

May 9, 2005

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

SUBJECT: NRC INSPECTION REPORT 05000016/2005-013(DNMS) - ENRICO FERMI
UNIT 1

Dear Mr. O'Connor:

On April 14, 2005, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at the Enrico Fermi Unit 1 facility. The purpose of the inspection was to determine whether decommissioning activities were conducted safely and in accordance with NRC requirements in the areas of facility management and control, and radiological safety. At the conclusion of the inspection on April 14, 2005, the NRC inspector discussed the findings with members of your staff.

The inspection consisted of an examination of activities at the facility as they relate to safety and compliance with the Commission's rules and regulations. Areas examined during the inspection are identified in the enclosed report. Within these areas, the inspection consisted of a selective examination of procedures and representative records, field observations of activities in progress, and interviews with personnel.

Based on the results of this inspection, the NRC did not identify any violations.

In accordance with 10 CFR 2.390 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). The NRC's document system is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

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

Sincerely,

/RA/

Jamnes L. Cameron, Chief
Decommissioning Branch

Docket No. 05000016
License No. DPR-9

Enclosure: Inspection Report 05000016/2005-013(DNMS)

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REGION III

Docket No. 05000016
License No. DPR-9

Report No. 05000016/2005-013(DNMS)

Licensee: Detroit Edison Company

Facility: Enrico Fermi Unit 1

Location: 6400 North Dixie Highway
Newport, MI 48166

Dates: April 12-14, 2005

Inspector: Peter J. Lee, Ph.D., CHP, Health Physicist

Approved by: Jamnes L. Cameron, Chief
Decommissioning Branch

EXECUTIVE SUMMARY

Enrico Fermi Unit 1 NRC Inspection Report 05000016/2005-013(DNMS)

This routine decommissioning inspection included reviews of facility management and control, and radiological safety.

Facility Management and Control

- The inspector determined that the licensee maintained adequate organizational staffing to continue the decommissioning process. (Section 1.1)
- The inspector determined that the licensee's process for evaluating the safety impacts of procedure changes was in compliance with the requirements of 10 CFR 50.59. (Section 1.2)
- The inspector determined that the licensee adequately implemented the audit and corrective action programs in accordance with its Quality Assurance Program. (Section 1.3)
- The inspector concluded that the conditions of the facility and equipment were adequate and capable of supporting sodium removal activities. (Section 1.4)

Radiological Safety

- The inspector determined that the licensee continued to be effective in controlling personal exposures and preventing the spread of contamination. (Section 2.1)
- The inspector determined that the licensee adequately controlled the release of liquid and gaseous radioactive effluents in accordance with its Technical Specifications. (Section 2.2)
- The inspector determined that the licensee adequately implemented the vendor audit program in accordance with its Quality Assurance Program. (Section 2.3)

Report Details¹

Summary of Plant Activities

During the inspection, the licensee was preparing for sodium removal from the primary sodium loops - heat exchanger and primary sodium pumps.

1.0 Facility Management and Control

1.1 Organization, Management and Cost Controls (36801)

a. Inspection Scope

The inspector evaluated the licensee's decommissioning staffing to determine whether the licensee maintained adequate staffing levels to effectively conduct its decommissioning activities. The inspector interviewed selected licensee and contractor personnel, and reviewed records of training completed in 2004.

b. Observations and Findings

The licensee had increased its staffing by two health physics technicians and two maintenance workers since the last inspection due to the increase in decommissioning activities. The licensee conducted training for contractor workers in 2004, in accordance with the provisions of the licensee's training program. The training included radiation protection, sodium handling safety, and asbestos awareness.

c. Conclusions

The inspector determined that the licensee maintained adequate organizational staffing to continue the decommissioning process.

1.2 Safety Reviews, Design Changes, and Modifications (37801)

a. Inspection Scope

The inspector reviewed the licensee's safety screening reviews to verify that completed reviews were consistent with the requirements of 10 CFR 50.59. The review included selected screening reviews completed since September 2004.

b. Observations and Findings

The licensee's Administrative Controls and Surveillance Procedures Manual, Section 1.6 was consistent with the NRC's guidance on 10 CFR 50.59 screening reviews. The licensee conducted several safety screening reviews of procedure changes for the sodium removal system to support the operation in the primary sodium loops. None of the changes required a formal 10 CFR 50.59 safety evaluation.

Note: 1. A list of acronyms used and all documents reviewed in these "Details" are provided at the end of the report.

c. Conclusions

The inspector determined that the licensee's process for evaluating the safety impacts of procedure changes was in compliance with the requirements of 10 CFR 50.59.

1.3 Self-Assessment, Auditing, and Corrective Action (40801)

a. Inspection Scope

The inspector reviewed the licensee's audit program, reviewed the licensee's corrective action work orders, and evaluated the licensee's resolution of an incident documented in the Condition Assessment Resolution Document (CARD) program. The review included the results of a semiannual audit (Audit 04-002) conducted from December 7 through December 15, 2004, and the CARDS for the period of October 2004 to April 2005.

b. Observations and Findings

The scope of Audit 04-002 included the implementation of the Fermi 1 Quality Assurance Program and radiological practices, and compliance with Technical Specifications, and followed up on previous findings and observations. The audit was appropriately focused in both scope and level of detail, and the licensee initiated appropriate corrective actions to resolve the audit findings.

The licensee assigned appropriate levels of significance for follow-up actions on CARDS, and the root cause analyses were complete and were adequate in scope and corrective actions.

c. Conclusions

The inspector determined that the licensee adequately implemented the audit and corrective action programs in accordance with its Quality Assurance Program.

1.4 Decommissioning Performance and Status Review at Permanently Shut Down Reactors

a. Inspection Scope (71801)

The inspector toured the Reactor Building where the licensee was preparing for primary loop sodium removal activities. The inspector also toured the area where sodium removal had been performed.

b. Observations and Findings

The contract workers involved in sodium removal operations wore appropriate protective equipment and followed established procedures. The caustic solution generated from the previous sodium removal operations had been neutralized and safely stored. Generally, the licensee maintained the plant in good material condition, with adequate lighting, shielding, and personnel barriers installed to support decommissioning activities. All radiological areas were adequately marked and posted.

c. Conclusions

The inspector concluded that the conditions of the facility and equipment were adequate and capable of supporting sodium removal activities.

2.0 Radiological Safety

2.1 Occupational Radiation Exposure (83750)

a. Inspection Scope

The inspector reviewed the external exposure records for the fourth quarter of 2004 and first quarter of 2005. The inspector reviewed the results of air sampling, direct radiation surveys, and contamination surveys performed during the preparation for primary loop sodium removal in the lower level of reactor building from December 2004 to April 2005. The inspector also reviewed the results of routine quarterly direct radiation survey and contamination surveys performed in the fuel and repair building from October 2004 to March 2005.

b. Observations and Findings

The results of personnel monitoring reviewed did not identify any exposures in excess of 10 percent of any applicable occupational limit in 10 CFR Part 20. The results of air sampling reviewed did not identify any potential intakes of licensed materials.

The results of area air sampling had not identified any licensed materials, despite the licensee's identification of fission products and tritium in the primary sodium. The licensee had not monitored the work areas for the presence of tritium. The licensee had installed a high efficiency particulate air filter-equipped exhaust system in the vicinity of the work area in which piping was cut during the sodium removal project. However, the licensee monitored the effluent monitoring had not identified any tritium concentrations in excess of the licensee's minimum detectable concentration.

The results of the licensee's direct radiation and removable contamination surveys had not identified any significant contamination in the work area in which piping was cut during the sodium removal project. In addition, the same surveys in adjoining areas of the fuel and repair building had not identified any significant removal contamination.

c. Conclusions

The inspector determined that the licensee continued to be effective in controlling personal exposures and preventing the spread of contamination.

2.2 Radioactive Waste Treatment, Effluent and Environmental Monitoring (84750)

a. Inspection Scope

The inspector reviewed the licensee's liquid and gaseous effluent monitoring programs. The review included analytical data for the air effluent releases for particulates and tritium for the period of October 2004 to March 2005.

b. Observations and Findings

During the period of review, the licensee had not released any liquid wastes. Most of the liquid waste was stored in the primary sodium storage tanks.

The results of the licensee's gaseous effluent monitoring had not identified the release of any licensed materials.

c. Conclusions

The inspector determined that the licensee adequately controlled the release of liquid and gaseous radioactive effluents in accordance with its Technical Specifications.

2.3 Transportation of Radioactive Materials (86750)

a. Inspection Scope

The inspector reviewed the licensee's program for the transportation of radioactive materials. The review included the licensee's waste stream analysis for compliance with the requirements of 10 CFR Part 61 and the results of a third party audit of the licensee's vendor that performed the analysis.

b. Observations and Findings

The licensee had not shipped any radioactive wastes since the last inspection.

The licensee conducted the last triennial third party audit from December 2 through December 5, 2004. The audit scope was of sufficient scope and depth. The vendor adequately responded to the findings of the audit.

c. Conclusions

The inspector determined that the licensee adequately implemented the vendor audit program in accordance with its Quality Assurance Program.

3.0 Exit Meeting

The inspector presented the inspection results to members of the licensee's staff at the conclusion of the inspection on April 14, 2005. The licensee did not identify any of the documents or processes reviewed by the inspector as proprietary.

PARTIAL LIST OF PERSONS CONTACTED

W. Colonnello, Director, Nuclear Support
L. Goodman, Manager, Fermi 1 (Custodian)
J. Couillard, Radiological Engineer, Fermi 1
D. Swindle, Sodium Project Manager
D. Craine, Health Physicist, Fermi 1
J. Slaback, Safety Officer, Fermi 1
C. Aldridge-Nunn, Office Administration
L. Davis, Office Specialist

All of the above were in attendance at the exit meeting on April 14, 2005.

LIST OF PROCEDURES USED

IP 36801: Organization, Management, and Cost Controls
IP 37801: Safety Reviews, Design Changes, and Modifications at Permanently Shutdown Reactors
IP 40801: Self-Assessment, Auditing, and Corrective Actions at Permanently Shutdown Reactors
IP 83750 Occupational Radiation Exposure
IP 84750: Radioactive Waste Treatment and Effluent and Environmental Monitoring
IP 86750 Solid Radwaste Management and Transportation of Radioactive Materials
IP 71801 Decommissioning Performance and Status Review at Permanently Shut Down Reactors

LIST OF ACRONYMS USED

ADAMS Agency Document and Management System
CARDs Condition Assessment Resolution Documents
CFR Code of Federal Regulations
DNMS Division of Nuclear Materials Safety
NRC Nuclear Regulatory Commission

LICENSEE DOCUMENTS REVIEWED

Licensee documents reviewed and utilized during the course of this inspection are specifically identified in the "Report Details" above.

ITEMS OPENED, CLOSED, AND DISCUSSED

None