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January 29, 1985
EF2-70222

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
Inspection Report 50-341/84-45

The attached report responds to the item of noncompliance described in your Inspection Report No. 50-341/84-45. This inspection was conducted by Messrs. A. Gautam and Z. Falevits of NRC Region III between October 1 and 5, 1984.

The item of noncompliance is discussed in this reply as required by Section 2.201 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. The appropriate criterion and the number identifying the item are referenced.

We trust this letter satisfactorily responds to the non-compliance cited in the inspection report. If you have questions regarding this matter, please contact Mr. Lewis Bregni, (313) 586-5083.

Sincerely,

cc: P. M. Byron
R. C. Knop
C. C. Williams
U.S. NRC Document Control Desk
Washington, DC 20555

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THE DETROIT EDISON COMPANY

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NUCLEAR OPERATIONS ORGANIZATION

RESPONSE TO NRC INSPECTION REPORT NO. 50-341/84-45

DOCKET NO. 50-341

LICENSE NO. CPPR-87

INSPECTION AT: FERMI 2, NEWPORT, MICHIGAN

INSPECTION CONDUCTED: October 1-5, 1984

Statement of Noncompliance 84-45-04

10 CFR 50, Appendix B, Criterion III, as implemented by Detroit Edison Nuclear Quality Assurance Manual, Section 3.1.4, requires that measures be established to assure that applicable regulatory requirements and the design basis are correctly translated into specifications, drawings, procedures, and instructions. These measures shall include provisions to assure that appropriate quality standards are specified and included in design documents and that the deviations from such standards are controlled.

Contrary to the above:

1. The licensee failed to assure that design calculations No. 968 [sic DC969], Revision A, specifying thermal overload size for Motor Control Center (MCC) 72C-3A, position 3A, were incorporated into design drawing 5SD721-2512-18, Revision 0. This is exemplified by the fact that the design calculations specify thermal overloads G30T49B for this application and the drawing specifies thermal overloads G30T51 and Startup Test Report No. 6161E, dated November 1982 specifies thermal overloads G30T49B. Thermal overloads G30T49B are installed in this unit, furthermore, records were not available to indicate when or who replaced thermal overloads size G30T51 with G30T49B.
2. The licensee failed to assure that design calculations No. 968 [sic DC969], Revision A, specifying thermal overload size for MCC 72F-4A, position 2AR, were incorporated into design drawing 5SD2512-19B, Revision S. This is exemplified by the fact that the design calculations specify thermal overloads G30T50A and G30T53A for this application and the drawing specifies only thermal overloads G30T50A [sic G30T53A]. Also, the vendor's technical manual does not describe the thermal overloads utilized. Thermal overloads G30T50 and G30T53 are installed in this unit.
3. The licensee failed to assure that design calculations No. 968 [sic DC969], Revision A, specifying thermal overload size for MCC 72E-5A, Position 2D, were incorporated into design drawing 5SD2512-15A, Revision Q. This is exemplified by the fact that the design calculations specify thermal overloads G30T39 [sic G30T38] for this application and the drawing specifies thermal overloads G30T38 [sic G30T39]. Thermal overloads G30T38 are installed in this unit.

Statement of Noncompliance 84-50-04 (Cont'd)

4. The licensee failed to assure that thermal overloads G30T16 were installed in MCC 72B-2A, Position 4B, in accordance with design calculations No. 968, Revision A, and design drawing 5SD2512-20, Revision L. This is exemplified by the fact that thermal overloads G30T15 are installed in this unit.
5. The licensee failed to assure that design calculations No. 968, Revision A specifying thermal overload size for MCC 72B-3A, Position 5DR, were incorporated into design drawing 5SD2512-16B, Revision Q. This is exemplified by the fact that the design calculations specify thermal overloads G30T49A for this application and the drawing specifies thermal overloads G30T48A. Thermal overloads G30T48A are installed in this unit.

Corrective Action Taken and Results Achieved

Thermal overload (TOL) heater sizing and installation is a cooperative effort between Start-Up and Engineering personnel. Start-Up personnel verify the motor data against the frontal elevation drawings and record the stroke time of valves in accordance with Checkout and Initial Operation (CAIO) procedures. If the motor data or stroke time differs from the drawing, they request engineering to resize the overload heater in accordance with Design Calculation DC968 for motor operated valves or DC969 for continuous duty motors. Change paper is then issued to record the actual motor data and TOL heater size on the frontal elevation drawing. Engineering closes each item by documenting in Design Calculation DC968 or DC969 that the proper overload heater was specified.

The five items listed in the Notice of Violation are addressed below:

1. Motor Control Center 72C-3A, Position 3A, feeds the RHR emergency equipment north cooling unit. FMR-3409 dated March 24, 1982 called for the installation of heater size G30T49B. FMR-3409 was incorporated into drawing 5SD721-2512-18, Revision H, in April, 1982. Field work for FMR-3409, i.e., the actual installation of heater size G30T49B, occurred during the performance of Startup Test T41.00 (Test Form 7.8 #6161E) on November 9, 1982.

After FMR-3409 was incorporated into the drawing but before the work was performed, DCR-SUE-734, was issued to change the drawing because it did not agree with the heater size actually installed, size G30T51. DCR-SUE-734 was incorporated after the completion of

Corrective Action Taken and Results Achieved (Cont'd)

work for FMR-3409. Since DCR-SUE-734 called for a drawing change only, no field work was performed. Therefore, the correct heater was installed and tested but the wrong heater was shown on the drawing.

In 1983, Design Calculation DC969 (identified as DC968 in the Inspection Report), Revision A, re-verified G30T49B as the correct heater. This discrepancy between the drawing which had incorporated DCR-SUE-734 and the design calculation had been identified on Attachment 7, Page 1 of DC969, Revision A. The drawing was not changed pending CAIO verification of the motor parameters used in DC969. During CAIO-000-026, Startup personnel verified that the motor data used in DC969 was correct, verified the TOL heater size listed in DC969 was installed and issued ABE-1326 on September 20, 1984 to update the frontal drawing. ABE-1326 had not been incorporated into the drawing when the inspector identified the discrepancy in October, 1984.

2. Motor Control Center 72F-4A Position 2AR, controls a reactor drywell cooling fan which has a two speed motor and, therefore, two sets of thermal overloads. Both sets of overloads are correctly identified in Design Calculation DC969 (identified as DC968 in the Inspection Report). Due to an error, only the G30T53A (identified as G30T50A in the Inspection Report) heaters are shown on Revision S of the frontal elevation drawing, 5SD2512-19B. Prior to Revision S, both sizes of overload heaters were shown on the drawing and those shown agreed with DC969. This change was not ballooned on the drawing or in the revision block. The drawing has now been corrected.

As identified by the NRC inspector, thermal overload heater sizes G30T50 and G30T53 are installed in this position. The G30T50 and G30T53 heaters are being replaced with G30T50A and G30T53A heaters, respectively.

3. Motor Control Center 72E-5A Position 2D, feeds the south cooling unit motor in the control air compressor room. As identified by the NRC inspector, there is a discrepancy between the overload heater specified in DC969 (identified as DC968 in the Inspection Report), Revision A, and the frontal elevation drawing 5SD721-2512-15A, Revision Q; however, the inspector actually observed that G30T38 heaters are specified by

Corrective Action Taken and Results Achieved (Cont'd)

DC969 and G30T39 heaters are shown on the drawing. As identified in the inspection report, the proper heaters, G30T38, were installed.

DC969, Revision A, calculated that the proper heater size for this application was G30T38 instead of G30T39 as shown on the frontal elevation drawing, 5SD721-2512-15A. The discrepancy between the drawing and the design calculation was identified on Attachment 7, Page 1 of DC969, Revision A. The drawing was not changed pending CAIO verification of the motor parameters used in DC969. During CAIO-000-026, the motor data was confirmed to be in agreement with DC969 and the overload heaters were replaced to conform to DC969; however, the frontal elevation drawing was not revised. This discrepancy has been resolved by the issuance of Engineering Design Package (EDP) 1917; and, upon completion of the EDP the drawing will be revised.

4. Motor Control Center 72B-2A Position 4B, feeds the inboard isolation valve for the emergency equipment cooling water return from drywell. The discrepancy described in the Inspection Report was identified by Detroit Edison personnel and reported to the NRC inspector. However, subsequent investigation revealed that the report to the NRC inspector was incorrect. The proper heaters, G30T16, as specified by the drawing and DC968, had been installed at the time of the NRC inspection.
5. Motor Control Center 72B-3A Position 5DR, supplies the RHR recirculation outboard bypass valve. The NRC inspection report identifies the concern that the heaters specified by the drawing, G30T48A, are installed although DC968, Revision A, identifies G30T49A as the correct heater size.

As previously stated, DC968, Revision A was based on the motor data available at the time the calculation was performed. The calculation for this position determined that the TOL heater size shown on the drawing needed to be revised; this information was documented on Page 2, Attachment 9 of DC968, Revision A. No action was taken pending field verification of the motor data.

During field verification, the data used in Revision A of DC968 was determined to be inaccurate and, therefore, the heater size specified in DC968, Revision A, was also incorrect. Independent of the issuance of DC968,

Corrective Action Taken and Results Achieved (Cont'd)

DCR-SUE-1467 corrected the motor data and the heater size on the drawing. Revision B of DC968 has incorporated the field verified motor data and now shows G30T48A as the correct heater size.

It should be noted that G30T48 heaters are actually installed in this position and the heaters are being replaced with size G30T48A.

Corrective Action Taken to Avoid Further Noncompliance

The examples cited in this item of noncompliance highlight Detroit Edison's ongoing program to ensure the proper sizing of thermal overload heaters. The incorporation of CAIO verified motor data into the design calculations (DC968 and DC969) and the subsequent reconciliation of the installed heaters and the frontal elevation drawings with the design calculations will ensure that Class 1E motors are adequately protected by thermal overloads.

Detroit Edison has completed verification of Class 1E motor data and has verified the stroke times for tested valves. Cases were identified where the verified data disagreed with the data used in the original calculation. In addition, some heater sizes were changed in the original calculation but the installed heater and drawing were not changed pending field verification of the motor data. Engineering Design Packages have been issued to resolve both of these concerns. These packages are being implemented at this time in accordance with the EDP implementing action plan. An independent verification accomplished by comparing field installations to the latest revisions of the MCC frontal elevation drawings including open change paper associated with the drawing will be performed.

Date When Full Compliance Will be Achieved

Full compliance will be achieved by February 20, 1985.