M4469 much FCE

DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

FCE Summary Report

Facility: RIVERVIEW LAND PRESERVE SRN: M4469 Location: 20863 GRANGE RD District: Detroit County: **WAYNE** City: MI Zip Code: 48193 Compliance **RIVERVIEW** State: Compliance Status: Source Class: Staff: MAJOR Jonathan Lamb FCE Begin Date: 8/1/2018 **FCE Completion** 8/1/2019 Date: Comments: FCE, FY '19

List of Partial Compliance Evaluations:

Activity Date	Activity Type	Compliance Status	Comments
08/01/2019	Scheduled Inspection	Compliance	Targeted inspection, FY 2019
07/03/2019	CO/CJ	Compliance	Monthly sulfur sampling results and SO2 emission calculations for June 2019, as required by CO AQD No. 19-2016, Condition 9.C.2, and Section 1 of ROP No. MI-ROP-M4469-2015a, FGTURBINES, S.C. V.4. Riverview Energy Systems reports an average sulfur content of 68 ppm for the month of June 2019, which is below the CO/ROP limit of 140 ppm. The sulfur content of the LFG prior to treatment ranged from 200-350 ppm for each weekly sample. Pictures of the Draeger tubes used to sample the gas stream pre- and post-treatment are included in the report for verification. The facility most recently changed out the filter media the treatment system on September 14, 2018. Note: The facility is currently running all LFG through the control system without bypass. Facility reports a 12-month rolling total of 10.87 tons of SO2 emissions, which is in compliance with the CO/ROP limit of 32 tons per 12-month rolling. Note: Consent Order AQD No. 19-2016 was terminated on June 27, 2019.

Activity Date	Activity Type	Compliance Status	Comments
06/24/2019	CO/CJ	Compliance	Monthly sulfur sampling results and SO2 emission calculations for May 2019, as required by CO AQD No. 19-2016, Condition 9.C.2, and Section 1 of ROP No. MI-ROP-M4469-2015a, FGTURBINES, S.C. V.4. Riverview Energy Systems reports an average sulfur content of 87.5 ppm for the month of May 2019, which is below the CO/ROP limit of 140 ppm. The sulfur content of the LFG prior to treatment was 400 ppm for each weekly sample. Pictures of the Draeger tubes used to sample the gas stream pre- and post-treatment are included in the report for verification. The facility most recently changed out the filter media the treatment system on September 14, 2018. Note: The facility is currently running all LFG through the control system without bypass. Facility reports a 12-month rolling total of 11.0 tons of SO2 emissions, which is in compliance with the CO/ROP limit of 32 tons per 12-month rolling.
05/30/2019	Other	Compliance	Review of 2018 MAERS

Activity Date	Activity Type	Compliance Status	Comments
05/20/2019	CO/CJ	Compliance	Monthly sulfur sampling results and SO2 emission calculations for April 2019, as required by CO AQD No. 19-2016, Condition 9.C.2, and Section 1 of ROP No. MI-ROP-M4469-2015a, FGTURBINES, S.C. V.4. Riverview Energy Systems reports an average sulfur content of 90 ppm for the month of April 2019, which is below the CO/ROP limit of 140 ppm. The sulfur content of the LFG prior to treatment ranged from 400-600 ppm based on weekly sampling. Pictures of the Draeger tubes used to sample the gas stream pre- and post-treatment are included in the report for verification. The facility most recently changed out the filter media the treatment system on September 14, 2018. Note: The facility is currently running all LFG through the control system without bypass. Facility reports a 12-month rolling total of 11.5 tons of SO2 emissions, which is in compliance with the CO/ROP limit of 32 tons per 12-month rolling.

Activity Date	Activity Type	Compliance Status	Comments
05/06/2019	CO/CJ	Compliance	Report was received two days late. Monthly sulfur sampling results and SO2 emission calculations for March 2019, as required by CO AQD No. 19-2016, Condition 9.C.2, and Section 1 of ROP No. MI-ROP-M4469-2015a, FGTURBINES, S.C. V.4. Riverview Energy Systems reports an average sulfur content of 84 ppm for the month of March 2019, which is below the CO/ROP limit of 140 ppm. The sulfur content of the LFG prior to treatment ranged from 375-500 ppm based on weekly sampling. Pictures of the Draeger tubes used to sample the gas stream pre- and post-treatment are included in the report for verification. The facility most recently changed out the filter media the treatment system on September 14, 2018. Note: The facility is currently running all LFG through the control system without bypass. Facility reports a 12-month rolling total of 10.88 tons of SO2 emissions, which is in compliance with the CO/ROP limit of 32 tons per 12-month rolling.
03/28/2019	ROP SEMI 2 CERT	Compliance	2018 Semi-Annual 2 Compliance Report for Section 2 (Riverview Land Preserve) for the compliance period July 1 through December 30, 2018. No deviations were reported during the compliance period.
03/28/2019	ROP Annual Cert	Compliance	2018 Annual ROP Compliance Certification Report for Section 2 (Riverview Land Preserve). Three deviations reported during the compliance period. These deviations were discussed in the Semi-Annual Report evaluations.
03/28/2019	ROP SEMI 2 CERT	Compliance	2018 Semi-Annual 2 ROP Compliance Report for Section 1 (RES) for the time period July 1 through December 31, 2018. No deviations were reported during the compliance period.
03/28/2019	ROP Annual Cert	Compliance	2018 Annual ROP Compliance Report for Section 1 (RES). No deviations were reported during the compliance period.

Activity Date	Activity Type	Compliance Status	Comments
03/28/2019	MACT (Part 63)	Compliance	Semi-annual Startup, Shutdown, and Malfunction (SSM) Report, as required per 40 CFR Part 63, Subparts A and AAAA. Riverview Land Preserve reported 75 startup, 39 shutdown, and 41 malfunction events during the reporting period. The malfunctions are summarized in Table 1 of the semi-annual SSM report and all are under 10 minutes in duration. Corrective actions were consistent with the facility's SSM Plan and no revisions to the plan were made during the reporting period.
03/28/2019	NSPS (Part 60)	Compliance	Semi-Annual Gas Collection and Control System (GCCS) Report, as required per 40 CFR Part 60, Subpart WWW and 40 CFR Part 63, Subparts A and AAAA. GCCS Report contains information used to demonstrate proper operation of the GCCS, including surface monitoring, well monitoring, and flare operation data (including any exceedances) during the compliance period. It also includes all alternate compliance timelines and higher operating values, as approved by AQD. Facility reported no period when the gas treatment system and flares were down simultaneously for more than one hour and the gas collection system was not shut down for more than 5 days on any occasion.
03/28/2019	MACT (Part 63)	Compliance	2018 Semi-Annual 2 Startup, Shutdown, and Malfunction (SSM) Report for the compliance period July 1 through December 31, 2018, as required per 40 CFR Part 63, Subparts A and AAAA and ROP No. MI-ROP-M4469-2015a, Section 1 (RES), EUTREATMENTSYS, SC VII.5. Facility reported 19 start-up, 4 shutdown, and 15 malfunction events during the compliance period. Malfunctions were due to loss of power or automatic shutdown and lasted less than 5 minutes in duration. Facility followed the SSM Plan during each event.

Activity Date	Activity Type	Compliance Status	Comments
03/28/2019	NSPS (Part 60)	Compliance	2018 Semi-Annual 2 Landfill Gas Treatment System Report, as required per 40 CFR Part 60, Subpart WWW, 40 CFR Part 63, Subparts A and AAAA, and ROP No. MI-ROP-M4469-2015a, Section 1 (RES), EUTREATMENTSYS, SC VII.5. Facility reported no exceedances during the compliance period. Facility reported 9 events where the landfill gas treatment system was down for more than 1 hour; all event lasted less than 6 hours in duration and were due to loss of power, maintenance, or automatic shutdown. Flares were in operation during these events, so no landfill gas was exhausted to atmosphere uncontrolled.
03/21/2019	CO/CJ	Compliance	Monthly sulfur sampling results and SO2 emission calculations for February 2019, as required by CO AQD No. 19-2016, Condition 9.C.2, and Section 1 of ROP No. MI-ROP-M4469-2015a, FGTURBINES, S.C. V.4. Riverview Energy Systems reports an average sulfur content of 70 ppm for the month of February 2019, which is below the CO/ROP limit of 140 ppm. The sulfur content of the LFG prior to treatment ranged from 400-600 ppm based on weekly sampling. Pictures of the Draeger tubes used to sample the gas stream pre- and post-treatment are included in the report for verification. The facility most recently changed out the filter media the treatment system on September 14, 2018. Note: The facility is currently running all LFG through the control system without bypass. Facility reports a 12-month rolling total of 10.26 tons of SO2 emissions, which is in compliance with the CO/ROP limit of 32 tons per 12-month rolling.

Activity Date	Activity Type	Compliance Status	Comments
02/08/2019	CO/CJ	Compliance	Monthly sulfur sampling results and SO2 emission calculations for January 2019, as required by CO AQD No. 19-2016, Condition 9.C.2, and Section 1 of ROP No. MI-ROP-M4469-2015a, FGTURBINES, S.C. V.4. Riverview Energy Systems reports an average sulfur content of 50 ppm for the month of January 2019, which is below the CO/ROP limit of 140 ppm. The sulfur content of the LFG prior to treatment ranged from 500-600 ppm based on weekly sampling. Pictures of the Draeger tubes used to sample the gas stream pre- and post-treatment are included in the report for verification. The facility most recently changed out the filter media the treatment system on September 14, 2018. Note: The facility is currently running all LFG through the control system without bypass. Facility reports a 12-month rolling total of 9.79 tons of SO2 emissions, which is in compliance with the CO/ROP limit of 32 tons per 12-month rolling.
01/09/2019	CO/CJ	Compliance	Monthly sulfur sampling results and SO2 emission calculations for December 2018, as required by CO AQD No. 19-2016, Condition 9.C.2, and Section 1 of ROP No. MI-ROP-M4469-2015a, FGTURBINES, S.C. V.4. Report was originally received via email on January 7, 2019. Riverview Energy Systems reports an average sulfur content of 50 ppm for the month of December 2018, which is below the CO/ROP limit of 140 ppm. The sulfur content of the LFG prior to treatment ranged from 500-600 ppm. The facility most recently changed out the filter media the treatment system on September 14, 2018. Note: The facility is currently running all LFG through the control system without bypass. Facility reports a 12-month rolling total of 9.38 tons of SO2 emissions, which is in compliance with the CO/ROP limit of 32 tons per 12-month rolling.

Activity Date	Activity Type	Compliance Status	Comments
12/26/2018	CO/CJ	Compliance	Monthly sulfur sampling results and SO2 emission calculations for November 2018, as required by CO AQD No. 19-2016, Condition 9.C.2, and Section 1 of ROP No. MI-ROP-M4469-2015a, FGTURBINES, S.C. V.4. Facility reports an average sulfur content of 50 ppm for the month of November 2018, which is below the CO/ROP limit of 140 ppm. The sulfur content of the LFG prior to treatment ranged from 500-600 ppm. The facility changed out the filter media the treatment system on September 14, 2018. Note: The facility is currently running all LFG through the control system without bypass. Facility reports a 12-month rolling total of 8.91 tons of SO2 emissions, which is in compliance with the CO/ROP limit of 32 tons per 12-month rolling.
11/08/2018	CO/CJ	Compliance	Monthly sulfur sampling results and SO2 emission calculations for October 2018, as required by CO AQD No. 19-2016, Condition 9.C.2, and Section 1 of ROP No. MI-ROP-M4469-2015a, FGTURBINES, S.C. V.4. Facility reports an average sulfur content of 35.25 ppm for the month of October 2018, which is below the CO/ROP limit of 140 ppm. The sulfur content of the LFG prior to treatment ranged from 450-600 ppm. The facility changed out the filter media the treatment system on September 14, 2018. The post-treatment H2S value during the 10/18/18 sampling showed 1 ppm, which is much lower than what would be expected based on other sample results. I notified the company via email on November 8, 2018, that if sampling results show an H2S concentration outside what would normally be expected, that the facility should take a second sample to verify the initial results. Note: The facility is currently running all LFG through the control system without bypass. Facility reports a 12-month rolling total of 8.32 tons of SO2 emissions, which is in compliance with the CO/ROP limit of 32 tons per 12-month rolling.

Activity Date	Activity Type	Compliance Status	Comments
10/30/2018	ROP Semi 1 Cert	Compliance	2018 Semi-Annual 1 Compliance Report for time period January 1 through June 30, 2018. 3 deviations reported: Facility failed to take corrective actions for Wells 1008 and 1011R within 5 days of initial exceedance; both wells were brought back into compliance within 30 days of initial exceedance. Facility missed the 1-month re-monitoring deadline for several wells due to equipment malfunction and technician error. Re-monitoring was performed within 10 days of the deadline and showed no exceedances. For each of these deviations, the facility took appropriate corrective actions in an appropriate timeframe to assure the wells were in compliance and to prevent recurrence of the deviations.
10/30/2018	ROP Semi 1 Cert	Compliance	2018 Semi-Annual 1 ROP Compliance Report for Section 1 (RES) for the compliance period January 1 through June 30, 2018. No deviations were reported during the compliance period.
10/30/2018	MACT (Part 63)	Compliance	Semi-annual Startup, Shutdown, and Malfunction (SSM) Report, as required per 40 CFR Part 63, Subparts A and AAAA. Riverview Land Preserve reported 56 startup, 10 shutdown, and 30 malfunctions during the reporting period. The malfunctions are summarized in Table 1 of the semi-annual SSM report and all are under 10 minutes in duration. Corrective actions were consistent with the facility's SSM Plan and no revisions to the plan were made during the reporting period.

Activity Date	Activity Type	Compliance Status	Comments
10/30/2018	NSPS (Part 60)	Compliance	Semi-Annual Gas Collection and Control System (GCCS) Report, as required per 40 CFR Part 60, Subpart WWW and 40 CFR Part 63, Subparts A and AAAA. GCCS Report contains information used to demonstrate proper operation of the GCCS, including surface monitoring, well monitoring, and flare operation data (including any exceedances) during the compliance period. It also includes all alternate compliance timelines and higher operating values, as approved by AQD. Facility reported no period when the gas treatment system and flares were down simultaneously for more than one hour and the gas collection system was not shut down for more than 5 days on any occasion.
10/30/2018	NSPS (Part 60)	Compliance	2018 Semi-Annual 1 Landfill Gas Treatment System Report, as required per 40 CFR Part 60, Subpart WWW, 40 CFR Part 63, Subparts A and AAAA, and ROP No. MI-ROP-M4469-2015a, Section 1 (RES), EUTREATMENTSYS, SC VII.5. Facility reported no exceedances during the compliance period. Facility reported 4 events where the landfill gas treatment system was down for more than 1 hour. No event exceeded 9 hours in duration and were due to maintenance or automatic shutdown. Flares were in operation during these events, so no landfill gas was exhausted to atmosphere uncontrolled.

Activity Date	Activity Type	Compliance Status	Comments
10/30/2018	MACT (Part 63)	Compliance	2018 Semi-Annual 1 Startup, Shutdown, and Malfunction (SSM) Report for the compliance period January 1 through June 30, 2018, as required per 40 CFR Part 63, Subparts A and AAAA and ROP No. MI-ROP-M4469-2015a, Section 1 (RES), EUTREATMENTSYS, SC VII.5. Facility reported 8 start-up, 1 shutdown, and 7 malfunction events during the compliance period. Malfunctions were due to automatic shutdown and lasted less than 5 minutes in duration. Facility followed SSM Plan during each event.
10/15/2018	CO/CJ	Compliance	Monthly sulfur sampling results and SO2 emission calculations for September 2018, as required by CO AQD No. 19-2016, Condition 9.C.2, and Section 1 of ROP No. MI-ROP-M4469-2015a, FGTURBINES, S.C. V.4. Facility reports an average sulfur content of 73.75 ppm for the month of September 2018, which is below the CO/ROP limit of 140 ppm. The sulfur content of the LFG prior to treatment ranged from 400-500 ppm. The facility changed out the filter media the treatment system during the month of September, increasing the control efficiency and decreasing the sulfur content in the treated LFG between samples obtained later in the month. Note: The facility is currently running all LFG through the control system without bypass. Facility reports a 12-month rolling total of 8.01 tons of SO2 emissions, which is in compliance with the CO/ROP limit of 32 tons per 12-month rolling.

Activity Date	Activity Type	Compliance Status	Comments
09/13/2018	CO/CJ	Compliance	Monthly sulfur sampling results and SO2 emission calculations for August 2018, originally received via email on August 7, 2018, as required by CO AQD No. 19-2016, Condition 9.C.2, and Section 1 of ROP No. MI-ROP-M4469-2015a, FGTURBINES, S.C. V.4. Facility reports an average sulfur content of 123 ppm for the month of August 2018, which is below the CO/ROP limit of 140 ppm. The sulfur content of the LFG prior to treatment ranged from 400-600 ppm. Note: The facility is currently running all LFG through the control system without bypass. Facility reports a 12-month rolling total of 8.13 tons of SO2 emissions, which is in compliance with the CO/ROP limit of 32 tons per 12-month rolling.
09/12/2018	CO/CJ	Compliance	Monthly sulfur sampling results and SO2 emission calculations for July 2018, as required by CO AQD No. 19-2016, Condition 9.C.2, and Section 1 of ROP No. MI-ROP-M4469-2015a, FGTURBINES, S.C. V.4. Facility reports an average sulfur content of 104 ppm for the month of June 2018, which is below the CO/ROP limit of 140 ppm. Note: The facility is currently running all LFG through the control system without bypass. Facility reports a 12-month rolling total of 7.72 tons of SO2 emissions, which is in compliance with the CO/ROP limit of 32 tons per 12-month rolling.
08/22/2018	Complaint Investigation	Compliance	Odor complaint investigation

Name:	Hay	Date:	9-24-19	Supervisor:	-K
	(•			Page 12 of 12