DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Off-site Inspection

B432161057

FACILITY: DTE Electric Company - Fermi Energy Center		**SRN / ID:** B4321
LOCATION: 6400 NORTH DIXIE HIGHWAY, NEWPORT		**DISTRICT:** Jackson
CITY: NEWPORT		**COUNTY:** MONROE
CONTACT: Catherine Gorski , Environmental Specialist 2021		**ACTIVITY DATE:** 11/19/2021
STAFF: Stephanie Weems	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Scheduled inspection conducted virtually due to ongoing COVID19 pandemic.		
RESOLVED COMPLAINTS:		

Facility Contacts:

Contact: Catherine Gorski, Environmental Specialist

Phone: 734-586-1839

Email: Catherine.gorski@dteenergy.com

Purpose

On November 19, 2021 I conducted a virtual inspection of DTE – Fermi Energy Center (Fermi), located at 6400 N. Dixie Hwy, Newport, Michigan in Monroe County. The purpose of the inspection was to determine the facility's compliance status with the applicable federal and state air pollution regulations, particularly Michigan Act 451, Part 55, Air Pollution Control Act and administrative rules, and Renewable Operating Permit (ROP) MI-ROP-B4321-2019.

NOTE: Due to the situation with COVID-19, inspections are still being conducted virtually when possible to minimize the associated risks.

Facility Location

The facility is located in Frenchtown Township, with a mailing address of Newport, Michigan. It is situated approximately 20 miles southwest of Detroit and 25 miles northeast of Toledo. It is bounded on the east by Lake Erie and on the north by Swan Creek. See Image 1 and 2 for aerial photos.

Facility Background

Fermi is a nuclear power plant located on the shores of Lake Erie in Monroe County. Fermi provides electricity to the power grid from the GE, Mark IV, Boiling Water Reactor nuclear power plant.

Regulatory Applicability

MI-ROP-B4321-2019 covers units associated with the daily facility operations and back-up of the nuclear reactor, as well as emission units associated with the diesel fuel-fired combustion turbines that provide extra power to the grid during peak power usage events.

Fermi is subject to Title 40 of the Code of Federal Regulations (CFR) Part 70 because the potential to emit of nitrogen oxides and sulfur dioxides exceeds 100 tons per year.

Fermi is subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines promulgated in 40 CFR Part 60, Subparts A and IIII. AQD has delegated authority to implement and enforce these standards.

Fermi is subject to the NESHAP for Industrial, Commercial, and Institutional Boilers Area Sources promulgated in 40 CFR Part 63, Subparts A and JJJJJJ (Boiler Area Source MACT).

Fermi is considered a "synthetic minor" source regarding hazardous air pollutant (HAP) emissions because they accepted a legally enforceable permit condition limiting the potential to emit (PTE) of any single HAP to less than 10 tons per year and the PTE of all HAPs combined to less than 25 tons per year. This is reflected in the source wide conditions of the ROP.

Therefore, Fermi is subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subparts A and ZZZZ (RICE MACT) and is regulated as an area source under the standard.

Facility Introduction and Record Request

On October 20, 2021 an email was sent to the contacts at DTE Fermi requesting the following records:

RECORD REQUEST

Please provide the following records as required by MI-ROP-B4321-2019 for the time period of October 2020 to September 2021 (unless otherwise noted).

Source-wide conditions

- Monthly and previous 12-month individual and aggregate HAP emission calculation records for FG-FACILITY.
- Monthly fuel use records for FG-FACILITY.
- A complete record of fuel oil specifications and/or fuel analysis for each delivery or storage tank of fuel oil. These records may include purchase records for ASTM specification fuel oil, specifications or analyses provided by the vendor at the time of delivery, or analytical results from laboratory testing.

EU-BSE_STANDBYDG

- A statement of the type of fuel used in EU-BSE_STANDBYDG.
- Monthly records for the fuel usage rate for EU-BSE_STANDBYDG.
- Records for all maintenance conducted on EU-BSE_STANDBYDG.

EU-BSE_CTG11-1

- A statement of the fuel type used in EU-BSE_CTG11-1.
- Monthly records for the fuel usage rate for EU-BSE_CTG11-1.

FG-AUXBLRS

- A statement of the fuel type used in FG-AUXBLRS.
- Monthly records for the fuel usage rate for FG-AUXBLRS
- A copy of each notification and report that has been submitted to comply wit 40 CFR Part 63 Subpart JJJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that have been submitted.
- Records that identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.
- A report containing the following information:
    - The concentration of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler.
    - A description of any corrective actions taken as a part of the tune-up of the boiler.
- A copy of the energy assessment report for each boiler.

FG-EDG1-4

- A statement of the fuel type used in FG-EDG1-4.
- Pictures of the non-resettable hour meters installed on each unit.
- Monthly records for the fuel usage rate for FG-EDG1-4.
- Monthly records of the hours of operation of FG-EDG1-4, the reason for operation, whether the operation was for emergency or nonemergency use, and, if applicable, what classified the operation as an emergency.
- Records for all maintenance conducted on FG-EDG1-4.

FG-EMERGENS

- Pictures of the non-resettable hour meters installed on each unit.
- Monthly records for fuel type and usage rate for FG-EMERGENS.
- Records for the reason for operation each time the engine is started, hours of operation, the reason for operation, whether the operation was for emergency or nonemergency use, and, if applicable, what classified the operation as an emergency.
- Records for all maintenance conducted on the emission units.

FG-SECENGINES

- Monthly records of the fuel type and usage rates for FGSECENGINES.
- Records for all maintenance conducted on emission units.

FGEMERGRICE

- Monthly and 12-month rolling records of the hours of operation of each engine for FGEMERGRICE.
- Pictures of the non-resettable hour meter installed on each unit.

FGNSPS4I

- Pictures of the non-resettable hour meters installed on each unit.
- The following records for each engine:
    - For engines operated in a certified manner, engine certification documentation for each engine.
    - For engines operated in a non-certified manner, stack test results and records of a maintenance plan and maintenance activities for each engine.
- Monthly records of the operation of each engine in emergency and non-emergency service, including the time of operation of the engine and the reason the engine was in operation.
- Diesel fuel records demonstrating that the fuel meets the requirements of Special Condition II.1 of the ROP.

FG-FERMIPKS

- A statement of the type of fuel used in FG-FERMIPKS.
- Monthly records for the fuel usage rate for FG-FERMIPKS.

FG-COLDCLEANERS

- For each new cold cleaner in which the solvent is heated, weekly records of the solvent temperature during routine operating conditions.
- The following information for each cold cleaner:
    - A serial number, model number, or other unique identifier for each cold cleaner.
    - The date the unit was installed, manufactured or that it commenced operation.
    - The air/vapor interface area for any unit claimed to be exempt under Rule 281(2)(h).
    - The applicable Rule 201 exemption.
    - The Reid vapor pressure of each solvent used.

- If applicable, the option chosen to comply with Rule 707(2).

I was informed that Catherine Gorski is the new facility contact for the site.

The requested records were received by email on November 19th.

Catherine included a document (titled Request for Records) that outlines what document the requested information can be found in.

Attachment 1 is the source-wide HAPS records. The facility reports a 12-month rolling aggregate HAP total of about 0.01 tons per year (tpy), well below the 22.4 tpy limit. Additionally, the individual HAP totals were also well below the permitted limit. These records appear to show compliance.

Attachment 2 is the monthly fuel usage records for all equipment at the facility, as well as the fuel specification information for each delivery during the specified time period. These records show that Fermi is meeting the recordkeeping requirements of the source-wide conditions of the ROP.

Attachment 3 is the fuel information for EU-BSE_STANDBYDG, EU-BSE_CTG11-1, FG-EDG1-4, FG-EMERGENS, FG-SECENGINES, FGNSPS4I, and FG-FERMIPKS. This includes fuel specifications from the supplier, Marathon Petroleum, of the Ultra-Low Sulfur Diesel fuel (ULSD). These records show that the sulfur content is below the 15ppm required by the permit. Additionally, during the last inspection, it was confirmed that diesel is the only fuel used, as is required by permit conditions. From review of the records, it appears this remains true.

Attachment 4 is the run time logs and the maintenance records for EU-BSE_STANDBYDG. A review of these records shows that Fermi is following the permit conditions for annual operating hours and required maintenance. Additionally, the fuel usage worksheet in Attachment 2 outlines the fuel usage for EU-BSE_STANDBYDG, as required by the ROP.

Attachment 5 is the required fuel usage records and the tune-up/testing records for FG-AUXBLRS. Fermi is meeting the 0.50% sulfur limit in the diesel fuel by using the ULSD fuel which has a sulfur content of 15ppm.

Additionally, in the Request for Records document, Catherine provided a summary of the notification and report submittals regarding 40 CFR Part 63, Subpart JJJJJJ. She states the following:

> **"No subpart JJJJJJ notifications or reports were submitted for FG-AUXBLRS during the October 2020-September 2021 period. The required 2019 tune up activities specified in 40CFR63.11223 were successfully completed and a report was filed at the site, but not submitted: Per 40CFR63.11225(b), submittal of the tune up report is not required unless there are deviations from the tune up requirements which there were not. A final revised version of the initial notification was submitted on 11/19/13. The Notification of Compliance Status was submitted on 6/26/2014. The initial notification and the Notification of Compliance Status are both beyond the five year record retention requirement."**

Attachment 6 is the maintenance records for FG-EDG1-4. These records are required by the ROP, and they show compliance with the recordkeeping requirement.

Attachment 7 is the record documenting the run time hours for each of the engines in FG-EDG1-4. It appears the Fermi is remaining under the permitted allotment for run time hours. Additionally, the fuel use records and the pictures of the non-resettable hour meters for these units are included. As noted during a previous inspection, these units are only run for maintenance or in emergency situations to provide power to the site. These records appear to show compliance.

Attachment 8 is the operating hours and pictures of the non-resettable hour meters for FG-EMERGRICE. These records appear to show compliance with the ROP requirements.

Attachment 9 is the run time, fuel use, maintenance records, and pictures of the non-resettable hour meters for FG-EMERGENS. The records appear to show compliance with the ROP requirements.

Attachment 10 is the requested records for FG-SECENGINES. This includes the run time hours, fuel usage, and maintenance records. In the Request of Records document, Catherine states that these engines are certified and operated in a certified manner. These records appear to show compliance with the ROP.

Attachment 11 is the run time records, maintenance records, and pictures of the non-resettable hour meters for FGEMERGRICE and FGNSPS4I. These records appear to show compliance.

Attachment 12 is the fuel usage records for FG-FERMIPKS. These records appear to show compliance with the requirements of the ROP.

Attachment 13 is the list of the facility's parts washers. On the Request of Records sheet, Catherine indicated that the facility does not have any heated parts washers, and that all of the washers operate under a Rule 281(2)(h) exemption.

Overall, the records provided appear to show compliance with the monitoring, recordkeeping, emission limits, and material limits of the facility's ROP.

During the correspondence with Catherine I explained that, after a review of the records, a written report would be developed documenting the inspection, and, once approved by my supervisor, a copy would be sent to them.

Compliance Summary

Based upon correspondence with the facility and review of the records, it appears that DTE – Fermi is in compliance at the time of this inspection.

NAME Steph Weems DATE 11/19/2021 SUPERVISOR