

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

B342750241

FACILITY: PVS TRANSPORTATION, INC.		SRN / ID: B3427
LOCATION: 11001 HARPER AVE, DETROIT		DISTRICT: Detroit
CITY: DETROIT		COUNTY: WAYNE
CONTACT: David Lewis , Terminal Facility Manager		ACTIVITY DATE: 08/29/2019
STAFF: Jonathan Lamb	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: Targeted inspection, FY 2019		
RESOLVED COMPLAINTS:		

DATES OF INSPECTION: August 29 and September 17, 2019

INSPECTED BY: Jonathan Lamb, EGLE-AQD

PERSONNEL PRESENT: David Lewis, Operations Manager - Terminal Facility; Sean D'Andrea, Health and Safety Specialist

FACILITY PHONE NUMBER: (313) 921-1200

FACILITY FAX NUMBER: (313) 921-2335

CONTACT PHONE NUMBER: (313) 921-1200, ext. 5177 (Mr. Lewis)

FACILITY BACKGROUND:

PVS Transportation was formed in 1996 as a wholly-owned subsidiary of PVS Chemicals, Inc. PVS Transportation is a chemical trans-load and transportation facility, servicing both PVS and non-PVS facilities. PVS-Nolwood Chemicals previously operated at this address prior to 1996; PVS Chemicals submitted a letter, dated June 17, 2015, to formally request that the facility name be changed to PVS Transportation. This facility generally operates 7 AM –4 PM, Monday through Friday, and has around 36 employees.

PVS Chemicals, Inc. is headquartered across the street at 10900 Harper. PVS Chemicals was established in Detroit in 1945 as Pressure Vessel Services, Inc., and has been at the current address since 1985. The company has various divisions and facilities throughout North America and worldwide.

COMPLAINT/COMPLIANCE HISTORY:

There has not been a history of complaints against this facility.

The facility was found to be in noncompliance during the most recent inspection performed on May 4, 2018. Specifically, the facility was in noncompliance for exceeding the limit of four hours per day for unloading hydrochloric acid and for the scrubber effluent exceeding a pH of 6.0. The facility took immediate corrective actions to comply with the permit conditions. A Violation Notice was not issued.

PROCESS DESCRIPTION/EQUIPMENT:

PVS Transportation is a loading and transportation facility which handles the distribution of liquid chemicals, primarily acids and caustics. There is no processing of the chemicals, only bulk storage and distribution. Almost all of chemicals are received via railcar and are unloaded (pumped) into bulk storage tanks, though chemicals may also be received via tanker trucks. From these bulk storage tanks, the chemicals are loaded (pumped) into tanker trucks and transported to customers. The facility performs unloading of hydrochloric acid (HCl) railcars two or three days per week, with one or two railcars unloaded per day. Each railcar contains approximately 19,000-20,000 gallons of HCl. It takes approximately 3.5 to 4 hours to unload a railcar; when unloading two railcars, the railcars are unloaded simultaneously so the facility stays under its permitted limit of 4 hours of unloading per day.

The chemical storage tanks are located in an outdoor tank farm which runs along rail tracks. Tanker trucks owned and operated by PVS Transportation are used to transport finished product (ferric chloride) from PVS Technologies.

Wayne County Permit No. C-10424 was issued for seven HCl storage tanks controlled by a single packed-bed fume scrubber. While the permit covers seven tanks, only five tanks are used to store HCl; facility personnel believe the other two tanks have been removed from service:

Tank 32: 200,000 gallon HCl storage tank

Tank 38: 287,000 gallon HCl storage tank

Tank 39: 200,000 gallon HCl storage tank

Two 15,000-gallon vertical tanks for the storage of scrubber water exceeding a concentration of 6% HCl, which can be used as dilution water when formulating the HCl product to meet customer specifications.

The scrubber is operated at all times. The HCl concentration of the scrubber effluent is monitored continuously, and an alarm goes off if the concentration reaches 6% HCl. Following issues noted during my 2018 inspection, the alarm was set so that it can no longer be manually shut off and will continue to alert until the scrubber water is changed and HCl concentration is below 6%.

There are several other tanks in the tank farm which are not permitted. There are no controls on these tanks:

Tank 4: 10,000-gallon storage tank for nitric acid (67% concentration; 0.93 psia). Exempt per R 284(2)(i).

Tank 9: 9,400-gallon diesel fuel storage tank for on-site use. Exempt per R 284(2)(g)(ii).

Tank 10: 6,000-gallon additive inhibitor storage tank. Exempt per R 284(2)(i).

Tank 12: 20,000-gallon HFS acid (23% concentration; 0.44 psia) storage tank. Exempt per R 284(2)(i).

Tank 14: 24,000-gallon HFS acid (23% concentration; 0.44 psia) storage tank. Exempt per R 284(2)(i).

Tank 40: 37,000-gallon sodium hydroxide (50% concentration; 0.06 psia) storage tank. Exempt per R 284(2)(i).

Tank 41: 37,000-gallon sodium hydroxide (50% concentration; 0.06 psia) storage tank. Exempt per R 284(2)(i).

Tank 47: 30,000-gallon sulfuric acid (93% concentration) storage tank. Exempt per R 284(2)(h)(i).

Tank 48: 30,000-gallon sulfuric acid (93% concentration) storage tank. Exempt per R 284(2)(h)(i).

Tank 49: 30,000-gallon phosphoric acid (75% concentration) storage. Exempt per R 284(2)(h)(ii).

Tank 50: 30,000-gallon phosphoric acid (75% concentration) storage. Exempt per R 284(2)(h)(ii).

APPLICABLE RULES/ PERMIT CONDITIONS:

PVS Transportation operates under Wayne County Permit No. C-10424, which was issued to PVS-Nolwood Chemicals at this address on June 6, 1994. For this inspection, records from May 2018 through August 2019 were reviewed to determine compliance.

Wayne County Permit No. C-10424, Special Conditions:

17. IN COMPLIANCE. Scrubber is used whenever the HCl storage tanks are in use.

18. NOT EVALUATED. Testing to determine HCl emission rate during railcar unloading has not been performed. This condition is assumed to be in compliance with proper operation of the scrubber.

19. NOT EVALUATED. Testing to determine HCl emission rate during storage tank loading has not been performed. This condition is assumed to be in compliance with proper operation of the scrubber.

20. NOT IN COMPLIANCE. Scrubber is equipped with flow meter. However, during the inspection, the scrubber was having trouble maintaining consistent flow to maintain compliance with the permit minimum flow rate of 30 gallons per minute due to a failing pump and clogging issues. Based on facility records, this issue appears to have started on July 8, 2019. The facility had a new pump on order to correct the problem. I performed a follow up inspection at the facility on September 17, 2019, to check the status. The pump had been replaced and the flow rate of the scrubber was observed to be 55 gallons per minute.

21. IN COMPLIANCE. Based on a review of operational records and discussions with facility personnel, the facility unloads railcars for no more than 4 hours per day, as allowed by the permit.

