

January 11, 2001

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

SUBJECT: FERMIL INSPECTION REPORT 50-341/00-14(DRP)

Dear Mr. O'Connor:

On December 31, 2000, the NRC completed an inspection at your Fermi 2 reactor facility. The results were discussed with you and other 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 safety 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 resident inspection activities.

Based on the results of this inspection, the NRC did not identify any issues which were categorized as being risk significant.

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).

Sincerely,

Original signed by
Mark A. Ring, Chief

Mark A. Ring, Chief
Reactor Projects Branch 1

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

Enclosure: Inspection Report 50-341/00-14(DRP)

See Attached Distribution

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 Vice President
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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

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

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

Report No: 50-341/00-14(DRP)

Licensee: Detroit Edison Company

Facility: Enrico Fermi, Unit 2

Location: 6400 N. Dixie Hwy.
Newport, MI 48166

Date: November 18 through December 31, 2000

Inspectors: S. Campbell, Senior Resident Inspector
J. Larizza, Resident Inspector
R. Jickling, Emergency Preparedness Specialist

Approved by: Mark Ring, Chief
Reactor Projects Branch 1
Division of Reactor Projects

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	Radiation Safety	Safeguards
<ul style="list-style-type: none">● Initiating Events● Mitigating Systems● Barrier Integrity● Emergency Preparedness	<ul style="list-style-type: none">● Occupational● Public	<ul style="list-style-type: none">● 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 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 05000341-00-14, on 11/18 - 12/31/00; Detroit Edison; Fermi 2; Resident Operations Report.

The inspection was conducted by the resident inspectors. The significance of issues is indicated by their color (green, white, yellow, red) and was determined by the Significance Determination Process. Based on the results of this inspection, there were no findings.

Report Details

Summary of Plant Status

During the inspection period, the plant was operated at or near 100 percent power.

1. REACTOR SAFETY

1R01 Adverse Weather Protection

.1 Residual Heat Removal Service Water Complex

a. Inspection Scope (71111-01)

On November 30 and December 1, 2000, the inspectors used Procedure 27.000.04, "Freeze Protection Lineup Verification," to conduct a walkdown of the residual heat removal service water complex to verify freeze protection readiness.

b. Issues and Findings

There were no findings identified.

1R04 Equipment Alignment

.1 Residual Heat Removal System

a. Inspection Scope (71111-04Q)

On December 7 and 8, 2000, the inspectors used Drawing 6M721-5706-2, "Residual Heat Removal Division 1 Functional Operating Sketch," and Procedure 23.205, "Residual Heat Removal System," as guides to walkdown and verify valve alignments for the Division 1 system.

b. Issues and Findings

There were no findings identified.

.2 Control Rod Drive System

a. Inspection Scope (71111-04Q)

On December 19 and 20, the inspectors used Drawings 6M721-5703-1 and -2, "Control Rod Drive System Functional Operating Sketch," and Procedure 23.106, "Control Rod Drive Hydraulic System," as guides to walkdown and to verify the drawings, procedures and valve alignments for the system.

b. Issues and Findings

There were no findings identified.

1R11 Fire Protection

.1 Residual Heat Removal Pump Room Division 1

a. Inspection Scope (71111-05Q)

On December 7 and 8, 2000, the inspectors used the following procedures to review the adequacy of the fire protection systems in the Division 1 residual heat removal system:

- MOP 11, "Fire Protection,"
- MES 35, "Fire Protection,"
- Procedure 28.503.09, "Monthly Fire Protection Inspection," and
- Procedure 28.508.03, "Weekly Fire Protection Inspection."

b. Issues and Findings

There were no findings identified.

1R11 Licensed Operator Requalification Program

.1 Simulator Requalification and Job Performance Measurements Task

a. Inspection Scope (71111-11)

On December 7, 2000, the inspectors observed simulator training for senior reactor operators and reactor operators to assess licensed operator performance of activities associated with the Emergency Plan. Further, the inspectors observed the evaluators' critique of the operators' performance.

b. Issues and Findings

There were no findings identified.

1R12 Maintenance Rule Implementation

.1 Maintenance Rule Implementation for C3200, "Feedwater Control System"

a. Inspection Scope (71111-12Q)

The inspectors reviewed the following documents to determine whether the licensee appropriately implemented the maintenance rule for the feedwater control system:

- Engineering System Health Report C3200, "Feedwater Control System,"
- Selected Condition Assessment Resolution Documents dated since January 1, 1999,

- Work Request 000Z002209, "C32R604A, C32R603A Indicators Spiking,"
- Work Request 000Z001898, "Troubleshoot Recirculation/Feedwater Distributed Control System Problems Encountered After Mode 2,"
- Engineering Design Package 27412, "Replace Reactor Recirculation Pump/Feedwater GEMAC Controllers,"
- Control Room Information System Dots, and
- Control Room Logs.

b. Issues and Findings

There were no findings identified.

.2 Maintenance Rule Implementation for R1100, "Auxiliary Electrical System - Combustion Turbine Generators"

a. Inspection Scope (71111-12Q)

The inspectors reviewed the following documents to determine whether the licensee appropriately implemented the maintenance rule for the auxiliary electrical systems:

- Engineering System Health Report R1100, "Auxiliary Electrical System,"
- Selected Condition Assessment Resolution Documents dated since January 1, 1999,
- Control Room Logs since January 1, 1999, and
- Applicable Control Room Information System Dots.

b. Issues and Findings

There were no findings identified.

1R15 Operability Evaluations

.1 Operability Evaluation Involving Risk Significant Structures, Systems and Components

a. Inspection Scope (71111-15)

The inspectors reviewed the following samples of condition assessment resolution documents for risk significant safe shutdown components to determine the technical adequacy of the operability evaluations:

- Condition Assessment Resolution Document 00-25440, "Residual Heat Removal Service Water Pump 'B' Step Change in Performance,"
- Condition Assessment Resolution Document 00-10269, "Low Thrust Margin for Safety Related Non-Generic Letter 89-10 Program Motor Operated Valves,"
- Condition Assessment Resolution Document 00-26382, "Work Documentation for Inboard Division 2 Feedwater Check Valve Not Completed,"
- Condition Assessment Resolution Document 00-24743, "Loose Part Monitor Channel 3 (Recirculation System 'B') Alarming During Down power," and

- Condition Assessment Resolution Document 00-20953, "Control Rod 58-19 Failed the Rod Drift Alarm Test."

b. Issues and Findings

There were no findings identified.

1R16 Operator Work Arounds

.1 Review of Operator Work Arounds

a. Inspection Scope (71111-16)

The inspectors reviewed the following operator work around documents and the associated aggregate risk assessments for the work arounds:

- Operator Work Around 00-022, "Excessive Hydrogen Gas Usage on the Main Unit Generator/Stator Water Cooling Fouling,"
- Operator Work Around 00-023, "Feedback Arm Continues to Fall Off Reactor Building Closed Cooling Water Temperature Control Valves,"
- Aggregate Assessment of Operator Work Arounds, November 30, 2000, and
- Risk Assessment of Revised Operator Work Arounds, November 2000.

b. Issues and Findings

There were no findings identified.

1R17 Permanent Modifications

a. Inspection Scope (71111-17A)

Throughout the inspection period, the inspectors reviewed the following permanent modifications:

- Modification 27238, "Emergency Diesel Governor Control System (for Emergency Diesel Generator 13),"
- Modification 30203, "Replace High Pressure Coolant Injection GEMAC Flow Controller,"
- Modification 30405, "Division 1 Battery Bank Replacement," and
- Modification 30458, "Bus 64C Undervoltage Load Shed Scheme."

The inspectors reviewed associated designs, tests, and emergency operating and abnormal operating procedures.

b. Issues and Findings

There were no findings identified.

1R19 Post Maintenance Testing

.1 Post Maintenance Testing of Division 2 Hydrogen / Oxygen Post Accident Monitoring System

a. Inspection Scope (71111-19)

The inspectors reviewed the results of Post Maintenance Testing Surveillance Procedure 44.120.031, "Post-Accident Monitoring - Drywell/Torus Hydrogen - Oxygen Quarterly Calibration; Division 2," and Procedure 24.000.05, "Monthly Continuity Light and Channel Check," following completion of Work Request 000Z004407, "Unable to Calibrate Primary Containment Monitoring System Division 2 Oxygen Sensor."

b. Issues and Findings

There were no findings identified.

.2 Post Maintenance Testing of Emergency Diesel Generator 14

a. Inspection Scope (71111-19)

On November 20, 2000, the licensee removed Emergency Diesel Generator 14 from service for maintenance. On November 22, 2000, the licensee performed post maintenance testing of the diesel per Procedure 24.307.17, "Emergency Diesel Generator 14 - Start and Load Test." The inspectors reviewed the completed post maintenance test package.

b. Issues and Findings

There were no findings identified.

1R22 Surveillance Testing

.1 Routine Review of Plant and Control Room Surveillance Records

a. Inspection Scope (71111-22)

Between November 18 and December 4, 2000, the inspectors reviewed records for Technical Specification required surveillance activities conducted in the control room and in the plant.

b. Issues and Findings

There were no findings identified.

.2 Review of Routine Surveillance Tests

b. Inspection Scope (71111-22)

The inspectors reviewed the results of the following surveillance tests to determine whether the results and the testing requirements were consistent with Technical Specification requirements:

- Procedure 24.206.001, "Reactor Core Isolation Cooling System Pump Operability and Valve Test at 1000 psig,"
- Procedure 44.030.214, "Emergency Core Cooling System - Residual Heat Removal Pump B Discharge Pressure (Automatic Depressurization System Permissive) Functional Test,"
- Procedure 24.107.03, Standby Feedwater Pump and Valve Operability and Valve Lineup Verification Test,"
- Procedure 44.030.216, "Emergency Core Cooling System - Residual Heat Removal Pump D Discharge Pressure (Automatic Depressurization System Permissive) Functional Test," and
- Procedure 24.204.06, "Division 2 Low Pressure Coolant Injection and Suppression Pool Cooling/Spray Pump and Valve Operability Test."

c. Issues and Findings

There were no findings identified.

1R23 Temporary Modifications

.1 Install Temporary Diesel for Combustion Turbine Generators

a. Inspection Scope (71111-23)

The inspectors reviewed the following documents to determine whether a temporary modification to supply power to a non station blackout combustion turbine generator was appropriate:

- Temporary Modification 00-0014, "Install Portable Diesel to 480VAC Peaker House,"
- Updated Final Safety Analysis Report Section 7.5,
- Open and Closed Deviation Event Reports and Condition Assessment Resolution Documents since January 1, 1990,
- Detroit Edison Letter NRC 89-0061, Station Blackout, dated April 17, 1989,
- NRC Station Blackout Inspection Report 50-341/932901,
- Detroit Edison Response to Request for Supplemental Station Blackout Submittal to NRC, Letter NRC 90-0060 dated March 29, 1990,
- NRC Letter "Fermi-2 Conformance to Station Blackout Rule 10 CFR 50.63" (TAC No. 68545) dated June 12, 1991,
- Detroit Edison Letter NRC 91-0086, "Station Blackout Rule Implementation," dated July 17, 1991, and
- Safety Evaluation 00-0004.

b. Issues and findings

There were no findings identified.

Emergency Preparedness (EP)

1EP4 Emergency Action Level and Emergency Plan Changes

a. Inspection Scope (71114-04)

The inspector reviewed Revision 24 to the Fermi 2 Radiological Emergency Response Preparedness Plan, dated March 30, 2000, to verify that the changes did not decrease the effectiveness of the plan. The emergency plan revisions were submitted in accordance with 10 CFR 50.54(q).

b. Issues and Findings

There were no findings identified. Our initial review of these changes will be subject to onsite inspection by an EP Specialist.

4. OTHER ACTIVITIES (OA)

4OA6 Management Meetings

.1 Exit Meeting Summary

The inspectors presented the inspection results to Mr. O'Connor and other members of licensee management at the conclusion of the inspection on January 4, 2001. The licensee acknowledged the findings presented. No proprietary information was identified.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

W. O'Connor, Vice President, Nuclear Operations
P. Fessler, Assistant Vice President, Nuclear Operations
R. DeLong, Assistant to the Assistant Vice President, Nuclear Operation
J. Korte, Director, Nuclear Security
J. Moyers, Director, Nuclear Quality Assurance
N. Peterson, Director, Nuclear Licensing
K. Howard, Director, Plant Support Engineering
S. Stasek, Manager, Nuclear Assessment
R. Libra, Manager, Technical
S. Booker, Superintendent, Work Control
D. Cobb, Superintendent, Mechanical
K. Hlavaty, Superintendent, Operations
E. Kokosky, Superintendent, Radiation Protection
G. DePalma, Supervisor, System Engineering
M. Hobbs, Supervisor, System Engineering, Electrical
R. Johnson, Supervisor, Licensing
P. Smith, Supervisor, ISEG
S. Peterman, Engineer, Operations
R. Clear, Outage Management

NRC

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

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

None

Discussed

None

LIST OF BASELINE INSPECTIONS PERFORMED

The following inspectable-area procedures were used to perform inspections during the report period. Documented findings are contained in the body of the report.

<u>Inspection Procedure</u>		<u>Report Section</u>
<u>Number</u>	<u>Title</u>	
71111-01	Adverse Weather Protection	1R01
71111-04	Equipment Alignment	1R04
71111-05	Fire Protection	1R05
71111-11	Fire Protection	1R11
71111-12	Maintenance Rule Implementation	1R12
71111-15	Operability Evaluations	1R15
71111-16	Operator Work Arounds	1R16
71111-17	Permanent Modifications	1R17
71111-19	Post Maintenance Testing	1R1
71111-22	Surveillance Testing	1R22
71111-23	Temporary Plant Modifications	1R23
71114-04	Emergency Action Level and Emergency Plan Changes	1EP4
(none)	Other	4OA4