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

A404362650			
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: 04/20/2022	
STAFF: Gina McCann	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MEGASITE	
SUBJECT: EU340-01	·		
RESOLVED COMPLAINTS:			

DOW Silicones and EGLE-AQD staff present during the inspection:

- Gina McCann (EGLE-AQD, Environmental Quality Specialist)
- Amanda Karpas (Dow-Air Specialist)
- Brandon Bishop (Plant Production Coordinator)
- Victoria Guzman (340-01 Production Engineer)

<u>EU340-01</u>

This is a calcium chloride process which includes condensers, scrubbers, columns, vaporizers, storage tanks, compressor, and related equipment. This emission unit is subject to the requirements of 40 CFR Part 63, Subpart FFFF. EU340-01 is a CAM subject emission unit subject to the requirements of 40 CFR Part 64. The most recent PTI for this emission unit is PTI No. 34-04B.

Emissions are vented to absorber (8745A) then scrubber (8745B), both devices are CAM subject units for VOC and Methyl Chloride.

Special condition (SC) I.4. limits methyl chloride emissions to 2.6 ton per year (tpy) and SC I.7. limits VOC emissions to 5.0 tpy, both based on a 12-month rolling time period as determined at the end of the calendar month. SC VI.2. is the associated monitoring and recordkeeping requirement that requires the plant to keep records as required to demonstrate compliance with the emission limits specified in this table. A monthly summary of these emissions shall be made available to the AQD upon request. Within 30 days following the end of each calendar month, the permittee shall calculate and record emissions from the process for the previous calendar month to demonstrate compliance with the 12-month rolling time period emission totals specified in this table. For the 12-month rolling time period ending February 2022, methyl Chloride emissions were 0.003 tpy and VOCs were 0.08 tpy.

Emissions are controlled by scrubber 8745B and SC III.1. restricts the plant from operating the process unless the scrubbing water flow of scrubber 8745B is greater than 2.5 gallons per minute (gpm). This unit is a CAM subject device. An excursion is a scrubbing water flow rate less than 2.5 gallons per minute defined in this condition or demonstrated during testing. SC VI.1. is the associated monitoring and recordkeeping requirement, which requires the plant to maintain a record of the date, time and duration of every low flow alarm, as well as, the actions taken to restore proper flow for scrubber 8745B. A secure process alarm (SPA) is set to alarm if the flow falls below 1250 lb/hr or 2.50 gpm. During the inspection the water flow was

3.96 gpm. I also reviewed liquid flow rates of scrubber 8745B for the time period January 1, 2021 through March 31, 2022. The scrubber operated according to the required flows when the process was in operation.

Emissions are also controlled by absorber 8745A. SC III.2. restricts operation of the process unless the coolant flow rate of absorber 8745A is greater than 50 gpm. This unit is a CAM subject device. An excursion is a water flow rate less than 50 gallons per minute defined in this condition or demonstrated during testing. SC VI.1. is the associated monitoring and recordkeeping requirement, which requires the plant to maintain a record of the date, time and duration of every low flow alarm, as well as, the actions taken to restore proper flow for absorber 8745A. A SPA is set to alarm if the flow falls below 50 gpm. During the inspection the water flow was 134.1 gpm. I also reviewed liquid flow rates of absorber 8745A for the time period January 1, 2021 through March 31, 2022. The absorber operated according to the required flows when the process was in operation.

SC IV.3. requires the plant to calibrate the flow transmitters (FT) for scrubber 8745B and absorber 8745A. During the inspection we discussed calibrations and the last dates performed were as follows:

Absorber	8745A	FT-1053	9/18/2020	20014693151
	8745A	FT-1053	9/14/2021	20015676927
Scrubber	8745B	FT-1054	9/11/2020	20014641161
	8745B	FT-1054	9/14/2021	20015618870

SC IV.1. requires the plant to equip and maintain absorber 8745A with a liquid flow indication device. We viewed this device, during the inspection, and was able to verify the FT-1053 is associated with the 8745A absorber.

SC IV.2. requires the plant to equip and maintain scrubber 8745B with a liquid flow indication device. We viewed this device, during the inspection, and was able to verify the FT-1054 is associated with the 8745B scrubber.

SC VI.9. through VI.12. are associated with CAM recordkeeping and monitoring. The compliance reporting section below references deviations and/or actions taken to mitigate deviations. Activity that pertains to these conditions is discussed in the Compliance Reporting section of this report.

Emission factors were last reviewed in 2013. The plant is currently looking at emission factors to determine if need to be updated. We viewed stack vent id SV340-001 while on-site and in the process flow diagram (pfd). SV340-003 was not in the pfd and we were not able to locate at the plant. As part of the records request the plant verified tank T-8751, associated with SV340-003, was no longer in service as of

July 2013. The plant is working towards updating their PTI and this will need to be addressed in their submittal.

Compliance Reporting

No deviations were reported for this unit in the 2021 Annual ROP report.

NAME

DATE 4/22/2022

SUPERVISOR Chris Hare