



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604**

DATE: JUL 31 2019

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Evonik Materials Corporation, Milton, Wisconsin

FROM: Jason Schenandoah, Environmental Engineer
AECAB (IL/IN)

THRU: Nathan Frank, Section Chief
AECAB (IL/IN)

TO: File

BASIC INFORMATION

Facility Name: Evonik Materials Corporation

Facility Location: 337 Vincent Street, Milton, Wisconsin

Date of Inspection: June 24-25, 2019

EPA Inspector(s):

1. Jason Schenandoah, Environmental Engineer
2. Vicky Mei, Environmental Engineer

Other Attendees

1. Sondra Klipp, Environmental Manager, Evonik Materials Corporation (Evonik)
2. Jeff LaBrozzi, Site Manager, Evonik
3. Dave Welsh, Environmental, Health, and Safety Manager, Evonik
4. Bradley Neils, Senior Principle Process Engineer, Evonik
5. Paul Roberts, Client Project Manager, Montrose Environmental Group, Inc.
6. Jeff Myers, Environmental Toxicologists, Wisconsin Department of Natural Resources (WDNR)
7. Samuel Saeian, Air Management Engineer, WDNR

Contact Email Address: david.welsh@evonik.com; sondra.klipp@evonik.com

Purpose of Inspection: To ensure compliance with the Clean Air Act and conduct on-site EPA Method 21 (Method 21) monitoring.

Facility Type: Chemical manufacturing facility

June 24, 2019

Arrival Time: 10:00 am

Departure Time: 3:30 pm

June 25, 2019

Arrival Time: 7:00 am

Departure Time: 2:00 pm

Inspection Type:

- ☒ Unannounced Inspection
- ☐ Announced Inspection

OPENING CONFERENCE

- ☒ Credentials Presented
- ☒ CBI warning to facility provided

The following information was obtained verbally from Evonik personnel unless otherwise noted.

Company Ownership: Evonik's Milton facility used to be owned and operated by Air Products, Inc. Air Products sold its performance materials division, which included the Milton facility, to Evonik in January 2017.

Process Description:

There are several different batch processes that can occur at Evonik's facility in Milton, Wisconsin (the Facility). In general, fatty alcohols are processed into ether nitriles. Ether nitriles are further processed into ether amines. Ether amines can then undergo different processes to produce ether diamines, acetate salts, or amphoterics. Methyl chloride and ethylene oxide are brought in by rail car and unloaded into the pressurized vessels using a vapor balance system. Emissions from the batch processes may go to different emissions control devices. Batch reactions that involve ethylene oxide are controlled by a condenser. Batch reactions involving isopropyl alcohol are controlled by a catalytic oxidizer and during unloading a cryogenic condenser is used. Generally, batches take about 24 hours to process and batches regularly change daily depending on demand. Each reactor usually processes batches of certain families of products to minimize cleaning between batches. A small scrubber is used to control ethylene oxide emissions when disconnecting lines, for occupational safety. Ammonia and amines are controlled by a 3-stage water, water, phosphoric acid solution, followed by a 3-stage cryogenic cooler. Final products are stored in storage tanks and unloaded via truck.

Staff Interview: The catalyst media in the catalytic oxidizer was last changed in 2010. In October 2016, a catalyst vendor conducted a visual inspection of the catalyst media and indicated that the catalyst was not in need of replacement. A third party, Montrose Environmental Group, Inc., conducts Method 21 monitoring at the Facility to meet Leak Detection and Repair (LDAR)

requirements. Evonik has voluntarily taken on a 500 part per million (ppm) leak definition in its permit with regard to its LDAR requirements. An internal action level of 100 ppm is used to trigger component repair attempts at the facility. Evonik personnel stated that, from April 2018 to April 2019, there were 18955 monitoring events and 2 leaks were found.

TOUR INFORMATION

EPA toured the facility: Yes

Data Collected and Observations:

Two toxic vapor analyzers (TVA), model 2020, were used by EPA to conduct Method 21 monitoring throughout the facility; Montrose was also using a TVA 2020 to confirm EPA's measurements. Method 21 monitoring was conducted onsite and relevant data is detailed in Appendix A. 3 components appeared to have open-ended lines (OELs) associated with them; Evonik personnel stated that the OELs were associated with lines in steam service.

Photos and/or Videos: were not taken during the inspection.

Field Measurements: were taken during this inspection.

- Method 21 monitoring measurements are detailed in Appendix A.

RECORDS REVIEW

1. Production information sheet for June 24, 2019 (obtained)
2. Preventative maintenance plan inspection for the catalytic oxidizer for December 21, 2016 (obtained)
3. 2010 Facility map
4. 7/20/2012 Air Products, Inc. Site Utility Plan
5. Reaction PowerPoint presentation
6. Drumming log summary sheet 6/12/2019 – 6/24/2019

CLOSING CONFERENCE

Concerns: There were three components monitored that had elevated measurements: component with tag number 04883 on the methyl chloride pressurized tank; manway on tank TK-204; and component labeled EPRV 20501 on tank TK-205; measured values can be referenced in Appendix A.

SIGNATURES

Report Author: _____

Date: 7/29/2019

Section Chief: _____

Date: 7/31/19

Facility Name: Evonik Materials Corporation
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APPENDICES AND ATTACHMENTS

- I. Appendix A: Field Measurement Data

Facility Name: Evonik Materials Corporation
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Date of Inspection: June 24-25, 2019

APPENDIX A: FIELD MEASUREMENT DATA

- EPA TVA 2020s serial numbers: A56575 and A56584
- Number of components monitored:

Type of component	Number of Components Monitored
Valves	308
Pumps	5
Connectors	13

- Notable measurements:

Component identifier	TVA 56575 measurement (ppm)	TVA 56584 measurement (ppm)
Pressure relief vent on methyl chloride tank, tag number 04883	1100	N/A
Tank TK-204 manway	6800 (flame out)	3300
Tank TK-205 pressure relief device tag number EPRV 20501	1272	1400

- Both TVA 2020s were calibrated with zero gas, 500 ppm methane, 2,000 ppm methane, and 10,000 ppm methane.
- Calibration records (*indicates bump check):

Date and time	Concentration (ppm)	A56575	A56584
6/24/2019 12:30 pm			
	500	495	490
	2,000	1,996	1,990
	10,000	1,0200	9,640
6/24/2019 3:30 pm*			
	500	490	562
	2,000	1982	2,275
	10,000	10000	11,200
6/25/2019 7:00 am			
	500	496	475
	2,000	2,011	1,943
	10,000	10,000	9,545
6/25/2019 10:40 am*			
	500	495	518
	2,000	1,995	2,108
	10,000	9,890	10,400