



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION III

2443 WARRENVILLE ROAD, SUITE 210

LISLE, ILLINOIS 60532-4352

November 28, 2018

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

SUBJECT: NRC INSPECTION REPORT NO. 05000016/2018010 (DNMS) - ENRICO  
FERMI ATOMIC POWER PLANT, UNIT 1

Dear Mr. Polson:

On November 6, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection 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. On November 6, the NRC inspectors discussed the results of this inspection with members of your staff. The results of this inspection are documented in the enclosed 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, 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's Public Document Room in accordance with Title 10 of the *Code of Federal Regulations* (CFR) 2.390, "Public Inspections, Exemptions for Withholding."

K. Polson

2

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. 05000016  
License No. DPR-9

Enclosure:  
IR 05000016/2018010(DNMS)

cc: Distribution via LISTSERV®

K. Polson

3

Latter to Keith Polson from Michael Kunowski dated November 28, 2018.

SUBJECT: NRC INSPECTION REPORT NO. 05000016/2018010 (DNMS) - ENRICO  
FERMI ATOMIC POWER PLANT, UNIT 1

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**ADAMS Accession Number: ML18332A089**

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No.: 05000016

License No.: DPR-9

Report No.: 05000016/2018010(DNMS)

Enterprise Identifier: I-2018-010-0012

Licensee: DTE Electric Company

Facility: Enrico Fermi Atomic Power Plant, Unit 1

Location: 6400 North Dixie Highway  
Newport, MI 48166

Inspection Date: November 6, 2018

Inspectors: Peter J. Lee, Ph.D., CHP  
Bill Lin, Health Physicist

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 05000016/2018010(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 inspectors determined that the licensee had not performed any design changes that warranted an evaluation per 10 CFR 50.59. (Section 1.1)
- The inspectors determined that the licensee adequately implemented the audits of technical specification monitoring surveillances in accordance with its Quality Assurance Program. (Section 1.2)
- The inspectors concluded that the licensee conducted the facility monitoring surveillances in accordance with the requirement of Technical Specification. (Section 1.3)

#### **Radiological Safety**

- The inspectors determined that the licensee had not conducted any radiological work that resulted in worker exposures this past year. (Section 2.1)
- The inspectors determined that no detectable licensed radioactive material had been released to the environment through the discharges from the active sumps. (Section 2.2)
- The inspectors 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 inspectors verified the need for safety evaluations for any design changes.

###### **b. Observations and Findings**

Based on the discussion with the licensee, there were no design changes this past year. This was consistent with the annual report filed by the licensee in August 2018 (ADAMS Accession Number ML18239A390). The inspectors toured the facility and did not observe any design changes.

###### **c. Conclusions**

The inspectors determined that the licensee had not performed any design changes that warranted an evaluation per 10 CFR 50.59.

##### **1.2 Self-Assessment, Auditing, and Corrective Action (IP 40801)**

###### **a. Inspection Scope**

The inspectors reviewed the licensee's audit of its technical specification monitoring surveillances of Audit 17-0116 conducted from December 4-8, 2017, and Audit 18-0107 conducted from June 11-13, 2018. Selected corrective action work orders associated with identified deficiencies were also reviewed.

###### **b. Observations and Findings**

The audit of technical specification monitoring surveillances 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 inspectors determined that the licensee adequately implemented the audits of technical specification monitoring surveillances in accordance with its Quality Assurance Program.

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

#### a. Inspection Scope

The inspectors reviewed the licensee's weekly and monthly facility inspection results, and quarterly radiation surveillance results for 2018. The inspectors also reviewed the additional surveys from areas where occasional water from roof leaks accumulated. The inspectors reviewed the sampling results of water collected from the cover of the decay pool during the roof leaks. The inspectors also toured the plant to observe the condition of the plant.

#### b. Observations and Findings

The postings and boundaries for the contamination control were well maintained. Final status survey (FSS) 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 (ML12090A151).

The rainwater that had collected on the cover of the decay pool had picked up very low-level amounts of Cs-137 as it seeped through the roof and over roof support structures. The licensee's water sampling results ranged from 5.07 E-08 to 4.05 E-07 microCuries/milliliter of Cs-137. Based on the activities detected, the water intrusion from the roof leak would not change significantly the radiation readings of the facility and affect the FSS of the decay pool with the criteria of 1000 disintegrations per minute/100 centimeters<sup>2</sup>.

#### c. Conclusions

The inspectors concluded that the licensee conducted the facility monitoring surveillances in accordance with the requirement of Technical Specification.

## 2.0 **Radiological Safety**

### 2.1 Occupational Radiation Exposure (IP 83750)

#### a. Inspection Scope

The inspectors verified that the licensee had conducted radiological works in accordance with the NRC regulations in 10 CFR Part 20.

#### 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 2018 (ML18239A390).

#### c. Conclusion

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

## 2.2 Effluent and Environmental Monitoring (IP 84750)

### a. Inspection Scope

The inspectors 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 98, Fermi 1 sumps are sampled semi-annually. Based on the review of the analytical sampling data from the sumps, the inspectors determined that only natural occurring radioactive materials were identified.

### c. Conclusion

The inspectors determined that no detectable licensed radioactive material had been released to the environment through the discharges from the active sumps.

## 2.3 Transportation of Radioactive Materials (IP 86750)

### a. Inspection Scope

The inspectors verified that 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 107 and 171-177.

### 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 2018 (ML18239A390).

### c. Conclusion

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

## 3.0 **Exit Meeting**

The inspectors presented the inspection results to members of the licensee's staff at the conclusion of the inspection on November 6, 2018. The licensee did not identify any of the documents or processes reviewed by the inspectors as proprietary.

ATTACHMENT: SUPPLEMENTAL INFORMATION



## **SUPPLEMENTAL INFORMATION**

### **PARTIAL LIST OF PERSONS CONTACTED**

- \* J. LaCasse, Fermi 1 Custodian
- \* B. Rumans, Health Physicist
- \* L. Bennett, Operation Director
- \* S. Stasek, Fermi 1 Review Committee Chairman
- \* R. LaBurn, Radiation Protection Manager
- \* K. Hullum-Lawson, Plant Support Engineering Manager
- \* J. Louwers, NQA Manager
- \* D. Duncan, Operation Superintendent
- \* S. Maglio, Licensing Manager
- \* K. Mann, Licensing Compliance Supervisor
- \* S. Gatter, Licensing Engineer
- \* J. Thorson, Technical Engineer

\* Present at the November 6, 2018, 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 40801: | Self-Assessment, Auditing, and Corrective Action                                |
| 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                       |
| FSS     | Final Status Survey                               |
| 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