

# UNITED STATES NUCLEAR REGULATORY COMMISSION

REGION III 2443 WARRENVILLE ROAD, SUITE 210 LISLE, IL 60532-4352

September 13, 2012

Mr. Joseph H. Plona Senior Vice President and Chief Nuclear Officer Detroit Edison Company Fermi 2 - 210 NOC 6400 North Dixie Highway Newport, MI 48166

SUBJECT: FERMI POWER PLANT, UNIT 2; NRC BASELINE EMERGENCY

PREPAREDNESS BIENNIAL EXERCISE INSPECTION REPORT

05000341/2012503(DRS)

Dear Mr. Plona:

On August 24, 2012, the U.S. Nuclear Regulatory Commission (NRC) completed a Baseline Emergency Preparedness Biennial Exercise inspection at your Fermi Power Plant, Unit 2. The enclosed report documents the results of this inspection, which were discussed on August 24, 2012, with you and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

No findings were identified during this inspection.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any), will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <a href="http://www.nrc.gov/reading-rm/adams.html">http://www.nrc.gov/reading-rm/adams.html</a> (the Public Electronic Reading Room).

Sincerely,

/RA/

Mel Holmberg, Acting Chief Plant Support Branch Division of Reactor Safety

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

Enclosure: Inspection Report 05000341/2012503(DRS)

w/Attachment: Supplemental Information

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# U.S. NUCLEAR REGULATORY COMMISSION

## **REGION III**

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

Report No: 05000341/2012503(DRS)

Licensee: Detroit Edison Company

Facility: Fermi Power Plant, Unit 2

Location: Newport, MI

Dates: August 20 through 24, 2012

Inspectors: R. Jickling, Senior Emergency Preparedness Inspector

J. Beavers, Emergency Preparedness Inspector

D. Kimble, Senior Resident Inspector

R. Jones, Resident Inspector

Approved by: M. Holmberg, Acting Chief

Plant Support Branch

**Division of Reactor Safety** 

## **SUMMARY OF FINDINGS**

IR 05000341/2012503(DRS); 08/20/2012 – 08/24/2012; Fermi Power Plant, Unit 2; Baseline Emergency Preparedness Biennial Exercise Inspection.

This report covers a one week period of announced baseline inspection by two regional inspectors, one senior resident inspectors and one resident inspector. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

# A. NRC-Identified and Self-Revealed Findings

**Cornerstone: Emergency Preparedness** 

No findings were identified.

# B. <u>Licensee-Identified Violations</u>

No violations were identified.

## **REPORT DETAILS**

#### 1. REACTOR SAFETY

**Cornerstone: Emergency Preparedness** 

1EP1 Exercise Evaluation (71114.01)

.1 Exercise Evaluation

# a. Inspection Scope

The inspectors reviewed the August 21, 2012, biennial emergency preparedness exercise's objectives and scenario to ensure that the exercise would acceptably test major elements of the licensee's emergency plan and to verify that the exercise's simulated problems provided an acceptable framework to support demonstration of the licensee's capability to implement its plan. The inspectors also reviewed records of other drills and exercises conducted in 2010, 2011, and 2012, to verify that those drills' scenarios were sufficiently different from the scenario used in the August 21, 2012, exercise.

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

- Control Room Simulator (CRS);
- Technical Support Center (TSC);
- Operations Support Center (OSC); and
- Emergency Operations Facility (EOF).

The inspectors also assessed the licensee's recognition of abnormal plant conditions, transfer of responsibilities between facilities, internal communications, interfaces 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 CRS, TSC, OSC, 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 and managers to obtain the licensee's findings and assessments of its exercise participants' performances. These self-assessments were then compared with the inspectors' independent observations and assessments to assess the licensee's ability to adequately critique its exercise performance. Documents reviewed are listed in the Attachment to this report.

This exercise evaluation inspection constituted one sample as defined in Inspection Procedure (IP) 71114.01-05.

## b. Findings

No findings were identified.

# 4. OTHER ACTIVITIES

**Cornerstone: Emergency Preparedness** 

4OA1 Performance Indicator Verification (71151)

# .1 Drill/Exercise Performance

# a. <u>Inspection Scope</u>

The inspectors sampled licensee submittals for the Drill/Exercise Performance Indicator (PI) for the period from the second quarter 2011 through second quarter 2012. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the Nuclear Energy Institute (NEI) Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, were used. The inspectors reviewed the licensee's records associated with the performance indicator to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the NEI guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the PI, assessments of PI opportunities during pre-designated control room simulator training sessions, and performance during other drills. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one drill/exercise performance sample as defined in IP 71151-05.

## b. Findings

No findings were identified.

## .2 Emergency Response Organization Drill Participation

## a. <u>Inspection Scope</u>

The inspectors sampled licensee submittals for the Emergency Response Organization (ERO) Drill Participation PI for the period from the second quarter 2011 through second quarter 2012. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, were used. The inspectors reviewed the licensee's records associated with the PI to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the NEI guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the PI; performance during the 2011 and 2012 drills; and revisions of the roster of personnel assigned to key ERO positions. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one ERO drill participation sample as defined in IP 71151-05.

# b. Findings

No findings were identified.

# .3 Alert and Notification System

#### a. Inspection Scope

The inspectors sampled licensee submittals for the Alert and Notification System (ANS) PI for the period from the second quarter 2011 through second quarter 2012. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, were used. The inspectors reviewed the licensee's records associated with the PI to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the NEI guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the PI and results of periodic scheduled ANS operability tests. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one ANS sample as defined in IP 71151-05.

#### b. Findings

No findings were identified.

## 4OA6 Management Meetings

# .1 Exit Meeting Summary

On August 24, 2012, the inspectors presented the biennial exercise inspection results to Mr. J. Plona and other members of the licensee staff. The licensee acknowledged the issues presented. The inspectors confirmed that none of the potential report input discussed was considered proprietary.

## .2 Public and Media Briefing

On August 24, 2012, the inspector summarized the NRC's preliminary exercise inspection conclusions at a public and media briefings hosted by Department of Homeland Security/Federal Emergency Management Agency Region VII Field Office staff at the Monroe County Emergency Operations Center in Monroe, Michigan.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## SUPPLEMENTAL INFORMATION

## **KEY POINTS OF CONTACT**

## Licensee

- J. Plona, Site Vice President
- N. Avrakotos, Radiation Emergency Response Preparedness Superintendant
- K. Burke, Systems Engineer
- W. Colonnello, Nuclear Support Director
- J. Davis, Training Manager
- J. Ellis, Work Management
- J. Ford, Performance Engineering Manger
- G. Garber, Radiation Emergency Response Preparedness Technical Specialist
- R. Johnson, Licensing Manager
- E. Kokosky, Nuclear Quality Assurance
- C. Monday, Radiation Emergency Response Preparedness Specialist
- A. Manoharan, Licensing Engineer
- Z. Rad, Licensing Manager
- B. Romans, Radiation Protection Chemistry Supervisor
- D. Sadowyj, Corrective Actions Program Lead Engineer
- G. Strobel, Operations Manager
- H. Torberg, Security Manager
- R. Webster, Radiation Emergency Response Preparedness Specialist

# **Nuclear Regulatory Commission**

- M. Morris, Senior Resident Inspector
- R. Jones, Resident Inspector

## LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

1

# Opened, Closed, and Discussed

None.

#### LIST OF DOCUMENTS REVIEWED

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety, but rather, that selected sections of portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

#### 1EP1 Exercise Evaluation

- Fermi 2, 2012 Emergency Preparedness Exercise Scenario, June 21, 2012
- Radiological Emergency Response Preparedness Plan; Revision 38
- EP-101; Classification of Emergencies; Revision 38
- EP-102; Unusual Event; Revision 20
- EP-103; Alert; Revision 23
- EP-104; Site Area Emergency; Revision 20
- EP-105; General Emergency; Revision 21
- EP-204-01; Damage Control and Rescue; Revision 11
- EP-290; Emergency Notifications; Revision 53
- EP-301-01; Technical Support Center; Revision 21
- EP-302-01; Operational Support Center; Revision 14
- EP-303-01; Emergency Operations Facility; Revision 15
- EP-530; Assembly and Accountability and Onsite Protective Actions; Revision 24
- EP-542; Computer Based Offsite Dose Assessment Airborne Release; Revision 10
- EP-545; Protective Action Recommendations; Revision 22
- EP-547; Rapid Estimate of Core Fuel Damage; Revision 7
- Two Year Issues List of Drill and Exercise CARDS; March 2010 July 2012
- Two Years of Drill and Exercise Scenario Timelines; March 2010 July 2012
- CARD 12-27096-09; Fermex12-Exercise Terminated Prior To Completing a Press Release In the JIC; August 28, 2012
- CARD 12-27096-10; Fermex12-Simulator Initiated an Unplanned Radiation Release; August 28, 2012
- CARD 12-27098; Fermex12-Control Room Dispatched Operators Without TSC Tracking or Approval; August 27, 2012
- CARD 12-27139; Fermex12-Evaluate Lake PARs With State; August 28, 2012
- CARD 12-27141; Fermex12-Exercise Field Monitoring Teams Failed to Track the Plume; August 28, 2012
- CARD 12-27142; Fermex12-OSC Team Briefing/Debriefing Sheet Lacked Information; August 28, 2012
- CARD 12-27149; Fermex12-Control Room Simulator Logkeeping Did Not Capture Key Events; August 28, 2012
- CARD 12-27153; Fermex12-Improve ERO Emergency Response Prioritization and Communications Between the ERFs; August 28, 2012
- CARD 12-27162; Fermex12- Some Key Information Was Not Understood in the TSC and Other ERFs; August 28, 2012
- CARD 12-27164; Fermex12-EOF Dose Assessors Confusion Over Instrument Readings; August 28, 2012

2 Attachment

# 4OA1 Performance Indicator Verification

- Monthly Data Elements for NRC Emergency Response Organization Drill Participation;
   June 2011 June 2012
- Monthly Data Elements for NRC Drill/Exercise Performance; April 2011 June 2012
- Monthly Data Elements for NRC ANS Reliability; April 2011 June 2012
- EP-540; Drills and Exercise Performance Indicator; Revision 33

# LIST OF ACRONYMS USED

ADAMS Agencywide Documents Access and Management System

ANS Alert and Notification System

CARD Condition Assessment and Resolution Document

CFR Code of Federal Regulations
CRS Control Room Simulator
DRS Division of Reactor Safety
EOF Emergency Operations Facility
EP Emergency Preparedness
ERF Emergency Response Facility
ERO Emergency Response Organization

IP Inspection Procedure
JIC Joint Information Center
NEI Nuclear Energy Institute

NRC U.S. Nuclear Regulatory Commission

OSC Operations Support Center

PAR Protective Action Recommendation
PARS Publicly Available Records System

PI Performance Indicator TSC Technical Support Center

4 Attachment

Mr. Joseph H. Plona Senior Vice President and Chief Nuclear Officer Detroit Edison Company Fermi 2 - 210 NOC 6400 North Dixie Highway Newport, MI 48166

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EXERCISE INSPECTION REPORT 05000341/2012503(DRS)

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Sincerely, /RA/

Mel Holmberg, Acting Chief Plant Support Branch Division of Reactor Safety

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

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