



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

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Daubert Chemical Company, Chicago, Illinois

FROM: Karina Kuc, Environmental Engineer
AECAB (IL/IN)

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

TO: File

BASIC INFORMATION

Facility Name: Daubert Chemical Company

Facility Location: 4700 S Central Avenue, Chicago, Illinois 60638

Date of Inspection: August 9, 2022

EPA Inspector(s):

1. Karina Kuc, Environmental Engineer
2. Brittany Cobb, Environmental Engineer

Other Attendees:

1. Stephanie Flynn, Safety Health and Environmental Manager
2. Mark Pawelski, executive Vice President of Operations
3. Michal Duncan, Executive Vice President of Technology

Contact Email Address: SFlynn@Daubert.com

Purpose of Inspection: to assess compliance with the facility's Federally Enforceable State Operating Permit (FESOP) and the Clean Air Act (CAA)

Facility Type: chemical manufacturer

Regulations Central to Inspection: the Illinois State Implementation Plan (SIP) and Part 63 Subpart CCCCCC, National Emission Standards for Hazardous Air Pollutants for Area Sources: Paints and Allied Products Manufacturing

Arrival Time: 1:00 PM

Departure Time: 3:30 PM

Inspection Type:

- ☒ Unannounced Inspection
- ☐ Announced Inspection

OPENING CONFERENCE

- ☒ Presented Credentials
- ☒ Stated authority and purpose of inspection
- ☒ Provided Small Business Resource Information Sheet
- ☐ Small Business Resource Information Sheet not provided. Reason:
- ☒ Provided CBI warning to facility

The following information was obtained verbally from Daubert Chemical Company employees unless otherwise noted.

Process Description: Daubert Chemical Company (Daubert) has five departments in which a variety of chemicals are manufactured. The departments and associated products are as follows: 1. Metal Working – rust preventative, oil, and building block for grease; 2. Industrial Coating – asphaltic-based product for aerosol and molten coating; 3. Polymer – water-based urethane and lubricants for mining (no polymerization); 4. PUR – polyurethane adhesives; and 5. Adhesives – laminating epoxy for cement.

Daubert uses approximately 700 raw materials and produces over 400 formulas. There are approximately 50 – 55 raw material and final product storage tanks, all uncontrolled with fixed roofs. The raw materials stored in storage tanks include mineral spirits, 140 flash solvent and VM&P naphtha. Methanol and toluene come in by totes. Other raw materials may come in by tote or drum. All products are made by batch process in blending vessels. The facility has approximately 30 – 40 blending vessels. After blending, products are filtered through a 1 to 800-micron filter. Some of the final products are stored in storage tanks before being shipped off site by bulk tanker, pails, drums, kegs or totes.

Staff Interview: There are five baghouses throughout the facility. The heated blending vessels are equipped with condensers. The facility has a preventative Maintenance (PM) program for the dust collectors. The filters are changed out annually during a two-week summer shutdown. 40 CFR 63.11601(b) requires that storage vessels that store materials containing methylene chloride must be equipped with covers or lids that are in good condition and that maintain contact along at least 90-percent of the vessel rim. Methylene chloride comes in by totes and is pumped into a blending vessel in a closed system, meaning the displaced air emissions from the vessel are pumped back into the tote and shipped back to the supplier. 40 CFR 63.11601(a) requires that a particulate control device be operated during the addition of dry pigments and solids that contain compounds of cadmium, chromium, lead, or nickel to a process vessel. Daubert employees indicated that they do not use products containing metal Hazardous Air Pollutants (HAP). The

facility produces 5 to 6 million gallons of product per year. The hours of operation for each department are as follows: Metal Working – 24 hours a day, 5 days a week; Industrial Coating, Polymer and PUR - 16 hours a day, 5 days a week; and Adhesives – 8 hours a day, 5 days a week.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations: EPA observed the baghouses, blending vessels and the bulk storage tanks. The baghouses for adhesives, Tanks 50 – 58, polymer, and metal working department did not have pressure drop gauges. The baghouse for Tanks 70 – 76 had a pressure drop gauge that read 0.1 inches of water column. The temperature of the condenser for metal working was 60 °F, the horizontal tank was 91 °F and tank 41 was 67.2 °F. Using the forward looking infrared (FLIR) camera model GFx320, EPA observed volatile organic compounds (VOC) emissions from the hatches on Tanks 40 and 41. Tanks 40 and 41 are equipped with condensers and are located in the metal working department. A variety of grease precursors are produced in Tanks 40 and 41.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

CLOSING CONFERENCE

☒ Provided U.S. EPA point of contact to the facility

Requested documents:

- Annual throughput of the storage tanks (including raw and product) in gallons for 2020 and 2021
- Annual production in gallons for 2020 and 2021
- List of the tanks (bulk and mixing) and their contents and capacity
- List of all chemicals used and volume used for 2020 and 2021
- Annual emissions spreadsheet (unlocked with assumptions and equations) for 2020 and 2021
- SDSs for the top 20 products produced in 2021
- SDSs for the two products being produced in tanks 40 and 41 (if not included above)
- Follow up on the leaks observed at tanks 40 and 41
- Follow up on the “wet particulate control system” mentioned in the permit
- Follow up on the “operating program” pursuant to 35 Ill. Adm. Code 212.310 mentioned in the permit

Compliance Assistance: the leaks emitting from Tanks 40 and 41, observed using the FLIR, should be repaired as soon as possible

DIGITAL SIGNATURES

Report Author: **KARINA
KUC**  Digitally signed by
KARINA KUC
Date: 2022.09.22
11:34:42 -05'00'

Section Supervisor: **Frank,
Nathan**  Digitally signed by Frank,
Nathan
Date: 2022.09.22
15:43:00 -05'00'

Facility Name: Daubert Chemical Company
Facility Location: 4700 S Central Ave, Chicago, IL 60638
Date of Inspection: August 9, 2022

APPENDICES AND ATTACHMENTS

Appendix A – Digital Image Log

Appendix B – Digital Video Log

Facility Name: Daubert Chemical Company
Facility Location: 4700 S Central Ave, Chicago, IL 60638
Date of Inspection: August 9, 2022

APPENDIX A: DIGITAL IMAGE LOG

1. Inspector Name: Brittany Cobb	2. Archival Record Location: Region 5 Electronic Records Center
---	--

Image Number	File Name	Date and Time (Central time)	Description of Image
1	P8090043.JPG	2022:08:09 13:12:23	Tank 14 covered in product
2	P8090044.JPG	2022:08:09 13:12:29	Equipment from Tank 14 covered in product
3	P8090045.JPG	2022:08:09 13:13:16	Equipment from Tank 13 covered in product
4	P8090046.JPG	2022:08:09 13:16:20	Finished product equipment covered in product
5	P8090047.JPG	2022:08:09 13:47:53	Product spilled on floor in metals department
6	P8090048.JPG	2022:08:09 13:49:24	Spilled product below Tank 41
7	P8090049.JPG	2022:08:09 14:02:19	Product that appears to have overflowed from the hatch on Tank 41

Facility Name: Daubert Chemical Company
Facility Location: 4700 S Central Ave, Chicago, IL 60638
Date of Inspection: August 9, 2022

APPENDIX B: DIGITAL VIDEO LOG

1. Inspector Name: Karina Kuc	2. Archival Record Location: Region 5 Electronic Records Center
--------------------------------------	--

Image Number	File Name	Date and Time (Central time)	Description of Image
1	MOV_0476.mp4	8/9/2022 15:01	FLIR video of VOC emissions leaking from Tank 40 hatch
2	MOV_0477.mp4	8/9/2022 15:03	FLIR video of VOC emissions leaking from Tank 41 hatch