



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, IL 60532-4352

December 28, 2015

Mr. Paul Fessler
Chief Nuclear Officer
DTE Energy Company
6400 North Dixie Highway
Newport, MI 48166

SUBJECT: ENRICO FERMI ATOMIC POWER PLANT, UNIT 1 - NRC INSPECTION REPORT
05000016/2015010(DNMS)

Dear Mr. Fessler:

On December 4, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Enrico Fermi Atomic Power Plant, Unit 1 (Fermi 1). On December 4, the NRC inspector discussed the results of this inspection with members of your staff. The purpose of the inspection was to determine whether decommissioning activities were conducted safely and in accordance with NRC requirements. The inspector documented the results of this inspection in the enclosed inspection report.

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 Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding," 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 System (PARS) component of the NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

P. Fessler

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

Sincerely,

/RA/

Michael Kunowski, Chief
Materials Control, ISFSI, and
Decommissioning Branch
Division of Nuclear Materials Safety

Docket No. 50-016
License No. DPR-9

IR 05000016/2015010(DNMS)
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P. Fessler

-2-

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No.: 50-016

License No.: DPR-9

Report No.: 05000016/2015010(DNMS)

Licensee: DTE Electric Company

Facility: Enrico Fermi Atomic Power Plant, Unit 1

Location: 6400 North Dixie Highway
Newport, MI 48166

Inspection Date: December 4, 2015

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

Approved by: Michael Kunowski, Chief
Materials Control, ISFSI, and
Decommissioning Branch
Division of Nuclear Materials Safety

Enclosure

EXECUTIVE SUMMARY

Enrico Fermi Atomic Power Plant, Unit 1 NRC Inspection Report 05000016/2015010(DNMS)

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

Facility Management and Control

- The inspector concluded that the licensee conducted the quarterly surveillance in accordance with the requirement of the Technical Specification. (Section 1.1)

Radiological Safety

- The inspector verified that no detectable licensed material had been released to the environment through the discharge from Sump 5. (Section 2.1)

REPORT DETAILS

Summary of Plant Activities

During the inspection period, the licensee has returned to a passive monitoring Safe Storage (SAFSTOR) status from the active final decontamination phase of SAFSTOR.

1.0 Facility Management and Control

1.1 Decommissioning Performance and Status Review at Permanently Shut Down Reactors

a. Inspection Scope (Inspection Procedure 71801)

The inspector reviewed the second and third quarter radiation surveillance results for 2015. The inspector also toured the plant to observe the condition of the plant.

b. Observations and Findings

The postings and boundaries for the contamination control areas were well maintained. There were no unexpected radiation readings detected. The radiation readings were consistent with the measurements taken during preparing to return to passive monitoring SAFSTOR.

c. Conclusions

The inspector concluded that the licensee conducted the quarterly surveillance in accordance with the requirement of the Technical Specification.

2.0 Radiological Safety

2.1 Effluent and Environmental Monitoring (Inspection Procedure 84750)

a. Inspection Scope

The inspector reviewed the analytical sampling data of groundwater from East Reactor Building, Sump 5, to evaluate the potential release of radioactive material to the environment.

b. Observations and Findings

Fermi 1 sumps are sampled semi-annually. In December 2013 sampling, all the sumps were negative with the exception of Sump 5. Sump 5 receives water collected in structures associated with the Reactor building ventilation system. The discharge flows on the ground to the storm sewer nearby. In December 2013, the original sample collected from Sump 5 and analyzed on February 13, 2014, indicated Cesium (Cs)-137 concentration of 34.4 picocuries per liter (pCi/L). In 2014 and 2015 sampling, all the sumps were negative.

The sample contained a significant amount of sediment due to the technician disturbing the sediment in the sump during sampling. That indicated the Cs-137 contamination was retained in the sediment. Also, based on Inspection Report 050-00016/2011-010

(ML11112A056), the contamination of Cs-137 in the water collected from the East Sodium Gallery, Sump 4, was due to the contamination of sediment.

c. Conclusion

The inspector verified that no detectable licensed material had been released to the environment through the discharge from Sump 5.

3.0 Exit Meeting

The inspector presented the inspection results to members of the licensee's staff at the conclusion of the inspection on December 4, 2015. 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 Licensing, MEP and Fermi 1 Custodial Delegate
- * D. Breiding, Fermi 1 Custodian
- * B. Rumans, Radiation Protection Supervisor

- * Present at the December 4, 2015, exit meeting.

LIST OF PROCEDURES USED

- | | |
|-----------------------------|---|
| Inspection Procedure 71801: | Decommissioning Performance and Status Review at Permanently Shut Down Reactors |
| Inspection Procedure 84750: | Effluent and Environmental Monitoring |

LIST OF ACRONYMS USED

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|---------|---|
| ADAMS | Agencywide Documents Access and Management System |
| CFR | Code of Federal Regulations |
| SAFSTOR | Safe Storage |
| DNMS | Division of Nuclear Materials Safety |
| NRC | Nuclear Regulatory Commission |
| pCi/L | picocuries per liter |

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