

DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

FCE Summary Report

Facility : DTE Electric Company - Greenwood Energy Center		SRN : B6145	
Location : 7000 KILGORE ROAD		District : Southeast Michigan	
		County : SAINT CLAIR	
City : AVOCA	State: MI	Zip Code : 48006	Compliance Status : Compliance
Source Class : MAJOR		Staff : Kaitlyn Leffert	
FCE Begin Date : 10/1/2017		FCE Completion Date : 9/19/2019	
Comments : Facility appears to be in compliance with all permit conditions and applicable air quality regulations.			

List of Partial Compliance Evaluations :

Activity Date	Activity Type	Compliance Status	Comments
08/27/2019	Scheduled Inspection	Compliance	FY2019 Scheduled Inspection. Based on the inspection and review of the required recordkeeping, Greenwood Energy Center appears to be in compliance all conditions of ROP-B6145-2018 and all applicable air quality rules and regulations.
08/15/2019	Stack Test	Compliance	ROP Emissions Test Report, EUBOILER1 Particulate Matter Unit 1 PM Emission Test Result: 0.001 lb./1000 lbs. Permit Limit: 0.10 lb./1000 lbs.
07/25/2019	Excess Emissions (CEM)	Compliance	Second Quarter 2019: Quarterly Excess Opacity Emissions Report, per EUBOILER1.VII.6. Quarterly Excess Emission Monitoring System Performance Reports, per EUBOILER1.VII.4. Quarterly report of monthly average Sulfur Dioxide Emission Rate, per EUBOILER1.VII.7.
07/09/2019	Stack Test Observation	Compliance	Observation of stack test to verify particulate matter emission rates.

Activity Date	Activity Type	Compliance Status	Comments
05/13/2019	Excess Emissions (CEM)	Compliance	<p>First Quarter 2019: Quarterly Excess Opacity Emissions Report, per EUBOILER1.VII.6. Quarterly Excess Emission Monitoring System Performance Reports, per EUBOILER1.VII.4. Quarterly report of monthly average Sulfur Dioxide Emission Rate, per EUBOILER1.VII.7.</p> <p>----</p> <p>The report indicated that there were no excess emissions or excess opacity, and that the sulfur dioxide emission rate was 0 lb/MMBtu. According to the information submitted, the facility is in compliance.</p>
05/13/2019	ROP Other	Compliance	<p>Letter signed by Franklin D. Warren, Senior Vice President, Fossil Generation, DTE, delegating Margaret Guillaumin and Brian Rice as Authorized Representatives for Greenwood Energy Center and Greenwood Combustion Turbine Generators.</p>
03/25/2019	ROP SEMI 2 CERT	Compliance	Zero deviations reported.
03/25/2019	ROP Annual Cert	Compliance	Zero deviations reported.
03/25/2019	ROP Annual Cert	Compliance	Zero deviations reported.
03/25/2019	ROP SEMI 2 CERT	Compliance	Zero deviations reported.
03/12/2019	NSR Emissions Report	Compliance	<p>2018 NSR Emissions Report. Actual emissions from 2018 were above the baseline for NOx, PM, SO2, and CO2. The most significant increase above baseline was NOx at 184 tons above the baseline level. The emissions above the baseline were determined to be excluded because capacity in 2018 was within the historical range for the unit.</p>

Activity Date	Activity Type	Compliance Status	Comments
02/06/2019	Excess Emissions (CEM)	Compliance	<p>There were no excess emissions in this period, and therefore the facility is in compliance.</p> <p>2019 – Q4, SUMMARY Quarterly Excess Opacity Emissions Report, EUBOILER1, VII.6 Quarterly Excess Emission Monitoring System Performance Reports, per EUBOILER1, VII.4 Quarterly report of monthly average Sulfur Dioxide Emission Rate, per EUBOILER1, VII.7</p> <p>REPORTED: October 2018 - 0.00 lb. SO2/MMBtu November 2018 - 0.00 lb. SO2/MMBtu December 2018 - 0.00 lb. SO2/MMBtu</p> <p>STACK 1 (EUBOILER1) Source Operating Hours: 482</p> <p>NOx UNIT 1 (EUBOILER1): Excess emissions: 0 CEM Downtime: 0</p> <p>Opacity UNIT 1 (EUBOILER1): Operating time: 30,756 minutes. Excess emissions: 0 minutes. CEM Downtime: 0 minutes.</p> <p>SO2 UNIT 1 (EUBOILER1): Excess emissions: 0.0%, 0 hours CEM Downtime: 0.0%, 0 hours.</p>

Activity Date	Activity Type	Compliance Status	Comments
11/05/2018	Excess Emissions (CEM)	Compliance	<p>GREENWOOD ENERGY CENTER, MI-ROP-B6145-2018 SECTION 1 2018 – Q3, SUMMARY</p> <p>Quarterly Excess Opacity Emissions Report, EUBOILER1, VII.6 Quarterly Excess Emission Monitoring System Performance Reports, per EUBOILER1, VII.4 Quarterly report of monthly average Sulfur Dioxide Emission Rate, per EUBOILER1, VII.7</p> <p>REPORTED: July 2018 - 0.00 lb. SO2/MMBtu August 2018 - 0.00 lb. SO2/MMBtu September 2018 - 0.00 lb. SO2/MMBtu</p> <p>STACK 1 (EUBOILER1) Source Operating Hours: 1199</p> <p>NOx UNIT 1 (EUBOILER1): Excess emissions: 0.0%, 0 hours CEM Downtime: 0.1%, 1 hours.</p> <p>Opacity UNIT 1 (EUBOILER1): Operating time: 73,746 minutes. Excess emissions: 0.0%, 0 minutes. CEM Downtime: 0.0%, 6 minutes.</p> <p>SO2 UNIT 1 (EUBOILER1): Excess emissions: 0.0%, 0 hours CEM Downtime: 0.0%, 0 hours.</p>
09/17/2018	ROP Semi 1 Cert	Compliance	Zero deviations reported.
09/17/2018	ROP Semi 1 Cert	Compliance	Zero deviations reported.

Activity Date	Activity Type	Compliance Status	Comments
08/03/2018	Excess Emissions (CEM)	Compliance	<p>Quarterly Excess Opacity Emissions Report, per EUBOILER1.VII.6. Quarterly Excess Emission Monitoring System Performance Reports, per EUBOILER1.VII.4. Quarterly report of monthly average Sulfur Dioxide Emission Rate, per EUBOILER1.VII.7.</p> <p>REPORTED: Pursuant to EUBOILER1.VII.4, the monthly sulfur dioxide emission rate averages for the facility are as follows: April 2018 – 0.00 lb SO2/mmBtu May 2018 - 0.00 lb SO2/mmBtu June 2018 - 0.00 lb. SO2/MMBtu</p> <p>NOx UNIT 1: Source operated 473 hours – 0.0% excess emissions, 3.6% CEM downtime: 16 hours for calibration; 1 hour for other known CEM downtime. Zero NOx exceedances. 17 hours NOx monitor downtime. Opacity UNIT 1 – 0.0% excess emissions, 0.0% CEM downtime. CEM Downtime total of 0 minutes, which equals 0.0% CEM downtime. SO2 UNIT 1 - zero excess emissions, 0.4% (2 hours) CEM downtime.</p> <p>CONCLUSION: Excess emission report appears to indicate compliance.</p>

Activity Date	Activity Type	Compliance Status	Comments
05/08/2018	Excess Emissions (CEM)	Compliance	<p>Quarterly Excess Opacity Emissions Report, per EUBOILER1.VII.6.</p> <p>Q1. 2018</p> <p>Quarterly Excess Emission Monitoring System Performance Reports, per EUBOILER1.VII.4.</p> <p>Quarterly report of monthly average Sulfur Dioxide Emission Rate, per EUBOILER1.VII.7.</p> <p>REPORTED: Pursuant to EUBOILER1.VII.4, the monthly sulfur dioxide emission rate averages for the facility are as follows: January 2018 – 0.00 lb. SO₂/mmBtu February 2018 - Boiler did not operate. March 2018 - 0.00 lb. SO₂/mmBtu</p> <p>NO_x UNIT 1 – Source operated: 55 hours. Excess emissions: 0.0% (0 hour) CEM downtime: 0.0% (0 hour)</p> <p>Opacity UNIT 1 – Source operated: 3,492 minutes. Excess emissions: 0.0% (0 minutes) CEM downtime: 0.0% (0 minutes)</p> <p>SO₂ UNIT 1 Source operated: 55 hours. Excess emissions: 0.0% (0 hour) CEM downtime: 0.0% (0 hour)</p>
03/28/2018	ROP SEMI 2 CERT	Compliance	Zero deviations reported.
03/28/2018	ROP Annual Cert	Compliance	Zero deviations reported.
03/20/2018	ROP SEMI 2 CERT	Compliance	Zero deviations reported.
03/20/2018	ROP Annual Cert	Compliance	Zero deviations reported.
03/20/2018	ROP Monthly	Compliance	MAERS report certification.
03/16/2018	NSR Emissions Report	Compliance	2017 NSR Emissions Report. This report appears to demonstrate that there have been no significant increase in emissions during the current reporting period because of the most recent periodic outage.

Activity Date	Activity Type	Compliance Status	Comments
03/15/2018	Stack Test	Compliance	<p>Emissions Test Report Summary of EU-CTG11-2 NO_x & CO: TEST DATE: January 11, 2018.</p> <p>Emission test of Peaker Unit 11-2 under four different loads;</p> <p>LOAD = 83 MW NO_x emission rate = 8.0 ppmv NO_x limit = 9 ppmv CO emission rate = 18.3 ppmv CO limit = 25 ppmv</p> <p>LOAD = 72 MW NO_x emission rate = 8.3 ppmv NO_x limit = 9 ppmv CO emission rate = 19.1 ppmv CO limit = 25 ppmv</p> <p>LOAD = 61 MW NO_x emission rate = 8.3 ppmv NO_x limit = 9 ppmv CO emission rate = 16.5 ppmv CO limit = 25 ppmv</p> <p>LOAD = 50 MW NO_x emission rate = 7.7 ppmv NO_x limit = 9 ppmv CO emission rate = 15.1 ppmv CO limit = 25 ppmv</p>
02/20/2018	Telephone Notes	Compliance	<p>EUBOILER1 control device (CD). The flue gas injection CD is the correct description of the control device as it appears in the ROP.</p>
02/20/2018	Reg. Applicability Determination	Compliance	<p>CAM applicability to EUBOILER1 NO_x control device, which is flue gas injection.</p>

Activity Date	Activity Type	Compliance Status	Comments
02/06/2018	Excess Emissions (CEM)	Compliance	<p>EUBOILER1; SECTION 1. Quarterly Excess Opacity Emissions Report, per EUBOILER1.VII.6. Quarterly Excess Emission Monitoring System Performance Reports, per EUBOILER1.VII.4. Quarterly report of monthly average Sulfur Dioxide Emission Rate, per EUBOILER1.VII.7.</p> <p>REPORTED:</p> <p>Pursuant to EUBOILER1.VII.4, the monthly sulfur dioxide emission rate averages for the facility are as follows:</p> <p>October 2017 – Boiler did not operate. November 2017 - Boiler did not operate. December 2017 - 0.00 lb. SO₂/MMBtu</p> <p>NO_x UNIT 1 – 0.0% excess emissions, 2.6% (1 hour) CEM downtime per calibration. Zero NO_x exceedances. Zero NO_x monitor downtime. Opacity UNIT 1 – 0.0% excess emissions, 0.0% CEM downtime. CEM Downtime total of 0 minutes, which equals 0.0% CEM downtime. SO₂ UNIT 1 - zero excess emissions, 0.0% CEM downtime.</p> <p>CONCLUSION: Excess emission report appears to indicate compliance.</p>
01/04/2018	Telephone Notes	Compliance	ROP Report Certification

Activity Date	Activity Type	Compliance Status	Comments
01/03/2018	Stack Test	Compliance	<p>Emissions Test Report Summary of EU-CTG11-1 NOx & CO: TEST DATE: October 20, 2017.</p> <p>LOAD = 81MW NOx Avg. Emission Rate = 8.1 ppmv; Emission Limit = 9 ppmv. CO Avg. Emission Rate = 14.1 ppmv; Emission Limit = 25 ppmv.</p> <p>LOAD = 70MW NOx Avg. Emission Rate = 8.6 ppmv; Emission Limit = 9 ppmv. CO Avg. Emission Rate = 10.6 ppmv; Emission Limit = 25 ppmv.</p> <p>LOAD = 60MW NOx Avg. Emission Rate = 8.5 ppmv; Emission Limit = 9 ppmv. CO Avg. Emission Rate = 7.6 ppmv; Emission Limit = 25 ppmv.</p> <p>LOAD = 50MW NOx Avg. Emission Rate = 7.8 ppmv; Emission Limit = 9 ppmv. CO Avg. Emission Rate = 8.8 ppmv; Emission Limit = 25 ppmv.</p> <p>.....</p> <p>Emissions Test Report Summary of EU-CTG12-1 NOx & CO: TEST DATE: October 16, 2017.</p> <p>LOAD = 85MW NOx Avg. Emission Rate = 7.2 ppmv; Emission Limit = 9 ppmv. CO Avg. Emission Rate = 19.6 ppmv; Emission Limit = 25 ppmv.</p> <p>LOAD = 74MW NOx Avg. Emission Rate = 7.2 ppmv; Emission Limit = 9 ppmv. CO Avg. Emission Rate = 19.9 ppmv; Emission Limit = 25 ppmv.</p> <p>LOAD = 62MW NOx Avg. Emission Rate = 7.1 ppmv; Emission Limit = 9 ppmv. CO Avg. Emission Rate = 15.3 ppmv; Emission Limit = 25 ppmv.</p> <p>LOAD = 50MW NOx Avg. Emission Rate = 7.0 ppmv; Emission Limit = 9 ppmv. CO Avg. Emission Rate = 11.7 ppmv; Emission Limit = 25 ppmv.</p>

Activity Date	Activity Type	Compliance Status	Comments
11/06/2017	Excess Emissions (CEM)	Compliance	<p>Quarterly Excess Opacity Emissions Report, per EUBOILER1.VII.6.</p> <p>Quarterly Excess Emission Monitoring System Performance Reports, per EUBOILER1.VII.4.</p> <p>REPORTED:</p> <p>NOx UNIT 1 - zero excess emissions, 0.0% CEM downtime per routine maintenance. Zero NOx exceedances. Zero NOx monitor downtime.</p> <p>Opacity UNIT 1 - zero excess emissions, 0.0% CEM downtime. CEM Downtime total of 250 minutes, which equals 0.4% CEM downtime.</p> <p>SO2 UNIT 1 - zero excess emissions, 0.0% CEM downtime.</p> <p>Pursuant to EUBOILER1.VII.4, the monthly sulfur dioxide emission rate averages for the facility are as follows:</p> <p>July 2017 - 0.00 lb. SO2/MMBtu August 2017 - 0.00 lb. SO2/MMBtu September 2017 - 0.00 lb. SO2/MMBtu</p>

Name: _____

Date: _____

Supervisor: SK