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October 9, 1984
EF2-70022

Mr. James G. Keppler
Regional Administrator
Region III
U. S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

Reference: Fermi 2
NRC Docket No. 50-341

Subject: Detroit Edison Response
NRC Inspection Report No. 50-341/84-16

This letter responds to the deviations described in your Inspection Report No. 50-341/84-16. This inspection was performed by Messrs. C. Ramsey, F. Maura, R. Eberly, H. Thomas, and T. Cappola on May 14-18, June 5, and July 10 and 11, 1984.

The items classified as deviations are discussed in the attached response and are arranged to correspond to the sequence of items cited in the body of your report.

On September 12, 1984, Mr. L. Bregni contacted Mr. J. McCormick-Barger of the NRC Region III office and received an extension to the 30 day response due date because Edison did not receive Inspection Report 84-16 (dated August 31, 1984) until September 10, 1984.

We trust this letter will satisfactorily respond to the deviations listed in your report. If you have questions regarding this matter, please contact Mr. Lewis Bregni, (313) 586-5083.

Sincerely,

Wayne H. Jens

cc: Mr. P. M. Byron
Mr. R. C. Knop
Mr. C. Ramsey

THE DETROIT EDISON COMPANY

FERMI 2

NUCLEAR OPERATIONS ORGANIZATION

RESPONSE TO NRC REPORT NO. 50-341/84-16

DOCKET NO. 50-341 LICENSE NO. CPPR-87

INSPECTION AT: FERMI 2, NEWPORT, MICHIGAN

INSPECTION CONDUCTED: May 14-18, June 5, and July 10 -11, 1984

RESPONSE TO NRC INSPECTION REPORT NO. 50-341/84-16

Statement of Deviation 84-16-02

By letters dated July 31, 1981, November 24, 1981 and January 4, 1982, the applicant provided the NRC with the results of fire tests conducted on the control room panels containing the controls, instrumentation and associated circuits for all the required safe shutdown systems. As a result of the fire test conducted, the applicant committed to certain design modifications to the panels to enhance their fire resistive capabilities and provide assurance that one train of systems needed for safe shutdown would remain free of fire damage in the event of a control room fire.

The applicant committed to meet the requirements of Appendix R to 10 CFR Part 50 as discussed in a meeting with the NRC staff on May 27, 1981, and to demonstrate that a single fire would not damage both redundant safe shutdown trains.

Contrary to the above, the applicant failed to provide the design modifications to the control room panels containing the controls, instrumentation and associated circuits for all of the required safe shutdown systems that were described in the FSAR, SER and letter submitted to the NRC. The as-built configuration of these panels does not provide assurance that one train of systems needed for safe shutdown will remain free of fire damage in the event of a control room fire. The applicant had no plans to complete these design modifications. This is considered a deviation from previous commitments to the Commission and is further discussed in paragraph 4c(4) of the inspection report.

Detroit Edison Response and Action Taken

In the process of resolving the fire protection issue in 1981, Edison committed to a number of modifications to the plant. The specific agreed upon changes were identified in Supplement No.2 to the SER dated January, 1982. Edison had completed these identified commitments or was in the process of negotiation with NRR at the time of the Region III inspection.

In the process of negotiating with NRR towards an acceptable solution to the issues raised in Generic Letter 83-33, Edison has now committed to provide alternate shutdown for the control center area. This commitment was made at the July 11, 1984, meeting and supersedes the earlier commitments made in previous letters. Official notice of the

commitment to alternate shutdown via Appendix R III.L was submitted to NRR in EF2-72718 dated August 16, 1984. We understand that NRR will revise the SER on this subject. In light of the above, the findings cannot be addressed without including the commitment to use an alternate shutdown method, which reorders any of the Control Center modifications to an interim measure status.

The response to the seven deviations of the inspection report 84-16, Section 4c(4) is as follows:

(a) "The panels were not completely enclosed and free of penetrations."

(b) "The panels were not provided with separate forced ventilation systems. Instead, the applicant determined that natural ventilation was sufficient."

During the review process with NRR, there were some discussions regarding enclosing the backs of the remaining safety related panels. However, enclosing the backs of the COP panels was not entered on our internal action list and failed to show up as a licensing condition in any SER supplement. After Supplement 2 to the SER was issued, there were further discussions with NRR regarding the back on panel H11-P602 and the upper ventilation openings on the other control room panels as part of the description of the proposed COP ventilation modifications. The notification for the change of the commitments for the panel ventilation was made in Detroit Edison's Letter EF2-61562 dated March 1, 1983. The ventilation and panel enclosure issue was discussed in Region III Inspection Report, Open Item 341/83-12-01, and was open pending NRR's decision on the request. NRR's decision on this subject was not indicated to Edison until the ventilation request was verbally denied at the April 3, 1984 meeting. This subject, as part of the control room agenda, was discussed in the June 5, 1984 and July 11, 1984 meetings that resulted in the commitment by Edison to use alternate shutdown to meet Appendix R. Edison intends to fully comply with the identified commitments made in the August 16, 1984 letter, but previously identified commitments for the control center to meet Appendix R III.G are no longer applicable. Therefore, there will not be a back installed on H11-P602 nor will the upper ventilation louvers be closed. Panels H11-P601 will not have a top

installed nor will the ceiling panels require modification (see item (g)). The unsealed penetrations between the opposite division panels are discussed under item (d).

The ventilation modification was identified in Supplement No.2 of the SER as a commitment. The proposed modification consisted of supplemental fans, fire dampers, and ductwork into the COP's. In the process of designing the system, it became apparent that the heat generated by the panels could be removed by a simpler method. As mentioned above, the possibility of changing this commitment was discussed with NRR and documented in EF2-61562 of March 1, 1983. Edison considered this item as under negotiation with NRR until the April 4, 1984 meeting where this request was verbally denied. Additionally, Region III open item 341/83-12-01 listed the ventilation status as open pending the NRR decision. However, the commitment to use alternate shutdown as a means of shutting down from a control room fire supersedes the previous commitments for a COP HVAC system. Edison does not intend to install a COP ventilation system.

(c) "All plastic components such as face plates, annunciator boards and control switches were not removed from the front of the panels and replaced with glass or other noncombustible materials."

Edison agrees that there was a commitment to reduce the amount of plastic in the COP, but not all plastic components were included in that commitment. For example, Edison conducted a heat up test on the plastic control (CMC) and pushbutton switches to show they could withstand the temperatures, as indicated in the November, 1981 report "Evaluation of Selected Control Panel Components Subjected to a Postulated Exposure Fire." Edison would not have conducted such tests if these plastics were to be replaced. Edison has replaced the plastic annunciator window inserts with glass as stated in Supplement No.2 of the SER, summary of the proposed modifications.

Recorders that have plastic windows will be replaced with non-glare glass. This replacement will also improve the ability to read the instrument. The commitment made at the July 11, 1984 meeting to use alternate shutdown for the Control Room actually supersedes the need for the earlier commitments to reduce the plastics. Edison therefore does not plan to replace any other plastic other than the annunciator and recorder windows.

(d) "The panels contained louvered openings and open spaces at floor level between the floor penetration seal and the four inch concrete pad which the panels are mounted on. Unsealed penetration openings existed around a ground bus bar penetrating the 3/16 steel plate between each set of panels."

The louvered openings at the floor level on the back of panels H11-P601 and H11-P812 have a steel plate mounted behind the louvers. (Panel H11-P812 is a non safety related panel that separates the rear of panel H11-P601 from the open back of H11-P602) The remaining shutdown panels do not have louvered openings at the floor level.

The openings between the redundant panels at the floor penetration and around the ground bus bar should have been sealed based on the SSER statement that the steel panels are free of penetrations. Edison has sealed these openings as indicated in the July 11, 1984 meeting and in EF2-72718.

(e) "Louvered access doors covered with marinite board installed on the front of the panels are interchangeable with other control room panels that are not required for safe shutdown. During the inspection, one of these doors was found installed on a control room panel not required for safe shutdown. A louvered access door that was not covered with marinite board was installed in safe shutdown panel P-602."

Edison did complete the SER commitment to install a Marinite panel in front of the COP lower access doors. However, as indicated in the inspection report, a Marinite covered and an uncovered access door were interchanged. As soon as this problem was discovered, the access doors were immediately switched so that the doors were in the proper location.

As indicated in the July 11, 1984 meeting and in Detroit Edison's letter EF2-72718, Edison committed to labeling the outside of the doors or affixing mechanical devices to ensure the doors are installed on the correct panel.

(f) "Unidentified Division I and Division II cables were installed on the west control room wall near the rear of panel P-602 and in the ceiling above panels P-601 and P-602."

A number of safety related circuits are routed in conduit on the west wall and above the false ceiling over panels H11-P601 and H11-P602. These conduits are controlled and identified in the cable routing program. None of the circuits directly behind H11-P602 were identified as being required for Appendix R shutdown. Certain conduits located above the false ceiling were identified as required by Appendix R and were included in the conduit wrap program. However, the commitment to shut down the reactor using an alternate shutdown capability removes these circuits from the Appendix R program. As indicated in the July 11, 1984 meeting and in EF2-72718, the fire wrapping will not be completed any further in the control center. Wrap that is presently installed will be maintained until the alternate shutdown capability is operational.

(g) "A false ceiling was installed above panels P-601 and P-602 which was not previously described to the NRC and was not included in the applicant's prototype for testing of the panels."

The false ceiling referred to in this report is believed to be the facade ceiling extending down to the top of the front panels, including panels H11-P601 and H11-P602. This ceiling was in place during the time of the 1981 NRR inspection and was not raised as an issue. The purpose of the prototype fire test of the panels was to demonstrate that the circuits inside the adjacent panels were not damaged from an exposure fire outside the panels, potentially causing fire damage to circuits in both divisions. The commitment to provide alternate shutdown capability, made at the July 11, 1984 meeting and in EF2-72718, supersedes the need to demonstrate that fire damage would not occur to both divisions.

RESPONSE TO NRC INSPECTION REPORT NO. 50-341/84-16

Statement of Deviation 84-16-09

In response to the NRC position stated in Appendix 9B of the Fermi-2 FSAR, the licensee made a commitment to install the fire pump installations in accordance with National Fire Protection Association (NFPA) Standard 20. NFPA 20 requires that the fuel oil storage tank for diesel engine driven fire pumps be full at all times and be free of all water and foreign material. The temperature of the pump room, pump house or areas where diesel engines are installed is required to be maintained not less than the minimum recommended by the engine manufacturer. This minimum is generally 70° F.

Contrary to the above, the diesel fire pump fuel oil storage tank is installed above ground outside of the fire pump house and is exposed to freezing temperatures and gelling of the diesel fuel during winter months. This condition does not meet the intent of NFPA 20 and could result in the failure of the diesel fire pump during cold weather. This is considered a deviation from previous commitments to the Commission and is further discussed in paragraph 7.a. of the inspection report.

Detroit Edison Response and Action Taken

The current version of NFPA 20 is 1983. Paragraph 1-2.2, existing installations, states that "Where existing pump installations meet the provisions of the standard in effect at the time of purchase, they may remain in use provided they do not constitute a distinct hazard to life or adjoining property."

The Fermi 2 FSAR identifies NFPA 20-1970 as the code version in effect at the "time of purchase". The system as currently installed meets the requirements of NFPA 20-1970 and the present location of the tank does not "constitute a distinct hazard to life or adjoining property". NFPA 20-1970 requires the tank be "...located in accordance with municipal ordinances and requirements of the authority having jurisdiction." The tank met this criteria at the time of installation.

Supplement 2 of the SER identified the location of the diesel fuel oil tank as being outside. This location is consistent with Appendix A of BTP 9.5.1 and was accepted by NRR in Appendix E, Supplement No. 2 of the SER. Edison believes the tank location is proper.

Detroit Edison does not regard this to be a deviation, but to assure that the diesel fuel will not gel in cold weather, a fuel blend of 50% #1 diesel fuel and 50% #2 diesel fuel is used. This is in accordance with the manufacturer's recommendations for cold weather operation. Fermi 2 has procedures in place to test the fuel at 6-month intervals for acceptable cloud point and pour point. These tests are done in addition to the Technical Specification required testing for water and sediment content and kinematic viscosity of the fuel. We believe these tests meet the intent of the code to ensure operation of the pump in cold weather.