

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

A404362872

FACILITY: Dow Silicones Corporation		SRN / ID: A4043
LOCATION: 3901 S Saginaw Rd, MIDLAND		DISTRICT: Bay City
CITY: MIDLAND		COUNTY: MIDLAND
CONTACT: Amanda Karapas , Air Specialist		ACTIVITY DATE: 05/13/2022
STAFF: Gina McCann	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MEGASITE
SUBJECT: EU505-11 inspection		
RESOLVED COMPLAINTS:		

EGLE and DSC staff present during the inspection:

- Gina McCann (EGLE-AQD, Environmental Specialist)
- Marissa Drobitch (EGLE-DWEHD, Environmental Engineer)
- Amanda Karapas (Dow MiOps, Air Specialist)
- Amy Chang (Dow MiOps, Environmental Specialist)
- Kia Birnbaum (Dow MiOps, Production Engineer)

EU505-11

This emission unit was recently re-permitted under PTI 162-20. Dow Silicones Corporation (DSC) entered into a Consent Decree (19-11880) with U.S. EPA on January 24, 2020. The Consent Decree required DSC to update affected air permits at the site to ensure full compliance with the 40 CFR Part 63 Subpart FFFF (MON MACT) requirements including the consideration of trace chemicals discovered in certain raw materials.

This emission unit is a batch resin process including jacketed, agitated reactor, blend tanks, condensers, water traps, and various other equipment. The process vents through 6553 condenser to the FGTHROX wet vents. If FGTHROX goes offline, EU505-11 can vent to FGSITESCUBBERS and continue operation. Local condensers are primary control before EU505-11 vents to FGTHROX or FGSITESCUBBERS. FGTHROX and FGSITESCUBBERS are not necessary for EU505-11 under the MON since no vents in this emission unit require Group 1 control.

Special condition (SC) I.2. restricts VOC emissions to 1.3 ton per year (tpy) based on a 12-month rolling time period as determined at the end of each calendar month. SC VI.3. is the associated monitoring and recordkeeping requirement that requires the plant to calculate and keep, in a satisfactory manner, records of monthly and 12-month rolling time period VOC emissions for EU505 11 using production records, operating records, and/or other data acceptable to the AQD District Supervisor. For the 12-month rolling time period ending March 2022 VOC emissions were 0.10 tpy.

Emissions are controlled by the chilled condenser 6553. SC III.1. restricts operation of the equipment in EU505-11, unless venting to FGTHROX or FGSITESCUBBERS, unless the coolant exit temperature of the condenser is 7°C or less. SC VI.2. is the associated monitoring and recordkeeping requirement that requires the plant to monitor and record, on a continuous basis, the coolant exit temperature of chilled condenser 6553 with instrumentation acceptable to the AQD. For the purpose of this condition, "on a continuous basis" is defined as an instantaneous data point recorded at least once every 15 minutes. The plant may record block average values for 15 minute or shorter periods calculated from all measured data values during each period. During the inspection the emission unit was not operating. I reviewed coolant exit temperatures for the time period starting January 1, 2021 through May 10, 2021. The condenser operated at 7°C or less during this time period when not venting to FGTHROX or FGSITESCUBBERS, and

the process was in operation.

Proper operation and maintenance of the condenser is required to ensure emissions are efficiently controlled. SC IV.2. requires the plan to equip and maintain chilled condenser 6553 with a device to continuously monitor and record the condenser coolant exit temperature. The plant shall calibrate the coolant exit temperature indicator in a satisfactory manner acceptable to the AQD District Supervisor. During the inspection we viewed the condenser and the associated temperature transmitter (TT) 1575. The plant is performing annual calibrations on TT 1575. The last two calibrations were performed on September 27, 2021 and October 7, 2020.

Compliance Reporting

The 2021 annual ROP deviation report cited several deviations for Building 505, but none were directly related to this emission unit. The deviations were mainly related to LDAR. Several components were identified as receiving LDAR leak checks on a different frequency than required. This is likely due to the enhanced LDAR monitoring plan implemented through the Consent Decree and the need to adjust the timing to align with the more robust plan.

NAME



DATE

5/19/2022

SUPERVISOR

