

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

N720570154

<b>FACILITY:</b> VCP Michigan - Charlton 34/35		<b>SRN / ID:</b> N7205
<b>LOCATION:</b> NE NW NE Sec 35, CHARLTON TWP		<b>DISTRICT:</b> Cadillac
<b>CITY:</b> CHARLTON TWP		<b>COUNTY:</b> OTSEGO
<b>CONTACT:</b>		<b>ACTIVITY DATE:</b> 11/08/2023
<b>STAFF:</b> Sharon LeBlanc	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> SM OPT OUT
<b>SUBJECT:</b> Onsite inspection and records review for FY 2024 FCE. sgl		
<b>RESOLVED COMPLAINTS:</b>		

## **INTRODUCTION**

On November 8, 2023, AQD District Staff conducted a, scheduled site inspection of the VCP Michigan LLC (VCP) Charlton 34/35 Central Processing Facility (CPF) (N7205). The referenced facility is located at 13651 Fairgrieve Road, in the NE ¼, NW ¼, NE1/4 of Section 35, Township 30N, Range 1W, Charlton Township, Otsego County, Michigan.

The referenced facility is considered a synthetic minor opt-out and operates under Permit to Install (PTI) No. 86-11B. The last compliance inspection of record was conducted August 28, 2018. At that time no compliance issues were noted, and the facility was determined in compliance with their permit.

The facility is a fenced, gated and unmanned facility is located on an approximately 10 acre parcel. Adjacent properties appear to consist of larger residential and undeveloped land.

Records required to make a compliance determination for the facility were requested electronically on October 6, 2023. The data provided (December 7, 2023) has been reviewed and incorporated into this document.

## **FACILITY**

The referenced site is located between Johannesburg and Vienna, Michigan. To reach the site Staff traveled east on M-32 from the office through Johannesburg, to Dagon Road. Make a right hand turn, and travel south on Dagon Road approximately 1-mile, to the intersection with Fairgrieve Road. At Fairgrieve Road make a left and travel approximately ¾-mile, the site is on the right hand side of the road. If you get to the curve in the road, you have just passed the site.

Alternately the site can be reached by traveling south on Meridian Line Road (Vienna) approximately 1-mile from the intersection with M-32. Make a right on Fairgrieve Road, and travel west approximately 1.25-miles. The site is on the southside of the road after the road straightens from the curve.

A review of readily available aerials indicate that the Facility had not been constructed as of December 1985, but is present in May 1992 aerials. The Facility represented in the May 1992 aerial appears to be consistent with the existing site footprint.

The present operator VCP Michigan, LLC purchased Enervest properties in Michigan August 5, 2020.

At the time of the November 8, 2023, site inspection, weather conditions included clear to partly cloudy skies, with temps just above 32 degrees Fahrenheit. Little to no wind was noted. No emissions were noted from the stacks onsite. No odors were detectable.

### **EQUIPMENT**

Both permitted and exempt equipment is of record for the Facility.

<b>Emission Units</b>	<b>MAERS installation date</b>	<b>Description</b>	<b>Other</b>
EUENGINE Skid 302251	4/13/2021	CAT G3408 NA 255 Hp 4SRB	EUENGINE per permit 86-11B
EUDEHY	NA*	Triethylene Glycol dehydration System	Exempt under Rule - dehydrator regenerator rated at maximum of 3.1 mmscf/day and equipped with 125,000 BTU/Hr burner.
EUTANKS	NA*	Two ASTs	Believed exempt, with secondary containment

\*Not reported in MAERS

District Files indicated the following engines associated with the site:

<b>Emission Unit</b>	<b>Make/Model/S/N</b>	<b>Installation Date</b>	<b>Removal Date</b>	<b>Comment</b>
Exempt	UNK	UNK	6/1/2011	Pre Permit
EUENGINE AKA EUCAT3408*	CAT 3408 405 HP	6/1/2011	4/13/2021	With Catalyst

<b>EUENGINE AKA EUCAT3408255hp*</b>	<b>CAT 3408 255 HP SN GNB00781 (or 6NB00781)</b>	<b>4/13/2021**</b>	<b>NA</b>	<b>No Catalyst Manufacture Date 5/1/1990</b>
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\*MAERS EU ID.

\*\* Records provided as part of this evaluation indicated that the engine was placed in service March 13, 2021. Above installation date from MAERS.

Operating parameters at the time of the November 8, 2023, site inspection are presented below:

<b>Engine</b>	<b>Unit 373 – CAT 3408 NA</b>
<b>RPM</b>	<b>1358</b>
<b>Eng. Oil Pressure</b>	<b>60 psi</b>
<b>Hrs</b>	<b>85,800</b>

## **PERMITTING**

Permits of record for the Facility include the following:

<b>Permit No.</b>	<b>Approval Date</b>	<b>Void Date</b>	<b>Company Issued to</b>
271-02	December 16, 2002	April 11, 2003	Ward Lake Energy Corporation
86-11	July 5, 2011	September 26, 2019	Ward Lake Energy
86-11A	September 26, 2019	*	VCP Michigan, LLC
86-11B	February 4, 2021	NA	VCP Michigan, LLC

\*Permit Cards indicates that 86-11A has not been voided. AQD Lansing Permit Section was notified of the discrepancy during report preparation activities.

Note- at the time of initial permitting, the existing engine was reported to be exempt, and under PTI 86-11 the engine would be replaced with a CAT 3408TA 400 Hp. The Eval for 86-11A indicated that the permit was to more accurately reflect the engine installed in 2011 (CAT G3408 TA, 405 Hp, 4SRB) and remove EUDEHY, which was

exempt. The Eval for 86-11B indicated that the permit was for a replacement CAT 3408 NA, 255 Hp 4SRB engine.

## **REGULATORY**

The Charlton 34/35 CPF like many O&G Facilities in northern Michigan does not process or store petroleum liquids onsite and therefore is not subject to one or more of the following 40 CFR Part 60 (New Source Performance Standards AKA NSPS) Subparts;

- K, Ka or Kb (Storage vessels for Petroleum Liquids);
- KKK (Equipment Leaks of VOC from onshore NG Processing Plants);
- VV (Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry);

**ASTs associated with the site also are believed to be exempt from 40 CFR Part 60 Subpart K, Ka or Kb are date-based standards of Performance for Storage Vessels for Petroleum Liquids for which construction, reconstruction or modification commenced:**

- After June 11, 1973, and Prior to May 19, 1978 (Subpart K)
- After May 18, 1978, and Prior to July 23, 1984 (Subpart Ka)
- After July 23, 1984, (Subpart Kb)

**40 CFR Part 60 Subpart OOOO (Standards of Performance for Crude Oil and NG Production, Transmission and Distribution) and Subpart OOOOa would apply to onshore affected facilities that are constructed, modified, or reconstructed after August 23, 2011, and September 18, 2015, respectively. Based on available information it appears that the referenced subpart with a 1985 construction date is not applicable at this time but that future changes may be subject to the referenced subpart. No compliance determination has been made with reference to the subparts.**

**40 CFR Part 60 (NSPS) Subpart JJJJ for Spark Ignition (SI) Reciprocating Internal Combustion Engines (RICE) with manufacture dates before July 1, 2007. A Manufacture date of May 1, 1990, with no engine reconstructions was reported in the permit application, therefore it is believed that the engine is not subject to the referenced subpart. No compliance determination has been made with reference to the subpart.**

**40 CFR Part 60 (NSPS) Subpart LLL - Standards of Performance for SO<sub>2</sub> Emissions from Onshore Natural Gas Processing for Which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011. With respect to Subpart LLL, This Federal standard is applicable to Facilities operating sweetening units. No sweetening unit is associated with this site, therefore the referenced subpart is not applicable.**

**In addition to the NSPS Standards referenced above, the following 40 CFR Part 63 (Maximum Achievable Control Technology Standards A.K.A. MACT) Subparts may apply:**

- Subpart HH (HAPS from Oil and NG Production Facilities)
- Subpart ZZZZ (Reciprocating Internal Combustion Engine aka RICE)
- Subpart JJJJJ (Industrial, Commercial and Institutional Boilers and Process Heaters)

With respect to Subpart HH, the applicable emission unit is the dehydration system. Exempt dehydration systems must meet one or both of the following conditions; actual annual NG flow rate of less than 3 million standard cubic feet per day (MMcf/d) or 85,000 cubic meters/day) or an uncontrolled benzene emission rate of less than 0.9 megagrams per year (or approximately 1 TPY) threshold. Based on Antrim formation gases being processed at the site, benzene concentrations would be anticipated to be well below the threshold. A compliance determination has not been made with respect to this subpart, and at the time of report preparation AQD does not have authority to enforce the subpart.

With respect to Subpart ZZZZ (RICE MACT), the facility engine is identified as being subject to the referenced Subpart, and a high level citation may be found in PTI 86-11B (SC IX.1). At the time of report preparation, AQD has been delegated authority to implement and enforce the subpart. However, compliance determinations for Federal requirements under Subpart ZZZZ for Area Sources have not been made at this time. Based on a review of the PM/MAP for the facility it appears that requirements under the subpart may have been incorporated into the PM/MAP. Compliance with the PM/MAP may indicate compliance with the referenced subpart.

NESHAP subparts JJJJJJ pertain to Industrial, Commercial and Institutional Boilers and Process Heaters for Area source of HAPS, respectively. At the time of the site inspection, it appears that the reboiler of the triethylene glycol dehydration process would not be subject to the subpart, as a process heater is not subject for area sources. No compliance determination has been made with reference to the subpart.

### **Preventative Maintenance/Malfunction Abatement Plan (PM/MAP)**

PM/MAP are required under the existing permit for EUENGINE located onsite. PM/MAP submittals of record in District Files include the following:

#### **Submittal Date/Date**

**Recv'd**

4/16/2012

3/19/2021

### **Reports Received**

Reporting requirements for the Facility are limited to annual emissions reports which are discussed below. No CEDRI submittals are of record for this Facility.

### **COMPLIANCE**

Since the August 28, 2018, site inspection there have been no complaints, violation notices or consent orders identified for the Facility.

Annual emissions are reported for the Facility as part of the MAERS reporting system. Annual submittals have historically been received in a timely manner, the emission estimates for the 2022 calendar year were submitted February 1, 2023.

Compliance status for the facility had been based on information obtained during the November 8, 2023, site inspection, as well as on supplemental data and reports submitted.

### **PTI 86-11B – Permit Conditions**

Emission units covered by the above referenced PTI include EUENGINE. Records under the referenced permit are required to be maintained for a period of 5 years.

**EUENGINE** – The referenced engine consist of one NG-fired, 255 HP CAT 3408 NA RICE. The engine is used for primary production and gas compression. Note that the previous engine was equipped with a catalytic control but the present unit is not.

Emission limits associated with EUENGINE consist of 12-month rolling total NOx emissions. Emission calculations for NOx are required under SC VI.5. Emissions associated with EUENGINE consists of :

<b>12-Month Rolling Time Period Ending</b>	<b>NOX Emissions (TPY)</b>
December 2023	41.953
September 2023	49.244
<b>Limits</b>	<b>63.2 (SC I.1)</b>

In addition to the above emission limits, the permit requires the preparation and submittal of a PM/MAP (SC III.1) within 60-days of permit issuance. The initial document was submitted in compliance with the permit conditions. The most recent revision of the document is dated March 5, 2021, and was received by the District Office on March 19, 2021.

EUENGINE is not equipped with a catalyst to control emissions and is therefore not subject to the following permit conditions:

- Operation of each engine equipped with a control device without the device for more than 200 hours per engine per year consistent with the PM/MAP (SC III.2)
- Maintain monthly and 12-month rolling records of hours that EUENGINE operates without a control device. (SC VI.4)

- EUENGINE shall not operate unless the control device is installed, maintained and operated except as specified in SC III.1. (SC IV.1)

**The Facility is considered an opt-out Facility based on SC VII.1 below:**

- Except as provided in R 336.1285, if the engine is with an equivalent emission rates or lower emission rates, the permittee is required to notify the AQD District Supervisor within 30-days and provide data to show that the alternate engine meets the requirements.

**No engine changeouts are of record since installation in 2021 of EUENGINE.**

- Verification of NOx and CO emission rates from EUENGINE by testing at owners expense per the request of the District Supervisor (SC V.1)

**District files do not contain any requests for verification testing, nor verification testing results. Therefore, it would appear the above referenced condition is not applicable at this time.**

**Monitoring and Recordkeeping - The permittee is required under PTI 86-11B to maintain the following records:**

- The permittee shall install calibrate and maintain a device to monitor and record natural gas usage from EUENGINE on a continuous basis. (SC IV.2 and VI.2)
- Maintain records of monthly fuel use for EUENGINE required by SC 1.6. (SC VI.2)

**Records provided by the Facility, were noted to be complete and in compliance with permit conditions. Monthly fuel usage reported for the period of January 2022 through September 2023 ranged from 1013 – 2691 mcf. Fuel Usage for 2022 and 2023 to date are summarized below:**

<b>Engine – 12-month rolling time period ending</b>	<b>12-month rolling total Fuel Usage (Mcf)</b>
<b>Dec. 2022</b>	<b>13,538</b>
<b>September 2023</b>	<b>15,891</b>
<b>LIMIT</b>	<b>NA</b>

- Maintain a log of all significant maintenance activities conducted and all repairs made to EUENGINE and any associated control device pursuant to SC III.1. (SC VI.3)
- Notification of the AQD District Supervisor of any change/replacement of EUENGINE with an equivalent-emitting or lower-emitting engine and submit acceptable emissions data as verification (SC IX.1)

**Maintenance records for the EU indicate that the Facility has 3<sup>rd</sup> party contractors who conduct monthly scheduled service activities. The records indicate that these**

activities are “preventative maintenance”. In addition, approximately every 6 months O2 analyzer service and testing activities are conducted onsite. No major repairs were noted in the logs for the calendar year 2022 or 2023 to date.

Stack and Vent Restrictions under PTI 86-11B include SVENGINE a maximum 6-inch diameter, 36-foot stacks. (SC 1.13a) The Facility reports that the stack for EUENGINE was 16-inches in diameter and a height of 38-feet above land surface. Based on visual estimates, it appears that the existing stack is in compliance with permit conditions.

### SUMMARY

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Both permitted and exempt equipment is of record for the Facility and include an outdoor Dehydration system, AST with what looks like a vent pipe for “slop” in secondary containment and EUENGINE.

Based on observations made, and records provided it appears that the Facility is in general compliance with their PTI conditions. sgl



NAME Sharon J LeBlanc

DATE 1-29-24

SUPERVISOR Shane Nixon