

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

A404367808

FACILITY: Dow Silicones Corporation		SRN / ID: A4043
LOCATION: 3901 S Saginaw Rd, MIDLAND		DISTRICT: Bay City
CITY: MIDLAND		COUNTY: MIDLAND
CONTACT: Jim Alger , Midland Area State Air Permitting Specialist		ACTIVITY DATE: 06/15/2023
STAFF: Adam Shaffer	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MEGASITE
SUBJECT: Partial Compliance Evaluation of FGPEM&BLR, EUBOILER2515 and EU2515-01.		
RESOLVED COMPLAINTS:		

A partial compliance evaluation (PCE) consisting of an onsite inspection was conducted by Air Quality Division (AQD) staff Adam Shaffer (AS) of the Dow Silicones Corporation (DSC) site located in Midland, MI. A verification request was made on May 26, 2023, that emission units (EU)BOILER2515, EU2515-01 and flexible group (FG)PEM&BLR that are included in Renewable Operating Permit (ROP) No. MI-ROP-A4043-2019a (now MI-ROP-A4043-2019b), are either removed or disconnected. It was verified by staff to be correct on May 26, 2023, and an in-person inspection to verify this is correct was made on June 15, 2023.

Facility Description

DSC is a chemical processing facility. The facility is a mega-site and is a major source of hazardous air pollutants (HAPs), nitrox oxides (NOx), particulate matter (PM) and volatile organic compounds (VOCs). Additionally, the site is subject to various federal regulations and the site is operating under an EPA Civil Order No. 19-11880.

Offsite Compliance Review

DSC is required to submit semi-annual and annual compliance reports per Part A General Conditions 19-23 of MI-ROP-A4043-2019b. The applicable emission units were most recently inspected on December 12, 2019, and it was verified at the time the units were disconnected and not in operation. Therefore, since the units were disconnected, any compliance reports would not be associated with these emission units.

Based on the timing of the inspection, the 2022 Michigan Air Emissions Reporting System (MAERS) Report was reviewed. Upon review it appears DSC uses "Emission Master" software when determining emissions for each product. DSC uses MAERS emission factors for natural gas used. Additionally, fugitive emissions such as from LDAR monitoring and emissions from spills are added in as well. Upon initial review of the MAERS Report, discrepancies were noted between the emissions reported and the records provided for several recent inspections. In a follow up phone conversation on April 24, 2023, it was concluded that the discrepancies were from DSC reporting both process emissions and fugitive emissions together. Data was reviewed for several emission units inspected. Minor errors were noted, however, after further review the 2022 MAERS Report appears acceptable. Additionally, at this time the supporting documentation is acceptable, though it was stated to DSC staff moving forward that more specific supporting documentation to better understand how DSC came to the amount of emissions reported per each unit will be required. Since the emission units pertaining to this inspection have been disconnected for several years, they would not be reporting emissions in a MAERS report.

Compliance Evaluation

A verification request was sent to Mr. Jim Alger, Midland Area State Air Permitting Specialist, of DSC on May 26, 2023, that EUBOILER2515, EU2515-01 and FGPEM&BLR are either removed or disconnected. It was verified to be true on May 26, 2023. An onsite inspection was later completed on June 15, 2023.

AQD staff AS arrived at the facility at 8:04am. Weather conditions at the time were cloudy skies, temperatures in the high 50's degrees Fahrenheit, and winds to the east at 0-5 mph. Upon arrival AS met with Mr. Adler and several other company staff to go over records associated with different emission units. Following this, a site walk through included areas associated with EUBOILER2515, EU2515-01 and FGPEM&BLR to verify it was no longer in use.

ROP No. MI-ROP-A4043-2019b

EU2515-01

This emission unit is an electrically powered plasma arc gasifier known as a "plasma enhanced melter (PEM)" with ancillary equipment.

EUBOILER2515

This emission unit is for a 25.1 MMBTU/hr boiler capable of burning natural gas, synthetic gas, or a blended mixture of both. This boiler is located in 2515 building and decommissioned but not dismantled. 40 CFR Part 63, Subpart DDDDD may be applicable to EUBOILER2515 if EUBOILER2515 is operated.

FGPEM&BLR

This flexible group is for a plasma enhanced melter (PEM) and 25.1 MMBTU/hour boiler. Emission units associated with this flexible group are EU2515-01 and EUBOILER2515.

Onsite Observations

During the course of the inspection walk through it was verified for the two emission units that various areas potentially indicating the units could still be operated were disconnected. Air gaps were noted at each disconnection that could not readily be fixed.

The emission units were clearly not in operation and the company appeared to be waiting to dismantle the applicable equipment. The building housing the plasma melter was being used as storage.

DSC staff mentioned that they planned to propose to remove the applicable units in the upcoming submittal of the companies ROP renewal application.

Conclusion

Based on the observations made, DSC appears to be in compliance with MI-ROP-A4043-2019b, specifically the portions related to EUBOILER2515, EU2515-01, and FGPEM&BLR.

NAME Adam J. Smith

DATE 06/29/23

SUPERVISOR C. Kane