

**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection**

N644465755

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| FACILITY: VCP Michigan - ASE 5 | | SRN / ID: N6444 |
| LOCATION: T30N-R2W, Section 35, GAYLORD | | DISTRICT: Cadillac |
| CITY: GAYLORD | | COUNTY: OTSEGO |
| CONTACT: | | ACTIVITY DATE: 11/03/2022 |
| STAFF: Rob Dickman | COMPLIANCE STATUS: Compliance | SOURCE CLASS: SM OPT OUT |
| SUBJECT: Scheduled inspection of this opt out source. | | |
| RESOLVED COMPLAINTS: | | |

The VCP ASE 5/5B is a natural gas central processing facility (CPF) located in Chester Township, Otsego County. Operations at the facility are managed by VCP Oil Company located in Gaylord, Michigan. At this facility, sweet natural gas from low-pressure Antrim formation wells flow to the facility via buried flowlines. Upon reaching the facility, the gas is compressed and directed through a triethylene glycol dehydrator for moisture removal. Following dehydration, natural gas is directed to a sales pipeline.

I performed an inspection on this source with respect to Permit to Install (PTI) 44-05B. The inspection consists of an onsite inspection of equipment and a review of records required by the PTI. The onsite inspection was performed on November 3, 2022. Required records for the facility were requested on October 31, 2022 and received on November 28, 2022. The period of time requested for these records was September 2021 through August of 2022. Following are findings of this inspection:

Upon arrival on site, no odors were noted downwind and no visible emissions from any point were noted. The facility appeared in full operation. An inventory of pertinent equipment at the facility was as follows:

- Ajax model DPC360 without catalytic control
 - Unit Number – 187*
 - RPM – 400
 - Water temperature – 156 F

*This engine appears to be the same as in previous inspections.

- Caterpillar model G3408NA engine with catalytic emission control
 - Unit Number – 102221*
 - RPM – 1800
 - Oil Pressure – 70 psi
 - Water temperature – 176 F

*This engine appears to be the same as in previous inspections.

- One 200-barrel (bbl) capacity Aboveground Storage Tank (AST) exempt under R 336.1284(2)(e)
- Glycol dehydrator, permitted, but could be exempt under R 336.1288(2)(b)(ii)

The dehy is required to comply with the provisions of National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 63, Subpart HH as applicable. This dehy is exempt from the conditions of this Subpart as records provided by the facility indicate the facility processes approximately 15,885 scm of natural gas per day. Well below the exemption threshold of 85,000 scm/day.

Nitrogen Oxides (NOx) emissions for the Ajax engine (Engine 1) are not to exceed 22 tons per year and Carbon Monoxide (CO) emissions are not to exceed 5 tons per year. Both limits are based on a 12-month rolling time period as determined at the end of each calendar month. Compliance with these emissions limits is demonstrated through recordkeeping and emissions calculations. Records provided from the company for the requested reporting period indicated the following:

- NOx emissions for the facility as of August 2022 were 18.8 tons based on a 12-month rolling time period as determined at the end of each calendar month.
- CO emissions for the facility as of August 2022 were 4.2 tons based on a 12-month rolling time period as determined at the end of each calendar month.

No monthly value exceeded the emission limit in the preceding 12 months..

Nitrogen Oxides (NOx) emissions for the Cat 3408 engine (Engine 2) are not to exceed 51 tons per year and Carbon Monoxide (CO) emissions are not to exceed 4 tons per year. Both limits are based on a 12-month rolling time period as determined at the end of each calendar month. Compliance with these emissions limits is demonstrated through recordkeeping and emissions calculations. Records provided from the company for the requested reporting period indicated the following:

- NOx emissions for the facility as of August 2022 were 21.4 tons based on a 12-month rolling time period as determined at the end of each calendar month.
- CO emissions for the facility as of August 2022 were 1.6 tons based on a 12-month rolling time period as determined at the end of each calendar month.

NOx emissions from the entire facility are limited to 89 tons per year based on a 12-month rolling time period as determined at the end of each calendar month. Records indicate the facility is in compliance with this emission limit.

At no time in the preceding 12 months were monthly emission limits exceeded.

A Malfunction Abatement Plan is required for each engine. This plan was submitted and approved in April of 2006. A review of records indicates no time when an emission control device was bypassed.

Emission testing to verify NOx and CO emissions is to be conducted up request from the AQD. This testing has not been requested and is not recommended at this time.

A device to measure natural gas usage by the engine is required. This engine is so equipped, and records of usage were submitted by the facility.

Records of maintenance activities at this facility are being kept. These records were included in the records submission and are included with this report.

The stack for the Ajax engine is to be at least 27 feet tall and have a maximum diameter of 10 inches. The stack for the Cat engine is to be at least 27 feet tall and have a maximum diameter of 8 inches. Upon inspection, these stacks appear to meet this criterion and do not appear to have been recently modified.

Wells feeding this facility are removing gas from the Antrim formation. Natural gas extracted from this formation is considered "sweet" by definition. While the AQD can request testing of the gas, it is not recommended at this time.

At the time of the inspection, this facility was in compliance with the facility opt out permit. No further action is recommended.

NAME



DATE _____

SUPERVISOR _____