

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

FCE Summary Report

Facility : Midland Cogeneration Venture		SRN : B6527	
Location : 100 E. Progress Place		District : Saginaw Bay	
		County : MIDLAND	
City : MIDLAND	State: MI	Zip Code : 48640	Compliance Status : Compliance
Source Class : MAJOR		Staff : Kathy Brewer	
FCE Begin Date : 10/1/2016		FCE Completion Date : 9/21/2018	
Comments : Biennial ROP compliance evaluation			

List of Partial Compliance Evaluations :

Activity Date	Activity Type	Compliance Status	Comments
09/21/2018	Excess Emissions (CEM)	Compliance	Quarterly Emissions Monitoring Reports EER <1%, CEMS <5%
09/19/2018	Scheduled Inspection	Compliance	Compliance inspection for ROP
09/04/2018	Excess Emissions (CEM)	Compliance	1st Quarter 2018 Quarterly Emission Monitoring Reports. All EER <1 %, All CEMS < 1%
05/24/2018	MAERS	Compliance	
04/24/2018	ROP Annual Cert	Compliance	Annual ROP Certification and Deviation report on March 23, 2017. It does not appear that EPA requires action by MDEQ or EPA on reports that are not substantially late and/or do not interfere with enforcement of a requirement or a determination of the source's compliance. The MCV site has no violation notices since May 2014 and a history of infrequent violations of the ROP (4 in the last 13 years). Those violations were mostly associated with CEMS monitoring procedures and not reporting issues. No violation notice is planned to be sent if MCV continues to be in compliance with required record keeping and reporting conditions in the ROP. All excess emission and CEMS downtime reported in CEMS & EER reports. EUT11 & EUT13 exceeded NOx rate due to transformer failure 4/29/2017. Previously reported verbally 5/2/2017, written 5/23/2017

Activity Date	Activity Type	Compliance Status	Comments
01/30/2018	Excess Emissions (CEM)	Compliance	4th Q EER/CEMS EUT10 >1% NOx EE Dec 17 testing unit after outage, Dec 19, low denox due to low header pressure from plant ramping up. Boilers not operating many hours so CEMS downtime skewed - EUB017, 3 hrs = 20% operating time; EUB20 2 HRS= 20% OPERATING TIME; EUB21 1 HR = 10% OPERATING TIME
11/17/2017	Stack Test	Compliance	Compliance Test Report for Unites 11 & 12. Report submitted in timely manner. Requested TPU to review
11/17/2017	CEM RATA	Compliance	RATA fro Units 3-8, 9-14
11/03/2017	Excess Emissions (CEM)	Compliance	3rd Quarter Emission Monitoring Reports. EU 009 excess emissions (9%) due to several system trips. EU20 CEMS downtime (3%) due to unit start up not synchronized with calibration checks. Valid calibrations were performed once unit reached steady state.
09/20/2017	ROP Semi 1 Cert	Compliance	Reported CEM, excess emissions report on 7/27/2107. Reasons fro deviations was largely due to insufficient steam injection to control NOx emissions. The insufficient steam condition resulted from a transformer failure interrupting the electrical power supply to the deNOx steam desuperheater. The work scope and the effort to safely complete the repair to the pump exceeded the estimated time and the water supply was not sufficient. The additional repairs to the desuperheater was a remedial action that was implemented to avoid additional excess emission in the future, that would result from a start-up and shutdown.
08/17/2017	CEMS Test Observation	Compliance	observations of CEMS RATA for NOx and CO2 CEMS for turbines 9 & 10 by Spectrum Systems. sgl

08/01/2017	Excess Emissions (CEM)	Non Compliance	<p>Quarterly Emissions Monitoring Reports for the 2cnd quarter of 2017.</p> <p>The 2cnd Qtr Continuous Emission Monitoring Report for the Facility, covers the following affected units: Units 3 through 14 and Units 16 through 21 (all pipeline NG fueled Units). The dates for the last performance specification test include:</p> <p>Unit ID Last Performance Test Linearity Test audit type Modifications since last test type</p> <p>003, 005 5/10/17 Nox and CO2 None NA</p> <p>004, 006 5/11/17 Nox and CO2 None NA</p> <p>007, 010 5/4/17 Nox and CO2 None NA</p> <p>008, 009 5/2/17 Nox and CO2 None NA</p> <p>011, 013 5/23/17 Nox and CO2 None NA</p> <p>012, 014 5/24/17 Nox and CO2 None NA</p> <p>016 6/7/2017 NOx, O2 and CO None NA</p> <p>017, 018, 021 5/16/2017 NOx, O2 and CO None NA</p> <p>019, 020 5/17/2017 NOx, O2 and CO None NA</p> <p>Reported occurrences of pollutant concentrations exceeding full span value were limited to Units 007 (NOXL on 4 dates), 009 (NOXL on 2 dates), 013 (NOXL on 1 date) and 019 (CO on 1 date). Section VI.4 of the quarterly submittal includes occurrences of CEMS instrument Range exceedance reports.</p> <p>Excess Emissions for the second quarter were reported for the following:</p> <p>Unit ID Duration of EE (hrs) Percent of Operating Time CEMS downtime duration (hrs) Percent of Operating Time</p> <p>003 4 0.36 0 0</p> <p>004 5 0.41 0 0</p> <p>005 3 0.27 1 0.09</p> <p>006 4 0.39 2 0.20</p> <p>007 1 0.10 0 0</p> <p>008 2 0.21 3 0.32</p> <p>009 5 0.48 1 0.10</p> <p>010 1 0.09 0 0</p> <p>011 5 0.49 0 0</p> <p>012 0 0 0 0</p>
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08/01/2017	Excess Emissions (CEM)	Non Compliance	<p>013 12 0.97 0 0 014 6 0.56 5 0.47 016 0 0 1 1.19 017 0 0 1 0.15 018 0 0 0 0 019 0 0 3 0.31 020 0 0 0 0 021 0 0 0 0</p> <p>The most common cause of excess emissions appears to be issues with the DENOX System Tripping. Detailed information regarding CEMS downtime and corrective action reports are included in Section VI.2 of the submittal.</p> <p>Boiler and Turbine availability and operating data was provided in section VI.3 of the quarterly submittal. The referenced section also provides information regarding outages and causes for the facility turbines and boilers. Section VI.5 of the quarterly submittal contains a copy of the Facility's Monitoring Plan using the US EPA's Emission Collection and Monitoring Plan System Software. The referenced document was dated July 19, 2017.</p> <p>Section VI.6 and VI.7 contain Part 60 Cylinder Gas Audit results for the CO monitors and Sulfur analysis results for the quarter.</p> <p>the no. of deviations reported are based on excess emissions for 11 Units during the quarter;. Emissions issues, CEMS downtime, etc. appear to have been corrected prior to the end of the quarter. In addition, it appears that the causes have been corrected in a timely manner.</p>
06/12/2017	Excess Emissions (CEM)	Compliance	Quarterly CEM report
06/12/2017	Rule 912	Compliance	excess emissions during 3 hour period were 336.9 lbs NOx for unit 11 and 550.9 lbs NOx for unit 13. There was no VN sent, this was a one time malfunction. It has not occurred frequently.
03/03/2017	Excess Emissions (CEM)	Compliance	Quarterly excess emission reports
03/03/2017	ROP Annual Cert	Compliance	There were no deviations reported for 2016. slb
03/03/2017	ROP SEMI 2 CERT	Compliance	No deviations reported. slb

Activity Date	Activity Type	Compliance Status	Comments
03/03/2017	MAERS	Compliance	MAERS Certification received
11/21/2016	CEM RATA	Compliance	EUBOILER 1-6
10/27/2016	CEM RATA	Compliance	Annual CEMS RATA Test Reports for Units 9-14 and Units 3-8
10/27/2016	Excess Emissions (CEM)	Compliance	Third Quarter Emissions Monitoring Reports. CEMS downtime all less than 5% of operating hours, Excess emissions hours all less than 1% of operating hours. slb

Name: *[Signature]*

Date: 10/28/2019
KB

Supervisor: *[Signature]*