

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

B155756684

FACILITY: Prairie Ronde Realty Company		SRN / ID: B1557
LOCATION: 413 E PRAIRIE RONDE ST, DOWAGIAC		DISTRICT: Kalamazoo
CITY: DOWAGIAC		COUNTY: CASS
CONTACT: Brian Delong , Manager		ACTIVITY DATE: 01/08/2021
STAFF: Rachel Benaway	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: On-site and scheduled inspection of Prairie Ronde Realty Company to verify compliance with PTI #455-87, PTI #742-83G, and all state and federal air use regulations.		
RESOLVED COMPLAINTS:		

Due to Covid-19 health and safety precautions, all AQD inspections are now announced and scheduled prior to entry to a facility. The purpose of this scheduled inspection on 1/8/2021 by AQD staff, Rachel Benaway, was to verify Prairie Ronde Realty Company's (PRR) (B1557) compliance with air use Permits to Install (PTI) #455-87 and #742-83G and all state and federal air use regulations. PRR, a realty company located at 413 East Prairie Ronde Street in Dowagiac, MI, is overseeing a remediation operation located within the building that is a minor source of VOCs. Brian Delong is the Vice President and responsible official of PRR and Lisa Phillips is the Environmental Consultant for the facility.

There were no visible emissions observed outside of the facility and no detectable odors within the building or around the premises. The majority of the building is now dedicated to the storage of vehicles and other items as the manufacturing activities that attributed to the need for remediation have long since ceased. The remediation equipment is located at one end of the building while PRR is located at the other, along with a number of other professional offices. The facility has no parts washers or emergency generators and reports that no major modifications, removals, or installations of equipment have occurred since the last inspection on 2/24/2009.

The facility currently has two PTIs. PTI #455-87 is for an API separator (air stripper) (EU-AIRSTRIP) that was part of a purge well groundwater remediation system which is no longer in service. This system included a packed bed scrubber system that was removed from the premises around 2012 and was not used for approximately 15-20 years prior to removal. The facility would like to keep the permit open in the rare instance that the equipment is needed again in the future, although there is no foreseeable reason that it would be.

PTI #742-83G still lists the air stripper (EU-AIRSTRIP) but also includes the blowers for a sub-slab depressurization system (SSDS) (EU-SUBSLABSVE). Working under the oversight of the USEPA Region 5, PRR created an additional sub-slab vacuum by adding a second blower to the existing SSDS system during the Spring of 2020. The details of this project are listed in records submitted on July 6, 2020. Although the two blowers (South and North) address different soil vapor extraction well source areas, they are a connected system.

The combined emissions exhaust system from the groundwater treatment air stripper and SSDS were reconfigured with the issuance of PTI #742-83G. The exhaust from the air stripper and the SSDS were routed to an 80 ft stack but the ductwork from the air stripper to the stack were deteriorating with age and needed replacement. The high cost of the quoted renovations combined with the decreasing VOC emissions caused PRR to propose eliminating the ductwork and stack and instead construct a new stack attached to the side of the existing air stripper tower

to vent the air stripper and SSDS exhausts vertically to the atmosphere at a height of approximately 60 ft above the ground. This reconfiguration was approved with the issuance of PTI #742-83G. Currently, as the air stripper is no longer in use, the exhaust system is no longer a combined system besides the fact that it combines both blower exhaust.

FG-SYSTEM: EU-SUBSLABSVE and EU-AIRSTRIP

Sub-slab vapor mitigation/depressurization system and groundwater treatment unit

Pollution Control: NA

PTI # 455-87

SC	Condition	COMPLIANT?	Y	N
10	No visible emissions from API separator		NA	
11	Trichloroethylene emission from API separator shall not exceed 302 mg per cubic meter, corrected to 70 degF and 29.92 inch Hg		NA	
12	Trichloroethylene emission rate from API separator shall not exceed 0.021 lb/hr nor 0.09 tpy		NA	
13	Shall not operate aerator in API separator unless bay under aeration is covered and vented properly		NA	
14	Exhaust gases from aerator bay in API separator shall be discharged vertically from stack *742-83G addresses this		NA	
15	Monitoring records of trichloroethylene levels in API separator influent and effluent water streams should be kept on file for 2 years and made available		NA	

****EQUIPMENT NO LONGER IN SERVICE****

PTI # 742-83G

SC	Condition	COMPLIANT?	Y	N
I.1	VOC emission limit: 1.83 pph Quarterly average		X	

II.1	Gw pumping rate through air stripper shall not exceed 1,500 gallons per minute w/out prior written approval	NA	
II.3	Vapor pumping rate through sub-slab vapor mitigation/depressurization system shall not exceed 1,000 ACFM	X	
VI.1	Monitor vapor flow and the total VOC concentration of the influent vapor stream (s) to FG-SYSTEM and shall use this data to calculate VOC emission rates. This shall be done on a monthly basis until four valid samples, which pass all quality assurance and quality control requirements, have been obtained. Thereafter, the permittee shall monitor the influent vapor stream(s) to FG-SYSTEM for these parameters on a quarterly basis. The permittee shall submit any request for a change in the sampling frequency to the AQD District Supervisor for review and approval	X	
VI.2	Monitor and record, in a satisfactory manner, the flow rate and the total VOC concentration of the air stripper influent water streams and shall use this data to calculate VOC emission rates. This shall be done on a quarterly basis. The permittee shall determine the total VOC concentration using the standard MDEQ groundwater analytical scans for VOCs	NA	

Describe submitted records, emissions limits, emission calculations, etc.

- The air stripper was part of a purge well groundwater remediation system and the blowers are part of a sub-slab depressurization system (SSDS).
- Emissions were calculated as the sum of the emissions from the groundwater treatment air stripper and the SSDS blower. Now the only emissions calculated are from the SSDS blowers.
- Blower emissions are calculated as the total air flow rate times the average VOC concentration in the air stream.
- To determine VOC concentration for the SSDS, the discharge air stream is measured at the discharge pipe downstream from both blowers by extracting a 1-liter sample of air into a Bottle-Vac® under vacuum. The sample is sent to a laboratory for chlorinated VOC analysis by EPA Method TO-15.
- The facility submits quarterly emissions data for the individual blowers (South and North) and for the combined emissions from both blowers, air flow rates and temperature at the discharge pipe at the time of sampling.
- The last submittal of records was received by the Kalamazoo District Office on October 15, 2020. The facility reported a total VOC emission from the North blower of 0.010 pph and a total VOC emission from the South blower of 0.002 pph, for a combined total VOC emission of 0.012 pph, well below the permit limit of 1.830 pph. At the time of sampling, the air flow rate was 580 cfm from the North blower and 326 cfm from the South blower, below the permit limit of 1,000 ACFM.

- The facility has a Trichloroethylene emission limit of 302 mg per cubic meter listed in PTI #742-83G for the API separator. The facility is reporting the emission of Trichloroethene, cis-1,2-dichloroethene, and 1,1,1-trichloroethane although the emissions are generated by the SSDS. The following information was reported in the records received on 10-15-2020:

Trichloroethene emissions were reported as 4.000 mg/m³ (North) and 1.200 mg/m³ (South). Cis-1,2-dichloroethene emissions were reported as 0.390 mg/m³ (North) and 0.170 mg/m³ (South). 1,1,1-trichloroethane emissions were reported as 0.170 mg/m³ (North) and <0.033 mg/m³ (South).

Prairie Ronde Realty Company appears to be in compliance with all Michigan air use regulations and permit requirements at this time.

NAME 

DATE 1/19/2021

SUPERVISOR RIL 1/25/21