

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

N084255419

FACILITY: Gage Products Company		SRN / ID: N0842
LOCATION: 625 Wanda Avenue, FERNDALE		DISTRICT: Warren
CITY: FERNDALE		COUNTY: OAKLAND
CONTACT: Sharon Stahl , Director, EHS and Community Relations		ACTIVITY DATE: 07/29/2020
STAFF: Robert Elmouchi	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled inspection.		
RESOLVED COMPLAINTS:		

On July 29, 2020, I conducted scheduled on-site inspection of Gage Products Company (SRN: N0842) located at 821 Wanda, Ferndale, Michigan. The purpose of this inspection was to determine the facility's compliance with the requirements of the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the administrative rules; and Permit to Install (PTI) No. 64-18B.

With the USEPA's rescission of the once-in always-in (OIAI) policy, Gage Products applied for a synthetic minor opt-out permit to install, which was approved on May 30, 2019. ROP No. MI-ROP-N0842-2013 and PTI No. MI-PTI-N0842-2013 have been voided. PTI No. 64-18B is the sole active air use permit for this facility.

This inspection was conducted during the COVID-19 pandemic. Gage's safety procedures were followed.

During this inspection, I met with Ms. Sharon Stahl, EHS Manager; and Ms. Julie Mileskiy, Environmental Engineer. Ms. Stahl escorted me throughout the inspection of the facility and provided records for review.

Gage Products remanufactures used solvents and then blends reclaimed products to make coating line purge solvents. Gage also purchases raw materials to manufacture custom fuels for emission-control testing. Gage installed a new octane testing lab, which commenced operation on January 6, 2020. The laboratory uses two small tabletop engines for octane testing different fuel blends. The tabletop octane testing engines appear to be exempt from R 336.1201 per R 336.1283(2)(b) because the engines are laboratory equipment. Ms. Stall stated that the potential to emit from these engines is less than one ton per year.

EUTank70

Emissions are controlled by conservation vents. Per special condition VI.1, Gage Products provided records of the dimensions of EUTANK70 and an analysis showing the capacity. Per special condition VI.2, Gage Products is required to maintain records of the Volatile Organic Liquid (VOL) stored in each tank when storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa. Per records provided, EUTank70 is only used to store product WR0134, which has a vapor pressure of 5.33 kPa.

EUTOTE&DRUM

Per special condition III.1, the permittee has developed and implemented written procedures to minimize emissions from EUTOTE&DRUM, including line draining, spill prevention, and spill clean up. Per special condition VI.2, the permittee keeps monthly and 12-month rolling time period records of the amount and vapor pressure of each product group loaded in EUTOTE&DRUM. Per special condition VI.3, the permittee shall calculate the VOC emission rate from EUTOTE&DRUM monthly, for the preceding 12 month rolling time period. As of December 2019, the monthly and twelve-month rolling total VOC emissions were 0 pounds per year. I contacted the permittee and validated the reported value.

EUTANKER:

The vent CDFUELSCOND condenser system appeared to be installed and operational. The vent condenser is located near the LSF covered area and the chiller is adjacent to the boiler building. Gage trains employees to properly operate their vent condenser system. Compliance with the requirement to use a submerged fill pipe is achieved by filling all tankers from the bottom of the tanker truck. Per VI.4. Emission calculations were provided. Gage's records indicate that VOC emissions from EUTANKER filling activities were 41 pounds during December 2019. The 12-month rolling total VOC emissions were 598 pounds in December 2019. The permit does not specify emission limits for this emission unit.

FGNSPSLargeTanks

These tanks are used to store products and waste from the remanufacturing process that are subject to New Source Performance Standards and use a vapor balance system. The tanks in this table appear to be in compliance with all permit requirements, including the requirement of an installed and operating vapor balance system, and recordkeeping requirements. Gage Products provided records of the tank dimensions required per VI.1

FGTANKFARM

Eight tanks and four emission units are associated with this flexible group: EUTank69, EUTank70, EUTank71, EUTank78, EUTank79, EUTank80, EUTank81, EUTANKS, EUDRUMFILLING, EUTOTEFILLING, and EUTANKERFILLING. Gage products provided records, which appear to demonstrate compliance with all applicable recordkeeping and emission limits per permit conditions. The 12-month rolling total VOC emissions in December 2019 was 10.19 tons per year (TPY), which is in compliance with the 22 TPY permit limit. The 12-month rolling total Acetone emissions in December 2018 was 6.87 tons per year (TPY), which is in compliance with the 12.5 TPY permit limit.

FGBOILERS

No changes were made to the two boilers (#1 Boiler - North and #2 Boiler - South) since the previous inspection. Only one boiler is operated and the other boiler acts as an alternate source of steam in the event of boiler failure. A manual recordkeeping system is used to track maintenance activities and daily fuel consumption. This flexible group does not contain emission limits. Per III.1, the boilers only combust only natural gas. Per VI.1, the permittee records the amount of each fuel combusted during each operating day and month. There are no fuel use limits in this flexible group.

FGREMANUFACTURE

I observed the remanufacturing facility where two thin-film evaporators are used to reclaim waste purge solvents, which are then blended to make recycled purge solvent. The first thin film evaporator performs the gross step of separating the liquids from the solids. The second thin film evaporator removes water and distills the reclaimed solvent mix into fractional (typically not pure) components.

FGREMANUFACTURE consists of EGNEWEVAPORATOR, EGOLDEVAPORATOR, and EGDISTILLATION, the associated pollution control equipment, and the monitoring and recordkeeping equipment. I observed the monitoring equipment. It is important to note that I have observed multiple upgrades to the monitoring equipment during the years that I have inspected this facility. The monitoring system has been updated from a paper strip chart recorder to a state-of-the-art digital monitoring system with flat-screen displays, recordkeeping, and alarms.

The electronic data logging system indicated the exhaust gas temperature of CDREMANFINALCOND was 43.82° F. The permit specifies that the temperature shall not exceed 54° F on a one-hour average. If the final exhaust temperature exceeds 54 degrees Fahrenheit, satisfactory operation shall be demonstrated by showing that the chilled-water outlet temperature from CDREMANFINALCOND is below 37 degrees Fahrenheit. The chilled water & glycol outlet temperature of CDREMANFINALCOND was 15.88° F. It is important to note that this process does not always have an exhausting flow and may draw ambient atmosphere into the exhaust stack, thereby temporarily increasing the temperature measured at the stack exhaust, especially when the outdoor temperature is high.

Per stack testing, the emission rate is 2.2 lbs. VOC per hour, which appears to demonstrate compliance with the permitted limit of 3.5 lbs. VOC per hour. In December 2019, the 12-month rolling VOC emission rate was 3.45 tpy, which appears to demonstrate compliance with the permitted limit of 12.1 tpy.

FGSPECIALTY

FGSPECIALTY consists of storage totes, dispensers, agitators, mixers, and a baghouse, also including specialty products manufacturing including water-based cleaners, solvent-based cleaners, booth coatings, strippers, and fuel blending located in Fill Houses 3, 4, and 6 and the laboratory, all on the 731 block. Per I.1, VOC emissions are limited to 8.0 tpy. The actual emissions as of December 2019 were 1.94 tpy. Per II.1, fuel produced is limited to 72,000 gallons per year. As of December 2019, actual fuel production was 32,833 gal. Per II.2 the fuel throughput is limited to 4,378,250 gallons per year. As of December 2019, the actual fuel throughput was 1,046,122 gallons per year. The permittee provided records of baghouse inspections and pressure drop readings as required per VI.4.

FGTKS

This flexible group consists of storage tanks EU515TKS, EU33KTKS, EUHIVPTKS, and EU9600TKS that were installed to expand the permittee's fuel blending capacity. This flexible group does not contain emission limits. I

observed the conservation vent and CDFUELSCOND control devices. The permittee continually monitors the CDFUELSCOND exhaust gas temperature. Per VI.5, records appear to demonstrate compliance with the permit design limit of maintaining the exhaust gas temperature at 42°F or less, when FGFUELBLEND is operating. Per VI.3, the permittee keeps monthly and 12-month rolling time period records of raw material purchases and production to determine the amount of each material loaded into FGTKS. Per VI.4, the permittee calculated the 12-month rolling VOC emission rate records. As of December 2019, the 12-month emission rate was 3,017 pounds of VOC.

FGBLEND

The tanks in this flexible group are strictly used for blending materials. This flexible group does not contain emission limits. No purchased raw materials are stored in these tanks. Also, these tanks are not used to mix products from FGREMANUFACTURE. Emissions are controlled by conservation vents and the CDFUELSCOND vent condenser system. The VOC emissions from FGBLEND during December 2019 was 79 pounds. The 12-month rolling VOC emissions were 1,287 pounds per year (0.69 tons per year).

FGFUELBLEND

This flexible group consists of nine emission units: EU515KTKS, EU33KTKS, EUHIVPTKS, EU9600TKS, EU9600BLEND, EUNEBLEND, EU515BLEND, EUTOTE&DRUM, and EUTANKER.

Emissions from EU515TKS, EU515BLEND are controlled with conservation vents. Emissions from EU33KTKS, EUHIVPTKS, EU9600TKS, EU9600BLEND, EUNEBLEND, and the parts of EUTANKER that transfer fuel blends which have a Reid vapor pressure equal to or greater than 4.0 psia and which are used for automotive fuel are controlled by the CDFUELSCOND vent condenser system.

I have inquired and determined that the pressure settings on the conservation vents are set by the manufacturer and are not adjustable by the permittee. Per VI.10, Gage provided records of the dimension of the storage vessels in EU33KTKS, and an analysis showing the capacity of each storage vessel. As of December 2019, the twelve-month rolling total VOC emissions were 2.75 tons per year, which appears to demonstrate compliance with the 21 ton per year permit limit.

FGFACILITY

Per I.1, the individual HAP limit is 9.9 tons per 12-months. Records provided by the permittee indicate the December 2019 greatest individual HAP emission was 1.68 tons of xylene. Per I.2, the aggregate HAP limit is 24.9 tons per 12-months. Records provided by the permittee indicate the December 2019 aggregate HAP emissions were 7.17 tons per year. Per I.3, the VOC limit is 89.9 tons per year. Records provided by the permittee indicate the December 2019 VOC emissions were 22.11 tons per year.

CONCLUSION

Gage Products Company appears to be in compliance with the evaluated air pollution control rules and permit to install conditions.

NAME Robert Umarechi

DATE September 29, 2020

SUPERVISOR Joyce Z