

DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

**FCE Summary Report**

|                                                                                                                                                                         |                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| <b>Facility :</b> Michigan Sugar Company - Bay City                                                                                                                     | <b>SRN :</b> B1493                        |
| <b>Location :</b> 2600 S Euclid Ave                                                                                                                                     | <b>District :</b> Bay City                |
|                                                                                                                                                                         | <b>County :</b> BAY                       |
| <b>City :</b> BAY CITY <b>State:</b> MI <b>Zip Code :</b> 48706                                                                                                         | <b>Compliance Status :</b> Non Compliance |
| <b>Source Class :</b> MAJOR                                                                                                                                             | <b>Staff :</b> Kathy Brewer               |
| <b>FCE Begin Date :</b> 6/1/2021                                                                                                                                        | <b>FCE Completion Date :</b> 6/1/2023     |
| <b>Comments :</b> VNs sent for various CEMs non compliance . In escalated enforcement. Facility lacks adequate procedures and record keeping to demonstrate compliance. |                                           |

**List of Partial Compliance Evaluations :**

| Activity Date | Activity Type              | Compliance Status | Comments                                                                                                                                                                                                                                                                                                                                                                        |
|---------------|----------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 05/23/2023    | Odor Evaluation            | Compliance        | Odor evaluation in response to odor complaints received between 4/8/2023 and 5/23/2023. Odors observed in area at time of observations were not of duration or intensity to violate R901                                                                                                                                                                                        |
| 04/20/2023    | CAM Excursions/Exceedances | Compliance        | No excursions or exceedances reported                                                                                                                                                                                                                                                                                                                                           |
| 04/20/2023    | CAM monitor downtime       | Compliance        | No excursions or exceedances reported                                                                                                                                                                                                                                                                                                                                           |
| 04/20/2023    | ROP Annual Cert            | Compliance        | Compliant with reporting requirement. No Deviations reported Jan-Jun 2022. Deviations reported related to CEMS. VN sent for CEMS downtime VN sent July 18, 2022. Referral to Enforcement Unit after unsatisfactory/incomplete response received. CEMS downtime continued throughout 2022. VN also included failure to adequately report/have responsible official review report |
| 04/20/2023    | ROP SEMI 2 CERT            | Compliance        | Compliant with reporting requirement. Deviations reported related to CEMS. VN sent for CEMS downtime VN sent July 18, 2022. Referral to Enforcement Unit after unsatisfactory/incomplete response received. CEMS downtime continued throughout 2022                                                                                                                             |

| Activity Date | Activity Type      | Compliance Status | Comments                                                                                                                                                                                                                                                                                             |
|---------------|--------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 04/20/2023    | ROP Monthly        | Compliance        | February 2023 - Anamet SO2 Gas Generation - 12 month rolling total of 1.13 tons.                                                                                                                                                                                                                     |
| 04/07/2023    | Odor Evaluation    | Compliance        | Odor evaluation in response to odor complaints received between 3/22 and 4/7/2023. Odors observed in area at time of observations were not of duration or intensity to violate R901                                                                                                                  |
| 03/21/2023    | Odor Evaluation    | Non Compliance    | Odor investigation in response to complaints received between March 1 – 21, 2023. Nuisance odors from rotting beet pieces and inadequate wastewater treatment. VN will be sent 3-30-2023..                                                                                                           |
| 02/28/2023    | Odor Evaluation    | Compliance        | Odor investigation in response to complaints received between Jan 1- Feb 28, 2023. No odors observed found to be in violation of R901. FLIR used to video on site anaerobic digester flare.                                                                                                          |
| 02/10/2023    | On-site Inspection | Non Compliance    | MSC BC ROP on site records, monitoring and control device review. VN previously sent (VN#2 Nov 14, 2022) for CEMS noncompliance issues and certification of inaccurate reports is now in escalated enforcement. Overall on site compliance management, tracking, and verification needs improvement. |
| 12/27/2022    | ROP Monthly        | Compliance        | May 2022 - Anamet SO2 Gas Generation - 12 month rolling total of 1.10 tons.                                                                                                                                                                                                                          |
| 12/27/2022    | ROP Monthly        | Compliance        | June 2022 - Anamet SO2 Gas Generation - 12 month rolling total of 1.13 tons.                                                                                                                                                                                                                         |
| 12/27/2022    | ROP Monthly        | Compliance        | July 2022 - Anamet SO2 Gas Generation - 12 month rolling total of 1.13 tons.                                                                                                                                                                                                                         |
| 12/27/2022    | ROP Monthly        | Compliance        | August 2022 - Anamet SO2 Gas Generation - 12 month rolling total of 1.13 tons.                                                                                                                                                                                                                       |
| 12/27/2022    | ROP Monthly        | Compliance        | September 2022 - Anamet SO2 Gas Generation - 12 month rolling total of 1.15 tons.                                                                                                                                                                                                                    |
| 12/27/2022    | ROP Monthly        | Compliance        | October 2022 - Anamet SO2 Gas Generation - 12 month rolling total of 1.16 tons.                                                                                                                                                                                                                      |

| Activity Date | Activity Type              | Compliance Status | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------|----------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12/21/2022    | CEMS Test Observation      | Compliance        | Boiler#6, #7, #8 RATA annual RATA testing. The facility conducted and completed all RATA testing on all 3 boilers. TPU staff Lindsey Wells was also on site to observe. EGLE issued a VN to MSC BC for extensive monitor downtime in two quarters of 2021 and escalated enforcement when CEMS proram monitoring and reporting requirements were not provided .The RATA approval letter informed the facility that CEMS data review would occur during the RATA testing, what data TPU would be reviewing, and if the data was not available the RATA may be designated as qualified data. TPU staff and I spent several hours reviewing the CEMS data acquistion and data handling steps to generate the data used in CEMS reporting and emission calculations. Angel Pichla and Meaghan Martuch of MSC BC provided an overview of the data handling. MSC IT expert Andy joined the conversation to provide some details. The transfer of data changes time periods several ties ( unknown at the CEMS, 1/sec avg, 15 sec avg, daily avg using representative 1 minute avg) MSC BC did not have the data requested for review in a format that confimed any conversions and showed all calculations. The main concern thre did not appear to be documentation of |
| 11/16/2022    | Telephone Notes            | Compliance        | email sent to A. Pichla re: RATA deadline, Open burning, Flume pond solids on lime pile, odors along Saginaw Rd                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 09/29/2022    | ROP Semi 1 Cert            | Compliance        | Postmarked 9/15/22. No deviations reported (Company should have documented EGLE notification by email and phone re: CEMS compliance and inaccurate reporting. July 18, 2022 VN#1 sent for CEMs reporting)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 09/29/2022    | CAM Excursions/Exceedances | Compliance        | Postmarked 9/15/22. No CAM excursion/exceedances reported                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 09/29/2022    | CAM monitor downtime       | Compliance        | Postmarked 9/15/22. No CAM monitor downtime reported                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| Activity Date | Activity Type              | Compliance Status | Comments                                                                                                                                                                                                           |
|---------------|----------------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 09/20/2022    | Complaint Investigation    | Unknown           | On site visit to see solids removal progress and state of pond systems. Odor complaints have been received. Odor evaluation not performed due to rain storm that started shortly after odor evaluation began.      |
| 09/08/2022    | CAM monitor downtime       | Compliance        | No CAM monitor downtime reported                                                                                                                                                                                   |
| 07/21/2022    | Odor Evaluation            | Compliance        | Odor observation July 21, on site review July 25, 2022.                                                                                                                                                            |
| 07/08/2022    | ROP Semi 1 Cert            | Compliance        | EUBOILER #6 66 days no CEMS cal; EUBOILER#8 64 hours no NOx CEMS monitoring                                                                                                                                        |
| 07/08/2022    | ROP Annual Cert            | Compliance        | Jan-Jul 2021: EUBOILER #6 66 days no CEMS cal; EUBOILER#8 124 hours no NOx CEMS monitoring, 6 days no CEMS NOx cal. VN sent and site visit for CEMS review conducted by TPU. No Deviations reported Jul - Dec 2021 |
| 07/08/2022    | ROP SEMI 2 CERT            | Compliance        | No Deviations reported Jul - Dec 2021.                                                                                                                                                                             |
| 07/07/2022    | CAM Excursions/Exceedances | Compliance        | No CAM excursions/exceedances reported                                                                                                                                                                             |
| 06/30/2022    | ROP Monthly                | Compliance        | January 2022 - Anamet SO2 Gas Generation - 12 month rolling total of 1.02 tons.                                                                                                                                    |
| 06/30/2022    | ROP Monthly                | Compliance        | January 2022 - Anamet SO2 Gas Generation - 12 month rolling total of 1.10 tons.                                                                                                                                    |
| 06/30/2022    | ROP Monthly                | Compliance        | March 2022 - Anamet SO2 Gas Generation - 12 month rolling total of 1.07 tons.                                                                                                                                      |
| 06/30/2022    | ROP Monthly                | Compliance        | April 2022 - Anamet SO2 Gas Generation - 12 month rolling total of 1.00 tons.                                                                                                                                      |
| 06/23/2022    | Odor Evaluation            | Compliance        | odor evaluation in response to 7 complaints received between June 11 and June 23, 2022.                                                                                                                            |
| 06/10/2022    | Odor Evaluation            | Compliance        | Odor evaluation in response to complaints received May 25 to June 10, 2022                                                                                                                                         |
| 05/25/2022    | Odor Evaluation            | Non Compliance    | Odor investigation in response to complaints received between May 13 and May 24, 2022. Nuisance odors from rotting beet pieces and inadequate wastewater treatment. VN sent                                        |

| Activity Date | Activity Type          | Compliance Status | Comments                                                                                                                                                                                                                                                                                                                                                                         |
|---------------|------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 05/20/2022    | ROP Other              | Compliance        | Third quarter cylinder gas audit conducted 9/30/2021. CGA accuracy must be +/- 15% average audit value or 5 ppm standard. All CGA results were +/- <7.51%                                                                                                                                                                                                                        |
| 05/20/2022    | Excess Emissions (CEM) |                   | Third quarter operation report and CEM summary reports for Boilers 6, 7, 8<br>boiler 6 reported 0 hrs excess emissions, 53 hrs non-monitor equipment malfunctions hrs (0.24% operating time)<br>boiler 7 reported 0 hours excess emissions, 37 hrs (0.03%) non-monitor equipment malfunctions<br>boiler 8 reported 0 hours excess emissions, 15 hrs (0.015%) monitor malfunction |
| 05/12/2022    | Odor Evaluation        | Non Compliance    | Odor investigation in response to complaints received between April 23 and May12, 2022. Nuisance odors from rotting beet pieces and inadequate wastewater treatment. VN sent.                                                                                                                                                                                                    |
| 04/22/2022    | Odor Evaluation        | Non Compliance    | Odor investigation in response to 10 complaints received between February 21 and April 22, 2022. Nuisance odors from rotting beet pieces and inadequate wastewater treatment. VN sent May 9, 2022.                                                                                                                                                                               |
| 02/09/2022    | ROP Monthly            | Compliance        | November 2021 - Anamet SO2 Gas Generation - 12 month rolling total of 0.91 tons.                                                                                                                                                                                                                                                                                                 |
| 01/13/2022    | Odor Evaluation        | Compliance        | Odor observation in response to six complaints received since Dec 22, 2021.                                                                                                                                                                                                                                                                                                      |
| 12/28/2021    | ROP Monthly            | Compliance        | August 2021 - Anamet SO2 Gas Generation - 12 month rolling total of 0.96 tons.                                                                                                                                                                                                                                                                                                   |
| 12/28/2021    | ROP Monthly            | Compliance        | September 2021 - Anamet SO2 Gas Generation - 12 month rolling total of 0.95 tons.                                                                                                                                                                                                                                                                                                |
| 12/28/2021    | ROP Monthly            | Compliance        | October 2021 - Anamet SO2 Gas Generation - 12 month rolling total of 0.97 tons.                                                                                                                                                                                                                                                                                                  |
| 12/28/2021    | ROP Monthly            | Compliance        | November 2021 - Anamet SO2 Gas Generation - 12 month rolling total of 0.91 tons.                                                                                                                                                                                                                                                                                                 |
| 12/22/2021    | Odor Evaluation        | Compliance        | odor evaluation with MDARD staff Laura Doud in response to 7 complaints received between December 13 and December 21, 2021.                                                                                                                                                                                                                                                      |

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| 09/16/2021    | ROP Monthly            | Compliance        | May 2021 - Anamet SO2 Gas Generation - 12 month rolling total of 0.93 tons.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 09/16/2021    | ROP Monthly            | Compliance        | June 2021 - Anamet SO2 Gas Generation - 12 month rolling total of 0.95 tons.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 09/16/2021    | ROP Monthly            | Compliance        | July 2021 - Anamet SO2 Gas Generation - 12 month rolling total of 0.95 tons.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 09/16/2021    | ROP Other              | Compliance        | Anaerobic digester monthly report                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 09/07/2021    | ROP Other              | Compliance        | Anaerobic digester monthly report                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 08/04/2021    | Odor Evaluation        | Compliance        | Odor observation with Eric Rupprecht and Meaghan Martuch of MSC BC. Followed observation with on site review of WWTS and lime pile operations. 29 complaints between April 16 and Aug 2, 2021. Earlier complaint likely associated with pond upset. Later complaints likely affiliated with solids removal. At time of observation objectionable odors were present but not of a duration and intensity to violate Rule 901.                                                                                                                                                                                                                                                                                                                                                                      |
| 06/01/2021    | Excess Emissions (CEM) | Compliance        | <p>3rd Quarter CEM Summary Reports for Boilers 6, 7, 8. A cylinder gas audit was performed 9/5/2019</p> <p>CEMS report for Boiler #6 indicated no excess emissions and no CEMS Downtime (0%). 0.6 hours of non-monitor equipment malfunctions.</p> <p>Boiler #7 also did not report any excess emissions for the quarter. 1.6 hours of CEMS downtime (0.11%) due to unknown cause.</p> <p>Boiler #8 reported no excess emission for the quarter and CEMS downtime of 1.3 hr (0.11%) due to unknown cause.</p> <p>A cylinder gas audit was performed 9/5/2019 Passing results is plus or minus 15% of the average audit value, or plus or minus 5 ppm, whichever is greater. audit results reported average accuracies for the NOX and O2 CEMS for all three boilers below plus or minus 7.6%.</p> |

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|---------------|------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 06/01/2021    | Excess Emissions (CEM) | Compliance        | Cylinder Gas Audit for Boilers 6, 7, 8 A cylinder gas audit was performed 9/5/2019 Passing results is plus or minus 15% of the average audit value, or plus or minus 5 ppm, whichever is greater. audit results reported average accuracies for the NOX and O2 CEMS for all three boilers below plus or minus 7.6%.                                                                                                                                                                                                                                                                                                                                                  |
| 06/01/2021    | Excess Emissions (CEM) | Compliance        | <p>First quarter operating report and CEM summary reports for boilers 6, 7, 8 and gas audit CEMS report for Boiler #6 iand #7 ndicated no excess emissions and no CEMS Downtime (0%). 0 hours of non-monitor equipment malfunctions.</p> <p>Boiler #8 reported no excess emission for the quarter and CEMS downtime of 101.4 hrs (5%) due to monitor equipment malfunction</p> <p>A cylinder gas audit was performed 3/26/2020. Passing results is plus or minus 15% of the average audit value, or plus or minus 5 ppm, whichever is greater. audit results reported average accuracies for the NOX and O2 CEMS for all three boilers below plus or minus 3.2%.</p> |

| Activity Date | Activity Type          | Compliance Status | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------|------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 06/01/2021    | Excess Emissions (CEM) | Compliance        | <p>Second Quarter Summary Report for Gaseous Excess Emission and Monitoring System<br/> CGA initiated June 2020, not completed. Boiler 7-8 CEMs require repairs.<br/> CEMS report for Boiler #6 indicated no excess emissions and 0.17 hr CEMS Downtime (0.01%). of non-monitor equipment malfunctions.<br/> Boiler #7 also did not report any excess emissions for the quarter. 0.17 hours of CEMS downtime (0.02%) due to monitor equipment malfunctions .<br/> Boiler #8 reported no excess emission for the quarter and CEMS downtime of 0.5 hr (0.09%) due to monitor equipment malfunctions .</p> <p>A cylinder gas audit was performed 8/20/2020 Passing results is plus or minus 15% of the average audit value, or plus or minus 5 ppm, whichever is greater. audit results reported average accuracies for the NOX and O2 CEMS for all three boilers below plus or minus 5.2%.</p> <p>2020 RATA Boilers 6,7,8, All &lt;20% of mean reference value or &lt;10% of standard</p> |
| 06/01/2021    | CEM RATA               | Compliance        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

*Kathy Brewer*

Name: \_\_\_\_\_

Date: \_\_\_\_\_

10/2/2023

Supervisor: \_\_\_\_\_

*Chris Stone*