

NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

JUL 1 0 1984

Docket No.: 50-341

APPLICANT: Detroit Edison Company

FACILITY: Fermi-2

SUBJECT: SUMMARY OF MEETING ON JUNE 5, 1984, REGARDING THE

COMPLIANCE OF THE FERMI-2 FACILITY WITH APPENDIX R

TO 10 CFR PART 50

Introduction

Members of the NRC staff, including NRR and Region III personnel, met with representatives of the Detroit Edison Company in Bethesda, Maryland, on June 5, 1984, to discuss the compliance of the as-built Fermi-2 facility with the requirements of Appendix R to 10 CFR Part 50. No formal presentation was made and no slides were provided.

Summary

The meeting was requested by the NRC staff to discuss with the applicant a number of the staff's concerns arising from the on-site audit at the Fermi-2 facility during the week of May 14th through May 18th, 1984. This audit was conducted by Region III with representatives of the Chemical Engineering Branch (CMEB) of NRR. The purpose of this audit had been to determine the degree of compliance of the Fermi-2 facility with the requirements of Appendix R (Fire Protection) to 10 CFR Part 50. In light of the particular problems identified by the NRC audit team, the format of the meeting was structured to address these specific concerns so that these particular examples would demonstrate how the requirements of Appendix R would be applied by the staff on Fermi-2.

There were three specific areas of the Fermi-2 facility which were identified by the audit team in voicing its concerns about the degree of compliance with Appendix R. These are the control room, the relay room and the DC motor control center distribution area. Each of these were discussed separately. A summary of the staff's discussion on June 5, 1984, for these areas is provided below.

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Control Room

One of the main concerns of the NRC staff will regard to the control room is that the fire test conducted about two years ago by the applicant for the control panels, is "non-representative" of the "as-built" control panels. Specifically, the control panel which was fire-tested had a solid steel plate backed by an insulating material (marinite) on the lowest surface facing the control room whereas the as-built control panels have louvered door panels which are not tightly sealed. In the event of a fire immediately in front of a control panel, part of the flame (i.e., heat load) would be drawn by natural convection up through the control panels whereas this phenomenon was prevented by the test configuration.

A second concern of the staff is that the panels are not sealed at the top. In response to these concerns, the applicant contended that while a single control panel required for safe shutdown of the plant might be lost due to a postulated fire, the adjacent redundant control panel would not be affected. The staff voiced disagreement with the applicant's position on this since the staff is concerned that a fire (and, therefore, heat load) would exit the open top of one panel and enter the open top of the redundant control panel. This postulated spread of fire from one panel to another would be enhanced by the dropped ceiling immediately over the control panels. Additionally, the staff expressed its concern that the dropped ceiling was not simulated in the fire-testing of the control panel so that the as-built configuration would be more susceptible to the effects of a "confined" fire than was the case in the fire test.

A number of other similar concerns were discussed with the applicant regarding the as-built configuration of the control room with regard to fire protection. The thrust of these concerns is that the staff believes the as-built configuration is inconsistent with the FSAR and the staff's understanding of how the FSAR design criteria were to be implemented. The applicant voiced its disagreement with a number of the staff's concerns and views on this matter.

Relay Room

As in the matter of the control room, the staff expressed its concerns that the as-built configuration and design features of the relay room are inconsistent with both the FSAR design criteria and the requirements of Appendix R. Specifically, the staff was concerned about the amount of intervening combustible material between the relay cabinets of redundant divisions of the emergency core cooling systems (ECCS). The staff requires a minimum separation of twenty feet between redundant divisions without intervening combustibles whereas there is about 30 feet separating the redundant ECCS divisions with a large number of unwrapped, balance of plant (80P) cables between them.

The staff is also concerned that the relatively large heat load installed in the relay room in the form of unwrapped cables could adversely affect sensitive electronic components in the event of a fire. Further, the halon fire suppression system in the relay room would not remove this postulated heat load which in turn might require that fire hoses be used in the relay room. In this event, water sprayed on one division might adversely affect the redundant division. The applicant again disagreed with the staff's concerns on this matter. However, the staff noted that the applicant had not analyzed the potentially adverse consequences of spraying water in the relay room.

A number of other staff concerns regarding the relay room were discussed and there was no agreement between the staff and the applicant on these issues.

DC Motor Control Center

The staff expressed its concern that the fire wall separating the redundant d-c motor control centers (MCC) was not acceptable in its as-built configuration.

Conclusions

Inasmuch as the staff and the applicant were far apart in agreeing on the significance of the staff's concerns about the compliance of the Fermi-2 facility with the requirements of Appendix R, the applicant was not prepared at that time to discuss any possible design modifications. It was then agreed to meet again in two weeks on June 19, 1984, to discuss these matters further. Subsequently, it was agreed to reschedule this next meeting for July 11, 1984.

The staff emphasized at the end of the June 5th meeting that the on-site audit and the concerns raised by this inspection effort did not represent its final inspection effort on the subject of Appendix R compliance. Specifically, the Region III personnel indicated it would schedule an additional on-site Appendix R inspection of Fermi-2 after it reached an agreement with the applicant on how Appendix R was to be implemented on Fermi-2.

ORIGINAL SIGNED BY:

M. D. Lynch, Project Manager Licensing Branch No. 1 Division of Licensing

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CONCURRENCES:

(RETYPED KAB 7/10/84)

MDLynch:es 07/10/84 B Youngalood

FERMI

Dr. Wayne Jens Vice President - Nuclear Operations -The Detroit Edison Company 2000 Second Avenue Detroit, Michigan 48226

cc: Mr. Harry H. Voigt, Esq. LeBoeuf, Lamb, Leiby & Macrae 1333 New Hampshire Avenue, N. W. Washington, D. C. 20036

> Peter A. Marquardt, Esq. Co-Counsel The Detroit Edison Company 2000 Second Avenue Detroit, Michigan 48226

> Mr. William J. Fahrner Project Manager - Fermi 2 The Detroit Edison Company 2000 Second Avenue Detroit, Michigan 48226

> Mr. O. Keener Earle Supervisor-Licensing The Detroit Edison Company Enrico Fermi Unit 2 6400 No. Dixie Highway Newport, Michigan 48166

Mr. Paul Byron U. S. Nuclear Regulatory Commission Resident Inspector's Office 6450 W. Dixie Highway Newport, Michigan 48166

Mr. Harry Tauber Group Vice President The Detroit Edison Company 2000 Second Avenue Detroit, Michigan 48226 Ronald C. Callen Adv. Planning Review Section Michigan Public Service Commission 6545 Merrantile Way P. O. Box 30221 Lansing, Michigan 48909

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

Meeting Summary Distribution

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OELD

Project Manager D. Lynch

M. Rushbrook R. Hartfield*

OPA*

OTHERS

R. Eberly

R. Ferguson

V. Benaroya

R. Vollmer

R. Johnston

NRC PARTICIPANTS:

bcc: Applicant & Service List

*Caseload Forecast Panel Visits