DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

FCE Summary Report

Facility :	Dow Silicones Corporation	**SRN :**	A4043
Location :	3901 S Saginaw Rd	**District :**	Bay City
		County :	MIDLAND
City :	MIDLAND **State:** MI **Zip Code :** 48686	**Compliance Status :**	Compliance
Source Class :	MEGASITE	**Staff :**	Gina McCann
FCE Begin Date :	9/28/2017	**FCE Completion Date :**	9/8/2020
Comments :	Periods of non-compliance occurred during FCE period. Entered into Consent Decree w/EPA to resolve most non-compliance issues. Working to resolve additional compliance issues through re-permitting 30-40 EUs.		

List of Partial Compliance Evaluations :

Activity Date	Activity Type	Compliance Status	Comments
08/26/2020	CEM RATA	Compliance	432 Boilers NSPS Subpart Db Compliance CEMS Certification Test Report
08/26/2020	Release Reports	Compliance	508 building, Less than 1 pound of Benzene released
08/14/2020	MACT (Part 63)	Compliance	Subpart NNNNN Semiannual Reports There was/were deviation(s) from an emission limitation at the affected source. Table shows control device 24388; listings include description of event, periods when CMS was inoperative (start date and time; stop date and time), periods when CMS was out-of-control (no entries), and deviations. Total duration of deviations during the reporting period: 17 hours. No deviations are shown for the 24401 water scrubber (FT2837B Flow Meter).
08/14/2020	MACT (Part 63)	Compliance	Subpart FFFF Semiannual Reports Facility has included a table providing the number, date, time, duration and a brief description for each deviation for which a CMS is not used for ongoing compliance (note: for Causes of Deviation and Corrective Action(s) Taken, references are made to Attachment 1). Total duration of deviations without a CMS is listed

Activity Date	Activity Type	Compliance Status	Comments
08/04/2020	CAM Excursions/Exceedances	Compliance	Excursions did not result in emission limit exceedances.
08/04/2020	Records Review (In office)	Compliance	FGRULE604, FGRULE605 and FGRULE703
08/03/2020	Stack Test	Compliance	432 Boilers NSPS Subpart Db Compliance CEMS Certification Test Report
08/03/2020	CAM monitor downtime	Compliance	EU2703-01 (13 hrs) Weight of carbon totes was not recorded on a continuous basis. EU311-02 (1 hr) computer network issue
08/03/2020	MACT (Part 63)	Compliance	Subpart HHHHH Compliance Report Created PUG under MON MACT to comply with reporting for Subpart HHHHH.
08/03/2020	MAERS	Compliance	MAERS is reviewed for individual emission units at the time of the emission unit inspection.
07/13/2020	MACT (Part 63)	Compliance	Periodic Report for Subpart MMM. 2/25/20 DSC submitted a waiver from reporting because the affected source is achieving the relevant standard. The PAI process unit is non-dedicated process unit and shares processing equipment with other non-dedicated non-PAI process units. DSC has elected to develop a PUT in accordance with subpart MMM and FFFF. Waiting for EPA response to waiver.
07/13/2020	ROP Other	Compliance	2020 Fugitive Dust Control Program 400 Lot, 612 Lot, and 800 Lot were added to the list of unpaved areas being brined on a monthly basis.
07/13/2020	Release Reports	Compliance	Reported: Process/service water containing potential unknown water treatment additives from a cooling water system; Actual: Bleach water treatment additive. Release to surface water.
06/22/2020	Records Review (In office)	Compliance	FG-BOILERMACT-NG records review
06/17/2020	Release Reports	Compliance	Anhydrous Ammonia 100 pounds, 28 minutes.
06/17/2020	Release Reports	Compliance	Biphenyl ~100 pounds for ~20 minutes
06/17/2020	Release Reports	Compliance	Hydrochloric Acid, 11 pounds ~ 1 hour

Activity Date	Activity Type	Compliance Status	Comments
06/15/2020	MACT (Part 63)	Compliance	Subpart MMM NOCS Report No review
05/27/2020	ROP SEMI 2 CERT	Compliance	Information regarding corrective action and action taken to prevent recurrence sufficiently resolved each excursion/exceedance. Therefore, a VN was not issued. Multiple corrective actions were to submit new PTI applications. DSC is under a consent decree with EPA to submit applications by November 2020.
05/27/2020	ROP Annual Cert	Compliance	Information regarding corrective action and action taken to prevent recurrence sufficiently resolved each excursion/exceedance. Therefore, a VN was not issued. Multiple corrective actions were to submit new PTI applications. DSC is under a consent decree with EPA to submit applications by November 2020.
05/04/2020	Release Reports	Compliance	Toluene, bldg. 303, EU = NA, 30 minutes, 1 lb, RQ= 1,000 lb. The process was immediately shut down and the pump was isolated, stopping the leak.
05/01/2020	MAERS	Unknown	4th Quarter Excess Emissions Report. in enforcement with TPU due to RATA failures. Boiler 13 did not operate during this time period.
04/29/2020	Records Review (In office)	Non Compliance	FGCOLDCLEANERS and FGEMERGENCIRICE
04/22/2020	Release Reports	Compliance	Reported: xylene; Actual: xylene and benzene
04/22/2020	Stack Test	Compliance	EU604-08 Performance Test Report HCl <0.1pph limit 0.3 pph VOC 15.7 pph limit 16.7 pph
03/25/2020	Scheduled Inspection	Compliance	FGHAP2012A2A
02/26/2020	Scheduled Inspection	Compliance	EU800-01
02/21/2020	MACT (Part 63)	Compliance	Boiler MACT (Subpart DDDDD) Annual Compliance Report No deviations.
02/14/2020	Stack Test Observation	Unknown	EU604-08
02/05/2020	Stack Test	Compliance	FG304VENTRECOVERY Performance Test Results VOC 12.742 pph Benzene 0.019 pph
01/17/2020	MACT (Part 63)	Compliance	Compliance Report for Subpart HHHHH

Activity Date	Activity Type	Compliance Status	Comments
01/16/2020	Scheduled Inspection	Compliance	EU601-01 and EU604-08
01/10/2020	CEM RATA	Compliance	THROX RATA and Performance Summary Report VOCs <0.1 pph PM10 0.9 pph Total PM 3.7 tpy CO <1 tpy
01/07/2020	Release Reports	Compliance	Hydrogen Chloride, bldg. 604, EU604-08, 2 hours, 25 lb, RQ=5,000 lb. Odors were detected in the 604 and 606 process areas while starting up the process following maintenance. Further investigation found that a process upset occurred in a vessel which caused excess HCl to be vented from the vessel. Upon discovery, the process was shutdown and a water spray was applied to cool down equipment and knock down any vapors, stopping the leak.
01/07/2020	Release Reports	Compliance	Reported: Process wastewater with an unknown composition; Actual: Determined to be storm water only. 501 Building Area on-site sewer system, EU=NA, duration=NA, no regulated materials released. At the time of the initial notification call it was raining and it was uncertain as to whether a regulated material was released from the on-site sewer system. After the rain stopped, the area where the pooled water was observed was inspected for evidence of process wastewater (i.e., "chemical/sanitary sewer") impacting the ground or comingling with stormwater. DSC concluded that no regulated materials were released to the ground or water. There was no release of a regulated material. However, to manage excess water from the large rain event, flow to Dow Chemical WWTP was maximized and non-essential process wastewater discharges were limited.

Activity Date	Activity Type	Compliance Status	Comments
01/07/2020	Release Reports	Compliance	Benzene and Toluene, bldg. 508, EU=NA, 40 minutes, benzene=19 lb and toluene=2 lb. HCl also released; approximately 13 lb. HCl not included in original notification; see hard copy in file which includes em5,ail from facility. Bldg 508, EU=NA, 40 minutes, RQ benzene=10 lb, RQ toluene=1,000 lb, RQ HCl=5,000 lb. Chemicals released from a malfunctioning high line (onsite overhead pipe). Upon discovering the leak, operations personnel responded by shutting down the process and isolating the pipeline. The spilled material was cleaned up and disposed of properly. There were no off-site impacts.
12/12/2019	Scheduled Inspection	Compliance	FGPEM&BLR
12/06/2019	CAM Excursions/Exceedances	Compliance	Responses to deviations were acceptable. See deviation report for further discussion.
11/27/2019	Excess Emissions (CEM)	Compliance	Third Quarter Excess Emission Report. Boiler 14 did not operate due to RATA failure.
11/25/2019	Stack Test	Compliance	EU602-01 MON MACT (FFFF) Performance Test Report DV23967 condenser, exit gas temperature less than or equal to 8.0C Second carbon tote (last before atm), carbon tote weight, less than or equal to 140 lbs.

11/20/2019	ROP Semi 1 Cert	Compliance	• EGSite-05 (3/25/2019) 42 days General Condition 12 Emissions from sandblasting operations do not have an air permit or exemption. This is a low -traffic area and there is no on-site or off-site impact. Corrective Action: All sandblasting work for cylinders has been moved to an off-site vendor. Work is progressing to find an off-site vendor who can perform sandblasting on trailers. • FG432BOILERS (3/31/2019) 91 days PTI 112-06 SC VI.2 RATAs on the NOx CEMS for Boilers #13 and #14 did not pass initial testing. A final report was submitted, demonstrating that the NOx CEMS did not comply with Performance Specification 2 for Boilers #13 and #14. Corrective Action: Enforcement action taken • EU502-04 (5/14/2019, 6/21/2019, 6/21/2019) 10 minutes, 11 minutes, 5 minutes PTI 18-18 SC IV.1 Container maintenance operations continued after vents were diverted away from FGTHROX. Corrective Action: A project is under way to automatically and immediately stop all container maintenance purges when the dry vent diverts from FGTHROX. This new system should be operational by November 1, 2019. Checked during inspection on 11/7/2019 and project was complete. • FGTHROX (5/21/2019) PTI 91-07E SC VI.4 Gas Chromatograph (GC) downtime was not being determined at the end of each calendar month. Reason for deviation: Requirement to monitor downtime at the end of each month was not fully understood. Daily downtime outside of the permissible limit of 5 hours per day has been understood and acknowledged.

11/20/2019	ROP Semi 1 Cert	Compliance	but there has not been a process to determine how to calculate the rolling 12-month downtime. Corrective Action: GC downtime analysis will be done at the end of each calendar month to verify compliance with daily and annual uptime requirements. This new and robust process will ensure that all requirements are understood. Other process parameters indicate that all emissions were within permit limits and that there were no excess emissions during periods of CEMS downtime. Upon investigation, CEMS downtime in 2019 did not exceed 5 hours per day or 72 hours per rolling 12-month. • EU322-06 (2/6/2019) PTI 308-94 SC III.1, III.3, III.4, III.5, VI.1, VI.5, VI.6, and VI.7 The permit requires that condenser 7623 must be installed and operating properly. Condenser 7623 had been removed from the system. In 1995, Dow Corning Corporation requested a revision to PTI 308-92 to allow the process to bypass the vacuum system, including condenser 7623. In a 1996 response, MDEQ agreed to this change, but the special conditions of the permit were not modified. Emissions were permanently routed to condenser 4507 which was already a permitted device, so there were no excess emissions. The permit requires that condenser 7623 must be installed and operating properly. Condenser 7623 had been removed from the system. • EU322-11 (2/6/2019) PTI 338-99B SC VIII.1 The process vents through stack SV322-004 instead of SV322-005. Corrective Action: All process modifications go through a management of change process which will ensure that

11/20/2019	ROP Semi 1 Cert	Compliance	permit applications are submitted whenever necessary. A permit application will be submitted to allow EU322-11 to vent through SV322-004. • EU303-02 (5/8/2019) SC III.2 DSC's ROP states, in part, the permittee shall not operate EU303 -02 unless the control equipment (condenser 3400) is installed and operating properly. Condenser 3400 was removed from service in 2013 and was previously associated with kettle 1612. Kettle 1612 currently vents to THROX, which provides superior emission control. If THROX diverts to site scrubber or is shut down, 303 building operators manually isolate the kettle so there are no emissions to atmosphere. No excess emissions have occurred, and the process is in compliance with its emission limits. Corrective Action: Corrective action will consist of submitting an air permit to install application to EGLE, Air Quality Division to revise the
11/19/2019	Stack Test Observation	Compliance	304 VENTRECOVERY Stack Test
11/15/2019	MACT (Part 63)	Compliance	Subpart NNNNN
11/07/2019	Release Reports	Compliance	Hydrogen Chloride, bldg. 501, EU501-02, 15 minutes, 200 lb, RQ=5,000 lb. Hydrochloric acid was released from a scrubber inside the facility due to a water line break. Upon discover, the process was shut down and a water spray was applied to knock down any vapors, stopping the leak.
11/07/2019	Release Reports	Compliance	Acetic Acid, Methyl Chloride; bldg. 2703, EU=NA, 30 minutes, 15 lb, RQ =5,000 lb acetic acid, RQ = 100 lb methyl chloride. Caller reported a release of an unknown amount of acetic acid to the engineering surface due to maintenance operations on facility piping. Upon discovery, a blind flange was installed on the open-ended pipeline, stopping the leak.
11/07/2019	Scheduled Inspection	Compliance	EU502-04 EU502-09 and EU502-11

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11/05/2019	MACT (Part 63)	Compliance	Subpart HHHHH NOCS Report. Initial NOCS. Identifies the following miscellaneous coating manufacturing operations in 207 building: >207_IFU8 integrated Finishing Unit >207_IFU9 integrated Finishing Unit > 207MS_A Additive Mix Station > 207 AMS_B Additive Mix Station >207 Drum Tumbler The following coating manufacturing equipment is part of a PUG and has been incorporated into a MON MCPU in accordance with 63.8090(c)(2): > Building 501- KET4362, SEP7504, LEP7572 >Building 2505- 2505M11, 2505MG5, 2505MG6 >MCM-B (Part of PUG B) Building 212-212DRBL, TNK20600, TNK6036, TNK6087, TNK6035 >MCM-C (Part of PUG C) >MCM-E (Part of PUG E) Building 321-KET6970
10/31/2019	Release Reports	Compliance	Process wastewater - various chemicals, Dow Silicones Midland Site, EU=NA, 1 hour, each amount/chemical released was less than .5 lb,, lowest RQ for any of the chemicals was 1 lb. The Dow Silicones Midland Site received >2 inches of rain, which caused the on-site "chemical sewer" (i.e. process wastewater sewer), comingled to some extent with stormwater, to overflow onto a portion of land within the 505/501 area on the site. To manage excess water from the large rain event, flow to Dow Chemical WWTP was maximized and non-essential process wastewater discharges were limited. Dow visually inspected the area that was exposed to wastewater and removed all visually impacted soil, gravel and debris. All chemicals released were less than <.5 lb each; lowest CERCLA RQ is 1 lb.
10/29/2019	Stack Test Observation	Compliance	THROX RATA and PM10, CO and VOC emission rate testing

Activity Date	Activity Type	Compliance Status	Comments
10/17/2019	Scheduled Inspection	Non Compliance	FGSITEBLOWER and FGSITESCRUBBERS
10/03/2019	Release Reports	Compliance	Reported: Hydrogen Chloride; Actual: Hydrogen Chloride and Xylene, bldg. 322, EU=NA, I minute, hydrogen chloride 135 lb and xylene 15 lb, RQ = hydrogen chloride 5,000 lb and xylene 100 lb. Caller reported a release of an unknown amount of hydrogen chloride into the air from a pressure relief device due to tank being over pressure and that release had been secured with no offsite impact reported. Upon discovery the process was shutdown and water spray was applied to cool surrounding equipment and knock down any vapors, stopping the leak.
10/03/2019	Rule 912	Compliance	EU604-08 Hydrogen Chloride release 2.3 hours, 25 pounds of HCl released, ROP limit 0.3 pph. Corrective action appropriate and this does not seem to be a reoccurring incident. Enforcement discretion used.
10/03/2019	Release Reports	Compliance	Visible Emissions, bldg.2512, EU= FGsitescrubbers, 45 minutes, >20%, no RQ amount. Not R912 reportable. Will follow up on scrubber flow rates during inspection. Due to blower failure, Throx was diverted to the site scrubbers. The diversion of vents to site scrubbers resulted in visible emissions from the scrubber vent stacks that were believed to be in excess of 20% opacity for more than 2 hours. Water flow to the scrubbers was increased. Affected buildings were notified to begin process shutdown or vent to an alternate approved air pollution control device(s). Du to annual process turnaround/maintenance , most manufacturing buildings were not sending MON Group 1 vents to Throx at the time of the incident. Currently, there are no MON Group 1 vents diverting to site scrubbers. MON Group 1 manufacturing processes will remain shutdown until Throx is online and operational.

Activity Date	Activity Type	Compliance Status	Comments
10/03/2019	Release Reports	Compliance	Hydrogen Chloride, Toluene, Xylene; bldg. 505, EU=NA, 60 minutes, hydrogen chloride 13 lb, toluene 1 lb and xylene 1 lb, RQ = hydrogen chloride 5,000 lb, toluene 1,000 lb, xylene 100 lb. In original report caller reported a release of a total amount of 20 gallons of a mixture of hydrochloric acid, toluene, and xylene onto the ground and into a spill pond caused by an unknown reason at a facility. Upon discovery, the process was shutdown and the pipeline was isolated, stopping the leak.
10/03/2019	Release Reports	Compliance	Hydrogen Chloride, bldg. 316, EU=NA, 45 minutes, 55 lb, RQ = 5,000 lb. Original report states an unknown amount of hydrochloric acid vapor was released into the air from process equipment due to equipment failure. Upon discovery, the process was shutdown and the reboiler was isolated, stopping the leak.
10/03/2019	Environmental Audit Disclosure	Compliance	3/25/2019 2800 block contractor sandblasting, no exemption/PTI in place. 2/4/2019 EU304-02, 2 chemicals not in 12-month rolling had 0.0 lbs. of emissions EU502-04, one chemical not in 12 -month rolling had 0.01 pounds of emissions. EU325-01, Hours of maintenance tracking not in a 12-month rolling form
09/26/2019	Scheduled Inspection	Non Compliance	EU508-01 and FG304VENTRECOVERY
08/29/2019	Stack Test	Compliance	EU602-01 MON MACT (Subpart FFFF) Performance Test Report Retesting because the THC outlet sampling did not meet the quality assurance requirements of EPA Method 25A.
08/28/2019	Scheduled Inspection	Compliance	FG337SCRUBBERS and EU515-01

Activity Date	Activity Type	Compliance Status	Comments
08/22/2019	Excess Emissions (CEM)	Non Compliance	Second Quarter Excess Emission Report and CEMS Downtime Summary sheets for Boiler 12, 13, 14 Boiler 13 failed NOx RATA 3/16/2019 and again on 5/19/2019. VN sent 8/19/2019 by TPU. Downtime100% for 2nd qtr EUBOILER12 0% downtime EUBOILER14 42.5% downtime EUTHROX (NOx) 0.69% downtime EUTHROX (THC) 1.11% downtime
08/21/2019	Stack Test	Non Compliance	432 Boilers NSPS Subpart Db Compliance CEMS Certification Test Report Failed Boiler #13, TPU sent VN
08/21/2019	Stack Test	Compliance	FG322-01 Performance Test Report VOC (FG322-01) 14.2 pph limit 65.1 pph VOC (EU322-04) 14.2 pph limit 59.6 pph Xylene (EU322-01) <0.1 pph limit 2.6 pph
07/25/2019	MACT (Part 63)	Compliance	MON MACT Periodic Reports
07/25/2019	MACT (Part 63)	Compliance	MON MACT (Subpart FFFF) Semi Annual Compliance Report and NOCS Report
07/25/2019	MACT (Part 63)	Compliance	Initial Notification for Subpart HHHHH 23 emission units and 36 products that are being evaluated as potentially subject. Compliance with the Coatings MACT will be achieved through the schedule outlined in the Consent Decree between DSC and EPA.
07/23/2019	Scheduled Inspection	Compliance	EU502-01, EU502-07, EU325-01 and FG325-01
07/11/2019	ROP Other	Compliance	Fugitive Dust Control Plan
07/11/2019	Release Reports	Compliance	Xylene, bldg. 602, EU=NA, 10 minutes, 1 lb, RQ=100 lb. Reported as released onto the ground. Process was immediately shut down and vacuum pump was isolated, stopping the leak..

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07/10/2019	MACT (Part 63)	Compliance	Initial Notification for Subpart MMM EU2703-06 (9260 Kettle), EU2703 -09 (9250 Kettle), and EU2703-13 (22270 Kettle), when the three kettles are producing either AEM5700 or AEM5772 products. These three kettles and two products combined constitute a single pesticide active ingredient manufacturing process (PAI process unit).
07/03/2019	Scheduled Inspection	Compliance	EU325-03
07/01/2019	Excess Emissions (CEM)	Non Compliance	1st quarter amended excess emission report Failed RATA on Boilers 13, excessive downtime. Escalated enf. case.
06/18/2019	Stack Test Observation	Compliance	FG322-01 Performance Test
06/12/2019	Scheduled Inspection	Compliance	EU321-01, EU321-11 (FGRULE290), EU321-17 (FGRULE290) and EU340-01
06/11/2019	MAERS	Compliance	MAERS emission factors are reviewed during an inspection of the emission unit.

05/29/2019	ROP SEMI 2 CERT	Compliance	• 11/1/2018 FGTHROX (67 minutes) Flowmeter malfunctioned, showing a low flow for an extended amount of time and causing the 1-hour average to decrease to below the permitted limit. Other indications in the process lead DOW Silicones to believe that there was no loss of flow during this event and therefore no excess emissions. Corrective action: Vents were diverted from the THROX. Flowmeter reprogrammed. Vents returned to THROX once the recycle rate was about the permitted level. The IWS scrubber recycle rate dropped to <324 gpm on a 1-hour average. This is an excursion. • Various (22.75 hours) EU321-MON Scrubber flow rate dropped below the required rate on various occasions between 9/10 and 9/17. Required flow rate was determined by a stack test when the process was running, but no process was running at these times, Although the process did contain non-volatile material. Corrective action: Scrubber flow rate set point was raised to include a safety factor above the minimum required flow rate. A programming option was added for the process to vent to the site scrubbers, which satisfy MACT requirements. A MON process operated without Group 1 control. This is an excursion under the CAM rule. Estimated total emissions were less than 1 lb. • 10/17/2018 EU340-01 (50 hours) Underground water line containing service water which feeds the 340 building broke. DOW shut down the production operations venting to 8745A absorber, but storage tanks still held material. Since these were the only vents to 8745A, and scrubber fluid was present and functioning, believe lack of cooling water to absorber jacket did not impact the performance of the control device. Corrective action: Jacket water was brought back online after service water line repair was made. The worst-case estimated emissions during this event as follows: Methane 0.007 lbs.

05/29/2019	ROP SEMI 2 CERT	Compliance	Benzene 0.0035 Hexamethyldisiloxane 0.0265 lbs. HCl 0.002 lbs. • 5/1/2018 Site Specific Monitoring Plan submitted with HCl MACT NOCS 12-18-13 specified that the meter and effluent pH meter on the 24388 and 24401 scrubbers will be calibrated on an annual basis. They were not calibrated annually 2013-2016. Did not calibrate during this period, because they were not aware of any material processed during this time period which was subject to the HCl MACT. EPA waived requirement to have pH meters installed in letter dated 2-6-2014. • 9/10/2018 EU322-03 SC VIII. 1-4 SV322-011 max diameter per PTI required to be less than or equal to 15 inches. SV322-011 is actually 15.5 inches. Emissions are small and readily permittable at the current stack height. PTI application will be submitted in 2019. • 10/21/2018 FGHCLMACT, SC V.2 PTI (29-07B) 5-year performance test conducted 9 days late. Emissions were below limits. • 1/1/2018 EU356-01 SC VIII.1 (PTI 29-07B) SV356-001 discharges horizontally, PTI requires vertically. Corrective action to change PTI. • 12/9/18-12/18/18 FG325-01 SC IV.1. (PTI 44-06B) IR analyzer used to measure the chlorosilane concentration at the outlet failed. New IR and spare parts were ordered. THROX controlled emissions. No exceedances. • 1/1/18 EU340-MON DV8745 scrubber operated below 12 gpm for 77 days. Design evaluation showed could meet MON control at 4 gpm. Additionally, hydrogen halide HAP controls devices are condensers DV8827 and DV8735 that operate in parallel and absorber DV8745A. These additional controls were not part of the design evaluation, therefore no excess emissions. • 12/5/18 EU321-01 SC VIII.4.PTI (174-12A)

05/29/2019	ROP SEMI 2 CERT	Compliance	SV321-005is 2.7 feet above ground PTI requires a minimum of 6.0 feet. Corrective action: Update PTI to remove 40X process and regulate under R284 (i). • 1/1/18 EU321-MON, EU340-MON and EU2901-MON Some of the parametric monitoring values reported int eh MON NOCS submitted on 9-15-18 require updates. See report for details. • 1/1/2018 EU321-MON Condenser DV5141 was not included in the NOCS as a large control device for group 1

05/29/2019	ROP Annual Cert	Compliance	• 11/1/2018 FGTHROX (67 minutes) Flowmeter malfunctioned, showing a low flow for an extended amount of time and causing the 1-hour average to decrease to below the permitted limit. Other indications in the process lead DOW Silicones to believe that there was no loss of flow during this event and therefore no excess emissions. Corrective action: Vents were diverted from the THROX. Flowmeter reprogrammed. Vents returned to THROX once the recycle rate was about the permitted level. The IWS scrubber recycle rate dropped to <324 gpm on a 1-hour average. This is an excursion. • Various (22.75 hours) EU321-MON Scrubber flow rate dropped below the required rate on various occasions between 9/10 and 9/17. Required flow rate was determined by a stack test when the process was running, but no process was running at these times, Although the process did contain non-volatile material. Corrective action: Scrubber flow rate set point was raised to include a safety factor above the minimum required flow rate. A programming option was added for the process to vent to the site scrubbers, which satisfy MACT requirements. A MON process operated without Group 1 control. This is an excursion under the CAM rule. Estimated total emissions were less than 1 lb. • 10/17/2018 EU340-01 (50 hours) Underground water line containing service water which feeds the 340 building broke. DOW shut down the production operations venting to 8745A absorber, but storage tanks still held material. Since these were the only vents to 8745A, and scrubber fluid was present and functioning, believe lack of cooling water to absorber jacket did not impact the performance of the control device. Corrective action: Jacket water was brought back online after service water line repair was made. The worst-case estimated emissions during this event as follows: Methane 0.007 lbs.

05/29/2019	ROP Annual Cert	Compliance	Benzene 0.0035 Hexamethyldisiloxane 0.0265 lbs. HCl 0.002 lbs. • 5/1/2018 Site Specific Monitoring Plan submitted with HCl MACT NOCS 12-18-13 specified that the meter and effluent pH meter on the 24388 and 24401 scrubbers will be calibrated on an annual basis. They were not calibrated annually 2013-2016. Did not calibrate during this period, because they were not aware of any material processed during this time period which was subject to the HCl MACT. EPA waived requirement to have pH meters installed in letter dated 2-6-2014. • 9/10/2018 EU322-03 SC VIII. 1-4 SV322-011 max diameter per PTI required to be less than or equal to 15 inches. SV322-011 is actually 15.5 inches. Emissions are small and readily permittable at the current stack height. PTI application will be submitted in 2019. • 10/21/2018 FGHCLMACT, SC V.2 PTI (29-07B) 5-year performance test conducted 9 days late. Emissions were below limits. • 1/1/2018 EU356-01 SC VIII.1 (PTI 29-07B) SV356-001 discharges horizontally, PTI requires vertically. Corrective action to change PTI. • 12/9/18-12/18/18 FG325-01 SC IV.1. (PTI 44-06B) IR analyzer used to measure the chlorosilane concentration at the outlet failed. New IR and spare parts were ordered. THROX controlled emissions. No exceedances. • 1/1/18 EU340-MON DV8745 scrubber operated below 12 gpm for 77 days. Design evaluation showed could meet MON control at 4 gpm. Additionally, hydrogen halide HAP controls devices are condensers DV8827 and DV8735 that operate in parallel and absorber DV8745A. These additional controls were not part of the design evaluation, therefore no excess emissions. • 12/5/18 EU321-01 SC VIII.4.PTI (174-12A)

05/29/2019	ROP Annual Cert	Compliance	SV321-005is 2.7 feet above ground PTI requires a minimum of 6.0 feet. Corrective action: Update PTI to remove 40X process and regulate under R284 (i). • 1/1/18 EU321-MON, EU340-MON and EU2901-MON Some of the parametric monitoring values reported int eh MON NOCS submitted on 9-15-18 require updates. See report for details. • 1/1/2018 EU321-MON Condenser DV5141 was not included in the NOCS as a large control device for group 1
05/29/2019	Excess Emissions (CEM)	Compliance	EUBOILER 13 & 14 - Summary Report for Gaseous Opacity Excess Emission and Monitoring System Performance Amended downtime numbers due to the failed RATA on the NOx CEMS. All runtime after the failed RATAs was counted as CEMS downtime. The CEMS for each unit operated properly for more than 90% of source operating hours. At no time was the NOx emission limit greater than the limit set in 40 CFR 60.44b, therefore no excess emissions to report.
05/29/2019	CEM RATA	Non Compliance	EUBOILER 14 - Summary Report for Gaseous Opacity Excess Emission and Monitoring System Performance Failed RATA on boilers 13 & 14
05/22/2019	Scheduled Inspection	Compliance	EU303-09, EU303-15 and EU303-16
05/16/2019	Telephone Notes	Non Compliance	Conversation with Jenny Kraut, Chuck Glenn, Jamie Dole and Dave Patterson regarding RATA failure on Boilers 13 & 14 when tested FG432 in March.
05/13/2019	Release Reports	Compliance	Hydrogen Chloride, bldg. 308, EU508-01, 12 hours, 5 lb, RQ=5,000 lb. Release was from tank maintenance operation; release came from residue at bottom of tank after weeks of working to empty the tank.

Activity Date	Activity Type	Compliance Status	Comments
05/13/2019	Release Reports	Compliance	Reported: Benzene and Hydrogen Chloride; Actual: Benzene, Hydrochloric Acid, and Toluene; bldg. 308, EU508-01, 90 minutes, 10 lb benzene, 200 lb, hydrochloric acid, 20 lb toluene; RQ- 10 lb benzene, 5,000 lb hydrochloric acid, 1,000 lb toluene. Process was immediately shut down, the pump was isolated, and a water spray was applied to knock down any vapors, stopping the leak.
05/08/2019	Scheduled Inspection	Compliance	EU303-01,EU303-02 and EU303-06
04/26/2019	Scheduled Inspection	Compliance	EU2901-12 and EU2901-16

04/24/2019	CAM Excursions/Exceedances	Compliance	• 11/1/2018 FGTHROX (67 minutes) Flowmeter malfunctioned, showing a low flow for an extended amount of time and causing the 1-hour average to decrease to below the permitted limit. Other indications in the process lead DOW Silicones to believe that there was no loss of flow during this event and therefore no excess emissions. Corrective action: Vents were diverted from the THROX. Flowmeter reprogrammed. Vents returned to THROX once the recycle rate was about the permitted level. The IWS scrubber recycle rate dropped to <324 gpm on a 1-hour average. This is an excursion. • Various (22.75 hours) EU321-MON Scrubber flow rate dropped below the required rate on various occasions between 9/10 and 9/17. Required flow rate was determined by a stack test when the process was running, but no process were running at these times, Although the process did contain non-volatile material. Corrective action: Scrubber flow rate set point was raised to include a safety factor above the minimum required flow rate. A programming option was added for the process to vent to the site scrubbers, which satisfy MACT requirements. A MON process operated without Group 1 control. This is an excursion under the CAM rule. Estimated total emissions were less than 1 lb. • 10/17/2018 EU340-01 (50 hours) Underground water line containing service water which feeds the 340 building broke. DOW shut down the production operations venting to 8745A absorber, but storage tanks still held material. Since these were the only vents to 8745A, and scrubber fluid was present and functioning, believe lack of cooling water to absorber jacket did not impact the performance of the control device. Corrective action: Jacket water was brought back online after service water line repair was made. The worst case estimated emissions during this event as follows: Methane 0.007 lbs.

04/24/2019	CAM Excursions/Exceedances	Compliance	Benzene 0.0035 Hexamethyldisiloxane 0.0265 lbs. HCl 0.002 lbs.
04/23/2019	Release Reports	Compliance	Reported: Sanitary wastewater potentially contaminated with process wastewater; Actual: Sanitary wastewater only

04/18/2019	CAM monitor downtime	Compliance	11/1/2018 FGTHROX (67 minutes) Flowmeter malfunctioned, showing a low flow for an extended amount of time and causing the 1-hour average to decrease to below the permitted limit. Other indications in the process lead DOW Silicones to believe that there was no loss of flow during this event and therefore no excess emissions. Corrective action: Vents were diverted from the THROX. Flowmeter reprogrammed. Vents returned to THROX once the recycle rate was about the permitted level. The IWS scrubber recycle rate dropped to <324 gpm on a 1-hour average. This is an excursion. Various (22.75 hours) EU321-MON Scrubber flow rate dropped below the required rate on various occasions between 9/10 and 9/17. Required flow rate was determined by a stack test when the process was running, but no process were running at these times, Although the process did contain non-volatile material. Corrective action: Scrubber flow rate set point was raised to include a safety factor above the minimum required flow rate. A programming option was added for the process to vent to the site scrubbers, which satisfy MACT requirements. A MON process operated without Group 1 control. This is an excursion under the CAM rule. Estimated total emissions were less than 1 lb. 10/17/2018 EU340-01 (50 hours) Underground water line containing service water which feeds the 340 building broke. DOW shut down the production operations venting to 8745A absorber, but storage tanks still held material. Since these were the only vents to 8745A, and scrubber fluid was present and functioning, believe lack of cooling water to absorber jacket did not impact the performance of the control device. Corrective action: Jacket water was brought back online after service water line repair was made. The worst case estimated

04/18/2019	CAM monitor downtime	Compliance	emissions during this event as follows: Methane 0.007 lbs. Benzene 0.0035 Hexamethyldisiloxane 0.0265 lbs. HCl 0.002 lbs.
04/03/2019	MACT (Part 63)	Compliance	Semiannual HCL MACT (Subpart NNNNN) Report. See attached report summary in hard copy file.
03/26/2019	Scheduled Inspection	Non Compliance	EU108-01, EU2504-01, EU304-02 and EU304-01 (FGRULE290)
03/20/2019	Environmental Audit Notification	Compliance	Compliance evaluation for Federal NESHAP at Midland Plant

03/19/2019	MACT (Part 63)	Compliance	Semi Annual MACT and NOCS reports Subpart FFFF, Subpart EEEE and Subpart NNNNN. See file for review details. Deviations include untimely inspections and checklist inadequacies, one bypass, that were discovered and corrected by employee training and inspection paperwork updates. Venting of Group 1 exhaust to condenser that was tested subsequent to event to be compliant with Group 1 requirements. No deviations during CMS downtime or SSM. Zero hours CEMS inoperative. THC CMS had 99 hours total inoperative hours of 184 days (~2% of time). Deviations during operating time ~ 0.8%. Six Malfunction events reported for Mon device venting to non Group 1 control (time for Malfunction varies from 17 seconds to 120 minutes totaling ~ 160 minutes for the period). No period where actins taken were not in accordance with SSMP. Report includes listing of seven deviations for which a CMS is not used for ongoing compliance; each listing includes item number, date/time, duration, cause of deviation, type of deviation, and corrective action (s) taken. Total duration of deviations is listed as 34.17 hours. Total operating time of affected source during the reporting period is listed as 184 days. Total duration of CMS downtime was 99 hours; total operating time of affected source during the reporting period was 184 days; percent of total source operating time during which CMS downtime occurred is listed as 2.2%No CEMS were ever out of control during the reporting period; accordingly, included table is blank and no operating logs are listed. For each time when the CMS used for ongoing compliance was inoperative, facility has listed date, time, CMS name, duration, and issue/corrective actions taken. Total duration of CMS downtime was 99 hours over 184 days. • Report does not include a Section II; it is assumed that this is an unintentional error. Section II would include the certification

03/19/2019	MACT (Part 63)	Compliance	statement, with name and signature of the responsible official. • Concerning Section III, C: C is titled Additional Information for Flares, Carbon Adsorbers, and Group 2 Batch Process Vents. Under C, no. 2 makes reference to carbon adsorbers, but facility's reply to no. 2 makes reference to regenerative absorbers. It is assumed that all references should be "adsorber" or "adsorbers". • Section IV, Summary Report-Deviations and Continuous Monitoring System Performance includes a Summary of Causes of Deviations (under B.2). The 1.0% listed in this summary table is incorrect; it should be listed as 100%. See attached email for confirmation. EEEE reported no SSM, no leaking tanks. VN sent for inadequate certification from suppliers that they meet vapor balance and DOT requirements specified in OLD MACT. Cause change in suppliers w/o required certification. Required monitoring on connectors not performed. Monitoring occurred on Feb 22, 2018 and leak detection monitoring procedure updated. NNNNN (HCL MACT) No emission exceedances during any SSM periods, no Malfunctions, No Deviations from emission limitations, No CMS out-of Control periods, and the equipment LDAR [plan was followed.

Activity Date	Activity Type	Compliance Status	Comments
03/07/2019	Release Reports	Compliance	Hydrogen Chloride, bldg. 340, EU=EU340-01, 49 minutes, 1 lb, RQ= 5,000 lb. While conducting a field inspection, operations personnel identified a leak coming from a small hole in blind flange located on the bottom of a tank. Upon discovery, the hole in the blind flange was plugged, stopping the leak. The contents of the tank were then transferred to other storage tanks and processing equipment so that the tank could be isolated and proper repairs completed. Material was cleaned up from the secondary containment and properly disposed of.
03/06/2019	Scheduled Inspection	Compliance	EU501-01, EU501-02, EU501-49 and EU501-08 (FGRULE290)
02/27/2019	Release Reports	Compliance	Reported: Benzene; Actual: Benzene and Toluene, bldg 505, EU=NA, 198 min., 1 lb benzene 27 lb toluene, RQ = 10 lb benzene, 1000 lb toluene. While investigating an in-plant odor, operations personnel discovered a leak coming from an agitator seal. The process was immediately shutdown and the reactor contents were transferred to another vessel, stopping the leak.
02/27/2019	Release Reports	Compliance	Biphenyl, Phenol, and Benzene, bldg 341, EU=NA, 18 min, 65 lb biphenyl, 5 lb phenol, 2 lb benzene, RQ = 100 lb biphenyl, 1000 lb pnenol, 10 lb benzene, Operations personnel discovered a leak coming from a pump. The process was shutdown, the pump was isolated and a water spray was applied to knock down any vapors, stopping the leak.
02/21/2019	MACT (Part 63)	Compliance	OLD MACT Period Reports and NOCS Report. See attached report review for additional comments.
02/14/2019	Scheduled Inspection	Compliance	EU2703-01, EU2703-03 and EU2703-17
02/06/2019	Scheduled Inspection	Compliance	EU322-06, EU322-11, FG322-01 and FGRULE290 unit EU322-05
01/29/2019	MACT (Part 63)	Compliance	Boiler MACT Annual Compliance Report (DDDDD). Boilers 8&9 were removed from service on 8-1 -2016. No deviations.

Activity Date	Activity Type	Compliance Status	Comments
01/29/2019	Excess Emissions (CEM)	Compliance	4th Quarter Excess Emissions Report for Boilers 12, 13, and 14 and THROX. CEMs reported within the 15% error limit and all three boilers and THROX operated properly and were above the 95% reporting threshold.
01/14/2019	Release Reports	Compliance	Benzene, Ethylbenzene, Toluene, and Xylene; bldg. 505, EU=EU505, 30 min., RQ=2 lb., RQ: benzene = 10 lb, ethylbenzene = 1000 lb, toluene = 1000 lb, xylene = 100 lb. Operations personnel discovered a small leak coming from a flange. The process was immediately shutdown and the flange was isolated, stopping the leak.
01/14/2019	Release Reports	Compliance	Biphenyl, bldg. 341, EU = unknown, 10 min., 48 lb, RQ = 100 lb. Operations personnel discovered a pump seal leak. The process was shutdown, the pump was isolated and a water spray was applied to knock down any vapors, stopping the leak.
01/14/2019	Release Reports	Compliance	Hydrogen Chloride, bldg. 340, EU = EU356-01, 30 min, 7 lb., RQ = 5000 lb. An anhydrous HCl release occurred curing the disconnect of an anhydrous HCl railcar. The rail car was empty, but not fully isolated and evacuated before the disconnect started. Upon discovery, the valve on the railcar was fully closed, stopping the leak.
01/11/2019	MACT (Part 63)	Compliance	Updated 40 CFR 63 Subpart NNNNN (HCl MACT) NOCS Report Updated flow for scrubber 24388 to >1,012 pph Updated flow for scrubber 24401 to >2,500 pph
01/11/2019	Stack Test	Compliance	THROX RATA and Performance Testing Report NOx=1.4 pph, 6.3 tpy 3.5 pph, 13.4 tpy CO= <1 tpy 90 tpy THC= <0.1 pph 6.6 pph

Activity Date	Activity Type	Compliance Status	Comments
01/11/2019	Stack Test	Compliance	HCl MACT performance test Results Limit HCl= 6 pmv 12 ppmv Cl2= <1 ppmv 20 ppmv Updated flow for scrubber 24388 to >1,012 pph Updated flow for scrubber 24401 to >2,500 pph
01/10/2019	Scheduled Inspection	Compliance	EU324-01, EU324-08 & EU324-18
12/21/2018	MACT (Part 63)	Compliance	HCl MACT Periodic Reports
12/20/2018	Scheduled Inspection	Compliance	EU212-01, EU212-03, EU212-05 and EU212-12
12/19/2018	ROP SEMI 2 CERT	Compliance	Deviations reported include MON deviations for untimely inspections and checklists, one bypass, that were discovered and corrected by employee training and inspection paperwork updates. Venting of Group 1 exhaust to condenser that was tested subsequent to event to be compliant with Group 1 requirements. No deviations during CMS downtime or SSM. Zero hours CEMS inoperative. THC CMS had 99 hours total inoperative hours of 184 days (~2% of time). Deviations during operating time ~ 0.8%. Six Malfunction events reported for Mon device venting to non Group 1 control (time for Malfunction varies from 17 seconds to 120 minutes totaling ~ 160 minutes for the period). No period where actins taken were not in accordance with SSMP.
12/06/2018	Scheduled Inspection	Compliance	Inspection of EU356-01, EU356-02, EU356-03, FGHCLMACT and EU311-01.
12/03/2018	Release Reports	Compliance	Benzene, Toluene, and Xylene; bldg. 505, EU = NA, 12.5 hr., amount released = benzene 1 lb, toluene 1 lb, xylene 1 lb; RQ - benzene 10 lb, toluene 1000 lb, xylene 100 lb. While conducting plant rounds, operations personnel discovered a leak coming from a flange. The process was immediately shutdown and the flange was isolated, stopping the leak.

Activity Date	Activity Type	Compliance Status	Comments
11/28/2018	Release Reports	Compliance	Benzene, bldg. 303, EU = NA, 50 minutes, 1 lb, RQ = 10 lb, Release; upon discovery, the valve was opened and closed which reseated the valve, stopping the leak.
11/28/2018	Release Reports	Compliance	Anhydrous Hydrogen Chloride, bldg. 505, EU = NA, 45 minutes, 1 lb., RQ = 5,000. Release; upon discovery, the process was shut down and foam was used to suppress any vapors that resulted from this incident, stopping the leak.
11/28/2018	Release Reports	Compliance	Xylene, bldg. 322, EU = NA, 50 minutes, 7 lb, RQ = 100 lb. During a process walk-through, operations personnel discovered a leak coming from a pump. Upon discovery, the pump was immediately shut down and isolated, stopping the leak; spilled material was cleaned up and disposed of properly.
11/28/2018	Release Reports	Compliance	Ethylbenzene and Xylene; Actual: N-Octyltriethoxysilane, trailer from 601 bldg., EU = NA, 12.5 hours, 1 lb, RQ = NA. While conducting rounds, operations personnel discovered a small leak coming from a parked trailer. Material that dripped from the trailer was cleaned up and properly disposed of.
11/27/2018	Release Reports	Compliance	Benzene, Toluene, Methanol; Actual: Benzene, Toluene; bldg 303, EU = trailer, 1 hr.,benzene = <1 lb. and toluene = 1 lb. While loading a trailer, operations personnel detected a small leak coming from the trailer dome. Loading operation was immediately shutdown and the trailer dome was repaired, stopping the leak.
11/26/2018	ROP Other	Compliance	Fugitive Dust Control Plan - 2018. Added 2 lots to be brined. Paved areas swept or flushed, unpaved areas CaCl application
11/26/2018	Excess Emissions (CEM)	Compliance	2nd Quarter Excess Emission Report.THROX and FG432BOILER. All CEMS >95% operating time; Cylinder gas error<15%
11/07/2018	Stack Test Observation	Unknown	Stack testing for CO, PM10 and VOC on FGTHROX.

Activity Date	Activity Type	Compliance Status	Comments
10/30/2018	Stack Test Observation	Unknown	HCl MACT DPD Scrubber Performance Test Observation
10/24/2018	Scheduled Inspection	Compliance	Compliance inspection of EU 207-01, EU 207-02 and EU 207-03. All three units were in compliance at the time of the inspection. glm
10/11/2018	Environmental Audit Disclosure	Compliance	NREPA 55 - Two findings Audit Finding: Vent no. SV324-008 did not meet the requirement to be discharged unobstructed as required by the air permit. Corrective Action: The process was re-permitted.
10/11/2018	Environmental Audit Disclosure	Compliance	NREPA 55 - Two findings Audit Finding: Vent no. SV2504-005 has an exhaust diameter of 20 inches but is required to have a maximum exhaust diameter of 10 inches per PTI 44-89D. The stack diameter had been modified without the engineer's knowledge. Corrective Action: The process will be re-permitted to allow for the current vent diameter.
10/11/2018	Environmental Audit Disclosure	Compliance	NREPA 31 - No NREPA part 55 findings reported. Issues noted with regards to the MiOps Dow Silicones SPCC plan.
10/11/2018	Environmental Audit Disclosure	Compliance	NREPA 111 - No NREPA part 55 findings reported. Multiple instances of missed RCRA inspections
10/11/2018	Environmental Audit Disclosure	Compliance	NREPA 31 MiOps Dow Silicones Storm Water findings
10/11/2018	Environmental Audit Disclosure	Compliance	NREPA 111 - No NREPA part 55 findings reported. Assessment of the design capacity for the 313 area secondary containment structure determined that this containment does not meet the secondary containment volume requirements as specified in Part 111.Secondary containment for the RCRA regulated areas that currently use 313 secondary containment will be re-designed and will no longer utilize 313 as secondary containment.

Activity Date	Activity Type	Compliance Status	Comments
10/05/2018	NESHAP (Part 61)	Compliance	Subpart FF - Benzene Waste Operations 2017 total annual benzene for site was 2.794 mg. 2.620 Mg sent off site to independent incinerator. Remaining sent to Dow Chemical wastewater treatment plant.
09/28/2018	ROP Annual Cert	Compliance	Dow Chemical semi-annual Title V deviation report. Information regarding corrective action and action taken to prevent recurrence sufficiently resolved each non-compliance issue. Therefore, a VN was not issued for deviations listed in the report except for VN sent RE: 40 CFR Part 63 Subpart EEEE for failure to obtain required certification and not conducting environmental review prior to switching suppliers. Reported deviations are also reviewed during inspections at the associated emission units. Environmental Audit disclosures are also reviewed
09/05/2018	Environmental Audit Notification	Compliance	Review Rule 290 exemptions
09/05/2018	Environmental Audit Notification	Compliance	07/09/2018 - evaluate compliance status of conditions stated in current ROP
09/04/2018	Environmental Audit Notification	Compliance	Assess compliance of FG322-01 (EU322-01, EU322-02, EU322-04) against its Title V permit requirements and also review any other applicable Clean Air Act requirements.
09/04/2018	Environmental Audit Notification	Compliance	CAM
07/25/2018	Excess Emissions (CEM)	Compliance	1st Quarter Excess Emissions Report. THROX and FG432BOILER. All CEMS >95% operating time; Cylinder gas error<15% for FGTHROX. RATA performed on FG432BOILERS

Activity Date	Activity Type	Compliance Status	Comments
07/12/2018	Scheduled Inspection	Compliance	EU322-03, EU505-04 & 505-01. EU322 Need to submit PTI application for recently discovered and reported EBB & other Si species in 7609 emissions. Original PTI application included EBB but no limit included. Preliminary information indicates that the amount of potential EBB emissions through vent SV322-011 including recently determined are below screening levels. 912 for Hexane, recycle pump in accumulator 7696 post condenser 7604, caused flow to go back into condenser 7604 and out vent SV322-025. Routed line so cannot go into condenser . EU502-04 R912 report Vent 505-027 had release to atmosphere above MON limit due to valve on kettle 23390 being open in “auto mode” after shut down due to storm event (2.1 " rain in one hour). Site reviewing device shutdown procedure related to sewer system flow.
07/11/2018	Rule 912	Compliance	1. 912 report not received within 2 days of becoming aware of event. Initial information indicated that the VOC for the EU was not in excess of 1 hour. Further investigation determined on May 24 that the period of release was greater than two hours. An email was sent on May 24 followed by a written report dated June 1 and received June 4. (w/in 10 days of becoming aware of the release being greater than 2 hours) 2. Hexane release from cleaning processes. Pollutant specific emission limits in permit are associated with designated vents. No emission limits are listed for the vent (SV322-025) that the hexane was emitted through. Corrective action taken to route lines so pump recycle line does not tie into glycol condenser No. 7604

Activity Date	Activity Type	Compliance Status	Comments
07/11/2018	Release Reports	Compliance	Multiple chemicals, bldg. 505, EU505-04, 6 hours, <1 lb., RQ= 1 lb. or less. 118 ppmv of HCl was released from vent no. SV505-027 associated with kettle no. 23390 and emission unit EU505-04 for approximately six hours on May 27, 2018. Emission unit EU505-04 is subject to the following MON emission limit standard: Reduce collective hydrogen halide and halogen HAP emissions by >99% by weight or to an outlet concentration <20 ppmv by venting through one or more closed-vent systems to any combination of control devices. HCl and other air contaminants were also release during the event (i.e., methanol, hexamethyldisiloxane and benzene). However emissions of these contaminants did not result in the exceedance of any limits. Total emission during the event (including HCl) were <1 pound.
06/22/2018	Release Reports	Compliance	Chlorine, bldg. 340, EU340-01, 49 min., <1 lb., RQ=5,000 lb. While conducting a field inspection, operations personnel identified a leak coming from a small hole in blind flange located on the bottom of a tank.
06/21/2018	Release Reports	Compliance	20 lbsToluene, 6 lbs Xylene, 8 lbs Hydrochloric Acid. bldg. 505, EG505-01, 10 min., 20 lb./toluene - 6 lb./xylene - 8 lb./hydrochloric acid, RQ= 1000 lb. toluene - 100 lb. xylene - 5,000 lb. hydrochloric acid. Limit is 70 pph VOC, 11.1 TPY. Liner failure caused leak.
06/21/2018	Release Reports	Compliance	Xylene, bldg. 602, EG602-01, 30 min., 6.3 lb., RQ=100 lb. While investigating an in-plant odor, operations personnel discovered a leak coming from a short section of piping.
06/21/2018	Release Reports	Compliance	Benzene, bldg. 304, EG500-01, 15 min., 5.4 lb., RQ=10 lb. While conducting plant rounds, operations personnel discovered a leak coming from a pump diaphragm.

Activity Date	Activity Type	Compliance Status	Comments
06/21/2018	Release Reports	Compliance	Hydrochloric Acid, bldg. 321, EG321-01, 20 min., 48.5 lb., RQ=5,000 lb. While conducting plant rounds, operations personnel discovered a leak from a pump.
06/21/2018	Release Reports	Compliance	Benzene, bldg. 304, EU508-01, 10 min., 4 lb., RQ=10 lb. While preparing to perform an offload, operations personnel observed a small amount of liquid on the side of the railcar. Operations personnel investigated further and discovered a leak coming from a camlock fitting.
06/21/2018	Release Reports	Compliance	Mercury, scrap metal dumpster, EU=N/A, 13 days, <1 ounce, RQ=1 pound. While placing metal in a site scrap metal dumpster, personnel observed what appeared to be mercury "beads" in the dumpster. Further investigation identified a manometer, which still contained mercury, in the scrap metal dumpster. Security was notified and the scrap metal dumpster was covered and an earthern dike was constructed around the dumpster. The dumpster was taken out of service so that no additional metal could be placed in it until the mercury was remediated. The manometer was removed from the scrap metal dumpster to prevent any further loss of mercury into the dumpster.
06/21/2018	Release Reports	Compliance	Benzene, bldg. 2505, EU=NA, 5 min., 1/100 lb., 10 lb. A drum tipped off a pallet while being transported with a fork truck and released some of its contents to the concrete floor.
06/21/2018	Release Reports	Compliance	Hydrochloric acid, bldg. 316, EU=NA, 20 hrs., 300 lb., RQ=5000 lb. While conducting plant rounds, operations personnel discovered a leak coming from a weep hole located on a nozzle of a tank.
06/21/2018	Release Reports	Compliance	Anhydrous hydrogen chloride, bldg. 501, EU501-02, 8 hr., 50 lb., RQ=5000 lb. Operations personnel discovered a leak coming from a union on a pressure transmitter block and bleed assembly.

Activity Date	Activity Type	Compliance Status	Comments
05/25/2018	MAERS	Compliance	RGDieselRICE had correct emisins but incorrect throughput due to exponent error (1314 E3 gal v 1.314 E3gals)
04/30/2018	CEM RATA	Compliance	FGTHROX / PTI No 91-07E
04/30/2018	Stack Test	Compliance	FGTHROX CO, PM10, VOC
04/12/2018	Release Reports		Benzene
04/12/2018	Release Reports	Compliance	Benzene, bldg. 508, EU = NA, 5 min., 3 lb., RQ=10 lb. During a process walk-through, operations personnel discovered a leak coming from a pressure relief device.
04/02/2018	Environmental Audit Notification	Compliance	Organic Liquids Distribution MACT "OLD MACT) compliance evalaution
03/14/2018	Stack Test Observation	Compliance	FG432BOILER CO Stack test observation Boiler #14 Representative of all three boilers. RATA passed. CO emissions <0.22 tpy; limit is 81.20 tpy. TPU review completed July 16, 2018
03/13/2018	Scheduled Inspection	Compliance	FG432BOILERS inspection and stack test

Activity Date	Activity Type	Compliance Status	Comments
03/08/2018	Excess Emissions (CEM)	Compliance	4th quarter excess emissions report THROX, Boilers 12, 13, 14 SEE FILE for review notes RATA Performed During Quarter: Yes THROX Hours Operated During Quarter: EUBOILER 12 -70; EUBOILER 13 – 97; EUBOILER 14 – 99; Throx - 2204 CEMS Operating Time >95%: Yes Cylinder Gas <15% Error: Yes GAS AUDIT EU/FG: EUBOILER12 Gas: O2 NOx 0 – 100 ppm NOx 0 – 500 ppm Gas Span: 0.25-1.05 1.76-6.28 EU/FG: EUBOILER13 Gas: O2 NOx 0 – 100 ppm NOx 0 – 500 ppm Gas Span: 2.72-3.31 0.45-8.14 EU/FG: EUBOILER14 Gas: O2 NOx 0 – 100 ppm NOx 0 – 500 ppm Gas Span: 0.01-1.98 0.48-4.14 EU/FG: THROX Gas: O2 NOx 0 – 100 ppm NOx 0 – 500 ppm Gas Span: % Accuracy Range for all Gases: _____ CEMS EU/FG: EUBOILER12 Gas: O2 NOx CO PM2.5 Opacity Hg Excess Emission Time: 0 0 % CEMS Downtime: 0.52 0.52 EU/FG: EUBOILER13 Gas: O2 NOx CO PM2.5 Opacity Hg Excess Emission Time: 0 0 % CEMS Downtime: 0.29 0.29 EU/FG: EUBOILER14 Gas: O2 NOx CO PM2.5 Opacity Hg Excess Emission Time: 0 0 % CEMS Downtime: 0.14 0.14 EU/FG: Throx Gas: O2 NOx CO PM2.5 THC Hg Excess Emission Time: 0 0 0 % CEMS Downtime: 0.14 0.27 0.36
03/08/2018	MACT (Part 63)	Compliance	Boiler MACT Annual Compliance Report (DDDDD). No deviations. Boiler 8 & 9 removed from service 8/1/2016

Activity Date	Activity Type	Compliance Status	Comments
03/01/2018	Excess Emissions (CEM)	Compliance	Third Quarter Excess Emissions Report for Boiler #12, #13, #14, and THROX; Quarterly Cylinder Gas Audit Results. THROX and FG432BOILER. All CEMS >95% operating time; Cylinder gas error<15%
11/08/2017	Scheduled Inspection	Compliance	FGTHROX
11/07/2017	Stack Test Observation	Compliance	THROX RATA & Emissions 11/7 & 8/2017

Name: **Date:** 9/8/2020 **Supervisor:**