

**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection**

C623032082

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: 11/03/2015
STAFF: Rex Lane	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Self Initiated Inspection		
RESOLVED COMPLAINTS:		

On November 3, 2015, AQD staff (Rex Lane) arrived at the City of Marshall Electric Power Plant (CMEPP) located at 906 S. Marshall Avenue, Marshall, MI at 1:45 pm to conduct an unannounced air quality inspection. Staff made contact with Mr. Robert Siegel, CMEPP's lead operator and notified him that staff would like to conduct an air quality inspection and provided him with a copy of MDEQ's Environmental Inspections brochure and a business card.

CMEPP is an electric peaking plant affiliated with Michigan South Central Power Agency. Historically, CMEPP was a major source based on potential to emit for carbon monoxide (CO) and nitrogen oxides (NOX) and operated under ROP permit MI-ROP-C6230-2010. The facility was issued Permit to Install (PTI) No. 128-14 which established legally enforceable synthetic minor limits for both CO and NOX and their ROP was subsequently voided on 10/28/14. PTI No. 128-14A was issued on 3/2/15

None of the engines were in operation at the time of the inspection. Engine # 5 (EU-ENG-5) underwent emission testing for compliance with carbon monoxide limitation under 40 CFR Part 63, Subpart ZZZZ (RICE MACT) in the morning. Preliminary test results indicate that EU-ENG-5 will comply with the carbon monoxide emission limitation under the RICE MACT. Engine # 6 (EU-ENG-6) is currently inoperable due to water leaking into one of the cylinders and bending a crankshaft rod in June 2015. EU-ENG-6 will need to be retested for compliance with RICE MACT by 4/23/16 assuming the engine is repaired and operational by that date.

Permit to Install No. 128-14A; FG-ENGINES3,5,6

Oxidation catalyst has been installed to control CO emissions on EU-ENG-3, EU-ENG-5 and EU-ENG-6 as required by the permit. Non-resettable hour meters have been installed on all three engines under the flexible group. Current hour meter readings are as follows: EU-ENG-3 (34,420.2 hours), EU-ENG-5 (1388.1 hours (a used meter was installed recently)) and EU-ENG-6 (14,941.2 hours). None of the engines were operating at the time of the inspection. Mr. Siegel provided fuel oil sample analysis dated 8/10/15 to demonstrate compliance with 15 ppm maximum total sulfur content limit. The lab analysis sheet showed a total sulfur content by weight < 0.1%. Staff informed Mr. Siegel that the lab analysis sensitivity was not adequate to show compliance with the 15 ppm limit (i.e. < 0.1% is equivalent to 1,000 ppm; analysis would have to be < 0.0015% to show compliance with sulfur limit). Mr. Siegel then produced fuel purchase records from Brenner Oil Company showing that the facility is purchasing ULSD diesel that meets the 15 ppm total sulfur limit. Staff recommended that the facility contact their current lab to see if they have a more sensitive analysis method or use a different lab that can analyze total sulfur content in fuel oil at or below 0.0015% by weight to confirm the fuel supplier's oil delivery for ULSD diesel is compliant. Staff reviewed fuel consumption and emission calculation records for facility engines and it appeared that the facility did not update their recordkeeping under their ROP permit following issuance of the synthetic minor permit No. 128-14A. Because the underlying information that is needed to produce the proper records was available, staff gave the facility a few days to update their records following the inspection. The revised records were initially submitted on 11/5/15 and corrected and resubmitted on 11/9/15 and show compliance with special condition (SC) III.1 and SC VI.1 through VI.5. Staff did not evaluate compliance with SC IX.1 because the AQD has not taken delegation from USEPA for area sources of HAPs under the RICE MACT.

FG-ENGINES2,4:

Per Mr. Siegel, EU-ENG-2 last operated in August 2014 and EU-ENG-4 last operated in November 2011 which complies with the operational requirement in SC IX.1. Staff asked Mr. Seigel what steps have been taken to remove the engines from service or render them inoperable. Mr. Seigel indicated that the electrical breakers are off, starting air system is off and the electrically fired lube oil heaters for both engines have been turned off. Staff observed that EU-ENG-2 has tag out labels in at least two locations. EU-ENG-4 has not been similarly tagged and staff recommended to Mr. Siegel that this engine also be tagged to prevent accidental future operation. Special conditions V.1 through VI.2 are not applicable since the facility no longer operates the equipment under FG-ENGINES2,4.

FG-FUELTANKS:

This flexible group consists of four 20,000 above ground storage tanks installed in December 2000 used to store diesel fuel. 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 located next to the Kalamazoo River without an obvious secondary containment system. Mr. Siegel stated that the tanks are double-walled and has electronic interstitial monitoring that is designed to detect any leak through the inner tank wall. The leak detection system has on-site alarms and also uses a SCADA system that sends a text to facility employees during non-work hours in the event of an alarm. Staff asked Mr. Siegel if the on-site alarms are checked periodically to make sure they function properly and he indicated that they may add this to their maintenance schedule. All three active engines are fed through connections to these fuel tanks which replenish day tanks associated with each engine.

Hydroelectric Turbines:

The facility has two early 1900's vintage hydroelectric turbines in operation rated at 60 KW each. There are no air emissions or air quality regulations that apply to these units.

The facility has installed a new cold cleaner that is subject to Rule 707 and is exempt from permit to install requirements under Rule 281(h). The facility uses mineral spirits in the cold cleaner and the lid was closed when not in use. Staff provided plant personnel with a DEQ operations sticker which was placed on the unit and additional labels were provided for future use.

At the time of the inspection and based on a review of the updated recordkeeping spreadsheet submitted by the facility on 11/9/15, the facility appears to be in compliance with applicable state air regulations and the requirements of PTI No. 128-14A. -RIL

NAME RIL DATE 11/9/15 SUPERVISOR MA 11/9/2015