

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

P071441394

FACILITY: Speedway LLC #8821 - Remediation		SRN / ID: P0714
LOCATION: 547 North Perry Street, PONTIAC		DISTRICT: Southeast Michigan
CITY: PONTIAC		COUNTY: OAKLAND
CONTACT: Mike Cox , Geologist		ACTIVITY DATE: 08/22/2017
STAFF: Kerry Kelly	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Based on the AQD inspection and records review, it appears that Speedway is in compliance with the evaluated air quality rules and PTI 118-16.		
RESOLVED COMPLAINTS:		

On August 22, 2017, I (Kerry Kelly, MDEQ-AQD) and Shamim Ahammod, MDEQ- AQD Intern, conducted a scheduled inspection of Speedway LLC 8821 - Remediation (Speedway), located at 547 North Perry Road in Pontiac, Michigan. The purpose of this inspection was to determine the facility's compliance with the federal Clean Air Act, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and Permit to Install (PTI) 118-16.

Speedway LLC operates dual phase extraction system located at 547 North Perry Road in Pontiac, Michigan. Practical Environmental Consultants, Inc. (PEC) is contracted by Speedway LLC to remediate the site and Chemviron Midwest, Inc (Chemviron) maintains the extraction equipment at the site. Speedway LLC is the responsible party for cleanup of the site.

Shamim and I arrived on site approximately 10:00 AM. I met with Mr. Joseph Ward, Remediation Technician with Chemviron. Mr. Ward installed the remediation system on site.

**Site Walk-Through**

Mr. Ward explained that the blowers at the site are used to remove water and vapors from the ground through five wells. Remediation equipment, including the blower, filters, oil/water separators, and air stripper are located in an 8 feet (ft) x 18 ft trailer behind the current Marathon gas station and building on site. Five extraction wells in the area are screened between soil and groundwater. A 1 inch "stinger" in each extraction well can be raised or lowered to set the point of extraction from these wells. The equipment has been in operation since May 3, 2016 and runs 24 hours a day, 7 days a week. Mr. Ward showed me records of the maintenance and repairs which included replacing the totalizer (records water discharge) on August 9, 2016 and October 16, 2016. After the second replacement, they haven't had any problems with the system according to Mr. Ward. The length of time for which the system will remain in operation depends on analytical data. PEC collects groundwater samples quarterly.

Water and air collected by the wells travels to an air/water separator in the remediation trailer. Extracted soil vapor is exhausted uncontrolled out of a stack that appears to be greater than 1.5 times the height of the trailer. At the time of the inspection there was 90 elbow at the top of the air/water separator stack. I informed Mr. Ward the permit requires the emissions be discharged unobstructed vertically upwards. Mr. Ward said he would remove the elbow from the stack after the inspection and send a picture. I received a picture of the stack the same day that shows it in vertical and unobstructed (attachment 1). The air flow from the air/water separator stack, as measured during the inspection, was 67 cubic feet per minute (cfm). The stack is 2 inches in diameter, according to Mr. Ward. Based on these values I calculated the exit velocity to be 51 feet per second (fps) ( $67 \text{ cfm} / \pi(0.083 \text{ ft})^2 \sim 51 \text{ fps}$ ). The general permit for remediation requires stack exit velocity to be a minimum 30 fps. It appears the exit velocity is within permit limits.

From the air/water separator, water travels to an oil/water separator where free product, or light non-aqueous phase liquid (LNAPL), is collected. So far in the operation of this system, LNAPL

has not been observed. Next, water travels through an air stripper to remove VOCs by forcing air into the contaminated water. The VOCs are exhausted uncontrolled out of a stack that appears to be greater than 1.5 times the trailer height, vertical, and unobstructed. Correspondence from Mr. Mike Cox, PEC, on file at the MDEQ-AQD office, state the flow through the air stripper stack is 400 cfm with a 6-inch diameter stack. Using this information I calculated the flow to be approximately 34 fps, which is within permit limits.

The remaining water treatment system consists of four sediment filters to remove iron from water, and dual-stage carbon filter system with 200 pound (lb) tanks before water is discharged from the remediation system.

### Records

Mr. Cox provided VOC and BTEX emission calculations for the remediation equipment for May 2016 through August 2017 (attachment 2 and 3). These records indicate the 12-month rolling VOC emissions were 1.13 tons and the 12-month rolling BTEX emissions were 0.00065 tons. The reported VOC and BTEX emissions are within the 10 ton/year and 1 ton/year respective permit limits. The air flow rate and water flow rate, required to be monitored per the permit, are included in the records provided by Mr. Cox.

### Conclusion

Based on the AQD inspection and records review, it appears that Speedway is in compliance with the evaluated air quality rules and PTI 118-16.

NAME K. Kelly DATE 9/12/17 SUPERVISOR SK