

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

N238842570

FACILITY: GRAYLING GENERATING STATION LTD PTNR		SRN / ID: N2388
LOCATION: 4400 W FOUR MILE RD, GRAYLING		DISTRICT: Gaylord
CITY: GRAYLING		COUNTY: CRAWFORD
CONTACT: Tim Porter ,		ACTIVITY DATE: 10/31/2017
STAFF: Becky Radulski	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: FY18 scheduled inspection and records review		
RESOLVED COMPLAINTS:		

Traveled to N2388 Grayling Generating Station on October 31, 2017 to conduct a Full Compliance Evaluation (FCE) FY18 scheduled inspection to determine compliance with MI-ROP-N2388-2014a (issued September 4, 2014, revised June 16, 2016). Present for the inspection were Mr. Tim Porter, Operations Supervisor and AQD Staff Becky Radulski, Gaylord Field Office. This is a Title V source subject to the Renewable Operating Program (ROP). AQD Staff arrived on site at approximately 10 am.

Grayling Generating Station is located at 4400 West Four Mile Road, Grayling, in Crawford County, on the north side of Four Mile Rd. Adjacent to the west of Grayling Generating Station is AJD Forest Products (sawmill); to the south is Hydrolake Inc. (utility pole storage yard); to the east is Arauco North America (currently undergoing construction, particle board). Across the road on the south side of Four Mile Rd., is Weyerhaeuser (OSB manufacturer) and Georgia Pacific (chemical manufacturer - liquid resin and formaldehyde). This is a rural location with very little residential dwellings. The city of Grayling is located approximately five miles north of Four Mile Rd.

The facility is an electric utility facility which was installed in January 1992 and includes one 523 MM Btu/hr wood and tire-derived-fuel (TDF) fired boiler equipped with natural gas auxiliary burners. The boiler is of a spreader-stroker design, and is equipped with a multiclone dust collector in order to capture and re-inject flyash, an electrostatic precipitator (ESP) for the control of particulate matter, and a selective non-catalytic reduction (SNCR) system for the control of nitrogen oxide. The facility receives both chipped wood and TDF by truck and uses these fuels in the boiler to produce steam. The boiler is initially started on natural gas then wood and TDF are added. The steam is used to produce approximately 36 megawatts (MW) of electricity at full capacity. The ash is collected, treated with water, and transported to a landfill for disposal.

Grayling Generating Station typically operates at low load, which is 18 MW. During a previous inspection in 2014, the facility considered 10 MW to be low load. However, operating at 10 MW was found to be hard on the system, and a new load low of 18 MW was established. The station can operate as high as 36 MW when electricity demand is high.

REGULATORY DISCUSSION

The facility is subject to MI-ROP-N2388-2014a, which was originally issued September 4, 2014 and revised June 16, 2016. The revision was necessary as the Cross State Air Pollution Rule (CSAPR) went into effect replacing the Clean Air Interstate Rule (CAIR).

The facility is a major source as it has the potential to emit over 100 tons per year of nitrogen oxides (NOx), carbon monoxide (CO) and particulate matter (PM).

The facility is not major for hazardous air pollutants (HAPs).

EUBOILER uses a multi clone dust collector and electrostatic precipitator (ESP) to control PM. EUBOILER is subject to Compliance Assurance Monitoring (CAM) for PM because the potential to emit for PM is over 100 tons per year uncontrolled. The facility uses a Continuous Opacity Monitor (COM) to monitor opacity and must operate within 0-5 percent opacity.

EUBOILER uses a selective non-catalytic reduction (SNCR) system to control NOx.

EUBOILER is subject to 40 CFR, Part 60, Subpart Db - Industrial, Commercial-Institutional Generating Units.

EUBOILER is subject to 40 CFR, Part 63, Subpart JJJJJJ - Industrial, Commercial and Institutional Boilers Area Sources. The AQD is not delegated the regulatory authority for this area source MACT.

EUEMERGENERATOR and EUFIREPUMP (FGCIRICEMACT) are subject to 40 CFR, Part 63, Subparts A and ZZZZ - RICE Area Source MACT. The ROP contains special conditions provided by Grayling Generating Station for applicable requirements from 40 CFR, Part 63, Subparts A and ZZZZ. The AQD is not delegated the regulatory authority for this area source MACT; therefore, the special conditions for the RICE Area Source MACT contained in FGCIRICEMACT were not reviewed by the AQD.

The source is subject to the Transport Rule (TR) Trading Program Title V Requirements.

INPSECTION NOTES

Met with Mr. Tim Porter, Operations Supervisor. Keith Welcher, new Plant Manager, was not onsite during the inspection.

Wood chip fuel is currently around 90-100 days fuel (60-65,000 ton). Typically, Grayling Generating Station would like to see around 70-80,000 ton

RECORDS REVIEW:

Source-Wide

The Source-Wide table focuses on fugitive dust control. On May 30, 2013 the AQD approved the permittee's Fugitive Dust Control Program (plan). The permittee operates EUBOILER with the plan implemented. Per conversation with Phil Lewis, the permittee reviews the plan annually, and no revision or update has been necessary.

Records:

Emission Unit/ Flexible Group/ Process Description	Permit Special Condition	Records Requested	AQD Staff's Comment
Source-Wide Conditions	V1. 1	Records of street and parking lot washing / sweeping.	These records are stored in the boiler control room building. Records show one or two times a month the parking lot is swept or washed, depending on weather conditions and facility activities.

EUBOILER

I. Emission Limits.

I. 1-27 set Emission Limits for the listed pollutants. The demonstrations of compliance are testing (V. Testing/Sampling.) or recordkeeping (VI. Monitoring/Recordkeeping) and are discussed below. As a general statement, the permittee has demonstrated compliance with the 27 Emission Limits.

The Monitoring/Testing Method column of the ROP needs to be updated when the ROP is renewed to reference the accurate special conditions numbers in V. Testing, and VI. Monitoring/Recordkeeping.

II. Material Limits.

II. 1 & 2 The permit limits natural gas usage to 53,500 scf/hr, TDF is permit limited to 3,750 pounds per hour. Records were reviewed and showed compliance with these limits.

IV. Design/Equipment Parameters.

IV.1. The span values for COMs and CEMS are by equipment design.

IV.2 and 4. The CEMS and COM are installed. The RATA is completed annually. Cylinder gas audits are provided with reporting. The Daily Cal Report includes information on Span and Analyzer Drift.

IV.3. The COM is installed on EUBOILER. The CEMS Daily Summary record includes Opacity 1-Hr.

The IV. Design/Equipment Parameters conditions need to be cleaned up when the ROP is renewed. These existing conditions need to be changed as follows:

- IV.2 and 4 move to III Process/Operational Restrictions;
- IV.3 move to VI Monitoring/Recordkeeping.

V. Testing/Sampling

V.1. October 22, 2015 was the last day of recent metals testing. AQD received the test results on December 3, 2015. The stack test results included PM, VOC, As, Cd, Cr, Pb, Mn, Zn, Benzo-A-Pyrene, H2SO4. A review of the test results executive summary shows the tested emissions are below the permitted emission limits. The next metals test is due by October 2020.

V.2. The AQD's TPU approved the metals (V.1.) test plan. The approval letter includes required EPA test methods.

V.3 and 4. The most recent Annual Audit of the COMs (Opacity Filter Audit) and RATA were completed as required, demonstrating compliance with these conditions.

VIII. Stack/Vent

VII. By visual assessment, stack appears to meet the restrictions of a maximum of 94 inches in diameter and a minimum of 220 feet above the ground height.

IX. Other Requirements

IX.1. The facility does not burn wood containing creosote, pentachlorophenol, or copper chromium arsenate.

IX.2. The CAM plan has not been updated. The CAM plan is reviewed annually.

IX.3. The permittee must comply with applicable requirements of 40 CFR, Part 64.

IX.4-9. The permittee must comply with CSAPR.

IX.10 and 12. The EPA has not delegated 40 CFR, Part 63, Subpart JJJJJJ to MI AQD and the Subpart was not reviewed for compliance.

IX. 11. EUBOILER is subject to 40 CFR, Part 60, Subpart Db.

EUEMERGENERATOR:

During the inspection, the emergency generator was viewed. Records were viewed onsite and are attached showing diesel fuel as 'low sulfur' fuel.

FGMATHLHDLG

III.1. The facility reviews and logs VE observations for FGMATHLHDLG. REcords were reviewed onsite and are attached. The site personnel note the VE and corrective actions needed. Records were reviewed for October, no abnormal VE readings, no corrective actions were required.

Conclusions

Based on the site inspection, N2388 Grayling Generation appears to be in compliance with the conditions of their ROP.

NAME Becky Radulski

DATE 10-31-2017

SUPERVISOR Shane Nixon