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

B342744306

FACILITY: PVS TRANSPORTATION, INC.		SRN / ID: B3427
LOCATION: 11001 HARPER AVE, DETROIT		DISTRICT: Detroit
CITY: DETROIT		COUNTY: WAYNE
CONTACT: Peter Onyskiw, Environmental Manager		ACTIVITY DATE: 05/04/2018
STAFF: Jonathan Lamb	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: Targeted inspection, FY 2018		
RESOLVED COMPLAINTS:		

DATE OF INSPECTION: May 4, 2018
 INSPECTED BY: Jonathan Lamb, MDEQ-AQD
 PERSONNEL PRESENT: Peter Onyskiw, Environmental Manager; Christina Litten, Safety & Regulatory Manager; Frances Jenuwine, Terminal Manager
 FACILITY PHONE NUMBER: (313) 921-1200
 FACILITY FAX NUMBER: (313) 921-2335
 CONTACT PHONE NUMBER: (313) 921-1200, ext. 5174 (Mr. Onyskiw)

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 6 AM – 6 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 substantial compliance during the last full compliance evaluation performed on August 26, 2015.

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 unloads 1 or 2 railcars per day, with each railcar containing approximately 20,000 gallons. It takes approximately 3.5 to 4 hours to unload a railcar, though multiple railcars can be unloaded simultaneously.

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 covers seven HCl storage tanks, which are controlled by a single packed-bed fume scrubber. While the permit covers seven tanks, only five tanks are used to store HCl:

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. However, during the inspection, the HCl concentration of the effluent measured 6.6% on the monitor, but I did not hear an alarm going off. Facility personnel informed me that the alarm can be temporarily shut off manually, but will continue to go off every 15-20 minutes until the water is changed.

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)(d).

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 August 2015 through April 2018 were reviewed to determine compliance.

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

17. IN COMPLIANCE. The scrubber is in operation whenever the storage tanks containing HCl are in use. Note: the equipment permitted includes seven HCl tanks controlled by a scrubber, though only five tanks are currently used for HCl storage. I am unsure which of the other two material storage tanks were included in the original permit and if those tanks are also controlled by the scrubber (as noted above, the materials in the other storage tanks are exempt from permitting). This should be clarified during the next inspection and should be addressed if C-10424 is modified.

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. IN COMPLIANCE. Scrubber is equipped with flow meter. During the inspection, the flow was 55 gallons per minute, in compliance with the permit minimum of 30 gallons per minute.

21. NOT IN COMPLIANCE. Based on a review of operational records and discussions with facility personnel, the facility unloads railcars for up to 6 hours per day, exceeding the permit limit of 4 hours per day.

22. NOT EVALUATED. I was unable to verify the packing bed parameters of the scrubber, and the facility does not maintain records of scrubber maintenance or specifications. Since the scrubber was

