

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

FCE Summary Report

Facility : POET Biorefining - Caro, LLC		SRN :	N6996
Location : 1551 Empire Drive		District :	Saginaw Bay
		County :	TUSCOLA
City : CARO	State: MI	Zip Code : 48723	Compliance Status :
Source Class : MAJOR		Staff : Matthew Karl	
FCE Begin Date : 3/28/2017		FCE Completion Date :	2/6/2019
Comments : Full Compliance Evaluation (FCE).			

List of Partial Compliance Evaluations :

Activity Date	Activity Type	Compliance Status	Comments
02/05/2019	ROP Annual Cert	Compliance	<p>There were 2 instances of deviations during this reporting period:</p> <p>6/6-6/9 FGFERM&DIST 69 hrs packed bed wet scrubber down for Steam Turbine Project. Fermentation process was at least 72 hrs old before shutdown, so emissions stayed below permitted emission limits.</p> <p>9/1 FGFERM&DIST 183 mins wet scrubber exhaust exceeded 3 hour avg limit in MAP due to control card failure and recirc pump failure. Staff reprogrammed the control card and replaced coupler on pump asap.</p>
02/05/2019	ROP SEMI 2 CERT	Compliance	<p>There were 2 instances of deviations:</p> <p>6/6-6/9 FGFERM&DIST 69 hrs packed bed wet scrubber down for Steam Turbine Project. Fermentation process was at least 72 hrs old before shutdown, so emissions stayed below permitted emission limits.</p> <p>9/1 FGFERM&DIST 183 mins wet scrubber exhaust exceeded 3 hour avg limit in MAP due to control card failure and recirc pump failure. Staff reprogrammed the control card and replaced coupler on pump asap.</p>

Activity Date	Activity Type	Compliance Status	Comments
02/05/2019	CAM Excursions/Exceedances	Compliance	<p>There were 2 instances of CAM excursions/exceedances: 6/6-6/9 FGFERM&DIST 69 hrs packed bed wet scrubber down for Steam Turbine Project. Fermentation process was at least 72 hrs old before shutdown, so emissions stayed below permitted emission limits.</p> <p>9/1 FGFERM&DIST 183 mins wet scrubber exhaust exceeded 3 hour avg limit in MAP due to control card failure and recirc pump failure. Staff reprogrammed the control card and replaced coupler on pump asap.</p>
02/05/2019	CAM monitor downtime	Compliance	<p>There were 2 instances of CAM monitor downtime 6/6-6/9 FGFERM&DIST 69 hrs packed bed wet scrubber down for Steam Turbine Project. Fermentation process was at least 72 hrs old before shutdown, so emissions stayed below permitted emission limits.</p> <p>9/1 FGFERM&DIST 183 mins wet scrubber exhaust exceeded 3 hour avg limit in MAP due to control card failure and recirc pump failure. Staff reprogrammed the control card and replaced coupler on pump asap.</p>
02/01/2019	NSPS (Part 60)	Compliance	Semi Annual LDAR Report- 40 CFR Part 60, Subpart VVa
01/16/2019	Scheduled Inspection	Compliance	Scheduled inspection to determine compliance with ROP No. MI-ROP-N6996-2018.
09/19/2018	CAM Excursions/Exceedances	Compliance	<p>Deviation report - scrubber temperature exceeded 65 degrees. Process: FGFERM&DIST Duration of deviation: 183 minutes. Emissions Identification and Amounts: VOC 1998.8 lbs; calculated using uncontrolled VOC emission value of 655.2 lb/hr from PTE.</p>

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08/15/2018	Excess Emissions (CEM)	Compliance	Semi annual LDAR report- 40 CFR Part 60 Subpart VVa- Pumps are monitored monthly, Valves quarterly. No Compressors. 1 Leak detected/repaired same day in May (427 Distillation Building, external leak, shutdown and gasket was replaced before bringing back online).
08/14/2018	ROP Semi 1 Cert	Compliance	During the entire reporting period, all monitoring and associated recordkeeping requirements in the ROP were met, except for the 6/6-6/9 deviations for the steam turbine project tie-ins.
08/14/2018	CAM Excursions/Exceedances	Compliance	6/6-6/9 FGFERM&DIST down for 69 hours for tie ins for steam turbine project. Ferms were >72 hrs old prior to scrubber shutdown, emissions were kept below ROP limits.
08/14/2018	CAM monitor downtime	Compliance	6/6-6/9 FGFERM&DIST down for 69 hours for tie ins for steam turbine project. Ferms were >72 hrs old prior to scrubber shutdown, emissions were kept below ROP limits.
06/19/2018	Rule 912	Compliance	Plant shutdown to perform Steam Turbine Project/Redundant Wet Scrubber tie ins. Emissions estimated at 552 lbs VOC, 0 lbs Acetaldehyde. See report in hard copy file.
04/12/2018	Stack Test Observation	Compliance	Compliance Emission Test for the Fluidized Bed Baghouse (F-682) of EUFBCOOLER. This meets the testing requirements of MI-ROP-N6996-2013 EUFBCOOLER SC V.1 and the testing requirements and limits of PTI 175-15B EUFBCOOLER SC V.1 and SC I respectively. They will have to repeat testing for EUFBCOOLER on or before 6 months of the MI-ROP-N6996-2018 expiration date. The pollutants being tested for were: PM, PM10, PM2.5 and VOC

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04/10/2018	Stack Test Observation	Compliance	Stack test observation of FGDDGSDRYERS. Testing required per PTI 175-15B, FG DDGSDRYERS, V.1 Emissions tested were for PM, PM10, PM2.5, VOC and NOx, while operating the RTO. This test does not cover compliance testing required under MI-ROP-N6996-2018.
03/29/2018	NSPS (Part 60)	Compliance	Semi annual LDAR Report for NSPS VVa. 1 of 14 pumps leaked detected and repaired in September. 3 of 463 valve leaks detected and repaired in October. Shutdown dates: July 12th (8 hrs.), 17th (7 hrs.) and 18th (1 hr.) September 29th (4 hrs.) October 1st (1 hr.), 17th (18.5 hrs.) and 31st (1 hr.)
03/29/2018	ROP Other	Compliance	Revised CAM Plan-Not sufficient. Request sent for revision.
03/29/2018	ROP SEMI 2 CERT	Compliance	ROP Semi-Annual Cert. No deviations.
03/29/2018	ROP Annual Cert	Compliance	ROP Annual Cert, R912 exceedance 4/13/2017, reported.
03/29/2018	CAM Excursions/Exceedances	Compliance	(3) hour average temperature of the scrubber exceeded 65 degrees F. Reported as a R912 exceedance. Scrubber malfunction reported. Corrective actions were taken in a timely manner. Emission exceedances are estimated to be 226 lbs of VOC and 20.5 lbs of Acetaldehyde. See report in hard file.
03/29/2018	CAM monitor downtime	Compliance	Scrubber malfunction reported. Corrective actions were taken in a timely manner. Emission exceedances are estimated to be 226 lbs of VOC and 20.5 lbs of Acetaldehyde. See report in hard file.

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02/23/2018	Stack Test	Non Compliance	Compliance Emission Test - Regenerative Thermal Oxidizer Inlet and Stack Thermal Oxidizer and Stack. The test method was not sent to or approved by the DEQ TPU. This stack test does not fulfill the testing/sampling requirement in MI -ROP-N6996-2013 for FGDDGSDRYERS. - MK
12/12/2017	Telephone Notes	Compliance	ROP Renewal call with Patrick Kelly, Sioux Falls, David Westland, Sioux Falls, Charles Hauxwell, Caro, Emily Boynton, Caro, and Jacob McCowski, Caro.
09/29/2017	ROP Semi 1 Cert	Compliance	1) During a scheduled plant shutdown, the cooling tower was taken offline. This caused the scrubber chiller to go offline. Water flow through the scrubber was reduced IAW the MAP after 36 hours. This caused the temp to rise. Alarms were not noticed due to shutdown. Water flow increased. Chiller back online. (4/14/2017, 245 minutes) 2) T-805 was emptied in order to repair the level transmitter and install an additional isolation valve to eliminate having to empty the tank in order to perform maintenance on the LT. Notified MDEQ office IAW R912. (5/18/2017) 3) T-805 was emptied in order to repair the isolation valve that was previously installed notified MDEQ office IAW R912. (6/2/2017)
09/29/2017	CAM Excursions/Exceedances	Compliance	1) During a scheduled plant shutdown, the cooling tower was taken offline. This caused the scrubber chiller to go offline. Water flow through the scrubber was reduced IAW the MAP after 36 hours. This caused the temp to rise. Alarms were not noticed due to shutdown. Water flow increased. Chiller back online. (4/14/2017, 245 minutes)

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06/12/2017	CAM Excursions/Exceedances	Compliance	
06/12/2017	CAM monitor downtime	Compliance	
06/12/2017	Rule 912	Compliance	Scrubber malfunction reported. Corrective actions were taken in a timely manner. Emission exceedances are estimated to be 226 lbs of VOC and 20.5 lbs of Acetaldehyde. See report in hard file.
04/17/2017	ROP SEMI 2 CERT	Compliance	
04/17/2017	MAERS	Compliance	
04/10/2017	ROP Annual Cert	Compliance	

Name: Matthew R. Kard Date: 2/6/19

Supervisor: C. Hare