and Technical Specifications (TS) 3.8.1.1 and 3.8.3.1 for an inoperable diesel generator were entered. In accordance with System Operating Procedure (SOP) 23.420, with damper X4103-F104 inoperable all other dampers for the EDG 11 Switchgear Room must also be declared inoperable, and blocked open. These dampers were disconnected and blocked open, and the TS was exited.

Maintenance work was completed on damper X4103-F104 on September 5, 1996 and maintenance personnel were directed by the control room operators to unblock and return the EDG 11 switchgear room dampers to service. The unblocking was checked by a licensed operator and it was believed that all dampers had been unblocked. The next day a non-licensed operator reported to the control room that EDG 11 exhaust air damper X4103-F109 was blocked. The damper had been disconnected properly, and blocked open per TS 3.8.1.1 and 3.8.3.1 in July, 1996, but was not specifically listed on the work request or in the LCO log and had not been unblocked. The cause of the event was improper configuration control in that no structured process existed to ensure all dampers were returned to service.

The Corrective Steps That Have Been Taken and the Results Achieved

Damper X4103-F109 was unblocked and returned to service. MOP 05, "Control of Equipment" was reviewed and discussed with the licensed operator. A Deviation Event Report (DER) was initiated to document the event and to track completion of the corrective actions. In the future, Operations will use the Safety Tagging Request (STR) process when structured instructions do not exist for restoration of components out of their normal position. This information was discussed on each shift by the Nuclear Shift Supervisor (NSS).

The Corrective Steps That Will Be Taken to Avoid Further Violations:

A Maintenance Procedure is being developed to provide specific guidance for blocking and unblocking RHR Complex Dampers. SOP 23.420 will also be revised to incorporate appropriate references to the maintenance procedure.

The actions presented in the cover letter to improve procedures and procedural compliance are restated here to amplify that Detroit Edison intends to aggressively correct these concerns.

1. Management expectations were reinforced through shop meetings and group discussions. At these meetings the importance of procedural adherence, communication, and teamwork was stressed.

2. An enhanced method to keep maintenance personnel informed of new procedural requirements and changes to existing requirements is being developed. The method will include identification of required reading, tracking to ensure completion and training as appropriate. The training program review committees for the various maintenance disciplines will provide oversight. Implementation is expected by the end of January 1997.

3. A self assessment to evaluate maintenance procedural adherence will be performed in the first quarter of 1997. The assessment team will include supervisors and craftsmen from the three maintenance disciplines. Additional corrective actions may be developed based on the results of the assessment.

4. Additionally, training sessions for continuing training, presented by individuals involved in performance problems, have been developed as a result of some of the events noted in inspection reports. This practice will continue.

Date When Full Compliance Will be Achieved

Full compliance will be achieved by March 31, 1997 when SOP 23.420 is revised.

Response to Notice of Violation 50-341/96007-05

Statement of Notice of Violation

10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires in part, that activities affecting quality shall be accomplished in accordance with procedures appropriate to the circumstances.

Fermi 2 Maintenance Conduct Manual, Chapter 8, "Scaffolding," Section 3.12, states in part, that scaffolds erected in the Auxiliary Building be inspected by a senior reactor operator or reactor operator to ensure that the operability of safety related equipment is not compromised. Contrary to the above, on August 21, 1996, four scaffolds erected in the Auxiliary Building were not inspected by a senior reactor operator or reactor operator.

Reason for the Violation

Maintenance Conduct Manual MMA 08 "Scaffolding", has broad requirements and doesn't specify some details of the scaffolding inspection process. For instance, the notification to operations that the scaffolding is complete and ready for inspection is not required to be documented. The procedure specifically requires a senior reactor operator (SRO) or reactor operator (RO) to inspect scaffolding erected in the Auxiliary Building; but the procedure only recommends that the inspection be documented on the Scaffolding Identification Tag (SIT). The lack of proper administrative approvals for the inspection of scaffolding is considered a lack of procedural compliance due in part to poor communications.

The Corrective Steps That Have Been Taken and the Results Achieved

Immediate corrective actions included a walkdown of scaffolding in the Auxiliary Building. Additional examples where the scaffolding was not properly inspected were identified, however, no scaffolding was identified which were improperly installed and none affected safety related equipment. The scaffolding in question were built according to procedural guidelines. A Deviation Event Report (DER) was initiated to document and track corrective actions. All scaffolding in the plant were subsequently inspected and the Scaffolding Identification Tag (SIT) signed and dated.

The procedural requirement for an SRO or RO inspection is a redundant check that the scaffolding installation does not impact the operability of safety related systems and meets the guidance of Enclosure B to MMA 08. Scaffolding is built to this guidance and verified by the erecting crew. None of the scaffolding identified as lacking administrative approval were found to be affecting the function of safety related equipment nor blocking or impeding access to safety related components. The lack of a signature had minimal safety impact.

New SITs are currently in use, which require the SRO/RO to document the scaffolding inspection by signing the SIT. Scaffolding erection personnel and Operations personnel were coached regarding the expectations for scaffolding inspection.

The Corrective Steps That Will Be Taken to Avoid Further Violations:

Maintenance Conduct Manual MMA 08, "Scaffolding", will be upgraded to ensure the proper documentation of Operation's inspection of scaffolds in the plant.

The actions presented in the cover letter to improve procedures and procedural compliance are restated here to amplify that Detroit Edison intends to aggressively correct these concerns.

1. Management expectations were reinforced through shop meetings and group discussions. At these meetings the importance of procedural adherence, communication, and teamwork was stressed.

2. An enhanced method to keep maintenance personnel informed of new procedural requirements and changes to existing requirements is being developed. The method will include identification of required reading, tracking to ensure completion, and training as appropriate. The training program review committees for the various maintenance disciplines will provide oversight. Implementation is expected by the end of January 1997.

3. A self assessment to evaluate maintenance procedural adherence will be performed in the first quarter of 1997. The assessment team will include supervisors and craftsmen from the three maintenance disciplines. Additional corrective actions may be developed based on the results of the assessment.

4. Additionally, training sessions for continuing training, presented by individuals involved in performance problems, have been developed as a result of some of the events noted in inspection reports. This practice will continue.

Date When Full Compliance Will be Achieved

Full compliance was achieved when the scaffolding was inspected and the SITs signed and dated.

Response to Notice of Violation 50-341/96007-06

Statement of Notice of Violation

10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires in part, that activities affecting quality shall be accomplished in accordance with procedures appropriate to the circumstances.

Fermi 2 Work Control Conduct Manual, Chapter 2, "Work Control," Section 3.7, stated in part, that a general supervisor must clearly initial and date a minor revision to a work instruction.

Contrary to the above, on August 3, 1996, a general supervisor failed to initial and date a change in step sequence, a minor revision to Work Instruction 000Z964041 that required performance of steps in sequence.

Reason for the Violation

Maintenance activities on the D073 sump pump outlet valve (G11-F021) were performed under Work Request 000Z964041 and were completed on August 13. On September 11, during review of the work request, NRC inspectors identified several questionable entries, including changes in step sequences without initialing and dating the changed steps.

The missing initials and missing dates were the result of an oversight by a maintenance supervisor. The Quality Assurance Inspection and Surveillance (I&S) group routinely monitors the quality of work requests and identifies any discrepancies noted. Based upon the results of past reviews, this event is not believed to be a wide spread deficiency.

The Corrective Steps That Have Been Taken and the Results Achieved

A Departmental Lessons Learned Meeting was convened with involved supervisors and appropriate administrative measures were taken. A Deviation Event Report (DER) was initiated to document all areas of concern and to track corrective actions. Each identified concern was evaluated and none were determined to impact the adequacy of the work performed.

The DER will be discussed during Maintenance Department continuing training sessions which included supervisors and workers in mechanical, electrical, and instrumentation & controls.

The actions presented in the cover letter to improve procedures and procedural compliance are restated here to amplify that Detroit Edison intends to aggressively correct these concerns.

1. Management expectations were reinforced through shop meetings and group discussions. At these meetings the importance of procedural adherence, communication, and teamwork was stressed.

2. An enhanced method to keep maintenance personnel informed of new procedural requirements and changes to existing requirements is being developed. The method will include identification of required reading, tracking to ensure completion and training as appropriate. The training program review committees for the various maintenance disciplines will provide oversight. Implementation is expected by the end of January 1997.

3. A self assessment to evaluate maintenance procedural adherence will be performed in the first quarter of 1997. The assessment team will include supervisors and craftsmen from the three maintenance disciplines. Additional corrective actions may be developed based on the results of the assessment.

4. Additionally, training sessions for continuing training, presented by individuals involved in performance problems, have been developed as a result of some of the events noted in inspection reports. This practice will continue

Date When Full Compliance Will be Achieved

Full compliance was achieved when the work was evaluated and determined to be adequate.

Response to Notice of Violation 50-341/96007-07

Statement of Notice of Violation

Technical Specification 6.8.1 requires, in part, that written procedures be established, implemented, and maintained covering the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978. Item 9.e of Appendix A of Regulatory Guide 1.33, Revision 2, requires general procedures for the control of maintenance.

Contrary to the above, on September 9, 1996, operators failed to adequately evaluate the consequences of removing the Reactor Core Isolation Cooling Barometric Condenser Condensate Pump from service. Removal of the pump from service rendered the Reactor Core Isolation Cooling system inoperable and required an entry into Technical Specification LCO actions.

Reason for the Violation

The Reactor Core Isolation Cooling (RCIC) barometric condenser condensate pump had been removed from service for preventative maintenance (PM) at 9:03 AM on September 10, 1996. Based on a review of vendor documentation as a result of this PM, it had been determined that the RCIC barometric condenser was not required for operability of the RCIC system. About six hours later annunciator alarm 1D63, "RCIC Condenser Vacuum Tank Level High" was received in the main control room. A normal inspection of RCIC was performed No water was observed from the turbine glands or the condenser at that time. At 9:15 PM water was observed leaking from the RCIC system such that it appeared possible that water had entered the turbine. RCIC was subsequently declared inoperable due to possible water intrusion. The source of water was steam leakage past the seat of the steam admission valve. It was later determined that due to the degraded RCIC steam admission valve (E5150-F045), once the high level alarm was received, and the barometric condenser filled with water, the Barometric Condenser Condensate pump or alternate method of draining was required to maintain operability of the RCIC system. The consequence of water in the turbine casing during a start would likely result in a turbine trip on high exhaust pressure.

The Corrective Steps That Have Been Taken and the Results Achieved

The RCIC System was declared inoperable at 9:15 PM on September 10, 1996. The preventative maintenance activity was deactivated, tags were cleared, and the RCIC Barometric Condenser was pumped down. An oil sample was drawn and found to be acceptable, RCIC was declared operable at 3:15 AM September 11, 1996.

A Deviation Event Report (DER) was written to document the corrective actions. Scheduled work was reviewed and work on the RCIC Barometric Condenser Condensate Pump Discharge Valve, which would have had the same affect as working on the pump, was removed from the schedule.

The Corrective Steps That Will Be Taken to Avoid Further Violations:

Evaluation of this event determined that during normal RCIC operation the RCIC barometric condenser condensate pump is not required for RCIC to be operable; however, during plant conditions when degraded system components result in increasing water level in the barometric condenser, then an operable pump or an alternative drain path is required to maintain level below the monitored level band. This will also apply to HPCI.

When RCIC is in Standby and the barometric condenser condensate pump is unavailable, upon receipt of the RCIC barometric condenser high level alarm, the level in the condenser will be monitored locally. RCIC will be declared inoperable when level can no longer be monitored in the sight glass. Alarm Response Procedure (ARP) 1D63 "RCIC Condenser Vacuum Tank Level High" and System Operating Procedure (SOP) 23.206 "Reactor Core Isolation Cooling System" were revised to add a caution to indicate the steps that are necessary when the high level alarm is received. It was determined that changes made to RCIC should also be made to HPCI. Therefore, ARP 2D66 "HPCI Condenser Vacuum Tank Level High" and SOP 23.202 "High Pressure Coolant Injection System" were also revised. This event was included in Operations training.

It is recognized that this event involved many organizations and the collective failure to adequately assess the effect of the steam leak past the RCIC steam admission valve with the barometric condenser condensate pump removed from service. In a broad sense and independent of this violation, Detroit Edison previously initiated and is currently addressing these types of organizational issues with the Operational Excellence Plan (OEP). While the OEP was not initiated in response to this violation, expected improvements in the work management process, especially in the areas of communications and coordination of activities, will strengthen the organization and minimize recurrence of a similar problem.

Date When Full Compliance Will be Achieved

Full compliance was achieved when the barometric condenser was pumped down and RCIC was declared operable.

Response to Notice of Violation 50-341/96007-08

Statement of Notice of Violation

10 CFR 50.59 requires in part, that changes to a utilization facility as described in the safety analysis report shall be reviewed to ensure that the change does not involve an unreviewed safety question.

Contrary to the above, inspectors identified that on September 10 and 11, 1996, a modification to the Division 1 Residual Heat Removal Service Water System (RHRSW) drain lines was performed without a review to ensure that the modification did not involve an unreviewed safety question in that both RHRSW lines in Division 1 were worked simultaneously which had not been analyzed.

Reason for the Violation

Engineering Design Package (EDP) 28556 had been initiated to correct a concern with the Residual Heat Removal Service Water (RHRSW) drain lines by relocating the drain lines to the side of the return pipes so sediment would not plug the one inch lines. The Safety Evaluation (SE) written in support of the EDP, conservatively stated that only one RHRSW drain line in a division would be worked at a time, even though there was no safety significance associated with working both drain lines in the same division. Personnel developing the work package did not recognize the SE imposed installation requirements and did not include them in the work package. At the time of the physical installation of the new drain lines, both RHR return lines in Division 1 were worked in parallel, contrary to the Safety Evaluation.

Corrective Steps That Have Been Taken and the Results Achieved

The engineering team that prepared the EDP, the Safety Evaluation, and work request, convened and investigated the event. The Safety Evaluation assumed only one line in a division would be modified at a time as a conservative measure, not based on a system safety concern. It was subsequently determined that working both lines in one division would not have affected the operability under conditions which existed when the modification was implemented. The work package for the Division 2 repairs was modified to reflect the requirements of the Safety Evaluation.

A review of all documents which interface with work control and the Safety Evaluation were reviewed. MES 19 "Preparation and Control of Engineering Design Packages" and MLS 07 "Preliminary Evaluations and 10CFR50.59 Safety Evaluations," were revised to specifically require that implementation requirements be included in the appropriate installation instructions of the EDP . MES 20 "Implementation of Modifications" was revised to more clearly identify the requirements for modification impact statement reviews.

Plant Support Engineers, Plant Modification and Project Engineers, System Engineers, and Work Planners were trained on this event.

Date When Full Compliance Will be Achieved

Full compliance was achieved when working both lines in a division was reviewed.