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

N524073458

FACILITY: KNAPE INDUSTRIES INC		SRN / ID: N5240
LOCATION: 10701 NORTHLAND DR, ROCKFORD		DISTRICT: Grand Rapids
CITY: ROCKFORD		COUNTY: KENT
CONTACT: William Knape , President		ACTIVITY DATE: 08/13/2024
STAFF: Laura Martin	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled, unannounced on-site inspection.		
RESOLVED COMPLAINTS:		

On Thursday August 13, 2024, AQD Staff Laura Martin (LM) conducted an unannounced, scheduled inspection of Knape Industries, Inc. located at 10701 Northland Drive, Rockford, MI 49341. The purpose of this inspection was to verify compliance with Permit to Install No. 26-97 and all other applicable air quality rules and regulations. LM arrived on site at approximately 1:15 pm. No visible emissions or odors were noted upon arrival. LM was accompanied by William Knape (WK), president of Knape Industries, Inc.

Facility Description

Knape 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 with source-wide emission limits on Volatile Organic Compounds (VOCs) and Hazardous Air Pollutants (HAPs). During the initial discussion, WK stated that no significant changes have occurred to the facility since the previous inspection on August 19, 2021. Demand has reduced and some booths and machines have been removed from operation, otherwise, all products used remain the same.

Emission Units

FG-VACUUM

Knape Industries previously operated three vacuum metallizers that were installed prior to 1967 and are grandfathered from New Source Review (NSR) permitting. A fourth vacuum metallizer was observed onsite during prior inspections but was never put into operation. The facility is down to utilizing only one vacuum metallizer as of the previous inspection in 2021. No stacks are listed in association with the vacuum metallizers. FG-VACUUM has oil filled pumps and runs on electricity. The consumables are tungsten and aluminum, and emissions are not externally vented. This was stated by Knape Industries to still be true. No volatile organic compounds (VOCs) or hazardous air pollutants (HAPs) are emitted from this flexible group.

FG-PAINTINGA

This emission unit (EU) was permitted for eight paint booths, five paint machines and three ovens 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 methyl ethyl ketone (MEK) are primarily used to clean the spray nozzles. Dry filters are used for all paint booths and replaced on an as needed basis. All paint booths were observed and noted to have dry filters installed and maintained properly. Only a few of the paint booths were being utilized

during the inspection. None of the paint machines were in operation at the time of the inspection and WK stated that as of now, they are not operating at all, but were taken offline and stored onsite. Paint machine M-5 had been dismantled prior to the previous inspection and the stack was removed. This machine was still offline during this inspection. Waste coating materials and solvent containers associated with the units were properly stored and 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. As of the previous inspection, oven O-3 had not been in operation for over eighteen years and was confirmed currently nonoperational.

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. While not specifically measured during the inspection, the stacks 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. All paint booths were observed and noted to have dry filters installed. Prior to the previous inspection, paint booths B-12 and B-13 and associated stacks had been removed from operation and remained dismantled during this inspection. Of the three paint machines, only one remains functional in this group. M6 and M8 were dismantled and removed prior to the previous inspection. Waste coatings and solvent containers associated with this unit were properly stored and 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. While not specifically measured during this inspection, the stacks 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 permitting pursuant to Rule 281(2)(h). Prior to the previous inspection, washers W-4 and W-6 were removed from operation. The dismantled washers were confirmed to still be dismantled. There were three functional solvent washers, but only two being utilized and one solventless washer that was not currently being utilized. Knape Industries primarily uses Acetone and MEK for these washers. All containers associated with these washers were properly stored and closed.

One stack, specifically for washer W-5, is listed in the Opt-Out PTI No. 26-97. While not specifically measured during the inspection, the stack appeared to be consistent with Opt-Out PTI No.26-97.

EU-BOILER

Knape industries is in operation with one (15 horsepower) steam generating boiler that was installed in 1968 and is exempt from NSR permitting 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. WK stated during the inspection that the boiler is not currently in use but has been inspected and is up to date.

Compliance Evaluation

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 WK following the facility inspection and reviewed from July 2023, through June 2024. The highest 12-consecutive month VOC emission was noted to be 1.91 tons of VOC during the 12-month period ending in November 2023. The highest individual HAP emissions was methyl ethyl ketone (2-Butanone) (MEK) which occurred during the 12-month period ending in November 2023, when .77 tons of MEK were emitted. Aggregate HAP emissions were the highest during the 12-month period ending in July 2023, with a total of 1.17 tpy emissions. Based on the records provided Knape Industries is adequately tracking VOC and both individual and aggregate HAP emissions.

FG-PAINTINGB is specifically limited to 240 lbs of VOC emissions per calendar day and 23 tons of VOC emissions per a 12-month rolling time period. Records denoting the emissions from this source were requested and reviewed for the time period of July 2023, through June 2024. The highest monthly VOC emissions from this source occurred during the month of November 2023 when the monthly total VOCs emitted for the month was 89.10 lbs. Based on the records reviewed, the monthly total VOCs emitted never exceeded the 240 lbs. permitted daily limit. The total facility 12-consecutive month VOC emissions were noted to be .31 tons of VOC, which occurred during the 12-month period ending in November 2023.

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. WK stated the facility has had difficulty in the past obtaining manufacturers formulation data sheets from suppliers. During a previous inspection on August 23, 2017, it was concluded by AQD staff Adam Shaffer and the District Supervisor Heidi Hollenbach that 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. 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 for the time period of July

2023, through June 2024. Based on the 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.

Conclusion
Based on the review of the records provided and on-site observations, Knape Industries, Inc. is in compliance with Opt-Out PTI No. 26-97 and all applicable air quality rules and regulations.

NAME _____ DATE 9/10/24 SUPERVISOR _____