

November 8, 2000

Mr. William O'Connor, Jr.
Vice President
Nuclear Generation
Detroit Edison Company
6400 North Dixie Highway
Newport, MI 48166

SUBJECT: FERMIL 2 NUCLEAR POWER PLANT - NRC INSPECTION REPORT
50-341/00-11(DRS)

Dear Mr. O'Connor:

On October 27, 2000, the NRC completed a baseline inspection at your Fermi 2 Nuclear Power Plant. The results of this inspection were discussed on October 27, 2000, with Mr. N. Peterson and members of your staff. The enclosed report presents the results of that inspection.

The inspection was an examination of activities conducted under your license as they relate to emergency preparedness and to compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas the inspection consisted of a selective examination of procedures and representative records, observations of activities, and interviews with personnel. Specifically, this inspection focused on performance during your biennial emergency preparedness exercise and your staff's capability to self-assess your participants' performance. In addition, we reviewed your staff's determinations of performance indicators for the Emergency Preparedness Cornerstone.

Based on the results of this inspection, no findings of significance were identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the *Publicly Available Records (PARS) component of NRC's document system (ADAMS)*. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

W. O'Connor

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We will gladly discuss any question you have concerning this inspection.

Sincerely,

/RA/

Gary L. Shear, Chief
Plant Support Branch
Division of Reactor Safety

Docket No. 50-341
License No. NPF-43

Enclosure: Inspection Report 50-341/00-11(DRS)

cc w/encl: N. Peterson, Director, Nuclear Licensing
P. Marquardt, Corporate Legal Department
Compliance Supervisor
R. Whale, Michigan Public Service Commission
Michigan Department of Environmental Quality
Monroe County, Emergency Management Division
Emergency Management Division
MI Department of State Police
W. Curtis, FEMA, Region V

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-341
License No: NPF-43

Report No: 50-341/00-11(DRS)

Licensee: Detroit Edison Company

Facility: Enrico Fermi, Unit 2

Location: 6400 N. Dixie Highway
Newport, MI 48166

Dates: October 23-27, 2000

Inspectors: T. Ploski, Senior Emergency Preparedness Analyst
R. Jickling, Emergency Preparedness Analyst

Approved by: Gary L. Shear, Chief, Plant Support Branch
Division of Reactor Safety

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety

- Initiating Events
- Mitigating Systems
- Barrier Integrity
- Emergency Preparedness

Radiation Safety

- Occupational
- Public

Safeguards

- Physical Protection

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.

SUMMARY OF FINDINGS

IR 05000341-00-11(DRS), on 10/23-27/2000, Detroit Edison Company, Enrico Fermi, Unit 2.
Emergency Preparedness

The report covers a one week period of announced inspection by two regional emergency preparedness inspectors. This inspection focused on the Reactor Safety, Emergency Preparedness Cornerstone, and included the following: evaluation of licensee staff's capability to assess licensee participants' performance during the biennial emergency preparedness exercise; and review of the three emergency preparedness performance indicators.

REACTOR SAFETY

Cornerstone: Emergency Preparedness

- No findings of significance were identified during this inspection (Section 1EP1, Section 4OA1, and Section 4OA5).

Report Details

1. REACTOR SAFETY

Cornerstone: Emergency Preparedness (EP)

1EP1 Drill, Exercise, and Actual Events

a. Inspection Scope

The inspectors reviewed the 2000 exercise's objectives and scenario to ensure that the exercise would acceptably test major elements of the licensee's emergency plan. The inspectors verified that the simulated problems provided an acceptable framework to support demonstration of the licensee's capabilities to implement its emergency plan. The inspectors also reviewed records of a practice drill conducted on October 3, 2000, in order to determine whether the associated scenario was sufficiently different from the scenario used in the October 25 exercise.

The inspectors evaluated the licensee's exercise performance, focusing on the risk-significant activities of emergency classification, notification, and protective action decision making, as well as implementation of accident mitigation strategies in the following emergency response facilities:

- Control Room Simulator (CRS)
- Technical Support Center (TSC)
- Emergency Operations Facility (EOF)

The inspectors also assessed the licensee's recognition of abnormal plant conditions, transfer of responsibilities between facilities, internal communications, interface with offsite officials, readiness of emergency facilities and related equipment, and overall implementation of the licensee's emergency plan.

The inspectors attended post-exercise critiques in the TSC and EOF to evaluate the licensee's initial self-assessment of its exercise performance. The inspectors later met with the licensee's lead exercise evaluators to obtain the licensee's refined assessments of its exercise participants' and controllers' performances. These self-assessments were then compared with the inspectors' independent observations and related assessments. On October 27, 2000, an inspector made a presentation at the post-exercise, public and media briefing hosted by Federal Emergency Management Agency (FEMA) staff.

b. Findings

No findings of significance were identified.

4. **OTHER ACTIVITIES**

40A1 Performance Indicator (PI) Verification

a. Inspection Scope

The inspectors reviewed records related to each of the three EP indicators, Alert and Notification System (ANS), Emergency Response Organization (ERO) Drill Participation, and Drill and Exercise Performance (DEP), to verify the accuracy and completeness of data submitted through June 2000. The inspectors also reviewed procedural guidance related to the gathering and assessment of PI-related information. Documentation related to the raw data for each indicator was evaluated.

b. Findings

No findings of significance were identified.

40A5 Temporary Instruction 2515/144

a. Inspection Scope

The inspectors compared the licensee's internal guidance for identifying key ERO positions versus the guidance of the Nuclear Energy Institute (NEI) 99-02, Revision 0, publication. The inspector also reviewed records indicating the numbers of personnel assigned to these key positions.

b. Findings

No findings of significance were identified.

40A6 Management Meetings

Exit Meeting Summary

The inspectors presented the inspection results to Mr. N. Peterson and other members of licensee management and staff on October 27, 2000. The licensee acknowledged the information presented and did not identify any as being proprietary.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

J. Baum, EP Specialist
B. Bavol, EP Specialist
J. Bragg, Supervisor of Audits
J. Davis, General Supervisor-Operations
G. Garber, EP Specialist
K. Harsley, Licensing Engineer
R. Johnson, Nuclear Licensing Supervisor
K. Morris, EP Supervisor
J. Pendergast, Principal Engineer-Licensing
N. Peterson, Director-Nuclear Licensing
S. Stasek, Nuclear Assessment Manager

NRC

S. Campbell, Senior Resident Inspector
G. Larizza, Resident Inspector

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

None

Discussed

None

LIST OF ACRONYMS USED

| | |
|------|-------------------------------------|
| ANS | Alert and Notification System |
| CFR | Code of Federal Regulations |
| CRS | Control Room Simulator |
| DEP | Drill and Exercise Performance |
| DRS | Division of Reactor Safety |
| EOF | Emergency Operations Facility |
| EP | Emergency Preparedness |
| ERO | Emergency Response Organization |
| FEMA | Federal Emergency Management Agency |
| NEI | Nuclear Energy Institute |
| NRC | Nuclear Regulatory Commission |
| OA | Other Activities |
| PI | Performance Indicator |
| TI | Temporary Instruction |
| TSC | Technical Support Center |

INSPECTION PROCEDURES USED

| | |
|-------------|--|
| 71114 | Reactor Safety-Emergency Preparedness |
| 71114.01 | Exercise Evaluation |
| 71151 | Performance Indicator Verification |
| TI 2515/144 | Performance Indicator Data Collecting and Reporting Process Review |

LIST OF DOCUMENTS REVIEWED

Miscellaneous

“Enrico Fermi Atomic Power Plant, Unit 2, Radiological Emergency Response Plan”
“Performance Data Reporting Programs and Procedures,” Revision 1, dated October 2000
(Draft) “Monthly Testing of the Siren Alert Notification System,” Revision 0, dated October 2000
ANS Monthly Siren Availability Test Results July 1999 through June 2000
Scenario Manual for the EP Exercise conducted on October 25, 2000
Scenario Manual Excerpts for the EP Drill conducted on October 3, 2000
ERO and DEP-Related Records for the period October 1999 through June 2000
NEI 99-02, Revision 0, “Regulatory Assessment Performance Indicator Guideline”
Nuclear Generation Memorandum, NARP 00-0006, dated February 2000, “Revised Regulatory Oversight Process, Identification of Data Gathering Opportunities, Assessment, Documentation, and Validation”

Condition Assessment Resolution Document

00-16882; 00-13962; 00-17991

Procedures

EP-101, Revision 25, “Classification of Emergencies”
EP-102, Revision 14, “Unusual Event”
EP-103, Revision 13, “Alert”
EP-104, Revision 13, “Site Area Emergency”
EP-105, Revision 13, “General Emergency”
EP-110, Revision 10, “Organization and Responsibilities”
EP-226, Revision 8, “Potassium Iodide”
EP-290, Revision 34, “Emergency Notifications”
EP-301-01, Revision 13, “Technical Support Center”
EP-303-01, Revision 9, “Emergency Operations Facility”
EP-530, Revision 13, “Assembly and Accountability and Onsite Protective Actions”
EP-540, Revision 16, “Drills and Exercises”
EP-545, Revision 13, “Protective Action Recommendations”