

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

P102861383

<b>FACILITY:</b> Corteva Agriscience LLC		<b>SRN / ID:</b> P1028
<b>LOCATION:</b> 701 Washington Street, MIDLAND		<b>DISTRICT:</b> Bay City
<b>CITY:</b> MIDLAND		<b>COUNTY:</b> MIDLAND
<b>CONTACT:</b> Clayton Pewitt , Industrial Services District Manager		<b>ACTIVITY DATE:</b> 12/09/2021
<b>STAFF:</b> Kathy Brewer	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> MEGASITE
<b>SUBJECT:</b> Clean Harbors site inspection		
<b>RESOLVED COMPLAINTS:</b>		

The Clean Harbors Midland Michigan facility is located within the Dow iPark. Clean Harbors operates a tank cleaning facility primarily servicing tankers operated by Corteva. Emissions are controlled by a scrubber followed by carbon absorption.

Clayton Pewitt and Patrick Oliver of Clean Harbors were present during the inspection.

The facility was issued PTI 34-21 in July 2021 and will be Section 2 of the Corteva Midland ROP for SRN P1028. The facility's PTI has VOC limits. Prior to receipt of PTI 34-21 the facility operated under Part 201 exemption allowed per Rule 281(2)(d) for portable blast cleaning equipment.

Corteva SRN P1028 and other facilities within the Dow iPark are subject to 40 CFR Part 60, Part 61 and Part 63 regulations. Clean Harbors' processes are currently not subject to those standards. Each Dow iPark facility generating process wastestream complies with the applicable federal regulation prior to sending tankers to Clean Harbors.

No MAERS reports have yet been submitted.

During a pre-inspection virtual meeting an overview of the operations was provided. During the inspection we viewed the tanker staging and wand use area, the scrubber, flow site glass/meter, breakthrough monitor point, carbon absorber, and location of stack vent SVTANKCLEAN. We also reviewed onsite paper or electronic records for waste tanker volumes, emission control monitoring, and emission calculations. The facility operates as needed based on tanker cleaning demand. Due to cold weather and volume of tankers the facility has shut down for the winter months.

At the time of the inspection the facility appeared to be in compliance with the PTI 34-21 requirements but will need to submit an updated MAP. Clarification on the scrubber site glass reading and carbon breakthrough monitoring techniques and records is also recommended.

Records reviewed

Waste #147-146 profile

July 2021 Waste volume records

Vapor liquid and Carbon scrubber SOP/MAP

Filter Pot Filter change out SOP/MAP

July 2021 Building 492 Pad area atmospheric monitoring

**July, Aug, Oct 2021 records**

- VOC emission calculations
- Tanker volumes cleaned
- Scrubber flows

**Breakthrough monitoring**

**Description**

A blast-cleaning wand is inserted into tankers to clean the interior to remove any heel materials remaining. There are a number of different waste profiles that are removed from tanks through this process, each profile having its own total density, VOC and HAP content, and having a unique emission profile for VOCs, HAPs, and non-VOC TACs.

The operation of the blast-cleaning wand displaces VOCs and other vapors, which are then captured and controlled through a wet scrubber and then a carbon absorption system before being exhausted to the ambient air. Wet Scrubber vents to the non-regenerative carbon absorber and the non-regenerative carbon absorber vents to SVTANKCLEAN.

**Emissions**

The emission limits and emission records review findings during the inspection are below.

Pollutant	Limit	Time Period / Operating Scenario	July 2021	Aug 2021	Oct 2021
SC I.1. VOC	7.85 tpy	12-month rolling time period as determined at the end of each calendar month	0.02 ton	0.02 ton	0.03 ton
SC I.2. VOC	1.79 pph	Hourly	NA	NA	NA

The facility records review found no periods of noncompliance with PTI 34-21 emission limits for EUTANKCLEANING.

**Material limits**

The PTI contained no material limits.

**Process operational limits**

SC III.1 prohibits operation of EUTANKCLEANING unless the liquid flow rate is a minimum 20 gpm.

SC III. 2. Limits the total volume of processed containers containing waste material to no more than 30, 000 gpd.

SC III.3 prohibits operation of EUtANKCLEAN once a carbon absorption system outlet concentration of 5,000 ppmv is detected.

The operational records review findings during the inspection are below.

Requirement	Parameter	Record	July 2021	Aug 2021	Oct 2021
SC III.1	Wet scrubber minimum liquid flow 20 gallons/minute	Operating day or closest operating day 9-11 AM	July 9 20	Aug 3 20	Oct 26 20
SC III.2. total volume of containers containing waste materials	30,000/d	Operating day or closest operating day	July 9 Waste 147-146 1,500	Aug 3 Waste 147-142 1,500 Month total 6,000 for 147-142	Oct 26 Waste 147-146 1,500 Month total 6,000 for 147-146
SC III.3. Breakthrough monitoring	5,000 ppmv	Operating day or closest operating day	July 9 0	Aug 3 0	Oct 26 0

The facility records review found no periods of noncompliance with the PTI 34-21 process/operational limits for EUTANKCLEANING

SC III.4. requires the facility to submit, implement and maintain a MAP for EUTANKCLEANING. The facility is using a combination of SOPs, job analysis procedures and training to meet the requirements of the MAP. AQD staff provided review comments and guidance on submitting an updated MAP to the AQD Bay City District Supervisor. The MAP did not include all monitoring and operational ranges that should be documented. An updated MAP is required to be submitted by January 21, 2022.

**Design/equipment**

SC. IV.1 requires the wet scrubber and carbon absorption system are installed, maintained, and operated in a satisfactory manner. During the inspection the system appeared to be installed, maintained properly. Records review indicate the system is operated properly.

SC IV.2 requires the facility to maintain the wet scrubber with a liquid flow indicating device. A site glass is installed to monitor gpm flow of the scrubber.

**Testing**

SC V.1. requires testing for VOCs upon request of the AQD. The facility monitors the system for breakthrough each day of operation as required by SC VI.3.

## Monitoring/Record Keeping

SC VI.1. requires completion of calculations monthly. During the inspection the VOC calculations for the month of July 2021 were reviewed in detail. VOC calculations for August and October 2021 were also provided.

VOC emissions are calculated based on the quantity of waste processed per day, volume of containers cleaned, each waste profile VOC content, control efficiency of the scrubber and carbon absorber. Monthly calculations are completed as required by the permit.

Clean Harbor utilized a consultant to develop a calculation and record keeping document to meet the air permit requirement. Clean Harbor staff should have the consultant provide and review the documentation of spreadsheet cells so Clean Harbor staff can confirm operations data is properly entered and used for calculation results.

SC VI.2. requires wet scrubber liquid flow rates be monitored and recorded. Prior to cleaning a tanker, the scrubber and carbon system are started. The operator verifies that the liquid scrubber flow is a minimum of 20 gpm. The flow reading is taken once/15 minutes during the cleaning operation. The flow reading in the site glass may intermittently (< 3 seconds) drop below 20 gpm as the diaphragm pumps direct outlet of scrubber to the carbon. If the site glass reading does not promptly return to a minimum of 20 gpm the operator investigates a cause, remedies the situation or shuts down the cleaning activity. AQD staff recommend more specific documentation of this start up procedure and clarification of flow range and monitoring during tanker cleaning.

SCVI.3 requires monitoring and recording to detect carbon breakthrough and replacement of carbon if breakthrough detected. Sample ports located adjacent to the 4 way valve on the scrubber leg are monitored for breakthrough. Carbon replacement occurs prior to monitoring levels reaching 5,000 ppmv total VOC.

SC VI.4 requires daily records for the volume of containers cleaned. Daily records required by the permit are performed and maintained as required.

SC VI.5 requires breakthrough monitoring and carbon replacement records be maintained. Daily monitoring during operation is performed and carbon replaced as required by the permit. Health Safety personnel are contacted if Total VOC are monitored at >70 ppm.

SC VI.6 requires monthly and 12 month rolling records of VOC emissions. VOC emission records are maintained as required.

## Reporting

The PTI contained no reporting requirements.

## Stack/Vent

During the inspection EUTANKCLEAN exhaust vent was viewed and confirmed to be as described in the PTI 34-21.

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)
1. SVTANKCLEAN (Carbon Absorber Stack)	4	12

NAME Kathy Brewer

DATE 1/4/2022

SUPERVISOR Chris Hare