U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-341/91008(DRS)

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

Licensee: The Detroit Edison Company
6400 North Dixie Highway
Newport, MI 48166

Facility Name: Fermi 2 Nuclear Power Station

Inspection At: Fermi 2 Site, Newport, MI

Inspection Conducted: March 11-15, and March 27, 1991

Inspector: J. A. Holmes — April 5, 1991 Date

Approved By: F. J. Jablonski, Chief, Maintenance and Outage Section — 4-5-91 Date

Inspection Summary
Inspection on March 11-15, and March 27, 1991 (Report No. 50-341/91008(DRS))
Areas Inspected: Routine, unannounced inspection to assess the implementation of the licensee's fire protection program which included a review of licensee action on previous inspection findings, administrative procedures, completed surveillances, audits, and fire reports. In addition, a walkdown was performed to assure proper isolation of safe shutdown power cables and control circuits. The inspector utilized modules 30703, 64704, and 92701.
Results: Of the areas inspected, no violations were identified. One open item was identified concerning the Appendix "R" emergency lights maintenance procedure (Paragraph 3.b). In general, the licensee's implementation of the fire protection program was good.

The following strengths were identified:

- The fire protection specialist was knowledgeable in fire protection systems.
- A fire watch program was implemented that utilized computer "wands" and bar codes, which was an improvement over the previous program.

A program was implemented to assign management personnel to be responsible for housekeeping in different areas of the plant. In addition, during outages, task managers, area coordinators, and management level personnel are also responsible for housekeeping.

DETAILS

1. Persons Contacted

Detroit Edison Company (DECo)

*S. Catola, Vice President, Nuclear Engineering and Services
*R. Anderson, Principal Engineer, Electrical
*D. Gibson, Assistant Vice President, Nuclear Production
*L. Goodman, Director, Licensing
*+D. Holland, Nuclear Fire Protection Specialist
*R. McKeon, Plant Manager
*W. Miller, Director, Nuclear Quality Assurance
*+T. Riley, Compliance Supervisor
+J. Rotondo, Corrective Action Supervisor
*+A. Settles, Director, Plant Safety

U. S. Nuclear Regulatory Commission (NRC)

W. Rogers, Senior Resident Inspector
S. Stasek, Resident Inspector

*Denotes those attending the exit meeting on March 15, 1991.
+Denotes persons participating by telecon in the exit interview on March 27, 1991.

The inspector also contacted other licensee personnel during the course of the inspection.

2. Licensee Action on Previous Inspection Findings

(Closed) Deviation (341/89020-04(DRS)): The failure to implement the annual requalification program for the 3L panel during 1986 and 1988, except for Shift 5 in 1988.

The licensee addressed this item in a letter to the U. S. Nuclear Regulatory Commission dated September 25, 1989. The letter indicated that personnel will be annually trained on the 3L panel procedures, which also includes a walkdown of the system. Based on the licensee's commitments, this item is considered closed.

3. Routine Fire Protection Program Review

This inspection consisted of a review of administrative procedures and completed fire protection surveillances, fire protection audits, fire reports, and a walkdown of safety related equipment to assure proper isolation of safe shutdown power equipment and control circuits.

a. Administrative Procedures

(1) Control of Flammable/Combustible Liquids

Procedure NPP-FP1-01, "Flammable and Combustible Liquids Storage," Revision 4, Section 6.3, contained instructions for controlling storage of flammable and combustible liquids.

(2) Control of Transient Combustibles

Procedure NPP-FP1-01, "Transient Combustible Reviews," Revision 4, Section 6.4, contained instructions for controlling transient combustibles.

No problems were identified.

b. Fire Protection Surveillance

The inspector reviewed a sample of the licensee's completed surveillance procedures as listed below:

NPP-24.501.04, "Fire Suppression and Sprinkler Valve Operability Test," Revision 20, test dated June 26, 1990.

NPP-24.501.05, "Fire Suppression Water System Simulated Automatic Actuation Test," Revision 20, test dated May 16-20, 1990.

NPP-24.501.10, "Fire Hose Station 18-Month Surveillance," Revision 20, tests dated May 19, 1989, and September 26, 1990.

NPP-24.501.11, "Fire Hose Station Flow Test and Fire Hose Hydrostatic Test," Revision 20, tests dated September 25, 1986; August 26, 1987; September 6, 1989; and August 17, 1990.

NPP-24.501.12, "Fire Barrier Inspection," Revision 20, tests dated July 6, 1989, and January 7, 1991.

NPP-24.501.15, "Fire Hydrant Operability Test," Revision 20, test dated October 12, 1990.

NPP-24.501.17, "Sprinkler System Simulated Automatic Actuation Test," Revision 20, tests dated May 25, 1988, and July 25, 1989.

NPP-24.503.02, "Sprinkler System Integrity Verification Test," Revision 20, tests dated March 18, 1989, and August 1, 1990.

NPP-27.322.01, "Emergency Lighting - Monthly Inspection," Revision 18, test dated February 20, 1991.

NPP-44.160.001, "Fire Detection Operability and Functional Test," Revision 22, tests dated August 11-18, 1990, and January 11-13, 1990.

No unacceptable items were identified; however, the following observation was noted. The inspector observed that the monthly emergency lighting inspection procedure NPP-27.322.01 required a 30 - 60 second discharge test, which was not consistent with the manufacturer's 60 - 90 second discharge test. The simulation of power failure by depressing the test switch for 60 - 90 seconds would provide a higher level of confidence that only a surface charge exists. In addition, the procedure indicated that the electrolyte level should be between the add line and the fill line. The inspector was concerned that the electrolyte level acceptance criteria may not be adequate to assure that sufficient electrolyte will be at or above the add line between the monthly surveillances. The licensee agreed to review the manufacturer's instructions and if necessary, revise procedure NPP-27.322.01. This is an Open Item (341/91008-01(DRS)) pending review of the licensee's actions.

c. Fire Protection Audits

(1) Technical Specification 6.5.2.8(e) requires an audit of the fire protection programmatic controls at least once per 24 months. The biennial audit dated November 21, 1989, identified findings and observations that were either addressed or were scheduled to be addressed by the licensee's staff. No unacceptable resolutions were noted.

(2) Technical Specification 6.5.2.8(f) requires an audit of the fire protection equipment and program implementation to be performed by a qualified outside independent fire protection consultant at least once every 36 months. The triennial audit of November 9, 1990, identified findings and observations that were brought to management's attention, and were resolved by the licensee. No unacceptable resolutions were noted.

d. Combustible Gas Turbine

In the event of a loss of off-site power and a disabling fire in the control room, cable spreading room, cable tray area and several other areas of the plant, the electrical power for the hot shutdown would be provided by combustible gas turbine (CTG-11). The inspector reviewed the types of inspection and the frequency of the inspections performed on the CTG-11. No unacceptable items were identified.

e. Redundant Safety-Related Cable

The inspector verified that the power cables and control circuits for the high pressure coolant injection valve E4150F003 were separated as required by Appendix "R" safe shutdown analysis. No unacceptable items were observed.

f. Fire Reports

The inspector reviewed fire reports for 1989 and 1990. The fires that occurred consisted of thermal pipe insulation (contaminated with oil) on the high pressure turbine and the emergency diesel generators, laundry type dryer fires and control transformer fires.

The fires were small and were immediately identified by plant personnel or fire detection equipment. There was, however, a trend developing regarding the emergency diesel generator insulation fires (insulation contaminated with oil) and the laundry type fires. The licensee has taken measures to reduce the likelihood of these types of fires which consists of the following:

(1) For the emergency diesel insulation fires, the licensee will install a new type of gasket material which will reduce oil leakage. In addition, enhanced procedures require operator attention with respect to cleanliness including wiping up oil spills.

(2) For laundry type fires, a new vendor was obtained and the laundry operation located outdoors.

The licensee appeared to have taken adequate action to reduce the likelihood of fires in these areas.

g. Plant Observations

The inspector observed several areas of the auxiliary

and reactor building that included several hose stations, extinguishers, sprinkler valves, emergency lights and housekeeping. The inspector concluded that the equipment was well maintained. Housekeeping in these areas was good. However, the inspector observed evidence of smoking (1 cigarette butt) in the auxiliary building elevation 659 feet and 5 inches (column G-11), and (1 cigarette butt) in a cable tray elevation 603 feet and 6 inches (column H-10). The licensee procedure for accessing and working in the Radiological Controlled Areas (RCA) strictly prohibits smoking in these areas. As indicated by the licensee, smoking in the RCA is grounds for automatic expulsion. This concern is considered closed.

4. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection on March 15, 1991, and summarized the scope and findings of the inspection. Also, on March 27, 1991, a conference call was held between the licensee's representatives and the NRC inspector. The likely informational content of the inspection report was discussed with regard to documents reviewed during the inspection. The licensee did not identify any of the documents as proprietary.