March 9, 2004

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

SUBJECT: NRC INSPECTION REPORT 05000016/2003-011(DNMS) - FERMI UNIT 1

Dear Mr. O'Connor:

On February 6, 2004, the 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 areas of facility management and control, decommissioning support, and radiological monitoring. Specifically, the inspectors reviewed activities conducted during processing of the sodium vapor traps, preparation for processing sodium in the primary sodium transfer tank, and removal of sheathing from piping at the bottom of the reactor. At the conclusion of the inspection on February 6, 2004, the NRC inspectors discussed the findings with members of your staff.

The inspection consisted of an examination of activities at the Fermi Unit 1 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. The decommissioning activities reviewed were being conducted in accordance with applicable regulations and license conditions.

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 ADAMS 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/

Christopher G. Miller, Chief
Decommissioning Branch

Enclosure: Inspection Report 050000016/2003-011(DNMS)

Docket No. 05000016
License No. DPR-9

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REGION III

Docket No.	05000016
License No.	DPR-9
Report No.	05000016/2003-011(DNMS)
Licensee:	Detroit Edison Company
Facility:	Enrico Fermi Unit 1
Location:	6400 North Dixie Highway Newport, MI 48166
Dates:	December 2 - 4, 2003 February 2 - 6, 2004
Inspectors:	Edward Kulzer, CIH, CSP Radiation Specialist Christopher R. Martin Health Physicist
Approved by:	Christopher G. Miller, Chief Decommissioning Branch Division of Nuclear Materials Safety

EXECUTIVE SUMMARY

Enrico Fermi Unit 1
NRC Inspection Report 05000016/2003-011(DNMS)

This routine decommissioning inspection covered aspects of licensee management and cost control, safety reviews, self-assessments, and radiological monitoring.

Facility Management and Control

- The licensee maintained adequate organizational staffing and funding to continue the decommissioning process. The licensee's reduction in staff had not impacted critical path work, and the licensee was prepared to augment the staff with contractors as necessary. (Section 1.1)

- The licensee's safety review screening procedure conformed to the requirements contained in 10 CFR 50.59. There were no findings in this area. (Section 1.2)

- The licensee's corrective action program for the identification, root cause evaluation, resolution and prevention of problems was effective in addressing the problems identified in the Condition Assessment Resolution Documents (CARDs) that were reviewed. The licensee implemented appropriate corrective actions that would prevent recurrence of the problems. (Section 1.3)

Decommissioning Support Activities

- The inspectors found that surveillance activities were conducted as required. The surveillances demonstrated that the equipment was working properly, or that the licensee had taken good corrective actions to restore malfunctioning equipment. There were no findings in this area. (Section 2.1)

Radiological Safety

- The licensee kept worker exposure to radiation to below 10 percent of the 10 CFR Part 20.1201 regulatory limits. In addition, the licensee staff effectively controlled contamination during decommissioning activities. (Section 3.1)

- The licensee maintained gaseous and liquid effluents well below the regulatory criteria specified in 10 CFR Part 20, Appendix B. (Section 3.2)

Report Details[1]

Summary of Plant Activities

The licensee continued work activities associated with the removal of sodium from the primary system. Theses activities were: (1) the processing of the sodium vapor traps; (2) the removal of sheathing from piping at the bottom of the reactor vessel; and (3) the preparation for sodium removal from the sodium transfer tanks.

1.0 Facility Management and Control

1.1 Organization, Management and Cost Controls (36801)

a. Inspection Scope

The inspectors evaluated the licensee's decommissioning organization, staffing, and cost controls to determine whether the licensee was effectively adjusting to changes in the level of decommissioning work. The inspectors reviewed the current Fermi Unit 1 Schedule, dated January 29, 2004, to determine if decommissioning activities were conducted according to schedule.

b. Observations and Findings

The inspectors attended the licensee's daily management meetings where decommissioning issues such as project status, performance indicators, schedules, condition reports, radiation protection, safety, and changing conditions at the facility were discussed. During these meetings, the inspectors observed the management team effectively working together to implement the site's decommissioning program.

The licensee modified its decommissioning staffing to reflect a recent organizational change. The staffing change resulted in a decrease in the number of workers from the craft group from 29 to 24 workers. The Fermi Unit 1 Custodian indicated that the drop in craft workers would not affect the completion of critical path work. In addition, the licensee indicated that contractors may be hired to supplement licensee staff in the event that critical path work fell behind schedule. The licensee considered work related to sodium removal as being the critical path work during this period.

Decommissioning of Fermi Unit 1 is still scheduled to be completed by 2008. The submittal of a License Termination Plan (LTP) has been scheduled for 2005. The licensee has delayed the following key work: (1) the submittal authorizing the removal of the reactor vessel was moved from mid to late 2006, to late 2006 or early 2007; (2) the setting up of a containment structure around the primary shield tank was changed from August 4, 2003, to January 19, 2004; (3) the processing of sodium in small pipes and equipment in the Reactor Building was moved from January 20, 2004, to March 29, 2004; and (4) the completion of the installation of 15 ground water monitoring wells was delayed from March 3, 2003, to the first Quarter of 2004.

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

The inspectors discussed the licensee's $7 million shortfall in its decommissioning funding with the Decommissioning Manager. The fund shortfall of $7 million, if not corrected, will impact work in 2006 and 2007. The licensee plans to submit a Parent Company Guarantee for approximately $7 million in the first Quarter of 2004. The planned $7 million Parent Company Guarantee should eliminate any potential problems in decommissioning funding.

c. Conclusions

The licensee maintained adequate organizational staffing and funding to continue the decommissioning process. The licensee's reduction in staff had not impacted critical path work, and the licensee was prepared to augment the staff with contractors as necessary.

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

a. Inspection Scope

The inspectors reviewed the licensee's safety review program and procedures to determine whether the program conformed to the requirements in 10 CFR 50.59.

b. Observations and Findings

The inspectors verified that the requirements found in Section 1.6 of the Enrico Fermi Atomic Power Plant Unit 1, Administrative Controls and Surveillance Procedures Manual, Revision 58, titled, "10 CFR 50.59 Evaluations," conformed to the requirements in 10 CFR 50.59. For example, the inspectors determined that the criteria specified in 10 CFR 50.59 for determining whether NRC approval was required for a change, test, or experiment, were adequately addressed by the licensee.

The inspectors reviewed the Fermi Unit 1 Safety Analysis Report (SAR) Section 6.2.4, which stated, "Design change documents are used to modify installed Fermi Unit 1 systems in the Fermi Unit 1 controlled area. Modifications to systems or components previously disconnected from current Fermi 1 systems and/or abandoned may be performed with design change or other work control document." Modifications and work orders were required to receive separate screenings in accordance with 10 CFR 50.59, and the licensee complied with this requirement.

c. Conclusions

The licensee's safety review screening procedure conformed to the requirements contained in 10 CFR 50.59. There were no findings in this area.

1.3 Corrective Action (40801)

a. Inspection Scope

The inspectors reviewed the licensee's corrective action program for the identification, resolution and prevention of problems, found in Section 1.2.2 of Enrico Fermi Atomic Power Plant Unit 1, Administrative Controls and Surveillance Procedures Manual, "Corrective Action Program," Revision 58.

The inspectors conducted a detailed review of several of the Enrico Fermi Unit 1, Condition Assessment Resolution Documents (CARDs), which included a review of the licensee's evaluation and corrective actions. The CARDs reviewed are listed at the end of this report.

b. Observations and Findings

The NRC inspectors determined that the licensee's actions taken following the initiation of CARDs were adequate. Licensee staff assigned appropriate levels of significance for follow-up actions on CARDs and ensured that root cause analyses were complete and were adequate in scope and in corrective actions.

c. Conclusions

The licensee's corrective action program for the identification, root cause evaluation, resolution and prevention of problems was effective in addressing the problems identified in the CARDs that were reviewed. The licensee implemented appropriate corrective actions that would prevent recurrence of the problems.

2.0 Decommissioning Support Activities

2.1 Maintenance and Surveillance (62801)

The inspectors conducted a walkdown of the plant facility. The inspectors reviewed records of the weekly and monthly surveillances required by Section 2.0 of the Enrico Fermi Atomic Power Plant Unit 1, Administrative Controls and Surveillance Procedures Manual, that the licensee had conducted over the past year. The inspectors found that surveillance activities were conducted as required. The surveillances demonstrated that the equipment was working properly, or that the licensee had taken good corrective actions to restore malfunctioning equipment. There were no findings in this area.

3.0 Radiological Safety

3.1 Occupational Radiation Exposure (83750)

a. Inspection Scope

The inspectors observed decommissioning activities conducted under Radiation Work Procedures, and reviewed exposure data and a Fermi Unit 1 Engineering Control Package. The inspectors attended pre-job briefings and observed licensee activities during pipe sheath removal procedures.

b. Observations and Findings

The inspectors observed that licensee-installed engineering controls were utilized, and that workers wore required protective equipment and followed applicable procedures. The inspectors observed work in progress, including: (1) cutting of sheathing around pipes; (2) processing sodium vapor traps; and (3) the preparation for sodium removal in the sodium transfer tank.

The licensee's staff practiced appropriate contamination control techniques, and these techniques were appropriate for the hazards present.

During the preparation for processing of the sodium in the sodium transfer tank, the licensee unexpectedly discovered sodium to be present in 22 containers inside the tank. Each container had a one-inch hole in the bottom for drainage. The licensee found sodium oxides in the containers that did not react as the sodium had in past processing efforts. The licensee stopped all processing until procedures were developed to address the issue.

The inspectors reviewed the quarterly radiation surveys, which consisted of smear samples collected throughout the facility. The surveys reviewed were dated from January 2003 to the current inspection. The inspectors determined that contamination control practices were effective.

During a review of current exposure reports for Fermi Unit 1 staff, the inspectors determined that personnel exposure was less than 10 percent of the occupational dose limits in 10 CFR Part 20.1201.

c. Conclusions

The licensee kept worker exposure to radiation to below 10 percent of the 10 CFR Part 20.1201 regulatory limits. In addition, the licensee staff effectively controlled contamination during decommissioning activities.

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

The inspectors reviewed the following records which covered period from January 2003 to the current inspection:

Fermi 1 Liquid Effluent Release Surveys
Fermi 1 Particulate Effluent Sample Information Logs;
Fermi 1 Tritium Effluent Monitoring Offsite Exposure Logs; and
Tritium Activity Calculation sheets.

The licensee maintained gaseous and liquid effluents well below the criteria specified in 10 CFR Part 20, Appendix B.

4.0 Occupational Safety

4.1 Occupational Safety Health Administration (OSHA) Interface Actions (93001)

In order to observe the work in progress in the lower level of the reactor building, the inspectors were required to take two Fermi Unit 2 training courses: "Confined Space Entry" in Fermi Unit 2 Safety Handbook, Section 8, Revision 8; and "Fall Protection" in Fermi Unit 2 Safety Handbook, Section 6, Revision 7. The inspectors determined that this training fully covered the required subject matter required under the OSHA regulations.

5.0 Exit Meeting Summary

The inspectors presented the inspection results to members of licensee management at the conclusion of the inspections on December 4, 2003, and February 6, 2004.

PARTIAL LIST OF PERSONS CONTACTED

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

All of the above were in attendance at the exit meeting on February 6, 2004.

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 93001:	OSHA Interface Actions

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
OSHA	Occupational Safety and Health Administration
QA	Quality Assurance
SAR	Safety Analysis Report

LICENSEE DOCUMENTS REVIEWED

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

LIST OF DOCUMENTS REVIEWED

Safety Reviews, Design Changes, and Modifications (37801)

Documents reviewed:

Fermi 1 Administrative Controls and Surveillance Procedures, Section 1.6, titled, "10 CFR 50.59 Evaluations," Revision 58, dated June 2003;

Enrico Fermi Atomic Power Plant Unit 1 Amendment to Facility Operating License, Amendment 19, Section B (1), "Pursuant to the Section 104 (c) of the Act and 10 CFR Part 50 . . . ,"

Fermi 1 Safety Analysis Report, Section 6.2.4, titled, "Design Control," Revision 2, dated November 2002;

Fermi 1 Form 10, titled, "Work Request," Revision 61, dated August 2002;

Fermi 1 Form 01, titled, "Change Request," Revision 49, dated March 2001; and

Fermi 1 Form 02, titled, "Fermi 1 10 CFR 50.59 Evaluations," Revision 49, dated March 2001.

Work requests (Form 10s) reviewed:

Maintenance Shop Heater Repairs, EF1-03-065;

Mark Locations, Survey and Scan Ground Penetrating Radar for Potential Ground Water Monitoring Locations, EF1 03-050.

Design change requests reviewed:

Process Residual Alkali-Metals in FARB Transfer Tank and Overflow Tank, 03-006;

Fermi 1 procedures:

MEF 106, titled, "Titration for Neutralization of Caustic Solutions;"
MEF 107, titled, "Spill Response and Cleanup;"
MEF 112, titled, "Scrubber System Service and Operation;"
MEF 114, titled, "Release of Smoke to the Atmosphere;"
MEF 115, titled "Fire and/or Explosion Occurs in the Work Area;"
MEF 116, titled, "Loss of Inert Gas, 03-012";

Review of Sections 1 through 4 of F1SAR and Appendices A and B Every Two Years, 03-015;

Revise F1SAR Section 3.3.5 to remove 11 gallons of Sodium in the FARB;

Delete from Section 3.3.5, titled, "FARB - approximately 11 gallons;"

Add to Section 3.3.5, “Approximately 11 gallons of sodium was estimated to be in the FARB. This sodium has since been removed. The residual sodium in the FARB transfer tank and overflow tank was processed and flooded with water. The contents of the tanks were neutralized, and the tanks were then drained, dried and disassembled,” 03-013.

Corrective Actions (40801)

Fermi 1 Condition Assessment Resolution Documents (CARDS) reviewed:

CARD No. 03-21507, Second Quarter Document Quality Assessment, written September 30, 2003;

CARD No. 03-12012, Retrieval Device Used Improperly For Equipment Lift, written October 10, 2003;

CARD No. 03-11860, Fermi 1 Radworker’s RRA Access Denied For Failure To Comply With Requirements Stated Per MRP-08, written November 7, 2003;

CARD No. 03-21790, Failed Calibration Of Dynamometer On Work Completed By Fermi 1,” written September 16, 2003.

Occupational Radiation Exposure (83750)

Radiation Work Procedures (RWPs):

03-1044 titled, "Pipe and Component Removal;"

03-1046 titled," Set Up And Process Sodium In The EF-RRA;"

04-1013 titled “Perform Routine Functions, Make Rounds, Perform Inspections, and Minor Equipment Repairs;”

04-1004 titled “Routine Inspection Surveys, Tours, Maintenance, and Escort in Radiologically Restricted Areas.”

Exposure Data:

Fermi 2 Radiation Protection Manual (RPM) System titled, “RWP Access Detail Report from January 1, 2003 through December 3, 2003.”

Fermi 1 Engineering Control Package:

EF1-01-064 titled, "Establish Radiological Controls in the Fermi 1 Protected Area," dated November 28, 2001.