

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: Scheduled Inspection

C623053111

FACILITY: Marshall City, Electric Powerplant		SRN / ID: C6230
LOCATION: 906 South Marshall Ave., MARSHALL		DISTRICT: Kalamazoo
CITY: MARSHALL		COUNTY: CALHOUN
CONTACT: Robert Siegel, Lead Operator		ACTIVITY DATE: 03/31/2020
STAFF: Amanda Chapel	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT:		
RESOLVED COMPLAINTS:		

On March 31, 2020, Air Quality Division's (AQD) Amanda Chapel (staff) conducted an announced air quality inspection at the Marshall City Electric Power Plant (facility) located at 906 South Marshall Avenue, Battle Creek, Calhoun County. The facility is an electric peaking plant affiliated with Michigan South Central Power Agency. The facility was last inspected on November 3, 2015 and was found to be in compliance with state air regulations. The facility is permitted as a synthetic minor source for both CO and NOx and operates under Permit to Install (PTI) 128-14A. This inspection was to determine the facility's compliance with their PTI as well as all applicable state and federal air quality regulations. The following will describe operations and compliance status of the facility.

I arrived on site at 10:30 am and made contact with Mr. Robert Siegel, Lead Operator. Due to the change in inspection directive, I had previously called and informed him I wanted to do an inspection. He allowed me into the facility and had the records laid out on the counter. I was able to obtain photos of the rolling 12-hour emissions calculations for January and February 2020, hours of operation tracking, fuel certification lab results, and records of the catalyst inlet temperature and pressure drop tracking. Mr. Siegel said he could scan me over any additional records I needed.

After we discussed the records, we took a tour of the facility.

#### FG-ENGINES3,5,6

PTI 128-14A covers Engines 3,5,6 in one flexible group, Engine 2,4 in one flexible group, and 4 tanks in FG-FUELTANKS. On oxidation catalyst was installed before the last inspection, as required by the permit. The oxidation system is equipped with an alarm setting if it goes outside set specifications. Maintenance is done as needed. Mr. Siegel showed me the non-resettable hours meters installed at the facility. Engine 3 read 34,614.4 hours, engine 5 read 1,523.9 hours, and engine 6 read 15,133 hours. None of the engines were running at the time of the inspection.

I did not evaluate compliance with SC IX.1 in the PTI because AQD has not taken delegation from USEPA for area sources of HAPs under the RICE MACT.

#### FG-ENGINES2,4

The permit states that engines 2 and 4 need to be removed from operation before May 1, 2015. Mr. Seigel stated that engine 2 had been decommissioned November 2011 and engine 4 was decommissioned August 2014. They are still in the facility but are inoperable. There currently no plans to have them removed from the facility as scrap prices were too low.

#### FG-FUELTANKS

The facility has 4 20,000 gallon above ground fuel storage tanks installed in December 2000. The tanks are subject to 40 CFR Part 60 Subpart Kb and records are being maintained on tank dimensions and oil throughput. The tanks are double walled, and they have an electronic monitoring SCADA system which detects any leak through the inner tank wall.

At the time of the inspection, tank 1 was empty, tank 2 had 12,600 gallons of diesel, tank 3 had 10,400 gallons of diesel, and tank 4 had 10,900 gallons of diesel. Mr. Seigel said the last fuel delivery at the facility was in January 2019.

#### Exempt Equipment

The facility has two early 1900's vintage hydroelectric turbines rated at about 100-120 KW each. One turbine was in operation during the inspection. The other turbine malfunctioned about 3 years ago and has not operated since. The facility is planning on having it repaired in the next few weeks. There are no

emissions or air quality regulations that apply to these units.

The facility has one cold cleaner that is subject to rule 707 and is exempt from permit to install requirements under Rule 281(2)(h). The facility uses mineral spirits as the cleaning agent.

**Records**

Pollutant	Amount	Records of Actual Emissions
NOx	89.6 tpy 12-month rolling	2.757 tpy 12-month rolling
CO	9.7 tpy 12-month rolling	1.14 tpy 12-month rolling

The facility is tracking the total engine hours, monthly and fuel usage for both fuel oil and natural gas. They do this by recording the starting and ending hours on the meters. In July 2019, the engines ran a total of 16.7 which was the highest in the 12-month period. Total MMBtu is not to exceed 56,000 MMBtu/year and the facility used 2,351.8 MMBtu/year in a 12-month rolling period. The higher heating value is also being tracked on a 12-month rolling period, as required.

Based on the laboratory sample submitted on 7/22/19, the sulfur content of the fuel oil at the facility is 9.1 ppm which is below the permitted 15 ppm to qualify as low sulfur fuel.

The facility continuously monitors the catalyst inlet temperature and pressure drop while an engine is running. Facility provided an example taken on 12/10/19 for engine 5. The readings were taken every minute. The catalyst temperature appears to peak at 482 degrees and the pressure drop appears to range between -1.03 at the beginning of the run to 2.37.

Based on the walkthrough and the records provided by the facility, the facility appears to be in compliance with the PTI and all other air quality rules and regulations.

NAME Aimee Alpe

DATE 4/1/20

SUPERVISOR RIL 4/6/20