

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

N524041202

FACILITY: KNAPE INDUSTRIES INC		SRN / ID: N5240
LOCATION: 10701 NORTHLAND.DR, ROCKFORD		DISTRICT: Grand Rapids
CITY: ROCKFORD		COUNTY: KENT
CONTACT: William Knapé , President		ACTIVITY DATE: 08/23/2017
STAFF: Adam Shaffer	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Unannounced scheduled inspection.		
RESOLVED COMPLAINTS:		

Air Quality Division (AQD) staff Adam Shaffer (AS) arrived at the facility the afternoon of August 23, 2017 to conduct an unannounced, scheduled inspection. The purpose of this inspection was to determine compliance with applicable air quality rules and regulations.

Prior to entering the facility, odor and visible emission observations were completed. A slight odor was identified to the east of the facility boundaries; however, the odors were intermittent and no recent complaints regarding this facility were identified from surrounding properties.

AQD staff AS met with Mr. William Knapé, President of Knapé Industries. The purpose of this inspection was briefly discussed and included a facility walk through and final discussion at the end of the inspection.

Facility Description

Knapé Industries is a finishing company for automotive parts with additional operations including vacuum metallizing, pad printing, hot stamping and silk screening. The facility is in operation with one Opt Out Permit to Install (PTI) No. 26-97. During the initial discussion, no significant changes were identified to have occurred since the previous inspection in December 2015.

Compliance Evaluation

FG-VACUUM

Knapé Industries currently operates three vacuum metallizers that were installed prior to 1967 and are grandfathered from New Source Review (NSR) permitting. A fourth vacuum metallizer was observed that was never put into operation. No stacks are listed in association with the three vacuum metallizers. In the December 2015 inspection, it was stated by Knapé Industries that FG-VACUUM has oil filled pumps and runs on electricity. Additionally, the consumables are tungsten and aluminum. Nothing is externally vented from FG-VACUUM. This was verified by Knapé Industries to have not changed since then with no volatile organic compounds (VOCs) or hazardous air pollutants (HAPs) emitted from this flexible group.

FG-PAINTINGA

Eight paint booths, five paint machines and three ovens are listed in association with this flexible group. All paint booths, ovens and paint machines in FG-PAINTINGA were installed prior to 1967 and, therefore, are exempt from NSR. Acetone and MEK are primarily used to clean the spray nozzles. Dry filters are used for all paint booths and replaced on an as needed basis. Air gaps were observed on filters for several paint booths. AQD staff AS advised Mr. Knapé on closing the air gaps to better capture emissions. All six paint machines were not in use at the time of the inspection and have not been run for varying lengths of time. Paint machine M-5 was no longer in operation and the associated stack was removed. Waste coating and solvent containers associated with this unit were properly closed. Ovens O-1 and O-2 are indirect and direct fired respectively. Oven O-1 typically operates from 150°F - 180°F. Oven O-2 typically operates from 140°F - 235°F. Oven O-3 has not been in operation for over ten years. Approximately fifteen stacks are listed as associated with the remaining paint booths, ovens and paint machines. Six of these stacks are included within Opt Out PTI No.26-97 and were observed during the inspection. Though the exact dimensions were not measured, they appeared to be consistent with Opt Out PTI No.26-97.

FG-PAINTINGB

Seven paint booths and three paint machines are listed in association with this flexible group. Equipment for this flexible group was installed or modified after 1967 and permitted. Acetone and MEK are primarily used to clean

the spray nozzles. Dry filters are used for all paint booths and replaced on an as needed basis. Air gaps were observed on filters for several paint booths. AQD staff AS advised Mr. Knape on closing the air gaps to better capture emissions. Paint booths B-12 and B-13 and associated stacks had been removed from operation. All three paint machines were not in use at the time of the inspection and have not been run for varying lengths of time. Waste coating and solvent containers associated with this unit were properly closed. Approximately six stacks are listed in association with the remaining pieces of equipment and are included in the Opt Out PTI No. 26-97. Though the exact dimensions were not measured, they appeared to be consistent with Opt Out PTI No.26-97.

FG-MASKWASHERS

Four solvent based mask washers and two solventless mask washers are listed in association with this flexible group. The washers are exempt from NSR pursuant to Rule 281(2)(h). At the time of the inspection washers W-4 and W-6 were removed from operation. Knape Industries primarily uses Acetone and MEK for these washers. All containers associated with these washers appeared to be properly closed. One stack, specifically for washer W-5, is listed in the Opt Out PTI No. 26-97. Though the exact dimensions were not measured, they appeared to be consistent with Opt Out PTI No.26-97.

EU-BOILER

Knape industries is in operation with one (15 horse power) steam generating boiler that was installed in 1968 and is exempt from NSR pursuant to Rule 282(2)(b)(i). It was verified during the inspection that the boiler uses natural gas and; therefore, is not subject to 40 CFR Part 63, Subpart JJJJJJ. Based on the date of installation the boiler is also exempt from 40 CFR Part 60 Subpart Dc. The last maintenance inspection for this boiler was on December 23, 2016.

Stationary Source

VOCs at this site are limited to 90 tons per year (tpy) per a 12-month rolling time period. Additionally, the site is limited to 9 tpy and 22.5 tpy of individual HAPs and Aggregate HAPs respectively per a 12-month rolling time period. Records were provided by Mr. Knape following the facility inspection and reviewed from June 2016 through June 2017. As of June 2017, the 12-month rolling total for VOCs was approximately 1.81 tons per year (tpy). The highest 12-month rolling total individual HAP as of June 2017 was well below one ton. The 12-month rolling total of all aggregate HAPs was approximately 1.25 tpy. It should be noted this includes MEK which has since 2005 been removed as a HAP. Based on the records provided Knape Industries is well within the 12-month rolling total VOC, individual and aggregate HAP limits.

FG-PAINTINGB is specifically limited to approximately 240 lbs of VOCs per day and 23 tons of VOCs per a 12-month rolling time period. The total VOCs for the month of June 2017 was 4 lbs. Monthly VOC emissions were reviewed back to June 2016. Based on the records reviewed, the monthly total VOCs emitted never exceeded 240 lbs which is the permitted daily limit. As of June 2017, the 12-month rolling total VOCs for FG-PAINTINGB were approximately 0.16 tpy which is well within the limit of 23 tpy.

As stated previously, recommendations were made on air gaps observed on several filters to be fixed in order to satisfactorily capture emissions. All waste coatings/solvents observed during the inspection appeared to be properly stored in closed containers. Per Special Condition (SC).8, the VOC contents of all coating materials used shall be identified using Test Method 24, or upon request and the approval of the District Supervisor, manufacturers formulation data sheets may be used. During the inspection, it was concluded that Knape Industries uses a combination of Material Safety Data Sheets (MSDS) and manufacturers formulation data sheets. For the MSDS, Knape Industries stated that they use the worst-case scenario when determining the VOC content. Mr. Knape stated the past difficulty on obtaining manufacturers formulation data sheets from suppliers to AQD staff AS. It was concluded by AQD staff AS and the District Supervisor Heidi Hollenbach that based on how low the VOC emissions are if manufacturers formulation data sheets are available then to use them in verifying the VOC content. If manufacturers formulation data sheets are not accessible, Knape Industries will be allowed to use MSDS. In the future, if VOC emissions increase significantly, then this conclusion will be reassessed.

Per SC.9.a-j, Knape Industries must keep various records including the identity of each coating or solvent used, VOC content minus water and with water, daily usage rates, daily average VOC emissions, the individual and aggregate HAP contents for each coating or solvent used, monthly/12-month rolling individual and aggregate HAP emission totals, and individual and/or monthly/12-month rolling VOC emission totals. Applicable records were requested and reviewed since July 2016. Several changes were identified in the records and will be

discussed further with Mr. Knape. Based on the initial review of the records provided, Knape Industries appears to be keeping track of all usage rates, VOC contents, HAP contents, VOC emissions and individual/aggregate HAP emissions. However, it was also identified that most of the coatings listed in the records are mixed on site. Additional information on how VOC contents and other specifics for each coating was inquired with Knape Industries. An excel sheet designed by Mr. Knape to calculate information from mixtures of coating was provided. AQD staff AS and AQD permits staff have reviewed the excel sheets designed by Mr. Knape and the process is ongoing with Knape Industries on updating the records to a more acceptable format. After further review, Knape Industries appears to be in compliance at this time.

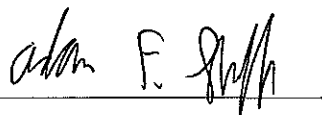
Additional Observations

- Pad printing operations were observed on site and appear to be exempt per Rule 285(2)(l)(ix).
- Knape Industries does conduct silk screening operations on site, however, the equipment was not set up at the time of the inspection. Silk screening operations on site appear to be exempt per Rule 287(2)(e).
- Stamping operations were observed during the inspection and appear to be exempt per Rule 285(2)(l)(i).
- Several chemical storage areas were observed and containers located in the areas were properly sealed.
- Prior to the inspection, Knape Industries was reviewed to determine if any additional federal regulations/requirements were applicable to the facility. The company is subject to the 40 CFR Part 63, Subpart W National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements for plating and polishing. The conversion coating line subject to this maximum achievable control technology (MACT) was observed during the facility walkthrough; however, AQD does not have delegation for this MACT from the EPA. Additionally, following a phone conversation between AQD staff AS and Mr. Knape on September 21, 2017, the conversion coating line was determined to be installed in 1965. Based on the date of installation, this unit is considered grandfathered and exempt from permitting.
- Four natural gas heaters of approximately 80,000 BTU each are used on site for heating purposes and appear to be exempt per Rule 282(2)(b)(i).

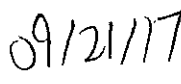
Conclusion

A final discussion was completed with AQD staff and Mr. Knape. Based on the review of the records provided and the facility walk through, Knape Industries is in compliance with Opt Out PTI No. 26-97 and all applicable air quality rules and regulations.

NAME



DATE



SUPERVISOR

