

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

B682828045

FACILITY: U.S. Venture, Inc.		SRN / ID: B6828
LOCATION: 311 COAST GUARD DR, CHEBOYGAN		DISTRICT: Gaylord
CITY: CHEBOYGAN		COUNTY: CHEBOYGAN
CONTACT: Todd LaRocque, Regional Terminal Manager		ACTIVITY DATE: 10/30/2014
STAFF: Gloria Torello	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled Inspection, and full tank inspection on T-101.		
RESOLVED COMPLAINTS:		

SRN: B6828. Name: US Venture, Inc. (US Oil Cheboygan River Terminal).

Directions. The facility is located in Cheboygan, Michigan. In Cheboygan, from MI-27 N turn east onto US-23, cross the river, turn north onto North B Street. Travel about 1/8 mile, and the facility is on the left.

Application. This is a petroleum products storage and distribution facility. On October 6, 2014 AQD received permit application 168-11A from US Oil Cheboygan River Terminal to revise the existing permit. The application included converting EU TANK 106 from a fixed roof storage tank to an internal floating roof storage tank in order to have the flexibility to store gasoline in the tank. With the new permit, Tank 106 may store gasoline or distillate (oil). With this change, Tank 106 became subject to 40 CFR Part 60, Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984. On October 15, 2014 AQD issued permit 168-11A, the control equals the internal floating roof.

The permit revision request also included changes to reflect:

1. Tank 102 has a contact internal floating roof, not a non-contact internal floating roof.
2. Tank 102 no longer has a shoe mounted secondary seal but has a mechanical shoe seal.
3. Tank 104 has a design capacity of 1,804,857 gallon, not 1,767,261 gallon.
4. Tank 106 has a design capacity of 1,015,232 gallon, not 757,071 gallon.

For some history, permit 168-11 was issued on March 28, 2012. The permit was a result of a Violation Notice (VN) dated July 13, 2011 for putting more product through the loading rack than permitted in permit 266-93, and not monitoring and recording emissions per the conditions of permit 267-93. During resolution of the VN it was determined the facility was subject to the Title V ROP based on throughput. Permit 168-11 had the facility opt-out of Title V ROP by placing operational or production limits on gasoline and distillate throughput.

Although tanks 102, 103, and 106 were constructed in the 1950's, they were modified after 1984 and are subject to NSPS, 40 CFR Part 60 Subpart Kb.

Tanks 101 and 105 were constructed in 1955, they were never modified after June 11, 1973 and are not subject to NSPS, 40 CFR Part 60 Subpart K, but are subject to Michigan's Rule 604.

Tanks 87 - 100 are additive tanks and do not meet the criteria to be regulated under Subpart Kb or Rule 604.

The permittee opted out of the ROP by limiting gasoline and distillate throughput.

The permittee is subject to fees because the Tanks 102, 103, and 106 are subject NSPS, 40 CFR Part 60 Subpart Kb.

Malfunction Abatement Plan (MAP). On March 11, 2015 AQD received a revised MAP to reflect the installation of an internal floating roof into T-106 Tank. The AQD will approve the revised MAP. Previously, on August 1, 2012 the AQD approved a MAP. The MAP was originally required by permit 168-11 and continues to be a requirement of permit 168-11A tables EULOADRACK, FGNSPSTANKS, and

FGRULE604TANKS. The MAP includes the load rack and associated open containers, and the tanks.

On July 2, 2014 the AQD approved the Monitoring and Inspection Plan for the Carbon Adsorption System plan (MIP). The MIP was originally required by permit 168-11 and continues to be a requirement of permit 168-11A table EULOADRACK.

On December 16, 2014 AQD requested records showing compliance with the permit, MAP, and MIP. Mr. Dave Herman submitted the records. The permittee demonstrated ongoing compliance with the permit's record keeping requirements. The records also demonstrate compliance with the permit limits, MAP and MIP. The records include:

- Tank inspection schedule;
- Load rack testing schedule, and test results;
- Tank roof inspections;
- Monthly floating roof tank inspection report;
- VRU Monthly Stack Field Test;
- VRU Daily Inspection Report
- VRU Zink Preventative Maintenance Check List;
- Gas Monitor Calibration & Service Report;
- Loading Rack Monthly Inspection & Weekly Inspection;
- Annual Certification Test-Method 27 40 CFR 63.425 w/ Internal Vapor Value Test;
- Tank ID Numbers;
- Procedures For Driver Loading;
- Terminal Rules and Procedures;
- Tank 101 10-Year IFR Inspection.

MAERS. The 2014 MAERS was available during this review and included the emission units Loading Rack, and Tanks 87, 89, 90, 91, 92, 93, 99, 100, 101, 102, 103, 104, 105, and 106. For gasoline and distillate throughput see Activity & Emission, Activity Desc, Gasoline Submerged Loading, and Distillate Submerged Loading. The 2014 MAERS included:

- Gasoline throughput 36,449,400 gallons (161,330,400 gallons permitted);
- Distillate throughput 12,985,200 gallons (600,000,000 gallons permitted);
- VOC 7.3 tons (30 tpy permitted:);
- Less than a ton each of Benzene, Ethylbenzene, Hexane, Toluene, and Xylene (Each Individual HAP 1 tpy permitted:);
- Aggregate HAPS 0.21 ton (2 tpy permitted).

The 2014 MAERS used EPA Emission Factors for EULOADRACK, and Tank Model for all the tanks which are emission factors from EPA TANKS 4.0.9d Emission Factor and Inventory Group Office of Air Quality Planning and Standards tanks program-no objection.

Tanks 102, 103, and 106 are subject to 40 CFR Part 60 Subpart Kb. NSPS's are delegated to Michigan from the EPA and the requirements of Subpart Kb are written into the PTI 168-11A table FGNSPSTANKS. Per MAERS, AQD assess fees for the NSPS under Category II fees. On 3/11/15 G. Torello, AQD, included in MAERS: EUTANK106, Emission Unit Description, NSPS subject.

MACES. Regulatory Info includes:

EPA Class is Syn Minor Opt out; Fee Category II (the facility is subject to NSPS); and CMS is checked.

Regulatory Summary:

- HAPS is marked Minor, and VOC is marked Synthetic Minor.

Subject to:

- 40 CFR Part 63 Subpart BBBB, and
- 40 CFR Part 60, Subpart Kb (tanks),
- 40 CFR Part 60, Subpart XX (EULOADRACK), and Torello added
- FESOP (SM Opt-out), and

Permit (NSR) 168-11A.

MACTS. The facility is subject to 40 CFR Part 63 Subpart BBBBBB (also known as GDGACT). This facility is an area source (minor for HAPs). The EPA has not delegated GDGACT to MI AQD and the Subpart was not reviewed. Semiannually the permittee copies the MI AQD on the GDGACT report submitted to the US EPA.

Brochure: The inspection brochure will be forwarded to the permittee with the site inspection notes via email.

Inspection. Todd LaRocque met Gloria Torello of AQD staff at the site and provided a tour. Todd is now the terminal manager. Gary Chambers no longer works at the facility.

Tank 101. During the site visit the full tank inspection of T-101 was underway. Tank 101 was empty. The tank inspection is a requirement of the AQD approved MAP. Per the MAP, page 1 of 29, III. Inspection & Maintenance Intervals, c. Tank Controls, iii. Floating roof seals must be inspected every 10 years. Schrader Environmental from Wisconsin was on site completing the inspection. The permittee is required to internally inspect the tank for integrity (under API 653 standard), and concurrently the permittee includes the full inspection of the floating roof. Tank 101 has an internal floating roof with legs, and a mechanical shoe seal.

Tank 102. The now void permit 168-11 described EUTANK 102 as: internal floating roof, non-contact, primary seal mechanical shoe, secondary seal shoe mounted. PTI 168-11 was based upon information from U.S. Venture's application. When U.S. Venture bought the facility, they were told by the seller Tank 102 fit the above description. In 2013 Tank 102 was inspected. It was discovered that instead of Tank 102 having a mechanical shoe, Tank 102 had a foam seal. The foam seal was deteriorating. Tank 102 had the foam seal replaced with a mechanical shoe. The 40 CFR 60.112b(a)(1)(ii) allows for either (A) a foam or liquid filled seal, (B) two seals mounted one above the other or (C) a mechanical shoe. Both (A) and (C) do not require a secondary seal, but (B) requires a secondary seal. When the new permit 168-11A was written, Tank 102 was described as having a mechanical shoe.

Tank 104. Tank 104 holds diesel. During the site visit Tank 104 was down for the API 653 10-year inspections. Tank 104 had a sludge buildup. Tank 104 does not have an internal floating roof.

In 2014 Tanks 105 and 106 were power washed and painted.

Permit 168-11A was issued on October 15, 2014 and authorized Tank 106 to store gasoline. Tank 106 has an internal floating roof. The internal floating roof is attached to the fixed roof, and does not have legs. A benefit of no legs is no wear spots on the floor. A cable supports the internal floating roof which moves up and down like a garage door. Tank 106 holds regular and unleaded gasoline. (The internal floating roof for Tank 106 was installed and the tank was operational in March 2015.)

During the site visit one truck was loading in the truck bay. The VRU was hooked up. The loading kiosk is now wired so it is no longer a requirement for someone to stand inside the kiosk during truck loading.

The VRU was observed. Todd said the VRU is maintained quarterly.

The permittee keeps a vacuum truck onsite.

The site is very tidy.

Permit 168-11A Conditions.

EULOADRACK

I.1. The VOC limit of 10 mg per liter of product loaded was demonstrated via testing on 2/27/14. The test results show the gasoline emission rate was 0.89 mg/L (the permit allows 10 mg/L of product loaded). The next VRU test is due in 2018. See the records submitted by Dave Herman on 12/7/14.

Ongoing compliance with the VOC limit is demonstrated via monitoring and recordkeeping of the VRU and Carbon Adsorption System in accordance with the AQD approved MIP.

II. 1 & 2. The 2014 MAERS reported these facility wide throughputs:

- Gasoline 36,449,400 gallons (161,330,400 gallons permitted);
- Distillate 12,985,200 gallons (600,000,000 gallons permitted).

III.1. In 2012 the permittee installed the vapor tight collection line which delivers the load rack's VOCs to the VRU.

III.2, 3, 4. & 5. Michigan requires (delivery truck) tanks to have a vapor tightness certification. The tank certification is put into the permittee's Guardian system. Only valid certified tanks can be filled. If the pipe is not hooked up correctly the tank cannot load. Written procedures for the operation of applicable control measures are on site. The AQD has not received a request for alternative procedures. The facility operates 24/7, staff is on site Monday-Friday 6:00 a.m. – 5:00 p.m. Someone from the permittee's staff is always on call. The Guardian system allows a truck driver to fill a tank, with a pin number and Transportation Worker ID Credential TWIC card-from Coast Guard. Boats may deliver at any hour and staff must be on site per Coast Guard regulations. The 18 inches water column in load rack correlates to the 4500 Pascals, this is a requirement during loading. Monthly the pressure gauges are read. This correlates to the VRU and assures the VRU is operating correctly.

III.6. AQD staff did not observe any evidence of leaks.

III.7. The permittee has an AQD approved Monitoring and Inspection plan (MIP). The vapor collection system is operated per the MIP.

III.8. Truck drivers are trained in the use of the vapor collection systems. If the VRU is not hooked up right, the tank cannot be loaded. This is part of the Guardian system. Information is posted on site in the use of the VRU.

III.9. On May 10, 2015 the permittee submitted a revised MAP to include Tank 106 as NSPS subject. The MAP was approved.

III.10. On 6/25/12 Dave Herman sent Torello an email stating the vacuum and carbon transmitter were installed on 6/21/12 on the Carbon Adsorption System. The permittee keeps records of the vacuum readings.

IV.1. By design the load rack meets the requirements of IV. The VRU is installed and in use. Monthly load rack inspections show the inches in the water column are assuring the gauge pressure in the delivery tank are not exceeding 4,500 Pascal during product loading.

V.1-4 The 40 CFR 60.503(a) requires a one time test. This test was made in 1994. See the orange file for test information.

V.5. AQD received records showing the last VRU test was completed on 2/27/13. A stack test on the VRU is required once every five years to determine the control efficiency of the VRU. The gasoline emission rate was 0.89 mg/L (the PTI limit is 10 mg/liter of product loaded).

VI. MONITORING/RECORDKEEPING

V1.1. Dave Herman's email from 12/17/14 shows the permittee keep records, in gallons, of the throughput of gasoline and distillate on a monthly and 12-month rolling time period.

V1.2. VRU maintenance log documents outages.

V1.3. There are hard copies on file of the tank truck vapor tightness documentation; this is part of the Guardian system.

V1.4. The Guardian system keeps records of the annual gasoline tank truck information.

V1.5, 5. The permittee keeps records of the monthly loading rack inspection.

V1.7 & 8. The permittee monitors and keep records of the VRU, including the Carbon Adsorption System.

V1.9. On July 2, 2012 the AQD approved the MIP.

VII.1. On 9/11/12 Dave Herman sent Gloria Torello an email with the VOC TEST PROTOCOL FOR THE CARBON ADSORPTION / GASOLINE ABSORPTION VAPOR RECOVERY UNIT (VRU). On 10/9/12 the AQD/Rob Dickman approved the test plan. On 3/8/13 AQD received the test results which show the gasoline emission rate was 0.89 mg/L (the permit allows 10 mg per liter of product loaded).

VIII. 1. Via visual observation, the stack restrictions are met: 10 inches diameter maximum, and 70 feet height minimum.

FGNSPSTANKS

III. 1. On March 11, 2015 AQD received a revised MAP to reflect the installation of an internal floating roof into T-106 Tank. The AQD approved the revised MAP.

IV. DESIGN/EQUIPMENT PARAMETERS

1. Tanks 102, 103, and 106 have internal floating roofs and mechanical shoes. Tank 106's internal floating roof was installed and Tank 106 became operational on March 10, 2015.

& 3. Tanks 102, 103, and Tank 106 have an internal floating roof mechanical shoe seal installed.

V.2. & 3. Records show monthly and annual visual inspections are made.

V.3. On 10 year schedule, the permittee inspects the tanks internal floating roofs on this schedule:

Seal Inspection Tracking

Tank Integrity Tracking:

VI. 1. & 2. The permittee keep records and provides records to AQD upon request.

VII.1-3. On an ongoing basis the permittee notifies AQD of tank refillings and provides records of tank inspections.

VII.4. The permittee notified AQD when the inspection determined Tank 102 had a failing foam seal and the seal was replaced with a mechanical shoe.

FGRULE604TANKS

III.1. On March 11, 2015 AQD received a revised MAP to reflect the installation of an internal floating roof into T-106 Tank. The AQD approved the revised MAP.

IV.1. FGRULE604TANKS are equipped and maintained with a floating roof and have a closure seal.

IV.2. FGRULE604TANKS are equipped with covers.

Source-Wide

I.1. The 2014 MAERS records include:

- VOC 7.3 tons (30 tpy permitted);
- Less than a ton each of Benzene, Ethylbenzene, Hexane, Toluene, and Xylene (Each Individual HAP 1 tpy permitted);
- Aggregate HAPS 0.21 ton (2 tpy permitted).

II. 2014 MAERS Show:

- Gasoline 36,449,400 gallons (161,330,400 gallons permitted);
- Distillate 12,985,200 gallons (600,000,000 gallons permitted).

VI.1. The permittee keeps records of gasoline and distillate throughput and makes the records available

to the AQD upon request.

2. The permittee keeps records monthly and 12-month rolling emissions calculations of VOC and HAPs and makes the records available to the AQD upon request.

IX. 1. The MI AQD is copied on reports related to Subpart BBBB as a courtesy. US EPA is the primary recipient of Subpart BBBB reports.

Compliance. As noted above, in 2011 the AQD sent the permittee a violation. The violation was resolved.

Conclusions. Via onsite inspection, discussion with U.S. Venture staff, and review of records, the permittee demonstrates compliance with the conditions of permit 168-11A.

NAME Glenn Inelbo

DATE 3-12-15

SUPERVISOR 