



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

September 8, 1988

Docket No. 50-341

Mr. B. Ralph Sylvia, Group Vice President
Nuclear Operations
The Detroit Edison Company
6400 North Dixie Highway
Newport, MI 48166

Dear Mr. Sylvia:

SUBJECT: EMERGENCY OPERATING PROCEDURES INSPECTION
(INSPECTION REPORT 50-341/88200)

This letter forwards the report for the emergency operating procedure (EOP) inspection performed by an NRC inspection team at the Fermi 2 nuclear power plant during the period of July 5 through July 14, 1988. Members of the NRC Office of Nuclear Reactor Regulation, Region III, and contractors conducted this inspection. At the conclusion of the inspection, the team discussed the findings with you and the members of your staff identified in Appendix A of the enclosed inspection report.

The purpose of the inspection was to verify that your emergency operating procedures were technically correct; that their specified actions could be physically accomplished using existing equipment, controls, and instrumentation; and that the available procedures could be correctly carried out by the plant staff.

The inspection effort involved a review of your program for EOP development, a validation and verification of issued EOPs and an evaluation of your training activities for EOPs. The inspection team accomplished these tasks through use of your site specific simulator, walk-throughs of EOPs with operators, interviews with key plant staff and review of EOPs and supporting documentation.

Two documents are enclosed with this letter: the Executive Summary of this inspection provides an overview of the inspection team's findings in each area reviewed; the enclosed inspection report provides a more detailed explanation of the team's findings. Although no response is required to this letter, the report includes findings that may result in enforcement action, which would be the subject of separate correspondence from the NRC Region III Office.

Overall, the team concluded that the draft EOPs which have been prepared for Fermi 2 represent a significant improvement over the procedures that were in use at the time of the inspection. Numerous deficiencies and potential areas for improvement were noted in the presently used procedures. The more

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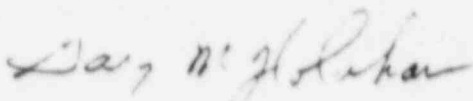
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significant items, such as diversity of methods for containment venting; overpressure and overtemperature strategies for protection of the containment and standby gas treatment system; the staging, inventory, and preventive maintenance program for EOP-related equipment; and enhancements to your formal procedure place-keeping methods, should be considered on an expedited basis.

In accordance with 10 CFR 2.790(a), a copy of this letter and the enclosure will be placed in the NRC Public Document Room.

Should you have any questions concerning this inspection, please contact me or Mr. Ralph Architzel (301-492-0991).

Sincerely,



Gary M. Holahan, Acting Director
Division of Reactor Projects III,
IV, V, and Special Projects
Office of Nuclear Reactor Regulation

Enclosures:

1. Executive Summary
2. NRC Inspection Report 50-333/88200

cc w/enclosures: See next page

cc w/enclosure:

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EXECUTIVE SUMMARY
INSPECTION REPORT 50-341/88200
FERMI 2 NUCLEAR POWER PLANT

A team of NRC inspectors and contractor personnel inspected the Fermi 2 Nuclear Power Plant to evaluate the licensee's program for development and implementation of emergency operating procedures (EOPs) as required by Generic Letter 82-33. The inspection team performed this evaluation by:

- Reviewing the EOP development process as described in the procedure generation package submitted to the NRC.
- Comparing the emergency procedure guidelines to the EOPs and deviation documentation.
- Validating the EOPs using the site specific simulator and through plant walkdowns of EOP appendices.
- Independently verifying selected EOPs and appendices for conformance with the procedure generation package.
- Reviewing operator requalification training on the EOPs.

Fermi 2 was in the final stages of implementing symptomatic-based EOPs based on Revision 4 of the BWR Owners' Group Emergency Procedure Guidelines. The team thus inspected draft procedures that were nearly in final form and that had been mostly verified, validated and for which the operator training had been almost completed. A significant conclusion of the team was that the draft procedures represented an enhanced method to control the plant under emergency operations as compared with the approved EOPs. Nonetheless, several problems were identified relative to the draft EOPs and the implementation process. Some of these problems are highlighted below; more details are provided in the inspection report. The team did conclude that the draft EOPs could be used to adequately control emergency operating conditions and that early implementation of the revised EOPs would be a safety enhancement.

The team noted that EOP provisions for containment venting were not comprehensive. For example, the licensee had not evaluated all possible paths to vent the containment or assessed the integrity of the standby gas treatment system under the planned release paths.

The simulator training that was conducted was not integrated and only exercised mild transients. The licensee stated the reason for the lack of challenge during simulator sessions was simulator limitations in modelling complex transients. The team did observe excellent control of the simulator during the conduct of three scenarios developed for this inspection.

Several problems were noted with plant material conditions during plant walk-downs. These problems included emergency access paths that were blocked, EOP equipment boxes that were poorly configured for equipment removal, and the need to dress-out for normal access to general areas of the reactor building due to recent leaks in the reactor water cleanup system. The team concluded

that certain material conditions should be evaluated and addressed. These included the use of tygon tubing to vent the potentially hot and high pressure fluid for the control rod drives, the use in the EOPs of normal power supplies, and the lack of inventories, prestaging, and planned preventive maintenance of EOP tools and equipment.

The team identified a significant deviation from the Owners' Group Guidelines in the draft EOPs that had not been addressed by the licensee. The EOP entry conditions used technical specification allowable values, versus the actual trip setpoints as specified by the Owner's Group. The licensee revised the EOPs during the inspection to use trip setpoints for entry conditions, where conservative.

In the human-factors area, the team noted that some calculations required during performance of the EOPs were difficult to perform. There was a marked need to define and enhance procedure place-keeping methods. The lack of flow charts was considered detrimental. Such charts would represent a significant place-keeping enhancement. A general revision to the EOP Writer's Guide was considered necessary. In addition, the procedures needed a general editing review to be sure the Writer's Guide editorial directions were followed and the logic statements were properly formulated.

The team noted several strengths during the inspection. Overall, the quality, legibility and readability of the draft EOPs was very good. The licensee had developed an excellent system to control jumpers and safety system defeats. The shift crew assigned to perform simulated EOP exercises handled the emergency operations in an accomplished, professional manner.