

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

B2810
MAJUR-FCE

FCE Summary Report

Facility : DTE Electric Company - River Rouge Power Plant	SRN : B2810
Location : 1 BELANGER PARK DRIVE	District : Detroit
	County : WAYNE
City : RIVER ROUGE State: MI Zip Code : 48218	Compliance Status : Compliance
Source Class : MAJOR	Staff : C. Nazaret Sandoval
FCE Begin Date : 9/29/2020	FCE Completion Date : 9/29/2021
Comments : FCE for FY 2021	

List of Partial Compliance Evaluations :

Activity Date	Activity Type	Compliance Status	Comments
09/15/2021	ROP Semi 1 Cert	Compliance	ROP Section 1 Semiannual Certification Report for period 1/1/2021 through 6/30/2021 postmarked 9/15/2021. The report cited previous reports (1st quarterly Excess Emission Report dated 4/29/2021), which reported two downtime monitoring deviations. No opacity CAM exceedances and no deviations from 6-minute opacity standards were reported during this period.
09/15/2021	ROP Semi 1 Cert	Compliance	ROP Section 2 Semiannual Certification Report for period 1/1/2021 through 6/30/2021 postmarked 9/15/2021. No deviations reported.

09/15/2021	MACT (Part 63)	Compliance	<p>Mercury and Air Toxics Standard (MATS) Semi-Annual Compliance Report covering the period from 1/1/2021 through 6/30/2021, submitted in accordance with the requirements cited on Part 63 NESHAP for Source Categories - Subpart A and UUUUU, Section 63.10(e)(3)(vi) and Section 63.10031. The report was received on time, postmarked on 9/15/2021.</p> <p>According to the report, there were no periods of malfunction for the reporting period which caused or may have caused an applicable emission limitation to be exceeded. The facility is considered in compliance with the above cited requirements.</p> <p>Here are the main points of the report:</p> <ul style="list-style-type: none"> - Total operating time for Unit 3 for the cited period was reported to be 990.7 hours (Feb and March). Unit 3 retired on 5/31/2021 - Most recent tune-up completion for Unit 3 was on 2/7/2019; which is within the 36 calendar month required period. The previous tune-up occurred on 7/19/2016. - Date of latest CMS Certification: for PM CEM was 2/14/2021 and for Hg Sorbent Trap System was on 5/28/2020. -Per Attachment 1, No Hg or PM excess emissions were reported during this period. <p>The facility reported a total of 4 hours CMS downtime for Hg; 2 hours on 2/12/2021 were associated with routine maintenance and 2 hours on 3/11/2021 were associated with QA/QC Activities . Quarterly checks were performed.</p> <p>The PM downtime report indicated CMS downtime on 2/12/2021 for 46 hours due to an old lightning strike that had caused analyzer failure. The analyzer was repaired. Another PM downtime reported on 3/12/2021 for 2 hour due to QA/QC activities. Corrective Action: Performed Quarterly Checks</p> <ul style="list-style-type: none"> - Attachment 2 includes the fuel use summary. During 1/1/2021 to 5/31/2021 the burning fuel was coke oven gas and natural gas
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09/15/2021	MACT (Part 63)	Compliance	- Attachment 3 reports the startup and shutdown CEM Data. CEMS are used for compliance purposes for PM. The report shows the hourly averages CEMS values and hourly average flow rates for the cited period.
09/15/2021	CAM Excursions/Exceedances	Compliance	Semiannual CAM Excursion/Exceedance report (1/1/2021 through 06/30/2021) postmarked 9/15/2021. The deviations were already reported. Please refer to the Semiannual Excess Emission Report received on 5/13/2021.
08/03/2021	Excess Emissions (CEM)	Compliance	2nd Quarter 2021 CEMS/COMS quarterly report for period 4/1/2021 to 6/30/2021, received via email on 7/30/2021. The US mail copy was received and postmarked on 8/3/2021. The report shows that the CEMS/COMS were not operating during this quarter because Unit 3 did not operate in April, May, or June 2021.
07/09/2021	On-site Inspection	Compliance	FY 2021 Scheduled Inspection
05/25/2021	Other	Compliance	Report No. CA_B281058198 - Review and comments to the 2020 emissions submitted to MAERS. Audit was completed and passed on 5/25/2021.

04/30/2021	Excess Emissions (CEM)	Compliance	<p>CEM/COMS First Quarter 2021 - DTE RR timely submitted the CEMS/COMS report for the period 1/1/2021 to 3/31/2021 and the ROP certification. The report was received on 4/30/2021 via email. The official hard copy was also mailed to the AQD Detroit District Office and was received and postmarked on 5/13/2021. Two(2) deviations for COMS/CEMS downtimes were reported for this period. Deviations are considered minor and the source is considered in compliance. See review details below. There were no deviations from 6-minute opacity standards.</p> <p>The report included: EU-BOILER1 - Although EU-BOILER1 was last reported to have operated on 10/22/2005, the unit is still included in the ROP and subject to the permit listed requirements. The daily and 12-month rolling emission (for CO and NOX) and natural gas usage reports are reported as zeros. Therefore, no downtime or excess emissions reported for CO, CO2 and NOx because the unit was not in operations.</p> <p>Pursuant to DTE RR MI-ROP-B2810-2012b, Section1, EU-BOILER 3, Condition VII.4 and VII.5 the report included the daily sulfur dioxide (SO2) emission rate averages and the quarterly excess emission and monitoring system performance reports.</p> <p>According to the report, Boiler 3 did not operate in January, operated 17 days in February and 27 days in March, for a total of 60,522 minutes in the first quarter. There were no deviations from SO2 standards. The maximum daily average SO2 reported for this period was 3.5 tpd and 0.70 pounds /MMBTU. Both quantities are below the permit limits of 50.5 tpd SO2 and 1.67 lbs./MMBTU. A 2-hour SO2 monitoring downtime (0.2% of total CEM) occurred on 2/12/2021. An opacity monitoring downtime occurred on 3/3/2021 for 12 minutes. In both cases the cause for the monitoring downtime was reported as routine maintenance.</p>
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04/08/2021	Stack Test	Compliance	HCl testing required per the Mercury and Air Toxics Standard (MATS), 40 CFR Part 63, Subpart UUUUU - Quarterly report for HCl testing on the exhaust of Unit 3 for the first quarter of year 2021 was received on 4/8/2021 Testing was conducted on 3/3/2021. The results of three (3), 60-minute runs showed HCl average emissions of < 0.0003 lbs/MMBtu at an average unit load of 54 Gross Megawatts (GMW). The results are in compliance with the MATS limit of 0.002 lbs./ MMBtu.
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Activity Date	Activity Type	Compliance Status	Comments
03/19/2021	CEM RATA	Compliance	<p>Relative Response Audit (RRA) test results report on Particulate Matter Continuous Emissions Monitoring System (PM CEMS) for Unit 3 was received by AQD Detroit Office. The report, submitted to CEDRI - Compliance and Emission Data Reporting Interface - was forwarded to AQD via email on 3/19/2021.</p> <p>The RRA was performed on the Unit 3 exhaust stack in compliance with 40 CFR Part 63 Subpart UUUUU and MI-ROP-B2810-2012b. Testing was conducted on February 14, 2021 in accordance with Procedure 2 of 40 CFR Part 60, Appendix F. Particulate (PM) sampling was performed utilizing EPA Method 5 (MATS). Testing consisted of triplicate 60-minute test runs.</p> <p>The report summarized the following results: Unit 3 Reference Method particulate emission testing results (RM PM), Particulate Matter Continuous Emissions Monitoring System (PM CEMS) results, PM CEMS correlation (expected point on the correlation regression line) value, and $\pm 25\%$ of the emission limit along the correlation regression line. Particulate emissions were presented in milligram per actual cubic meter calculated at stack conditions (mg/acm).</p> <p>In order to pass an RRA, the following criteria must be met: Procedure 2 10.4(6)(i-ii).</p> <p>i) For all three data points, the PM CEMS response value can be no greater than the greatest PM CEMS response value used to develop the correlation curve.</p> <p>ii) For two of the three data points, the PM CEMS response value must lie within the PM CEMS output range used to develop the correlation curve.</p> <p>Both requirements were successfully met. In conclusion, according to results, PM CEMS pass the certification.</p>

Activity Date	Activity Type	Compliance Status	Comments
03/18/2021	Stack Test	Compliance	<p>HCl testing required per the Mercury and Air Toxics Standard (MATS), 40 CFR Part 63, Subpart UUUUU - Quarterly report for HCl testing on the exhaust of Unit 3. The test was conducted on 2/15/2020 and it is a make-up test for the third (3rd) quarter of year 2020. The report was received on 3/18/2021. The results of three (3), 60-minute runs showed HCl average emissions of 0.0003 lbs/MMBtu at an average unit load of 54.5 Gross Megawatts (GMW). The results are in compliance with the MATS limit of 0.002 lbs./MMBtu.</p>
03/15/2021	ROP Annual Cert	Compliance	<p>ROP Section 1 - Annual Certification for period 1/1/2020 to 12/31/2020 - Three (3) deviations were reported. For details refer to CEMS/COMS quarterly reports.</p>
03/15/2021	ROP SEMI 2 CERT	Compliance	<p>ROP Section 1 Semiannual Certification Report for period 7/1/2020 through 12/31/2020 postmarked 3/15/2021. The facility reported three (3) deviations that did not cause exceedances of permit limits.</p>
03/15/2021	ROP SEMI 2 CERT	Compliance	<p>ROP Section 2 Semiannual Certification Report for period 7/1/2020 through 12/31/2020 postmarked 3/15/2021. No deviations reported.</p>
03/15/2021	ROP Annual Cert	Compliance	<p>ROP Section 2 Annual Certification Report for period 1/1/2020 through 12/31/2020, postmarked 3/15/2021. No deviations reported</p>
03/15/2021	MACT (Part 63)	Compliance	<p>Mercury and Air Toxics Standard (MATS) Semi-Annual Compliance Report covering the period from 7/1/2020 through 12/31/2020, submitted in accordance with the requirements cited on Part 63 NESHAP for Source Categories - Subpart A and UUUUU, Section 63.10(e)(3)(vi) and Section 63.10031. The report was received on time, postmarked on 3/15/2020. For AQD review details please refer to CA report No. CA_B281058877</p>

Activity Date	Activity Type	Compliance Status	Comments
03/15/2021	Other	Compliance	Review of MATS semiannual compliance report for period 7/1/2020 through 12/31/2020. See report No. CA_B281058877
03/15/2021	CAM Excursions/Exceedances	Compliance	<p>Semiannual CAM Excursion/Exceedance report (7/1/2020 through 12/31/2020) postmarked 3/15/2021. The facility reported three (3) deviations that did not cause exceedances of permit limits.</p> <p>- One deviation was associated with EU-Boiler #3, SC VII.7: The annual opacity/COMS audit was not completed in 2020. First, COVID restriction limited stack testing resources in early 2020 and then the boiler operated for limited hours throughout year 2020 (limited run in Q3 and not operated in Q4). However, after the boiler began operations in Q1 2021, the opacity testing was completed on March 3, 2021.</p> <p>- For FG-MODULAR, SC V.3: Facility failed to conduct the annual certified Method 9 visible emissions for various reasons: 1) the flexible group had limited operations in 2020. 2) due to COVID restrictions, the certifications for Method 9 visible emissions lapse in April 2020. 3) coal firing ceased in May 2020 resulting in shut down of the emission units that conform FG-MODULAR system.</p> <p>- FG-FUGITIVEDUST, SC III.1 and V.1: The fugitive dust logs could not be located during an annual review conducted by Environmental DTE staff. It appears as if this was due to changes in staff at the Fuel Supply area and miscommunications. However, Plant Operations informed Environmental that the activities were completed but logs were not completed.</p>

Activity Date	Activity Type	Compliance Status	Comments
03/15/2021	CEM RATA	Compliance	<p>AQD received a report of audits conducted on the Unit 3 Continuous Opacity Monitoring System (COMS) on 03/03/2021. This was a make-up test conducted in 2021 because due to COVID restrictions the annual audit for 2020 was not conducted.</p> <p>Annual COMS audits are required by Condition VII.7 of FG-BOILERS 3 in MI-ROP-B2810-2012b; within 30 days after completion of the audit a report of the results is due to the AQD. According to the report, the COMS audits of 3/03/2021 indicated that the COMS on Unit 3 were operating within the required tolerance.</p>
03/09/2021	MACT (Part 63)	Compliance	<p>Subpart DDDDD: (Boiler MACT - PORTABLE BOILER)</p> <p>A copy of a report - previously submitted by DTE RR to CEDRI (Compliance and Emissions Data Reporting Interface) System - was forwarded by J. Howe (AQD/EGLE) to AQD Detroit Office via email on 3/9/2021.</p> <p>The report, dated 2/11/2021, was signed/certified by DTE RR on 2/25/2021 and summarized the compliance status for EU-PORTBOILER according to Subpart DDDDD for the period 1/1/2020 to 12/31/2020. The report indicated that the unit uses pipeline natural gas. The date of annual tune-up and burner inspection was on 10/22/2020. There are no emission limit associated with 40CFR 63 Subpart DDDDD.</p>
03/08/2021	MAERS	Compliance	<p>2020 MAERS report timely submitted on March 8, 2021. ROP certification received and postmarked by AQD Detroit District Office on 3/15/2021. For review details and comments please see report CA_B281058198.</p>
02/01/2021	Excess Emissions (CEM)	Compliance	<p>4rth Quarter of 2020 CEMS/COMS quarterly report - Unit 3 was down during this quarter.</p>

Activity Date	Activity Type	Compliance Status	Comments
11/16/2020	CEM RATA	Compliance	<p>PM CEMS Certification Testing on EUBOILER #3. Test results report received via email on 11/6/2020. The test, required by Part 63, Subpart UUUUU and MI-ROP-2810-2012b, was conducted from 8/14/2019 to 8/16/2019 in accordance with Procedure 2 of 40 CFR Part 60, Appendix F. A PS-11 Flow Certification test was conducted on the new PM CEMS flow monitoring for EUBOILER #3 because a lightning strike to the Unit 3 stack damage the original PM CEMS that had been placed on the stack. The results indicated that the linear model was determined to be the best correlation, with a confidence correlation of 0.99 (≥ 0.85), confidence interval of 7.34 % ($\leq 10\%$) and tolerance interval of 23.6% ($\leq 25\%$).</p>

11/06/2020	Excess Emissions (CEM)	Compliance	<p>CEM/COMS third quarter 2020 - DTE RR timely submitted the CEMS/COMS report for the period 7/1/2020 to 9/30/2020 and the ROP certification. Report postmarked by AQD Detroit District Office on Nov 6, 2020. One (1) downtime monitoring deviations was reported. No exceedances. Deviation was minor and source is considered in compliance. AQD report review details are cited below:</p> <p>EU-BOILER1 - Although EU-BOILER1 was last reported to have operated on 10/22/2005, the unit is still included in the ROP and subject to the permit listed requirements. The daily and 12-month rolling emission (for CO and NOX) and natural gas usage reports are reported as zeros. Therefore, no downtime or excess emissions reported for CO, CO2 and NOx because the unit is not in operations.</p> <p>Pursuant to DTE RR MI-ROP-B2810-2012b, Section1, EU-BOILER 3, Conditions VII.4 and VII.5, the report includes the daily sulfur dioxide (SO2) emission rate averages and the quarterly excess emission and monitoring system performance reports. According to the report, Boiler 3 only operated from July 1 to July 30 and from Aug 22 to Aug 28. During the rest of the days within the cited period the unit was not in operation; for a total operating time of 50,538 minutes ~ 842 hours in the third quarter. There were no deviations from 6-minute opacity standards but there was one COMS/CEMS downtime reported for opacity monitoring on 8/28/2020 due to lighting. The downtime duration was 174 minutes which represented 0.3% of total CEM operating time.</p> <p>No excess emissions and no monitoring downtime were reported during this quarter for SO2. The maximum daily average SO2 emissions reported for this period were 2.4 tpd, and 0.28 pounds /MMBTU on two days -</p>
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11/06/2020	Excess Emissions (CEM)	Compliance	7/11 and 7/12. Both quantities are below the permit limits of 50.5 tpd SO2 and 1.67 lbs./MMBTU.
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Name: *A. Andoval* Date: *5/24/2022* Supervisor: *JK*
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