

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

P102873588

FACILITY: Corteva Agriscience LLC		SRN / ID: P1028
LOCATION: 701 Washington Street, MIDLAND		DISTRICT: Bay City
CITY: MIDLAND		COUNTY: MIDLAND
CONTACT: Jacqueline Duby , Environmental Group Leader & Specialist		ACTIVITY DATE: 09/17/2024
STAFF: Nathanael Gentle	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MEGASITE
SUBJECT: Scheduled Onsite Inspection FGCOLDCLEANERS and Parts Cleaners		
RESOLVED COMPLAINTS:		

On September 17, 2024, AQD staff conducted a scheduled onsite inspection of FGCOLDCLEANERS, and parts cleaners at Corteva Agriscience, LLC, SRN P1028. The purpose of the inspection was to determine compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451; Michigan Department of Environment Great Lakes and Energy, Air Quality Division (AQD) Administrative Rules and Renewable Operating Permit, MI-ROP-P1028-2022d. At the time of inspection, the facility was found to be in compliance.

Facility Description and History

Corteva Agriscience, LLC is a megasite located at 701 Washington Street, Midland, Midland County, Michigan 48667. The stationary source consists of Corteva Agriscience LLC (Corteva) (SRN P1028), Clean Harbors Industrial Services (Clean Harbors) (P1028), DDP Specialty Electronic Materials US, Inc. (DDP) (SRN P1027), Nutrition & Biosciences USA 1, LLC (N&B) (P1027), The Dow Chemical Company (Dow Chemical) (SRN: A4033), Dow Silicones (SRN: A4043), and Trinseo, LLC (Trinseo) (SRN: P1025). During the September 17, 2024, inspection, compliance was evaluated for FGCOLDCLEANERS, and parts cleaners.

Corteva Agriscience, LLC operates three parts cleaners at the Midland facility. The parts cleaners are used by maintenance personnel to remove materials such as rust, grease, and paint from parts. The three parts cleaners utilized include two Safety Kleen Model 90 cleaners, and a Safety Klen Model 81.8. All three parts washers are located in the 1222 building. The parts cleaners are maintained by Safety-Kleen. ArmaKleen 4 in 1 Cleaner, 5% solution, an aqueous, alkaline cleaner diluted with water is utilized in the cleaners. The AQD defines cold cleaners in Rule 103(aa) as follows, "Cold cleaner" means a tank containing organic solvent with a volatile organic compound content of 5% or more, by weight, and at a temperature below its boiling point that is used to spray, brush, flush, or immerse metallic and/or plastic objects for the purpose of cleaning or degreasing. Aqueous based parts washers are defined in Rule 101(q) as follows, "Aqueous based parts washer" means a tank containing liquid with a volatile organic compound content of less than 5%, by weight, and at a temperature below its boiling point that is used to spray, brush, flush, or immerse metallic and/or plastic objects for the purpose of cleaning or degreasing. The three parts cleaners located at Corteva are aqueous based parts washers.

Compliance Evaluation

FGCOLDCLEANERS

Flexible Group FGCOLDCLEANERS encompasses any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, Rule 278a and Rule 281(2)(h) or Rule 285(2)(r)(iv). Existing cold cleaners are those placed into operation prior to July 1, 1979. New cold cleaners are those placed into operation on or after July 1, 1979. The AQD defines cold cleaners in Rule 103(aa) as follows, "Cold cleaner" means a tank containing organic solvent with a volatile organic compound content of 5% or more, by weight, and at a

temperature below its boiling point that is used to spray, brush, flush, or immerse metallic and/or plastic objects for the purpose of cleaning or degreasing.

Parts cleaners at the facility all use the cleaning solution ArmaKleen 4 in 1 Cleaner, 5% solution. The cleaner is an aqueous, alkaline cleaner diluted with water. A copy of the SDS was provided and reviewed. The VOC content by weight of the cleaning solution used is 1.02 wt%. The cleaning solution is heated in the parts cleaners. In the two Safety Kleen Model 90 cleaners, the solution is heated to 120°F. In the Safety Kleen Model 81.8, the cleaning solution is heated to 160°F. The boiling point of the cleaning solution is listed in the sds as 100°C (212°F). The facility maintains the temperature of the cleaning solution below its boiling point.

Based on the VOC content of the cleaning solution used and the temperature at which it is maintained, the parts cleaners utilized by the facility are not cold cleaners, but rather aqueous based parts washers. At the time of inspection, the facility does not operate parts cleaners under the requirements of FGCOLDCLEANERS. It is recommended this Flexible Group be removed from the ROP during the next ROP renewal.

R 281(k)

AQD Rule 281(k) states the requirement of R 336.1201(1) to obtain a permit to install does not apply to aqueous based parts washers. Rule 101(q) defines “Aqueous based parts washer” as a tank containing liquid with a volatile organic compound content of less than 5%, by weight, and at a temperature below its boiling point that is used to spray, brush, flush, or immerse metallic and/or plastic objects for the purpose of cleaning or degreasing. Corteva operates three aqueous based parts washers under exemption Rule 281 (k)

The three aqueous based parts washers are leased from Safety Kleen and include two Safety Kleen Model 90 cleaners, and a Safety Klen Model 81.8. The Safety Kleen Model 81.8 was installed at the facility on September 20, 2021. The unit has an air/vapor interface of 27 in x 45 in, or 8.4 ft². One of the Safety Klen Model 90 cleaners was installed on September 20, 2021, the other was installed on December 7, 2022. Both have an air/vapor interface of 34 in x 8 in, or 1.89 ft².

All three cleaners utilize the cleaning solution ArmaKleen 4 in 1 Cleaner, 5% solution. A copy of the sds for the cleaning solution was provided and reviewed. The VOC content of cleaning solution used is 1.02 wt%. As a water-based solution, the cleaning solution is listed to have a boiling point of 100°C (212°F). A sticker displaying the cleaning solution used was displayed on each of the three units. Staff report maintenance and disposal of used solution is completed by Safety Kleen. The cleaning solution is heated in the parts cleaners. In the two Safety Kleen Model 90 cleaners, the solution is heated to 120°F. In the Safety Kleen Model 81.8, the cleaning solution is heated to 160°F. A probe thermometer was inserted into the Safety Kleen Model 81.8 cleaner at the time of inspection and was observed to read 160°F.

Staff report maintenance and disposal of used solution is completed by Safety Kleen. Routine maintenance is conducted on the units at 8-week intervals. Each cleaner was observed to be equipped with a lid that is kept in the closed position when the cleaners are not use. All three cleaners are equipped with devices for draining parts. The Safety Kleen Model 90 cleaners are sink style washers with a flexible flow-through hose and brush. The sink basin was observed to have a drain in the bottom in which parts could drain. The Safety Kleen model 81.8 cleaner is designed for soaking parts. The unit has a pneumatic platform which lowers the parts into the aqueous solution. When the parts are done soaking, the platform is raised out of the solution and parts are able to drain. Instructions for operating the units are posted by safety Kleen at each of the units.

The cleaning solution used was verified to have a VOC content of less than less than 5%, by weight. Additionally, the cleaners were verified to not be heated above the boiling point of the solution. Staff provided a copy of internal documentation titled Air Permit Exemption Documentation. The document details The Rule 281(k) applicability for the maintenance parts washers. The report details the VOC emissions from the parts cleaners are approximately 0.02tpy. Based on the information provided and reviewed, the three parts washers appear to meet the exemption requirements of Rule 281(k).

Summary

On September 17, 2024, AQD staff conducted a scheduled onsite inspection of FGCOLDCLEANERS, and parts cleaners at Corteva Agriscience, LLC, SRN P1028. Corteva Agriscience, LLC is a megasite located at 701 Washington Street, Midland, Midland County, Michigan 48667. Corteva Agriscience, LLC operates three parts cleaners at the Midland facility. The three parts cleaners are aqueous based parts washers. At the time of inspection, the facility was found to be in compliance.

NAME



DATE

9/26/2024

SUPERVISOR

