

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

JUL 03 2019

DATE:

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
The Lubrizol Company, Painesville, Ohio

FROM: Charles Hall, Environmental Engineer *C. Hall*
AECAB (MN/OH)

THRU: Dakota Prentice, Acting Section Chief
AECAB (MN/OH)

TO: File, The Lubrizol Company, Painesville, Ohio

BASIC INFORMATION

Facility Name: The Lubrizol Company

Facility Location: 155 Freedom Road, Painesville, Ohio 44077

Date of Inspection: May 8, 2019

EPA Inspector(s):

1. Charles Hall, Environmental Engineer
2. Kosta Loukeris, Environmental Engineer

Other Attendees:

1. Patricia Kay, Environmental Assurance Engineer
2. Greg McCullough, General Manager
3. Kirk Oswald, Utilities Superintendent
4. Ciara Seitz, Environmental Superintendent
5. Suzanne Skrab, Environmental Specialist
6. Kelly Winfield, Health, Safety, Environmental, & Security Manager (by telephone)

Contact Email Address: ciara.seitz@lubrizol.com

Purpose of Inspection: hazardous waste incinerator ("HWT") inspection

Facility Type: chemical manufacturer

Regulations Central to Inspection: National Emission Standard for Hazardous Air Pollutants from Hazardous Waste Combustors at 40 C.F.R. Part 63, Subpart EEE ("HWC MACT"); National Emission Standard for Benzene Waste Operations, at 40 C.F.R. Part 61, Subpart FF (BWON); and National Emissions Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources, at 40 C.F.R. Part 63, Subpart VVVVVV (NESHAP VVVVVV)

Arrival Time: 10:00 a.m. EDT

Departure Time: 5:55 p.m. EDT

Inspection Type:

- ☒ Unannounced Inspection
- ☐ Announced Inspection

OPENING CONFERENCE

- ☒ Credentials Presented
- ☒ CBI warning to facility provided

The following information was obtained verbally from Kay, McCullough, Oswald, Seitz, Skrab, and Winfield, unless otherwise noted.

Process Description:

Lubrizol burns recovered organics, aqueous waste, pipe and process tank flushes, distillates, and containerized waste in its hazardous waste incinerator. All of the waste is generated onsite. Lubrizol does not accept any waste from offsite. Lubrizol collects liquid wastes from 90-day tanks in Tank W34 in which the aqueous and organic layers separate. Organic wastes are pumped into Tank W33 then to Tanks W31 and W32 before they are fed to the HWI. Aqueous wastes are pumped into Tank W15 and then Tank W14 before they are fed to the HWI.

Staff Interview:

The site representatives stated that the concentrations of the HWC MACT-regulated pollutants in the waste streams vary over a narrow range. Oswald noted that the waste streams higher heating value is very consistent. The most common cause of an exceedance of an operating parameter limit or the carbon monoxide emission standard is a power outage.

TOUR INFORMATION

EPA toured the facility: Yes

Data Collected and Observations:

At the time of the inspection, Lubrizol was re-starting the HWI after an extensive maintenance project. Consequently, Lubrizol was not burning hazardous waste at the time of the inspection and operating parameter limit and carbon monoxide emission data are not available.

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

Field Measurements: were taken during this inspection.

Calibration of EPA Toxic Vapor Analyzer (Cleveland Office)

Calibration Gas Standard	Confirmation Reading
500 ppm	501 ppm
10,000 ppm	9,970 ppm

Summary of Outlet Concentrations from Carbon Canister on 90-Day Storage Tanks			
Carbon Canister on 90-Day Storage Tank	Capacity, gallons	Highest Measured Concentration, parts per million by Volume	Location of Highest Measured Concentration
P10	2,390	N/A	N/A
J15	6,000	N/A	N/A
102T	4,190	125 181	Top Flange Carbon
130T	6,000	77 35	Top Flange Carbon
31T	3,000	29	Carbon
E75	6,000	200	Carbon

Summary of Outlet Concentrations from Waste Storage Tank Equipment			
Storage Tank	Capacity, gallons	Highest Measured Concentration, parts per million by Volume	Location of Highest Measured Concentration
W11	11,200	4,100	Emergency Vent
W12	24,000	79	Emergency Vent
W13	26,000	79 136	Emergency Vent Tank Cover
W14	30,000	92 20	Emergency Vent Tank Cover
W15	25,000	6,893 to 11,000	Emergency Vent
W31	10,500	4,100	Emergency Vent
W32	10,500	162	Manway
W33	50,000	12,500 55	Emergency Vent Flange
W34	50,000	110 787	Emergency Vent Manway

RECORDS REVIEW

Lubrizol provided BWON records from 2011 and 2016 indicating that the total annual benzene was 0.257 megagrams/year (Mg/yr) and 1.24 Mg/yr, respectively. Lubrizol indicated that they do not submit an annual report to the Agency.

Lubrizol implements the following leak detection and repair (LDAR) programs:

1. Title V: Monitor a subset of 25% of equipment annually using Method 21;
2. NESHAP VVVVVV: monitor one of the four chemical manufacturing process units using Method 21 as applicable under the standard;
3. Resource Conservation and Recovery Act: Method 21 performed at sources that manage hazardous waste at the facility.

Lubrizol indicated that they used to monitor a subset of 50% of equipment components annually under the Title V permit but had recently modified that to 25%. Proactive Environmental is the current LDAR contractor. The emission estimates from the components monitored are applied to the unmonitored components at the facility for the purposes of determining total HAP fugitive emissions.

CLOSING CONFERENCE

Requested Documents:

- Exhibit D-1 Summary of Physical Characteristics of Tanks;
- Exhibit D-5 W Tank Farm Containment;
- Summary of 2018 Speciated HAP Emissions;
- 1st quarter CY 2018 Deviations reported per Title V Permit A.2.c)(2);
- 2nd quarter CY 2018 Deviations reported per Title V Permit A.2.c)(2);
- 3rd quarter CY 2018 Deviations reported per Title V Permit A.2.c)(2);
- 4th quarter CY 2018 Deviations reported per Title V Permit A.2.c)(2);
- Tables 6-1, 6-2, and 6-3 from Report for 2018 Comprehensive Performance Test;
- Annual inspection record for Tanks W15, W31, and W33
- Total Fugitive Component by Program and Type;
- Leak DAS LDAR data restored in a MS Access database
- 2 years Carbon for 90-day tank
- 2016 Total Annual Benzene Report
- Fugitive Emission Strategy

Concerns: EPA did not raise any concerns regarding the HWI; however, EPA raised the following concerns:

1. Lubrizol does not maintain annual records under the BWON to determine the total annual benzene quantity since the materials and quantities processed vary from year to year.
2. Lubrizol does not submit an annual report for the BWON as required for sources that have greater than 1 Mg/yr of benzene annually.
3. Fugitive HAP emissions are being underestimated.

SIGNATURES

Lead Inspector: Charlie Hall Date: 08 July 2019
Section Chief: [Signature] Date: 7/8/19

APPENDICES AND ATTACHMENTS

1. Digital image/video log
2. Digital images and videos on CD

APPENDIX A: DIGITAL IMAGE LOG

1. Inspector Name: Constantinos Loukeris	2. Date(s) of Inspection: May 8, 2019
3. Company/Facility Name: Lubrizol	4. Street Address, City, State: 155 Freedom Road, Painesville, Ohio
5. Number of Images: 3	6. Archival Record Location: CD-R labeled "Lubrizol, Painesville, OH, Inspection photos/video 5/8/2019"

Image Number	File Name	Date	Description of Image
1	MOV_0056.mp4	5/8/2019	Hydrocarbon emissions were imaged from the emergency vent on tank, W33.
2	MOV_0057.mp4	5/8/2019	Hydrocarbon emissions were imaged from the emergency vent on tank, W31.
3	MOV_0060.mp4	5/8/2019	Hydrocarbon emissions were imaged from the emergency vent on tank, W15.