MACES- Activity Report

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

N593051740

| FACILITY: DELTA COLLEGE | | SRN / ID: N5930 | | |
|---|-------------------------------|---------------------------|--|--|
| LOCATION: 1961 Delta Road, Fi | RANKENLUST | DISTRICT: Saginaw Bay | | |
| CITY: FRANKENLUST | | COUNTY: BAY | | |
| CONTACT: Nicholas C Bovid, Director of facilities | | ACTIVITY DATE: 12/18/2019 | | |
| STAFF: Kathy Brewer | COMPLIANCE STATUS: Compliance | SOURCE CLASS: SM OPT OUT | | |
| SUBJECT: Determine compliance | e w/PTI #252-96A . | | | |
| RESOLVED COMPLAINTS: | | | | |

Delta College Contact Nick Bovid, Facilities Manager

I (KLB) conducted an announced inspection at the Delta College powerhouse facility.

The facility was issued PTI #252-96A in 2002 for two 20.9 MMBtu/hr and one 10.5 MMBtu/hr boiler that are each capable of burning natural gas or oil. The facility also has a cogeneration boiler that has not been used for several years and is exempt to Rule 201 permitting per Rule 282(b).

The facility is subject to 40 CFR Part 60 Subparts A and Dc (New Source Performance Standards (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units).

At the time of the inspection the 10.5 MMBtu boiler and one 20.9 MMBtu boiler were in operation and using natural gas. We viewed the boiler room, fuel supply and storage equipment and associated meters, and reviewed the facility's air permit PTI #252-96A and on site records.

During the inspection no violations of air permit PTI #252-96A were found.

FGBOILERS

The Delta College powerhouse installed 3 Johnston high pressure steam boilers in August 1996.

| PTI Boiler # | Boiler site records # | Boiler HP | Boiler MMBtu | Boiler serial # | Boiler Inspector sticker date |
|--------------|--------------------------|-----------|-----------------|-----------------|----------------------------------|
| EUBoiler1 | Boiler #2 | 250 | 10.5 | 378181M | 8/13/2019 |
| EUBoiler2 | Boiler #3 | 500 | 20.9 | 378182M | 6/6/2019 |
| EUBoiler3 | Boiler #4 | 500 | 20.9 | 378183M | 6/6/2019 |

The main use is steam generation. Natural gas is the primary fuel for the boilers with #2 fuel oil as an alternate fuel source. The only emission limit in the PTI is 28.0 TPY for SO2. The emission limit and other special conditions apply during periods when fuel oil is burned.

The PTE calculated for the PTI was based on emissions from burning fuel oil. Natural gas PTE emissions were not considered significant. The PTE for the three boilers was 114.5 <u>TPY</u> SO2, 32.0 <u>TPY</u> NOx, and 8.2 <u>TPY</u> CO. The PTI contains an emission limit of 28.0 <u>TPY</u> for SO2.

The actual emissions reported in the 2018 MAERS were 37 <u>lbs</u> SO2, 6171 <u>lbs</u> NOx, and 5184 <u>lbs</u>CO w/a total natural gas throughput of 61.71 MMBtu. No fuel oil was burned.

Previous inspections document that the facility has never accepted a fuel oil delivery. Current staff confirmed that the fuel oil tank was empty and fuel oil had not been used for 5 years or longer. While burning fuel oil, the monitoring and recording of sulfur dioxide emissions, fuel oil use, and operating information, is required to comply with NSPS Part 60 Subpart Dc

FGBOILERS Special Condition 1.5, 1.6, and NSPS subpart Dc 60.48c (4) require the facility to record the amount of fuel combusted each month. Gas usage for the powerhouse is metered by Consumers Energy ("Main" gas meter). Daily reading are also taken and logged by Power House staff.

| Equipment | Date | Natural gas usage (cubic feet) | Date | Natural gas usage (cubic feet) | Date (instantaneous) | Natural gas meter reading |
|-----------|-----------|--------------------------------------|------------|--------------------------------------|-------------------------|------------------------------|
| EUBoiler1 | 4-10-2019 | 39159 | 10-31-2019 | 0 | 12-18-2019 | 9900700 |
| EUBoiler2 | 4-10-2019 | 0 | 10-31-2019 | 2666 | 12-18-2019 | 217547 (Not operating) |
| EUBoiler3 | 4-10-2019 | 144160 | 10-31-2019 | 217542 | 12-18-2019 | 8612700 |

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We viewed the main gas supply meter, the "Room" boiler for gas used by the 3 permitted boilers plus gas used for water heaters plus other college uses, the "College" gas meter that monitors the gas separated off the "Room" gas flow to the water heaters and other college uses, and, monitoring devices for each boiler in the boiler room.

| Meter | Reading 12-18-2019 | | |
|--|--------------------|--|--|
| "Main" (gas supply) | 781042 | | |
| "Room" (Boilers, water heaters, other college) | 357075 | | |
| "College" (Water heaters and other college) | 924725 | | |

The facility has fuel use records for each boiler. For reported throughput the facility uses the site gas total minus the non-boiler gas usage. Days each boiler is operated is used to determine % of fuel used. Copies of example daily log and monthly fuel use records are attached.

atto NAME

DATE 12-19-19

Oall SUPERVISOR

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