

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

N593351355

FACILITY: ENERVest - Vienna Charlton	SRN / ID: N5933
LOCATION: T30N-R1W, Section 12, CHARLTON TWP	DISTRICT: Cadillac
CITY: CHARLTON TWP	COUNTY: OTSEGO
CONTACT: Chris Veazey , Environmental Manager	ACTIVITY DATE: 10/10/2019
STAFF: Rob Dickman	COMPLIANCE STATUS: Compliance
SUBJECT: Scheduled inspection of the opt out source.	SOURCE CLASS: SM OPT OUT
RESOLVED COMPLAINTS:	

Inspected this opt out source for compliance with Air Pollution Control Rules and Permit to Install Number 105-96B. No odors were noted at the facility. An inventory of equipment on site is as follows:

- One V-16 Caterpillar 399 engine, with catalytic control, Unit 879645, EUENGINE
- 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

- Oil Pressure – 64 psi
- Water Temperature – 170 deg F
- RPM – 1050
- Catalyst temp in – 970 deg F
- Catalyst temp out – 940 deg F

Following are the remaining findings of the inspection:

EUENGINE - One V-16 Caterpillar 399 engine, with catalytic control. Unit 879645. PTI 105-96B was issued in 2008 to allow the facility to remove the catalytic control. However, a catalyst appeared still installed on this engine. Records submitted by the facility do not appear to account for the catalyst.

Emission Limits

Nitrogen oxides (NOx) emissions for EUENGINE are limited to 84.2 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 57 tpy based on a 12-month rolling time period as determined at the end of each calendar month. Carbon Monoxide (CO) emissions for EUENGINE are limited to 7.6 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 6.8 tpy based on a 12-month rolling time period as determined at the end of each calendar month.

Material Limits

Natural gas usage by the engine is limited to 46,191,480 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 2018 at 39,097,000 cubic feet based on a 12-month rolling time period as determined at the end of each calendar month.

Process and Operational Restrictions

The engine is required to have an approved Malfunction Abatement Plan (MAP). The latest version of the MAP was submitted on October 1, 2008 and was approved on August 18, 2008. The engine is also not allowed to operate without an add-on control device for more than 200 hours per year. While there appears to be a control device installed on the engine, it is unclear if it is working and the PTI is written

such that the facility took uncontrolled limits on emissions and natural gas usage to remain an opt out source.

Design and Equipment Parameters

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

Testing

The facility is required to verify NOx and CO emissions upon request from the AQD. No request has been made and is not recommended at this time.

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 since the issuance of the current PTI.

Stack Restrictions

EUENGINE is limited to a maximum stack diameter of 8 inches and a minimum height of 46 feet. This stack appears to be in compliance with these parameters.

There are no "other" requirements on this engine.

FGFACILITY

Emission Limits

Nitrogen oxides (NOx) emissions for the facility are limited to 90 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 November of 2018 at 57 tpy based on a 12-month rolling time period as determined at the end of each calendar month. Hazardous Air Pollutant (HAP) emissions for the facility are limited to 9 tons per year (tpy) of any single HAP and 22.5 tpy of aggregate HAPs 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 HAPs emissions were in September 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

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.

Natural gas usage at the facility is limited to 46,638,720 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 2018 at 40,360,000 cubic feet based on a 12-month rolling time period as determined at the end of each calendar month.

Process or Operational Restrictions

No facility wide process or operational restrictions

Design or Equipment Parameters

No facility wide design or equipment parameters


Testing or Sampling

No facility wide testing or sampling requirements

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 are listed in the Emission Limits sections above.

No facility wide 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 