UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352
April 7, 2010

Mr. Joseph Plona
Site Vice President
Nuclear Generation
The Detroit Edison Company
6400 North Dixie Highway
Newport, MI 48166

SUBJECT: NRC INSPECTION REPORT 050-00016/10-08(DNMS) - ENRICO FERMI UNIT 1

Dear Mr. Plona:

On March 17, 2010, 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. At the conclusion of the inspection on March 17, 2010, 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 included facility management and control, and radiological safety. 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 NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html.

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

Sincerely,

/RA/

Christine A. Lipa, Chief
Materials Control, ISFSI, and
Decommissioning Branch

Docket No. 050-00016
License No. DPR-9

Enclosure:
Inspection Report 050-00016/10-08(DNMS)

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No.:	050-00016
License No.:	DPR-9
Report No.:	050-00016/10-08(DNMS)
Licensee:	Detroit Edison Company
Facility:	Enrico Fermi Unit 1
Location:	6400 North Dixie Highway Newport, MI 48166
Inspection Dates:	March 16 and 17, 2010
Inspector:	Peter J. Lee, Ph.D., CHP, Health Physicist
Approved by:	Christine A. Lipa, Chief Materials Control, ISFSI, and Decommissioning Branch Division of Nuclear Materials Safety

Enclosure

EXECUTIVE SUMMARY

Enrico Fermi Unit 1
NRC Inspection Report 050-00016/10-08(DNMS)

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

Facility Management and Control

- The inspector concluded that the conditions of the facility and equipment were adequate and capable of supporting the decommissioning activities. (Section 1.1)

Radiological Safety

- The inspector determined that the licensee continued to be effective in maintaining dose to workers well below the regulatory limits. (Section 2.1)

- The inspector determined that the licensee had complied with NRC and Department of Transportation regulations for shipments of radioactive waste. (Section 2.2)

- The inspector verified that the licensee maintained effluent releases well below the Title 10 Code of Federal Regulations (CFR) Part 20 release limits. (Section 2.3)

Report Details

Summary of Plant Activities

During the inspection period, the licensee was continuing decommissioning activities and preparing for the reactor vessel removal project.

1.0 Facility Management and Control

1.1 Decommissioning Performance and Status Review at Permanently Shut Down Reactors

a. Inspection Scope (71801)

The inspector toured the plant to assess the working conditions of the decommissioning activities.

b. Observations and Findings

During the inspection, contract workers were preparing for removal of equipment from the steam cleaning chamber and removing the liner of the spent fuel decay pool. Workers wore appropriate protective equipment and followed established procedures. The licensee maintained the work location with adequate shielding, personnel barriers, and high-efficiency particulate air (HEPA) filter exhaust systems, all to minimize worker doses. 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 the decommissioning activities.

2.0 Radiological Safety

2.1 Occupational Radiation Exposure (83750)

a. Inspection Scope

The inspector interviewed the licensee personnel and reviewed the work requests for removing equipment and decontaminating the steam cleaning chamber, and air gapping (a special type of pipe cutting) reactor piping to evaluate the effectiveness of licensee controls to minimize the potential radiation exposure to the workers. The inspector reviewed the dose estimate for air gapping reactor piping and participated in the licensee's telephone conference call with its contractor to discuss the dose estimate.

b. Observations and Findings

During facility operation in the past, within the steam cleaning chamber, the cleaning machine chamber was used to clean sodium off fuel rods, including the damaged fuel rods. Therefore, alpha contamination may be present inside the cleaning machine chamber. During the inspection, the licensee had not breached the cleaning machine chamber and the air sampling in the steam cleaning chamber showed 0.2 DAC of alpha contamination. To prevent potential alpha exposure to the workers, the licensee

planned to take addition precautions such as directly venting the air right next to the cleaning machine chamber prior to breaching the chamber.

The licensee had provided the characterization survey of the reactor to its contractor to perform dose estimates for air gapping the reactor piping. During the telephone conference call, the licensee requested the contractor to provide the bases and justification for the dose estimate. The additional information requested is expected to assist the licensee in performing the as low as reasonably achievable (ALARA) review to reduce the workers' doses.

c. Conclusions

The inspector determined that the licensee continued to be effective in maintaining dose to workers well below the regulatory limits.

2.2 Transportation of Radioactive Materials (86750)

a. Inspection Scope

The inspector reviewed radioactive waste shipping documents for selected shipments and conducted interviews of the responsible individual to ensure compliance with NRC and U.S. Department of Transportation (DOT) regulations.

b. Observations and Findings

Since the last inspection, the licensee made three low specific activity-II (LSA-II) shipments of dry active waste (DAW) and metal to Energy Solutions site in Clive, Utah for burial. The licensee verified that the results of radiation and removable contamination levels were within applicable limits. The waste manifest included all the information according to the DOT and 10 CFR Part 71 transportation requirements.

c. Conclusions

The inspector determined that the licensee had complied with NRC and Department of Transportation regulations for shipments of radioactive waste.

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

a. Inspection Scope

The inspector reviewed the analytical data of gaseous effluent releases for particulates and tritium during the 4th quarter of 2009 to verify that the licensee met 10 CFR Part 20 effluent release limits.

b. Observations and Findings

Licensee evaporated the liquid waste to reduce the volume of the waste for the disposal. Air sampling at the effluence release points did not indicate any positive results from particulates and the tritium concentrations were just above the detection limit.

c. Conclusions

The inspector verified that the licensee maintained effluent releases well below the 10 CFR Part 20 release limits.

3.0 Exit Meeting

The inspector presented the inspection results to members of the licensee's staff at the conclusion of the inspection on March 17, 2010. The licensee did not identify any of the documents or processes reviewed by the inspector as proprietary.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

* L. Goodman, Manager, Fermi 1
*W. Colonnello, Director, Nuclear Support, Fermi 1
S. Stasek, Chairman, Review Committee, Fermi 1
M. Erickson, License Termination Manager
* K. Lindsey, Radiation Protection Supervisor
D. Breiding, Reactor Project Manager
D. Swindle, Sodium Project Manager
* C. Aldridge-Nunn, Office Administration
* L. Davis, Office Specialist

* Present at the March 17, 2010, exit meeting.

LIST OF PROCEDURES USED

IP 83750:	Occupational Radiation Exposure
IP 84750:	Radioactive Waste Treatment and Effluent and Environmental Monitoring
IP 86750:	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
ALARA	As Low as is Reasonably Achievable
CFR	Code of Federal Regulations
DAC	Derived Air Concentrations
DAW	Dry Active Waste
DOT	Department of Transportation
DNMS	Division of Nuclear Materials Safety
HEPA	High Efficiency Particulate Air
LSA	Low Specific Activity
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

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

Sincerely,

/RA/

Christine A. Lipa, Chief
Materials Control, ISFSI, and
Decommissioning Branch

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