

DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

FCE Summary Report

Facility : DTE Electric Company - Trenton Channel Power Plant	SRN : B2811
Location : 4695 W JEFFERSON AVE	District : Detroit
	County : WAYNE
City : TRENTON State: MI Zip Code : 48183	Compliance Status : Compliance
Source Class : MAJOR	Staff : Jonathan Lamb
FCE Begin Date : 8/19/2019	FCE Completion Date : 8/19/2020
Comments : FCE, FY 2020	

List of Partial Compliance Evaluations :

Activity Date	Activity Type	Compliance Status	Comments
08/19/2020	On-site Inspection	Compliance	Scheduled inspection, FY 2020

Activity Date	Activity Type	Compliance Status	Comments
07/28/2020	Excess Emissions (CEM)	Compliance	<p>Excess Opacity Emissions, SO2 Emission Rate, and Sulfur in Coal reports, 2nd Quarter 2020. The reported average monthly sulfur content of coal for the months of April (0.0 lbs sulfur/MMBtu), May (0.0 lbs sulfur/MMBtu), and June (0.47 lbs sulfur/MMBtu), 2020, was below the permit limit of 0.83 lbs sulfur/mmBtu. Note: the boiler did not operate in the months of April and May, and only limited operation in June.</p> <p>Stack 7 COMS data showed 0.0 % excess emissions (no occurrences) and 1.1% downtime (168 minutes) out of 15,930 minutes of operating time. All downtime was due to calibration and QA/QC activities. Stack 7 SO2 CEMS data showed 0.0% excess emissions (0 hours) and 1.4% monitor downtime (2 hours) out of 144.97 hours (8,698 minutes) of operating time. Note: Total operating time differs between the COMS and CEMS monitors because the COMS monitor operates whenever the fans are operating, while the CEMS monitors only measure when the boilers are burning fuel. Fans may operate to cool off boilers during shutdown while fuel is no longer being burned.</p> <p>Stack 6 is associated with equipment no longer in use (High Side Boilers) and therefore reported 0.0% excess emissions/0.0% downtime for COMS and CEMS.</p> <p>The highest daily SO2 emissions reported during the quarter was 16.6 tons on June 25, 2020, which is below the permit limit of 90.78 tons SO2 per day allowed in PTI No. 125-11C.</p> <p>Report was reviewed by Gina Angellotti, AQD-TPU, on August 5, 2020, and determined to be in compliance.</p>

Activity Date	Activity Type	Compliance Status	Comments
07/23/2020	CO/CJ	Unknown	Facility submitted the semi-annual report as required by federal Administrative Order EPA-5-19-113(a)-MI-2 for the time period January-June 2020. Facility reported limited operation and no exceedances during the compliance period. Report shows the highest 30-day average for the sorbent trap to be 0.36 lb/Tbtu.
05/01/2020	Excess Emissions (CEM)	Compliance	<p>Excess Opacity Emissions, SO2 Emission Rate, and Sulfur in Coal reports, 1st Quarter 2020. Boiler 9A was not operated during the compliance period due to low demand. As such, the facility reported 0.0% excess emissions/0.0% downtime for COMS and CEMS for the months of January, February, and March, 2020. Since no coal was burned during the compliance period, there was no average monthly average sulfur content of the coal or daily SO2 emissions to report. Note: The report shows 96 minutes of CEM downtime for Stack 7; this was an error. The value should have been 0 minutes downtime, as confirmed by Austin Sash, DTE, via email on 5/1/2020.</p> <p>Stack 6 is associated with equipment no longer in use (High Side Boilers) and therefore reported 0.0% excess emissions/0.0% downtime for COMS and CEMS.</p> <p>Report was reviewed by Gina Angellotti, AQD-TPU, on May 1, 2020, and determined to be in compliance.</p>
04/28/2020	ROP Annual Cert	Compliance	Section 1 2019 Annual ROP certification for time period January 1 - December 31, 2019. One deviation reported for exceeding opacity limits, which had previously been reported and evaluated in the Quarterly Excess Emission reports.

Activity Date	Activity Type	Compliance Status	Comments
04/28/2020	ROP SEMI 2 CERT	Compliance	Section 1 2018 semi-annual ROP certification for time period July 1 - December 31, 2018. One deviation reported for exceeding opacity limits, which had previously been reported and evaluated in the Quarterly Excess Emission reports.
04/28/2020	NSR Emissions Report	Unknown	2019 NSR Emissions report. Data shows 2018 emissions for Unit 9A are below established baselines for CO2, PM, NOx, and SO2. Baseline period used for Unit 9 was October 1, 2013 through September 30, 2015. Note: the High Pressure Boilers (Boilers 16-19) were permanently shut down on April 16, 2016. The compliance status is indeterminate at this time.
03/10/2020	MACT (Part 63)	Unknown	<p>Semi-Annual compliance report for Unit 9 for the time period July 1 through December 31, 2019, as required by the Mercury and Air Toxics Standards (MATS; 40 CFR Part 63, Subpart UUUUU). Facility reported no exceedances of the Hg or PM MATS limits reported during the compliance period. During the compliance period, the facility reported 3 hours of MATS Hg monitor downtime (2 events; routine maintenance) and 4 hours of MATS PM monitor downtime (1 event; routine maintenance). Fuel usage and startup/shutdown CEMS data was also included in the report.</p> <p>EGLE does not currently have delegated enforcement authority for MATS, so compliance status is determined to be unknown at this time.</p>

Activity Date	Activity Type	Compliance Status	Comments
02/20/2020	Excess Emissions (CEM)	Compliance	<p>Excess Opacity Emissions, SO2 Emission Rate, and Sulfur in Coal reports, 4th Quarter 2019. The reported average monthly sulfur content of coal for the months of October (0.38 lbs sulfur/MMBtu), November (0.46 lbs sulfur/MMBtu), and December (0.40 lbs sulfur/MMBtu), 2019, was below the permit limit of 0.83 lbs sulfur/mmBtu.</p> <p>Stack 7 COMS data showed 0.1 % excess emissions (6 occurrences totaling 36 minutes) and 0.1% downtime (102 minutes) out of 71,213 minutes of operating time. Downtime was mainly due to maintenance and calibration.</p> <p>Stack 7 SO2 CEMS data showed 0.0% excess emissions (0 hours) and 0.0% monitor downtime (0 hours) out of 1,078.57 hours (67,714 minutes) of operating time. Note: Total operating time differs between the COMS and CEMS monitors because the COMS monitor operates whenever the fans are operating, while the CEMS monitors only measure when the boilers are burning fuel. Fans may operate to cool off boilers during shutdown while fuel is no longer being burned.</p> <p>Stack 6 is associated with equipment no longer in use (High Side Boilers) and therefore reported 0.0% excess emissions/0.0% downtime for COMS and CEMS.</p> <p>The highest daily SO2 emissions reported during the quarter was 22.4 tons on November 19, 2019, which is below the permit limit of 90.78 tons SO2 per day allowed in PTI No. 125-11C.</p> <p>Report was reviewed by Gina Angellotti, AQD-TPU, on January 24, 2020, and determined to be in compliance.</p>

Activity Date	Activity Type	Compliance Status	Comments
01/07/2020	Stack Test	Compliance	<p>Testing of the HCl emission rate for Unit 9 for 4th Quarter, 2019, as required per the Mercury and Air Toxics Standard (MATS), 40 CFR Part 63, Subpart UUUUU.</p> <p>Testing was performed on November 26, 2019. Results show an HCl emission rate of 0.0009 lbs/MMBtu at an average boiler load of 394 MW, which is in compliance with the MATS limit of 0.002 lbs/MMBtu.</p> <p>Note: Boiler 9A has a capacity of 520 MW. 40 CFR 63.10007(a)(2) requires testing to be performed at maximum normal operating load (90-110% of design capacity), or representative of "site specific normal operations." DTE provided daily average boiler loads for Unit 9 during the 4th Quarter; based on this information, AQD determined that the boiler load during 4th Quarter testing was representative of normal operations during that time period. Unit 9 was out of service from Oct. 5 through November 10, 2019.</p>

Activity Date	Activity Type	Compliance Status	Comments
11/06/2019	Stack Test	Compliance	<p>Testing of the HCl emission rate for Unit 9 for 3rd Quarter, 2019, as required per the Mercury and Air Toxics Standard (MATS), 40 CFR Part 63, Subpart UUUUU.</p> <p>Testing was performed on September 19, 2019. Results show an HCl emission rate of <0.0002 lbs/MMBtu at a boiler load of 255 MW, which is in compliance with the MATS limit of 0.002 lbs/MMBtu.</p> <p>Note: Boiler 9A has a capacity of 520 MW. 40 CFR 63.10007(a)(2) requires testing to be performed at maximum normal operating load (90-110% of design capacity), or representative of "site specific normal operations." On November 5, 2019, AQD requested that the facility provide an explanation why testing was performed at a boiler load less than 50% capacity. In its response, the facility stated that Boiler 9A had has periodic outages during the 2nd and 3rd Quarters and was operating at a lower load during that time period; the facility provided the daily boiler load averages to support their explanation. Based on the information, AQD determined that the boiler load during 3rd Quarter testing was representative of normal operations during that time period.</p>

Activity Date	Activity Type	Compliance Status	Comments
10/28/2019	Excess Emissions (CEM)	Compliance	<p>Excess Opacity Emissions, SO2 Emission Rate, and Sulfur in Coal reports, 3rd Quarter 2019. The reported average monthly sulfur content of coal for the months of July (0.51 lbs sulfur/MMBtu), August (0.42 lbs sulfur/MMBtu), and September (0.44 lbs sulfur/MMBtu), 2019, was below the permit limit of 0.83 lbs sulfur/mmBtu.</p> <p>Stack 7 COMS data showed 0.0 % excess emissions (6 occurrences totaling 36 minutes) and 0.2% downtime (174 minutes) out of 80,676 minutes of operating time. Downtime was due to maintenance. Stack 7 SO2 CEMS data showed 0.0% excess emissions (0 hours) and 0.0% monitor downtime (0 hours) out of 1,265.97 hours (75,958 minutes) of operating time. Note: Total operating time differs between the COMS and CEMS monitors because the COMS monitor operates whenever the fans are operating, while the CEMS monitors only measure when the boilers are burning fuel. Fans may operate to cool off boilers during shutdown while fuel is no longer being burned.</p> <p>Stack 6 is associated with equipment no longer in use (High Side Boilers) and therefore reported 0.0% excess emissions/0.0% downtime for COMS and CEMS.</p> <p>The highest daily SO2 emissions reported during the quarter was 19.3 tons on August 21, 2019, which is below the permit limit of 90.78 tons SO2 per day allowed in PTI No. 125-11C.</p> <p>Report was reviewed by Gina Angellotti, AQD-TPU, on October 28, 2019, and determined to be in compliance.</p>

Activity Date	Activity Type	Compliance Status	Comments
10/22/2019	Stack Test	Compliance	<p>Results of testing for the NOx emission rates of the natural gas-fired FG-AUXBOILERS-S1 (Boiler 21, 22, and 23), as required per PTI No. 227-15A, FG-AUXBOILERS-S1, SC V.2, was received on September 27, 2019. Testing was performed August 21-23, 2019 by DTE's EM&R Filed Services Group. Results show the following NOx emission rates: EU-TCHAUX1-S1 (Boiler 21) = 2.38 lb/hr; EU-TCHAUX2-S1 (Boiler 22) = 2.40 lb/hr; and EU-TCHAUX3-S1 (Boiler 23) = 2.13 lb/hr. These results are in compliance with the permitted NOx emission rate of 6.99 lb/hr.</p> <p>No QA review was performed by AQD-TPU staff.</p>
10/17/2019	CEM RATA	Compliance	<p>Mercury RATA testing of the sorbent trap mercury monitoring system (STMS) of Unit 9, performed by Clean Air Engineering on June 13 and 14, 2019. Testing was performed in accordance with EPA Reference Method 30B, as required per 40 CFR 63, Subpart UUUUU - NESHAP: Coal- and Oil-Fired Electric Utility Steam Generating Units. During testing, Boiler 9A was operating at a production rate of approximately 395 MW and steam load of approximately 2672-2709 Klb/hr. Testing showed a relative accuracy (RA) of 0.083 ug/scm, which is below the acceptable limit of less than or equal to 0.5 ug/scm.</p> <p>The report was not reviewed by AQD-TPU staff.</p>
10/17/2019	Stack Test	Compliance	<p>Testing of the HCl emission rate for Unit 9 for 2nd Quarter 2019, as required per the Mercury and Air Toxics Standard (MATS), 40 CFR Part 63, Subpart UUUUU.</p> <p>Testing was performed on June 12, 2019. Results show an HCl emission rate of 0.0003 lbs/MMBtu at a boiler load of 388 MW, which is in compliance with the MATS limit of 0.002 lbs/MMBtu.</p>

Activity Date	Activity Type	Compliance Status	Comments
10/08/2019	ROP Semi 1 Cert	Compliance	Section 1 - 2019 Semi-Annual 1 ROP certification for time period January 1 - June 30, 2019. One deviation reported for exceeding opacity limits, which had previously been reported in the Quarterly Excess Emission reports.
10/08/2019	MACT (Part 63)	Compliance	<p>Semi-Annual compliance report for Unit 9 for the time period January 1 through June 30, 2019, as required by the Mercury and Air Toxics Standards (MATS; 40 CFR Part 63, Subpart UUUUU). Facility reported no exceedances of the Hg or PM MATS limits reported during the compliance period. During the compliance period, the facility reported 161 hours of MATS Hg monitor downtime (6 events; one event was 145 hours due to invalid data) and 30 hours of MATS PM monitor downtime (5 events; one event was 23 hours due to analyzer error).</p> <p>EGLE does not currently have delegated enforcement authority for MATS.</p>

Name: J. LAMB

Date: 7/28/2021

Supervisor: JK