

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

N084233315

FACILITY: Gage Products Company		SRN / ID: N0842
LOCATION: 625 Wanda Avenue, FERNDALE		DISTRICT: Southeast Michigan
CITY: FERNDALE		COUNTY: OAKLAND
CONTACT: Sharon Stahl, Director, EHS and Community Relations		ACTIVITY DATE: 01/25/2016
STAFF: Robert Elmouchi	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled inspection.		
RESOLVED COMPLAINTS:		

On January 25, 2016, I conducted a scheduled inspection of Gage Products Company (Gage) located at 821 Wanda, Ferndale, Michigan. Mr. Tyler Salamasick, Air Quality Division – Environmental Quality Analyst, was also present throughout this inspection. This facility is uniquely identified by the Air Quality Division with the State Registration Number (SRN) of N0842. 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 Renewable Operating Permit (ROP) No. MI-ROP-N0842-2013.

NOTE: Permit to Install (PTI) No. 43-08A was incorporated into MI-ROP-N0842-2013 on the effective date of June 4, 2013. PTI No. 43-08A allows the permittee to use up to 30,000 gallons of di-isobutylene per month in fuel blends. The approved permit modification of PTI No. 43-08 allows an increase usage in fuel blending of 5,000 gallons of di-isobutylene per month in the FGFUELBLEND flexible group.

Tyler Salamasick and I entered the facility, met with Ms. Sharon Stahl, EHS Manger; and Ms. Julie Mileskiy, Environmental Engineer. Ms. Stahl and Ms. Mileskiy escorted us throughout the inspection of the facility as well as provided records for review upon request.

Gage Products remanufactures used solvents and blends reclaimed product for use as coating line purge solvents. Gage also purchases raw materials to custom blend fuels for product development and emission-control testing.

Dell Marking Systems (Dell) makes specialty inks for industrial applications. Dell was initially owned by Gage then Dell subsequently purchased the ink manufacturing business from Gage. Dell remained located at the Gage campus until midyear 2014. The removal of Dell processes and equipment was confirmed during my inspection on August 25, 2014.

FACILITY INSPECTION

ROP No. MI-ROP-N0842-2013

SOURCE-WIDE REQUIREMENTS: This table limits the facility's emission of individual hazardous air pollutants HAPs to 9.9 tons per year (TPY) and the combined emission of HAPs to 24.9 TPY. Ms. Stahl and Ms. Mileskiy presented records (see attached), which appear to demonstrate compliance with the emission limits.

As of December 2015, the 12-month greatest rolling individual HAP emissions was 1.57 tons of xylene, which is less than the individual 9.9 tons per year individual HAP emission limit.

As of December 2015, the 12-month rolling total aggregate HAP emissions was 6.18 tons, which is less than the 24.9 tons per year aggregate HAP limits.

As of December 2015, the 12-month rolling total VOC emissions was 23.77 tons, which is less than the VOC limit of 89 tons per year.

EUNSPSSMALLTANKS

Gage maintains records showing the dimensions of the storage vessels and an analysis showing the

capacity of the storage vessel as required per the monitoring / recordkeeping table and per 40 CFR 60.116(b). This source appears to comply with 40 CFR Subpart Kb, section 60.110b. Tanks No. 67 and 68, have a capacity less than or equal to 75 cubic meters.

NSPSMEDTANKS

Gage maintains records showing the dimensions of the storage vessels and an analysis showing the capacity of the storage vessel as required per the monitoring / recordkeeping table and per 40 CFR 60.116(b). This source appears to comply with 40 CFR Subpart Kb, section 60.110b. Tanks No. 69, 70 and 71 have a capacity between 75 and 151 cubic meters. Gage has stored a liquid with a vapor pressure greater than or equal to 15.0 kPa and has maintained records as required per VI.2.

NSPSLARGETANKS

These tanks are used to store product and waste from the remanufacturing process that are subject to New Source Performance Standards and use a vapor balance system. Tanks 78, 79, 80, and 81 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 has stored a liquid with a vapor pressure greater than or equal to 15.0 kPa and has maintained records as required per VI.2. Gage has notified the AQD in writing when storing liquids with maximum a true vapor pressure greater less than 27.6 kPa as required per VII.1. The most recent written notice was received by the AQD on June 01, 2015.

EUTANKER: I observed the vent condenser system was installed and appeared to be operational. This vent condenser is located near the LSF covered area and the chiller is adjacent to the boiler building. During the inspection of January 25, 2016, I observed the monitor display, which read 31.88° F, which appears to demonstrate compliance with the permit limit of 42° F or less per special condition IV.1.

EUTOTE&DRUM is part of FGFUELBLEND. Gage Products has installed no-drip quick-release connectors, which controls and limits material spillage and fugitive emissions.

FGSUBDDTANKS

This flexible group consists of tanks and transfer system that meet the definition of a material management unit. Containers that are material management units subject to 40 CFR 63 Subpart DD requirements are evaluated in FGRULE290LSF. Also, receiver vessels that have emissions controlled by CDFINALCOND are evaluated in FG-SUBDD-PROCESSVENTS. The permittee has a written startup, shutdown and malfunction plan for CMS as specified in 63.6(e)(3). I observed that the vapor balance transfer system appeared to be installed and operating properly. No significant changes were observed during the inspection of January 25, 2016.

FG-SUBDDLEAKS

I discussed the required inspections and reviewed recordkeeping with Ms. Stahl and Ms. Mileskiy, who described their annual compliance activities, which appeared to be in compliance with permit conditions. I reviewed leak testing records and requested a few copies, which are attached to this report.

FGTANKFARM

Four emission units are associated with this flexible group; EUTANKS, EUDRUMFILLING, EUTOTEFILLING and EUTANKERFILLING. Ms. Stahl and Ms. Mileskiy presented records (see attached), which appear to demonstrate compliance with all applicable recordkeeping and emission limits per permit conditions. The 12-month rolling total VOC emissions in December 2015 was 9.47 tons per year (TPY), which is in compliance with the 22 TPY permit limit. The 12-month rolling total Acetone emissions in December 2015 was 7.5 tons per year (TPY), which is in compliance with the 12.5 TPY permit limit.

FGBOILERS

I observed two boilers (#1 Boiler North and #2 Boiler South) and there did not appear to be any significant changes made to the boilers since the previous inspection. #1 Boiler North was undergoing maintenance during this inspection. A manual recordkeeping system is used to track maintenance activities and daily fuel consumption.

Natural Gas Meter Readings:

August 24, 2014, 312,936 cubic feet.

January 25, 2016, 377,300 cubic feet.

Ms. Stahl informed me that only one boiler is operated and the other boiler acts as an alternate source of steam in the event of an equipment failure. Even though alternate fuels are allowed to be combusted, only natural gas is combusted in the boilers. The boilers do not appear to be subject to 40 CFR Part 63, Subpart DDDDD and 40 CFR Part 63, Subpart JJJJJJ because they combust only natural gas.

FGREMANUFACTURE

I observed the remanufacturing facility where two thin film evaporators are used to reclaim waste purge solvents, which are blended to make a 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 EGTOTECLEANING, EGOLDEVAPORATOR and EGDISTILLATION, the associated pollution control equipment and the monitoring and recordkeeping equipment. I observed the monitoring equipment. The electronic data logging system indicated the exhaust gas temperature of CDFINALCOND was 22.93° F. The permit limit is 42° F. The chilled water & glycol outlet temperature of CDFINALCOND was 18.75°F, which appears to demonstrate compliance with the permit limit of 37° F and also appears to demonstrate compliance when the stack exhaust temperature exceeds 42° F. It is important to note that this process does not always have an exhausting flow and may actually draw ambient atmosphere into the exhaust stack, thereby temporarily increasing the temperature sensed at the stack exhaust, especially when the ambient temperature is high. During this inspection the ambient temperature was about 32°F.

FGRULE290LIMITEDSTORAGE

This flexible group applies to the storage of incoming, or in transit, used solvents. The incoming material is routed through the remanufacturing process either by feeding directly from a tanker truck or by temporarily storing incoming material in the limited storage tanks. The in-transit material is received by Gage Products from their customer and then shipped to a waste disposal facility. I observed the in-transit material is stored in drums with sealed lids, which appear to satisfy the level one emission standards for containers. On the date of this inspection I observed thirty-six 55 gallon drums and six 5 gallon pails. A vapor balancing system is used when transferring material to large storage vessels.

FGRULE290

EGTOTECLEANING is the only emission unit currently active under this flexible group. Xylene is the tote cleaning process solvent. Ms. Stahl presented records (see attached), which appear to demonstrate compliance with the emission limits. The tote cleaning process uses a vapor recovery system for emission control. EUTANKERWASH has only been trialed by the permittee. The trial was performed without using a volatile organic solvent and has not been used since 2007. This source appears to comply with all the permit requirements associated with this flexible group.

FGCOLDCLEANERS

The only previously observed parts cleaner in the 515 building appears to have been removed. On January 25, 2016, it continued to appear that Gage no longer is in possession of cold parts cleaner. No cold cleaner has been installed since my previous inspection. Gage employees only use limited quantities of parts cleaners in a bucket or smaller container, which appears to be in compliance with the R281(h) exemption from R201.

FGINK&SPECIALTY

Two emission units are associated with this flexible group; EGINK and EGSPECIALTY.

EUIK is owned and operated by Dell Marking Systems and is an independent business entity. As mentioned above, Dell Marking Systems has vacated the premises and, as of mid-2014, and neither manufacturers nor sells from this location.

EUSPECIALTY is now the only emission unit represented in the FGINK&SPECIALTY flexible group. Fill house #3 and fill house 6 are two manufacturing areas on the Gage campus. EUSPECIALTY processes include fuel blending, the manufacturing of solvent-based and abrasive-based paint line flushing agents as well as booth coating materials used to facilitate the cleaning of spray booths and adjacent surfaces. The particulate capture system and baghouse appeared to be properly maintained and operated. I observed that the equipment covers

appeared to be installed and operating properly. The emissions from this flexible group is limited to 8.0 tons of VOC per year based upon a twelve month rolling average and 0.01 pound of PM per 1,000 pounds of exhaust gas. The records provided appear to demonstrate compliance with the emission limits.

NOTE: On December 28, 2015, the AQD received an air use permit to install (PTI) application to install three new 2,000 gallon above ground tanks. Approval of this PTI is pending.

FGTKS

EU515TKS: per PTI 43-08 were proposed to be numbered 11, 25, 26, 27, 28, and 30. Gage Products changed two numbers identifying the tanks in this emission unit. The tanks in this emission unit are currently numbered 25, 26, 27, 29, 30, 31 and 93. These tanks contain the raw materials to blend diesel fuels.

EU15KTKS: (tanks numbered 203, 204, 205, 206, 207, and 208) has not been installed. Ms. Stahl and I discussed the length of time that had passed since the last permitted installation of tanks and it appears that installation has been interrupted for more than 18 months. Per R 336.1201(4) the approval to install EU15KTKS appears to have become void and therefore a new approved air use permit to install (PTI) must be received by Gage Products before installing any tanks.

EUHIVPTKS: the two 13,000 gallon tanks, 209 and 210, were installed and numbered.

EU9600TKS: tanks installed and numbered (211 through 222) and Gage began using tanks in this emission unit around July 2008.

Recordkeeping appears to demonstrate compliance.

FGBLEND

The tanks in this flexible group are strictly used for blending materials. No purchased raw materials are stored in these tanks. Also, these tanks are not used to mix product from FGREMANUFACTURE. These tanks are analogous to industrial sized mixing bowls.

EU2300BLEND: (tanks numbered 223, 224, 225, and 226) has not been installed. Ms. Stahl and I discussed the length of time that had passed since the last permitted installation of tanks and it appears that installation has been interrupted for more than 18 months. Per R 336.1201(4) the approval to install EU2300BLEND appears to have become void and therefore a new approved air use permit to install (PTI) must be received by Gage Products before installing any tanks.

EU9600BLEND: tanks, per PTI 43-08 were to be numbered 229, 230, 231, 232, 233 and 234. As of June 2012 these tanks are numbered 229, 231, 232, 233, 234 and 235.

EUNBLEND: tanks installed and numbered. These tanks are an existing part of permitted fuel blending operations.

EU515BLEND: tanks 92, 94, 95 and 96 for diesel fuel blending were installed. Some of these tanks were pre-existing from a previously permitted process. No stack controls for this emission unit are required per the permit.

Recordkeeping appears to demonstrate compliance.

FGFUELBLEND

This flexible group consists of ten emission units; EU15KTKS, EU15KTKS, EUHIVPTKS, EU9600TKS, EU2300BLEND, EU9600BLEND, EUNBLEND, EU515BLEND, EUTOTE&DRUM, and EUTANKER. Emissions from this flexible group are controlled with conservation vents, a vent condenser system and a vapor balance system. As of December 2015, the twelve-month rolling total VOC emissions were 7.47 tons per year, which appears to demonstrated compliance with the 21 ton per year permit limit.

LAB PAINT BOOTHS: R287(c) EXEMPT COATING LINES

Gage has two R287(c) spray booths that appear to be exempt from R201. These coating lines (spray booths) are used to test the effectiveness of purge solvents. I observed both spray booths. The particulate filter media is of a design that can allow the filter media to sag when wetted with overspray. I

discussed my concern that the filter media can sag and separate from the support frame, thereby allowing the particulates to bypass the control media. Ms. Stahl indicated she would discuss this concern with Gage staff. I reviewed the coating use logs that were hanging next to each spray booth. A review of the logs appears to indicate that Gage is in compliance with the monthly limit of 200 gallons per month. The logs appeared to indicate that coating application averaged less than 10 gallons per month.

EMERGENCY GENERATOR

Gage Products is an area source of HAPs. A 100kW emergency generator is located on the west side of the boiler building. The non-resettable hours meter displayed 240.6 hours.

This generator was identified in the ROP renewal application as exempt from Rule 201 per R 285(g), which exempts internal combustion engines that have less than 10,000,000 Btu/hour maximum heat input. Even though the heat input was not provided, a conservative estimate of Btu/hour heat input can be calculated. Using 20% as a conservative estimate of the generator set efficiency; a 100kW generator would require 500kW of power input. 500kW converts to approximately 1,700,000 Btu/hour, which is approximately 20% of the 10,000,000 Btu/hour maximum heat input threshold established in R 285(g). Therefore, it appears that this emergency generator is exempt from R 201.

The ROP renewal application also identifies this emergency generator as being required to only list the process equipment per R 212(4)(d).

This generator was installed in 1992, which appears to exclude the IIII and JJJJ New Source Performance Standards (NSPS).

This emergency generator appears to be subject to 40 CFR Part 63 Subpart ZZZZ per §63.6585(f)(2) because even though the average annual use is 10 hours per year, records of calendar year operation do not appear to exist and therefore I cannot verify that the emergency generator was not operated more than 15 hours per calendar year.

It appears that this generator is subject to the 40 CFR Part 63 Subpart ZZZZ work or management practices, which includes scheduled inspections and maintenance. Gage has provided records that appear to demonstrate compliance with the requirements.

CONCLUSION

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

NAME



DATE

2/10/16

SUPERVISOR

CJE