



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION III  
2443 WARRENVILLE RD. SUITE 210  
LISLE, ILLINOIS 60532-4352

December 1, 2017

Mr. Keith Polson, Senior VP  
and Chief Nuclear Officer  
DTE Energy Company  
Fermi 2 – 260 TAC  
6400 North Dixie Highway  
Newport, MI 48166

SUBJECT: NRC INSPECTION REPORT NO. 05000016/2017013 (DNMS) - ENRICO  
FERMI ATOMIC POWER PLANT, UNIT 1

Dear Mr. Polson:

On November 2, 2017, the U.S. Nuclear Regulatory Commission (NRC) completed on-site inspection activities at the permanently shut down Enrico Fermi Atomic Power Plant, Unit 1 (Fermi 1). The purpose of the inspection was to determine whether decommissioning activities were conducted safely and in accordance with NRC requirements. The enclosed report presents the results of this inspection, which were discussed with members of your staff on November 2, 2017.

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, no violations of NRC requirements were identified.

This letter and its enclosure will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

K. Polson

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

Sincerely,

*/RA/*

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

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

Enclosure:  
IR 05000016/2017013(DNMS)

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Letter to Keith Polson from Michael Kunowski, dated December 1, 2017.

SUBJECT: NRC INSPECTION REPORT NO. 05000016/2017013 (DNMS) - ENRICO  
FERMI ATOMIC POWER PLANT, UNIT 1

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No.: 050-00016

License No.: DPR-9

Report No.: 05000016/2017013(DNMS)

Licensee: DTE Electric Company

Facility: Enrico Fermi Atomic Power Plant, Unit 1

Location: 6400 North Dixie Highway  
Newport, MI 48166

Inspection Dates: November 2, 2017

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

Approved by: Michael A. 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 05000016/2017013(DNMS)**

Enrico Fermi Atomic Power Plant, Unit 1 (Fermi 1) is a permanently shut down and defueled power reactor that has been maintained in a safe storage condition (SAFSTOR). Fermi 1 is located adjacent to/co-located with the Fermi 2 operating reactor facility. This safety inspection reviewed the overall effectiveness of the licensee's programs for continued SAFSTOR of Unit 1.

#### **Facility Management and Control**

- The inspector determined that the licensee had not performed any design changes that warranted an evaluation per 10 CFR 50.59. (Section 1.1)
- The inspector concluded that the licensee conducted facility monitoring surveillances in accordance with the Technical Specifications, and adequately audited in accordance with its Quality Assurance Program monitoring surveillances performed as required by the Technical Specifications. (Section 1.2)

#### **Radiological Safety**

- The inspector determined that the licensee had not conducted any radiological work that resulted in worker exposures this past year. (Section 2.1)
- The inspector determined that no detectable licensed radioactive material had been released to the environment through the discharges from the active sumps. (Section 2.2)
- The inspector determined that the licensee had no waste shipment this past year. (Section 2.3)

## Report Details

### Summary of Plant Activities

During the inspection period, the licensee continued to maintain Fermi 1 in a passive monitoring Safe Storage (SAFSTOR) status; therefore, no physical decommissioning activities have been conducted.

#### **1.0 Facility Management and Control**

##### 1.1 Safety Reviews, Design Changes and Modifications (Inspection Procedure (IP) 37801)

###### a. Inspection Scope

The inspector review the Fermi 1 Review Committee Meeting Minutes (17-001) to determine the need of safety review for the design change.

###### b. Observations and Findings

Based on the review of Fermi 1 Review Committee Meeting Minutes (17-001), there were no design changes and 10 CFR 50.59 evaluations this past year. The inspector also toured the facility and verified the absence of any design changes.

###### c. Conclusions

The inspector determined that the licensee had not made any design changes to the facility that warranted a 10 CFR 50.59 evaluation.

##### 1.2 Decommissioning Performance and Status Review at Permanently Shut Down Reactors (IP 71801)

###### a. Inspection Scope

The inspector reviewed the licensee's weekly and monthly facility inspection results, and quarterly radiation surveillance results for 2017. The inspector also toured the plant to observe the condition of the plant.

The inspector reviewed the licensee's audits of its technical specification monitoring surveillances, Audit 16-0115 conducted from November 28-29, 2016, and Audit 17-001 conducted from June 14-19, 2017. Selected corrective action work orders associated with identified deficiencies were also reviewed.

###### b. Observations and Findings

The postings and boundaries for the contamination control were well maintained. Final status survey areas were adequately isolated and posted. There were no unexpected radiation readings detected. The radiation readings were consistent with the measurements taken to support the licensee's return of Fermi 1 in early 2012 from active decommissioning to a passive monitoring SAFSTOR status (ADAMS Accession Number ML12090A151).

The two audits were appropriately focused in both scope and level of detail, and the licensee initiated appropriate corrective actions to resolve the audit findings. No significant problems were identified.

c. Conclusions

The inspector concluded that the licensee conducted the facility monitoring surveillances in accordance with the Technical Specifications, and adequately audited the monitoring surveillances in accordance with its Quality Assurance Program.

**2.0 Radiological Safety**

2.1 Occupational Radiation Exposure (IP 83750)

a. Inspection Scope

The inspector determined that the licensee had not conducted any radiological work that resulted in worker exposures this past year.

b. Observations and Findings

Based on the discussion with the licensee, there were no radiological work associated with worker exposures this past year. This was consistent with the annual report filed by the licensee in August 2017 (ML17243A038).

Occupational radiation exposure at Fermi 1 is controlled by the licensee under the same program used at the co-located Fermi 2 operating reactor facility. This program is routinely inspected by the NRC under its Reactor Oversight Program; the most recent inspection of this program was documented in the 2<sup>nd</sup> quarter 2017 integrated inspection report issued, August 9, 2017 (ML17221A215).

c. Conclusion

The inspector determined that the licensee had not conducted any radiological work associated with measurable worker exposures this past year.

2.2 Effluent and Environmental Monitoring (IP 84750)

a. Inspection Scope

The inspector reviewed the analytical sampling data of ground water from Fermi 1 active sumps to evaluate the potential release of radioactive material to the environment.

b. Observations and Findings

According to Surveillance Performance Form, Event FI 97, Fermi 1 sumps are sampled semi-annually. Based on the review of the analytical sampling data from the sumps, the inspector determined that only natural occurring radioactive materials were identified.

Effluent and environmental monitoring for Fermi 1 is controlled by the licensee under the same program used at the co-located Fermi 2 operating reactor facility. This program is routinely inspected by the NRC under its Reactor Oversight Program; the most recent inspection of this program will likely be documented in the 4<sup>th</sup> quarter 2017 integrated inspection report, scheduled to be issued in early 2018.

c. Conclusion

The inspector verified that no detectable licensed radioactive material had been released to the environment through the discharges from the active sumps. This was consistent with the annual report filed by the licensee in August 2017 (ML17243A038).

2.3 Transportation of Radioactive Materials (IP 86750)

a. Inspection Scope

The inspector verified that any shipments of radioactive material were made in accordance with the NRC regulations in 10 CFR Parts 20 and 71 and Department of Transportation regulations in 49 CFR Parts 173-180.

b. Observations and Findings

Based on the discussion with the licensee, there were no shipments of radioactive material this past year. This was consistent with the annual report filed by the licensee in August 2017 (ML17243A038).

Transportation of radioactive materials for Fermi 1 is controlled by the licensee under the same program used at the co-located Fermi 2 operating reactor facility. This program is routinely inspected by the NRC under its Reactor Oversight Program; the most recent inspection of this program will likely be documented in the 4<sup>th</sup> quarter 2017 integrated inspection report, scheduled to be issued in early 2018.

c. Conclusion

The inspector determined that the licensee had no waste shipment this past year.

**3.0 Exit Meeting**

The inspector presented the inspection results to members of the licensee's staff at the conclusion of the inspection on November 2, 2017. 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
  - \* M. Caragher, Plant Manager
  - \* S. Stasek, Fermi 1 Review Committee Chairman
  - \* R. LaBurn, Radiation Protection Manager
  - \* J. Louwers, NQA Manager
  - \* D. Duncan, Operation Superintendent
  - \* K. Mann, Licensing Compliance Supervisor
  - \* S. Maglio, Licensing Manager
- \* Present at the November 2, 2017, exit meeting.

### **LIST OF PROCEDURES USED**

- IP 71801: Decommissioning Performance and Status Review at Permanently Shut Down Reactors
- IP 37801: Safety Reviews, Design Changes and Modifications
- IP 83750: Occupational Radiation Exposure
- IP 84750: Effluent and Environmental Monitoring
- IP 86750: Transportation of Radioactive Materials

### **LIST OF ACRONYMS USED**

- 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

### **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