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

C623073819

FACILITY: Marshall City, Electric Power Plant		SRN / ID: C6230
LOCATION: 906 South Marshall Ave., MARSHALL		DISTRICT: Kalamazoo
CITY: MARSHALL		COUNTY: CALHOUN
CONTACT: Kevin Maynard , Director of Electric Utilities		ACTIVITY DATE: 07/02/2024
STAFF: Jared Edgerton	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Unannounced Air Quality Inspection		
RESOLVED COMPLAINTS:		

On July 2, 2024, Air Quality Division (AQD) staff Jared Edgerton conducted an unannounced air quality inspection at the City of Marshall Electric Power Plant located at 906 South Marshall Avenue, Battle Creek, Calhoun County. This facility is an electric peaking plant and was last inspected on March 31, 2020. The facility is permitted as a Synthetic Minor source for both carbon monoxide (CO) and nitrogen oxides (NOx). It is a true Minor source for hazardous air pollutants (HAPs) and operates under Permit to Install (PTI) 128-14A. The facility is in the process of bring two existing offline engines (EU-ENG-2, and EU-ENG-4) back to service. American Municipal Power Company (AMP) also shares this location with the City of Marshall. Additionally, AMP is in the permitting stages to install four natural gas fired engines. These engines will be operated by American Municipal, but maintenance will be performed by the City of Marshall. The permit for these engines is PTI No. 80-24 and was approved on July 3, 2024. The following describes the operations and compliance status of the facility.

I arrived on site at 11:10 AM and made contact with Kevin Maynard, Director of Electric Utilities. Mr. Maynard, as well as Christy Ramey (Purchasing Agent) and Jeff Taylor (Lead Operator) accompanied us on the tour. The tour began at the main building that houses EU-ENG-2, EU-ENG-3, EU-ENG-4, and EU-ENG-5. At the time of the inspection, the facility had just completed emission tests for engines 2 and 4, and only engines 3 and 5 are permitted to run. AQD staff walked into the building to observe these engines, as well as their associated stacks. Stack heights and dimensions were observed and appeared to be compliant with the permitted dimensions. The engines looked to be in good condition, with each engine being on a schedule for regular maintenance. None of the engines were active while staff was on site. No visible emissions, or odors were present. Staff was able to locate the oxidation catalyst on each of the engines. As part of the re-permitting of EU-ENG-2 and EU-ENG-4, a catalyst for each unit was required to be installed. This was also confirmed by staff to be completed. An emissions test was conducted on May 23, 2024, in accordance with the requirements in 40 CFR part 63, subpart ZZZZ. The catalyst was tested for inlet temperature, and pressure drop. Test results have not yet been submitted at the time of this report, and therefore the compliance status for that test is unknown.

The tour continued into a lower level that houses the three exempt early 1900's vintage hydroelectric turbines rated at about 100 - 120 KW each. One turbine was not functioning during the inspection, but the other two were in operation. There are no emission limits or air quality regulations that apply to these units.

From here, the tour moved outside to the site were one of the American Municipal Power engines will be. At the time of the inspection, concrete work and prep was

completed. A construction waiver was requested and approved for this work. Permitting is still being processed for the proposed AMP engines. Staff walked back into building to the office and was given a few records to review on-site. Facility staff provided excel document for the number of starts and operating hours for the last five years. This was for units 3, 5, and 6. Mr. Taylor also printed off a record for the dimensions and information related to the FG-FUELTANKS. The facility appears to be keeping these records in a satisfactory manner.

Before moving on to the next building, the tour stopped in the switchboard room. Breakers and switches for the five engines were located here. Engines are equipped with a non-resettable hour meter to track the operating hours. Engine 3 read 34,833.3 hours, Engine 4 read 1,712.9 hours, and Engine 6 read 153125.5 hours on each of their respective hour meters. Outside the switchboard room, located in front of the building was an emergency generator. It is used for computers and basic devices inside the main plant building. The model was a Generac Guardian Quiet Source. Run times could be seen on the generator and read23.1 hours. The unit appeared to be in good condition.

FG-FUELTANKS could be seen from the generator. Staff was guided to where the facility receives fuel shipments. Four 20,000-gallon tanks were observed and appeared to be in good condition. No odors were observed in this area, and no spills were observed in the containment area. The tanks are double walled and have an electronic monitoring SCADA system for detecting leaks within the inner tank wall. About once a year the facility receives a shipment of fuel. AQD staff observed no issues with the tanks.

The tour moved to an adjacent building across the street. This building houses EU-ENG-6, as well as the future engines for AMP. AMP plans to have three engines installed near the City of Marshall's Unit 6 Engine. On the walk over, AQD staff asked general business operations questions. Currently, the City of Marshall operates the power plant Monday through Friday on one shift. Five operators run the plant, with a few support staff from the public services office located on-site. Currently during the summer, most staff do not work on Fridays. Inside the building staff observed Engine 6 and the associated catalyst. The engine was not running but appeared to be compliant. On the opposite side of the room with Engine 6, staff saw three concrete pads for the new AMP engines. At the time of the inspection just the concrete foundations were completed, and no engines were present. These engines will be maintained by the City of Marshall, but remotely operated by AMP in Ohio. Permitting for the units is still being completed.

Near a receiving door, the facility keeps one cold cleaner. It is subject to Rule 707 and is exempt from permitting. The facility uses mineral spirts as the cleaning agent. The lid was closed, and proper operating sticker was applied to it. A material safety data sheet for the solvent was provided by the facility and received by staff. AQD staff concluded the tour with notifying facility staff that an email will be sent to them requesting the required permit records. On July 5, 2024, staff sent the request and records were received July 10, 2024. The results of the tour and records review is detailed below.

Conclusion of Inspection / Record Request Determination:

At the time of the inspection, based on what was observed during the walkthrough and the following records review, the City of Marshall appears to be compliant with Permit to Install 128-14A. Staff stated to the facility that a records request would be sent via email. Records were received for the last two years, with recordkeeping requirements listed under FG-Engines3,5,6, and FG-FUELTANKS special conditions. Summarized below are the results of the record request.

Records for FG-Engines3,5,6:

1. Please provide records for the hours of operation of the engines on a monthly, and 12-month rolling time period.
    - Appears compliant? – Yes. Records provided show the total hour of operations for the engines on a monthly, and 12-month rolling time period. The records are kept and are satisfactory. In the last two years, Aug-22 had the highest recorded hours at 50.8 hours.
2. Please provide records of the higher heating value and fuel usage in units of MMBtu of ULSD and natural gas combusted in the engine. Provide monthly and 12-month rolling records.
    - Appears compliant? – Yes. Records are provided are kept in monthly and 12-month rolling time periods. Totals are well below the limit of 56,000 MMBtu per year.
3. Please provide records of the catalyst inlet temperature and pressure drop across the oxidation catalyst when an engine is running. Provide 10 days of operation records.
    - Appears compliant? – Yes. Records are kept and are satisfactory. More than 10 days of operation was provided for each engine.
4. Provide records of fuel supplier certifications for each delivery of diesel fuel oil used in the engines.
    - Appears compliant? – Yes. Fuel supplier certifications were provided for each delivery of fuel oil. Last samples of the fuel was collected back in May 2023.
5. Provide records of NOx and CO emission from the engines on a monthly and 12 month rolling time period.
    - Appears compliant? – Yes. Records are kept in a satisfactory manner, with both monthly and 12 month rolling time periods. NOx totals were well below the limit of 89.6 tpy and CO totals were also below the limit of 9.7 tpy.

Records for FG-FUELTANKS:

1. Provide records showing the dimension of the storage tank and an analysis of the tank capacity.
    - Appears compliant? – Yes. Records were provided by the facility. Each tank's dimensions were provided as well as levels of fuel being stored. Records are satisfactory.

Other Record Requested:

1. Please provide a material safety data sheet for any chemical or mineral solvent used in a tool/parts washer station.
    - Appears compliant? – Yes. Records were requested and received by staff. Safety data sheet states that the mineral spirts are provided by Citco Petroleum Corporation. Records are satisfactory.

After reviewing what was observed during the on-site inspection and determining that the records were satisfactory with permit requirements, it appears that the City of Marshall Electric Power Plant is currently in compliance with Permit to Install 128-14A, as well as other state and federal regulations. Staff concluded the inspection at 12:15 PM. -JLE

NAME [signature] DATE 9/26/24 SUPERVISOR [signature]