

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

N593451338

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|---|-------------------------------|---------------------------|
| FACILITY: Enervest - Mayer | | SRN / ID: N5934 |
| LOCATION: T29N-R4W, Section 24, HAYES TWP | | DISTRICT: Cadillac |
| CITY: HAYES TWP | | COUNTY: OTSEGO |
| CONTACT: Chris Veazey , Environmental Manager | | ACTIVITY DATE: 10/10/2019 |
| STAFF: Rob Dickman | COMPLIANCE STATUS: Compliance | SOURCE CLASS: SM OPT OUT |
| SUBJECT: Scheduled inspection of this opt out source. | | |
| RESOLVED COMPLAINTS: | | |

Inspected this opt out source for compliance with Air Pollution Control Rules and Permit to Install Number 106-96C. No odors were noted at the facility. An inventory of equipment on site is as follows:

- One V-12 Caterpillar 398 engine, no control, Unit 879644, EUENGINE 1
- One 4-cylinder Caterpillar 3304 engine, no control, Unit 704097, EUENGINE 2
- Two 400 bbl storage tanks with containment (exempt under Rule 284(2)(e))
- One glycol dehy pulling from Antrim formations (exempt under Rule 288(2)(b)(ii))

Engine parameters taken on site are listed below and are comparable with daily records reviewed on site.

EUENGINE 1

- Oil Pressure – 57 psi
- Water Temperature – 180 deg F
- RPM – 900

EUENGINE 2

- Oil Pressure – 73 psi
- Water Temperature – 198 deg F
- RPM – 1200

Following are the remaining findings of the inspection:

FGENGINES - One V-12 Caterpillar 398 engine with no control (EUENGINE1) and one 4-cylinder Caterpillar 3304 engine with no control (EUENGINE2).

Emission Limits

Nitrogen oxides (NOx) emissions for Engine 1 are limited to 80 tons per year (tpy) based on a 12-month rolling time period as determined at the end of each calendar month. Records provided by the facility from August of 2018 to August 2019 indicate highest NOx emissions were in August 2018 at 37 tpy based on a 12-month rolling time period as determined at the end of each calendar month. Carbon Monoxide (CO) emissions for Engine 1 are limited to 4 tons per year (tpy) based on a 12-month rolling time period as determined at the end of each calendar month. Records provided by the facility from August of 2018 to August 2019 indicate the highest CO emissions were in August of 2018 at 1.5 tpy based on a 12-month rolling time period as determined at the end of each calendar month.

Nitrogen oxides (NOx) emissions for Engine 2 are limited to 10 tons per year (tpy) based on a 12-month rolling time period as determined at the end of each calendar month. Records provided by the facility from August of 2018 to August 2019 indicate the highest NOx emissions were in August of 2018 at 5 tpy based on a 12-month rolling time period as determined at the end of each calendar month. Carbon Monoxide (CO) emissions for Engine 2 are limited to 1 ton per year (tpy) based on a 12-month rolling time period as determined at the end of each calendar month. Records provided by the facility from August of 2018 to August 2019 indicate the highest CO emissions were in August of 2018 at 0.5 tpy based on a 12-month rolling time period as determined at the end of each calendar month.

Material Limits

Natural gas usage from both engines is limited to 44,072,339 cubic feet per 12-month rolling time period as determined at the end of each calendar month. Records provided by the facility from August of 2018 to August 2019 indicate the highest natural gas usage was in August of 2019 at 1,523,000 cubic feet based on a 12-month rolling time period as determined at the end of each calendar month.

Process and Operational Restrictions

The engines are required to have an approved Malfunction Abatement Plan (MAP). The latest version of the MAP was submitted on March 4, 2006 and was approved on April 3, 2006. The engines are also not allowed to operate without an add-on control device for more than 200 hours per year. Neither of these engines are equipped with an add on control device.

Design and Equipment Parameters

A device to measure natural gas usage for each engine is installed and appeared to be operating.

Monitoring and Recordkeeping

A log of all maintenance activities is required to be kept. Records provided by the facility from August of 2018 to August 2019 indicate these records are being kept. A sample of these records is attached to this report. As noted in the emissions limits section, NOx and CO emissions are being calculated and tracked in a timely and correct manner.

Reporting

The facility is required to report to the AQD of any engines swapped out. No notices of this nature were sent to the AQD and the engines on site appear to be the ones originally permitted.

Stack Restrictions

Engine 1 is limited to a maximum stack dimension of 12 inches and a minimum height of 30 feet. Engine 2 is limited to a maximum stack dimension of 8 inches and a minimum height of 30 feet. Both stacks appear to be in compliance with these parameters.

FGFACILITY

Emission Limits

Nitrogen oxides (NOx) emissions for the facility are limited to 89 tons per year (tpy) based on a 12-month rolling time period as determined at the end of each calendar month. Records provided by the facility from August of 2018 to August 2019 indicate the highest NOx emissions were in August of 2018 at 43 tpy based on a 12-month rolling time period as determined at the end of each calendar month. Carbon Monoxide (CO) emissions for the facility are limited to 5 tons per year (tpy) based on a 12-month rolling time period as determined at the end of each calendar month. Records provided by the facility from August of 2018 to August 2019 indicate the highest CO emissions were in August of 2018 at 2 tpy based on a 12-month rolling time period as determined at the end of each calendar month.

Material Limits

The facility is allowed to only burn sweet natural gas at the facility. The method of compliance for this listed in the permit is for the AQD to request testing of the gas. However, the request for records included a request for a statement regarding the hydrogen sulfide content of the gas. This statement indicates that the gas used at the facility is pulled from the Antrim formation and is therefore sweet natural gas. No request to test the gas has been issued and is not recommended at this time.

Process or Operational Restrictions

No facility wide process or operational restrictions

Design or Equipment Parameters

No design or equipment parameters

Testing or Sampling

Testing may be requested for hydrogen sulfide content of the natural gas. No request to test the gas has been issued and is not recommended at this time.

Monitoring and Recordkeeping

The facility is required to keep monthly and 12-month rolling time period records of NOx, CO, and Hazardous Air Pollutant (HAPs) emissions. These records are being kept and emission rates for NOx and CO are listed in the Emission Limits section above. Records provided by the facility for HAPs from August of 2018 to August 2019 indicate the highest total HAPs emissions were in August of 2018 at 0.2 tpy based on a 12-month rolling time period as determined at the end of each calendar month.

No facility wide Reporting, Stack/Vent Restrictions, or Other Requirements are listed in the permit. At the time of the inspection, this facility was in compliance with their applicable permitting.

NAME  DATE 11/13/19 SUPERVISOR 