

DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

FCE Summary Report

Facility : DTE Electric Company - Renaissance Power Plant	SRN : N6873
Location : 950 N. Division Street	District : Grand Rapids
	County : MONTCALM
City : CARSON CITY State: MI Zip Code : 48811	Compliance Status : Non Compliance
Source Class : MAJOR	Staff : Kaitlyn DeVries
FCE Begin Date : 4/23/2020	FCE Completion Date : 4/22/2021
Comments : FY 2021 FCE	

List of Partial Compliance Evaluations :

Activity Date	Activity Type	Compliance Status	Comments
04/06/2021	ROP Annual Cert	Compliance	The Annual Compliance Report pursuant to MI-ROP-N6873-2020 was received on time and complete (Postmarked 3-15-21). One (1) deviation was reported for the reporting period. The deviation was for FG-TURBINE1-4SC SC I.7, and the PM10 emissions exceedance that occurred during the November 2020 stack test on Unit 2 at 100% load. A Violation Notice was issued for the emission exceedance and the unit has been re-tested, but the results of the re-test are still pending. The Violation Notice will be resolved pending a passing test result. No further action is necessary at this time.

Activity Date	Activity Type	Compliance Status	Comments
04/06/2021	ROP SEMI 2 CERT	Compliance	<p>The Semi-Annual Compliance Report pursuant to MI-ROP-N6873-2020 was received on time and complete (Postmarked 3-15-21). One (1) deviation was reported for the reporting period. The deviation was for FG-TURBINE1-4SC SC I.7, and the PM emissions exceedance that occurred during the November 2020 stack test on Unit 2 at 100% load. A Violation Notice was issued for the emission exceedance and the unit has been re-tested, but the results of the re-test are still pending. The Violation Notice will be resolved pending a passing test result. No further action is necessary at this time.</p>
04/01/2021	MAERS	Compliance	<p>ROP Certification form for MAERS received 3-18-21: Updated Stack Test data was used to calculate emissions, accounting for the higher emissions for the turbines. The turbines have also operated more due to additional testing required per the updated permit. Emissions reported are comparable to those reported during the FY 2021 Inspection. No changes were made to the report. 4.1.2021. KDeVries.</p>
03/17/2021	Stack Test Observation	Compliance	<p>Stack Test Observation Notes for Unit 2 PM Stack Test.</p>
03/17/2021	On-site Inspection	Compliance	<p>The purpose of this inspection was to determine compliance with MI-ROP-N6873-2020 and any other applicable rules and regulations.</p>
03/01/2021	Excess Emissions (CEM)	Compliance	<p>The required 4th Quarter Excess Emissions Report pursuant to MI-ROP-N6873-2015a was received for Units 01, 02, 03, and 04. Linearity reports and Cylinder Gas Audit (CGA) reports were also included.</p> <p>The units had operating times of 223 hours (Unit 1), 132 hours (Unit 2), 4 hours (Unit 3), and 1 hour (Unit 4). No downtime or excess emissions was reported for any of the four (4) units.</p>

Activity Date	Activity Type	Compliance Status	Comments
02/02/2021	Stack Test	Non Compliance	<p>The Units 1 and 2 Compliance Emissions Test Report pursuant to MI-ROP-B6873 was received on time and complete. Testing was conducted for VOC, PM10, and Formaldehyde. The emission limit for VOC's is 2.0 ppmv at 15% O₂, dry and the emission limit for PM10 is 9.0 pph. There is no hourly emission limit for formaldehyde, but rather the emission rate is used as the emission factor to demonstrate compliance with the 12-month rolling formaldehyde emission limit. The results for Units 1 and 2 are as follows:</p> <p>Unit 1:</p> <p>70% Load Fuel heat input: 744.22 MMBTU/Hr VOC: 0.06 ppmvd Formaldehyde: 0.0606 ppmvw pph PM10: 8.67 pph</p> <p>100% Load Fuel Heat Input: 944.13 MMBTU/Hr VOC: 0.00 ppmvd Formaldehyde: 0.1143 ppmvw pph PM10: 6.87 pph</p> <p>Unit 2:</p> <p>70% Load Fuel Heat Input: 767.4 MMBTU/Hr VOC: 0.08 ppmvd Formaldehyde: 0.1757 ppmvw pph PM10: 5.00 pph</p> <p>100% Load: Fuel Heat Input: 971.07 MMBTU/Hr VOC: 0.00 ppmvd Formaldehyde: 0.0791 ppmvw pph PM10: 10.60 pph</p> <p>The PM10 emission rate from Unit 2 at 100% load exceeds the 9.0 pph limit and is a failing result. A Violation Notice will be issued.</p>

Activity Date	Activity Type	Compliance Status	Comments
02/01/2021	Meeting Notes	Non Compliance	Meeting notes regarding the Unit 2 test results from November 2020 testing
12/29/2020	Excess Emissions (CEM)	Compliance	<p>The required 3rd Quarter Excess Emissions Report pursuant to MI-ROP-N6873-2015a was received for Units 01, 02, 03, and 04. Linearity reports and Cylinder Gas Audit (CGA) reports were also included.</p> <p>The units had operating times of 1001 hours (Unit 1), 736 hours (Unit 2), 728 hours (Unit 3), and 788 hours (Unit 4). No downtime or excess emissions was reported for any of the four (4) units.</p>
12/29/2020	CEM RATA	Compliance	<p>The Relative Accuracy Test Audit (RATA) report for the four Turbines was received on time and complete. The RATA was for CO, NOx, and O2 for all four units. While this report will need to be reviewed by AQD's Technical Programs Unit, the results indicate passing results for all of the pollutants.</p>
10/14/2020	ROP Semi 1 Cert	Compliance	<p>The semi-annual compliance report pursuant to MI-ROP-N6873-2015a was received on time and complete (Postmarked 9-15-20). No deviations were reported for the reporting period.</p>
09/25/2020	Excess Emissions (CEM)	Compliance	<p>The required 2nd Quarter Excess Emissions Report pursuant to MI-ROP-N6873-2015a was received for Units 01, 02, 03, and 04. Linearity reports and Cylinder Gas Audit (CGA) reports were also included.</p> <p>The units had operating times of 716 hours (Unit 1), 548 hours (Unit 2), 564 hours (Unit 3), and 640 hours (Unit 4). Only Units 3 and 4 reported CEMs monitor downtime at 0.4% and 0.2%, respectively. The downtime was due to water being in some of the instrumentation and for incorrect calibrations. No excess emissions was reported for any of the four (4) units.</p>

Activity Date	Activity Type	Compliance Status	Comments
05/07/2020	Excess Emissions (CEM)	Compliance	<p>The required 1st Quarter Excess Emissions Report pursuant to MI-ROP-N6873-2015a was received for Units 01, 02, 03, and 04. Linearity reports and Cylinder Gas Audit (CGA) reports were also included.</p> <p>The units had operating times of 384 hours (Unit 1), 367 hours (Unit 2), 405 hours (Unit 3), and 404 hours (Unit 4). None of the units reported any CEMs monitor downtime. No excess emissions was reported for any of the four (4) units.</p>

Name: Kaitlyn DeVries Date: 04/22/2021 Supervisor: HH