

DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

FCE Summary Report

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| Facility : J. H. Campbell Plant | SRN : B2835 |
| Location : 17000 Croswell | District : Grand Rapids |
| | County : OTTAWA |
| City : WEST OLIVE State: MI Zip Code : 49460 | Compliance Status : Compliance |
| Source Class : MAJOR | Staff : Michael Cox |
| FCE Begin Date : 7/20/2022 | FCE Completion Date : 7/20/2023 |
| Comments : FY 2023 FCE | |

List of Partial Compliance Evaluations :

| Activity Date | Activity Type | Compliance Status | Comments |
|---------------|--------------------|-------------------|--|
| 06/21/2023 | CEM RATA | Compliance | The Part 75 Continuous Emissions Monitoring (CEMS) Relative Accuracy Test Audit (RATA) was received on time and complete for Units 1 and 2. Results indicate that the CEMS serving EUBOILER1 and EUBOILER2 meet the relative accuracy frequency standards in Part 75 as well as comply with the monitoring requirements of MI-ROP-B2835-2020b. |
| 06/20/2023 | On-site Inspection | Compliance | Scheduled Unannounced Inspection |

| Activity Date | Activity Type | Compliance Status | Comments |
|---------------|------------------------|-------------------|---|
| 05/05/2023 | Excess Emissions (CEM) | Compliance | <p>The first Quarter 2023 Excess Emission Reports for Units 1, 2, and 3 as well as Opacity Monitor Assessments for Unit 2 and Unit 3 pursuant to MI-ROP-B2835-2020b was received on time and complete.</p> <p>Unit 1: There was a total of 72,119 Minutes (1,201.9 hours) of operation for the reporting period. The COMS monitor had 66 minutes (0.09%) downtime due to non-monitor equipment malfunctions, but this did not result in any excess emissions. The SO2 CEMS reported a total of two (2) Hours (0.17%) downtime with no associated excess emissions. The downtime was due to non-monitor equipment malfunctions.</p> <p>Unit 2: There was a total of 76,287 minutes (1,271.45 hours) operating hours for Unit 2 during the reporting period. The COMS monitor had 66 minutes (0.09%) downtime due to non-monitor equipment malfunctions, but this did not result in any excess emissions. The SO2 CEMS reported a total of two (2) Hours (0.16%) downtime with no associated excess emissions. The downtime was due to non-monitor equipment malfunctions.</p> <p>Unit 3: There was a total of 129,601 minutes (2,160 Hours) of operating time for Unit 3 during the reporting period. The COMS reported 84 minutes (0.06%) downtime with no associated excess emissions. The downtime was due other known causes related with quality assurance. The NOx CEMS had no downtime and no excess emissions. The SO2 monitor also had no downtime, with no excess emissions.</p> <p>The Units 3 Opacity tests was also received. The associated low, mid, and high level opacity checks indicated passing results.</p> |

| Activity Date | Activity Type | Compliance Status | Comments |
|---------------|----------------|-------------------|--|
| 05/05/2023 | MACT (Part 63) | Compliance | <p>The Boiler 3 1st Quarter 2023 MATS PM CEMS report pursuant to 40 CFR 63 Subpart UUUUU was received on time and complete. A PM CEMS is utilized to demonstrate compliance with the filterable PM 30-day boiler operating day rolling average limit of 0.03 lb/MMBTU. The records show the 30-day rolling average at the end of the quarter to be 0.000519 lb/MMBTU. The highest rolling average for the reporting period was 0.000608, which is compliant with the 0.030 lb/MMBTU limit.</p> |
| 05/01/2023 | MACT (Part 63) | Compliance | <p>The Semiannual Compliance Report for 40 CFR 63 Subpart UUUUU for Units 1, 2, and 3 was received on time and complete. (Postmarked 3/15/23).</p> <p>EUBOILER1 and EUBOILER2 demonstrated compliance with the MATS requirements via Stack testing for PM and HCl, and through a certified Mercury (Hg) and diluent CEMS for Hg. EUBOILER1 was able to achieve LEE status on May 14, 2019 and EUBOILER2 on June 12, 2019. No emergency bypass of the control equipment was done during the reporting period.</p> <p>EUBOILER3 demonstrated compliance with the MATS requirements via CEMS for PM, Hg, and SO2.</p> <p>Tune-ups for the three units were conducted in August 2021, June 2021, and September 2021, respectively. No excess emission or deviations in work practice standards were reported for any of the units.</p> |

| Activity Date | Activity Type | Compliance Status | Comments |
|---------------|-----------------|-------------------|---|
| 05/01/2023 | ROP Other | Compliance | <p>The 1st Quarter 2023 Fugitive Dust Report was received on time and complete. The facility utilized a variety of dust control activities including, utilizing irrigation on top of coal stack out conveyor 42B and the coal pile irrigation system when the temperatures were above freezing, fueling plants directly from trains when possible, operating a foam dust suppression system on four of the most heavily used conveyors within the coal handling system, spraying a dust suppression agent on western coal, grooming and compacting the coal storage piles, utilizing conditioning measures during ash unloading operations at the landfill, placing conditioned ash in horizontal lifts and utilizing a roller to compact the material in the active fill area of the storage cell, applying a dust suppressant on the roadways, utilizing a water truck in the active fill area of the landfill, and conducting daily surveillance rounds on site to ensure adequate dust control was maintained. The facility also benefited from an estimated 7.68 inches of precipitation occurring on 38% of days during this time period. No further action is required at this time.</p> |
| 04/04/2023 | MAERS | Compliance | <p>AuxBoiler Reporting Group was removed and the aux boilers were added back in. PM, and other emissions are accounted for in the Coal emissions rather than distillate fuel for the boilers. Ammonia estimates are high, but are accounted for due to the ammonia slip associated with the SCR's for the boilers. Stack test and CEM data used where applicable.</p> |
| 03/28/2023 | ROP SEMI 2 CERT | Compliance | <p>The Semi-Annual Compliance Report pursuant to MI-ROP-B2835-2020b was received on time and complete (Postmarked 3/15/23). No deviations were reported for the time period.</p> |

| Activity Date | Activity Type | Compliance Status | Comments |
|---------------|----------------------------|-------------------|--|
| 03/28/2023 | ROP Annual Cert | Compliance | <p>The Annual Compliance report pursuant to MI-ROP-B2835-2020b was received on time and complete (Postmarked 3/15/23). Two (2) deviations were reported during the first semi-annual period. The first deviation was for EUSDA_U3 and was for intermittent visible emissions of greater than 5% opacity from Recycle Silo B vent filter (SVRS-BV3B) for less than 1 hour. A root cause analysis was conducted and the bin vent filter was subsequently replaced, and was returned to service the following day after repairs were made. The second deviation as for EUBOILER2 and was for the SCR loosing continuous operations of ammonia supply for the UBAS system. This had been previously reported to the AQD, and it was verified that the NOx emissions were kept below the emission limits during the time it took to repair the UBAS System. Additionally, updates were made to the MMAP regarding repairs and maintenance to the UBAS system.</p> |
| 03/28/2023 | CAM Excursions/Exceedances | Compliance | <p>The CAM excursion/exceedance report pursuant to MI-ROP-B2835-2020b was received on time and complete (Postmarked 3/15/23). No excursions or exceedances were reported for the time period</p> |
| 03/28/2023 | CAM monitor downtime | Compliance | <p>The CAM Monitor downtime report pursuant to MI-ROP-B2835-2020b was received on time and complete (Postmarked 3/15/23). No monitor downtime was reported for the time period.</p> |

| Activity Date | Activity Type | Compliance Status | Comments |
|---------------|------------------------|-------------------|---|
| 03/21/2023 | Excess Emissions (CEM) | Compliance | <p>The 4th Quarter 2022 Excess Emission Reports for Units 1, 2, and 3 as well as Opacity Monitor Assessments for Unit 2 and Unit 3 pursuant to MI-ROP-B2835-2020b was received on time and complete.</p> <p>Unit 1: There was a total of 98,497 Minutes (1,641.6 hours) of operation for the reporting period. The COMS monitor had no downtime. The SO2 CEMS reported a total of five (5) Hours (0.31%) downtime with no associated excess emissions. The downtime was due to monitor issues and re-calibrations.</p> <p>Unit 2: There was a total of 114,301 minutes (1,905 hours) operating hours for Unit 2 during the reporting period. Neither the COMS nor the SO2 CEMS monitor reported downtime. Neither had any excess emissions.</p> <p>Unit 3: There was a total of 108,384 minutes (1,806.4 Hours) of operating time for Unit 3 during the reporting period. The COMS reported 43.3 hours (2.4%) downtime with no associated excess emissions. The downtime was due to monitor malfunctions and subsequent replacement. The NOx CEMS had 5 hours (0.30%) downtime and no associated excess emissions. The downtime was due to monitor malfunctions and recalibrations. The SO2 monitor also had 5 hours (0.30%) downtime, with associated excess emissions. The downtime as due to monitor malfunctions.</p> <p>The Units 2 and 3 Opacity tests were also received. The associated low, mid, and high level opacity checks indicated passing results for both units.</p> |

| Activity Date | Activity Type | Compliance Status | Comments |
|---------------|----------------|-------------------|---|
| 02/13/2023 | MACT (Part 63) | Compliance | <p>The Boiler 3 4th Quarter 2022 MATS PM CEMS report pursuant to 40 CFR 63 Subpart UUUUU was received on time and complete. A PM CEMS is utilized to demonstrate compliance with the filterable PM 30-day boiler operating day rolling average limit of 0.03 lb/MMBTU. The records show the 30-day rolling average at the end of the quarter to be 0.000597 lb/MMBTU. The highest rolling average for the reporting period was 0.000742, which is compliant with the 0.030 lb/MMBTU limit.</p> |
| 01/31/2023 | MACT (Part 63) | Compliance | <p>The Tune-up Report for EUAUXBLR3B, EUAUXBLR3C, and EUAUXBLR12 pursuant to 40 CFR 63 Subpart DDDDD Boiler MACT was received on time and complete. For the reporting period (2 calendar years), EUAUXBLR12 has operated a total of 9,120 hours, and had two (2) tune ups. One tune up was in 2020 and the other was in 2022. Tune ups are required once at least every five (5) years. During this same reporting period, EUAUXBLR3B and EUAUXBLR3C were tuned in both 2020 and 2022. These tune ups are required bi-annually.</p> |

| Activity Date | Activity Type | Compliance Status | Comments |
|---------------|----------------|-------------------|---|
| 01/26/2023 | ROP Other | Compliance | <p>The 4th Quarter 2022 Fugitive Dust Report was received on time and complete. The facility utilized a variety of dust control activities including, utilizing irrigation on top of coal stack out conveyor 42B and the coal pile irrigation system when the temperatures were above freezing, fueling plants directly from trains when possible, operating a foam dust suppression system on four of the most heavily used conveyors within the coal handling system, spraying a dust suppression agent on western coal, grooming and compacting the coal storage piles, utilizing conditioning measures during ash unloading operations at the landfill, placing conditioned ash in horizontal lifts and utilizing a roller to compact the material in the active fill area of the storage cell, applying a dust suppressant on the roadways, utilizing a water truck in the active fill area of the landfill, and conducting daily surveillance rounds on site to ensure adequate dust control was maintained. The facility also benefited from an estimated 6.88 inches of precipitation occurring on 35% of days during this time period. No further action is required at this time.</p> |
| 12/01/2022 | MACT (Part 63) | Compliance | <p>The Unit 3 PM Relative Correlation Audit (RCA) required for use of PM CEMS pursuant to 40 CFR Part 63 Subpart UUUUU was received on time and complete. The RCA is required every three (3) years. Testing was done firing 100% western subbituminous coal, and the PM levels were spiked at low, mid and high levels to create the linear correlation curve. All of the points in the curve were within the appropriate ranges, for the assessment of the PM CEMS performance related to the emission limits specified.</p> |

| Activity Date | Activity Type | Compliance Status | Comments |
|---------------|----------------|-------------------|---|
| 11/07/2022 | MACT (Part 63) | Compliance | <p>The 3rd Quarter particulate matter CEMS report pursuant to 40 CFR Part 63, Subpart UUUUU for Unit 3 was received on time and complete. A PM CEMS is utilized to demonstrate compliance with the filterable PM 30-day boiler operating day rolling average limit of 0.03 lb/MMBTU. The records show the 30-day rolling average at the end of the quarter to be 0.00074 lb/MMBTU. The highest rolling average for the reporting period was 0.00074 lb/MMBTU, which is compliant with the 0.030 lb/MMBTU limit.</p> |

| Activity Date | Activity Type | Compliance Status | Comments |
|---------------|------------------------|-------------------|---|
| 11/07/2022 | Excess Emissions (CEM) | Compliance | <p>The 3rd Quarter 2022 Excess Emissions report pursuant to MI-ROP-B2835-2020b for Units 1, 2 & 3, the Annual Opacity Monitor Assessment for Unit 1, and the Quarterly Opacity Monitor Assessment for Unit 3 was received on time and complete.</p> <p>Unit 1: There was a total of 118,429.2 Minutes (1,973.82 hours) of operation for the reporting period. The COMS monitor had no downtime. No downtime was reported for the SO2 CEMS either. No excess emissions were reported.</p> <p>Unit 2: There was a total of 131,962 minutes (1,747.2 hours) operating hours for Unit 2 during the reporting period. The COMS monitor reported no downtime, while the SO2 CEMS reported 1 hour (0.05%) downtime, which was due to equipment malfunctions. Neither had any excess emissions.</p> <p>Unit 3: There was a total of 132,481 minutes (2208 Hours) of operating time for Unit 3 during the reporting period. The COMS reported 96 minutes (0.07%) downtime with no associated excess emissions. The downtime was due to QA inspections and maintenance. The NOx CEMS had 18 hours (0.82%) downtime and no associated excess emissions. The downtime was due to monitor malfunctions and recalibrations. The SO2 monitor also had 18 hours (0.82%) downtime, with associated excess emissions. The downtime as due to monitor malfunctions.</p> <p>The Unit 3 Opacity tests was also received. The associated low, mid, and high level opacity checks indicated passing results.</p> |

| Activity Date | Activity Type | Compliance Status | Comments |
|---------------|---------------|-------------------|--|
| 11/01/2022 | ROP Other | Compliance | <p>The 3rd Quarter 2022 Fugitive Dust Report was received on time and complete. The facility utilized a variety of dust control activities including, utilizing irrigation on top of coal stack out conveyor 42B and the coal pile irrigation system, fueling plants directly from trains when possible, operating a foam dust suppression system on four of the most heavily used conveyors within the coal handling system, spraying a dust suppression agent on western coal, grooming and compacting the coal storage piles, utilizing conditioning measures during ash unloading operations at the landfill, placing conditioned ash in horizontal lifts and utilizing a roller to compact the material in the active fill area of the storage cell, applying a dust suppressant on the roadways, utilizing a water truck in the active fill area of the landfill, and conducting daily surveillance rounds on site to ensure adequate dust control was maintained. The facility also benefited from an estimated 10.22 inches of precipitation occurring on 29% of days during this time period. No further action is required at this time.</p> |

| Activity Date | Activity Type | Compliance Status | Comments |
|---------------|----------------|-------------------|---|
| 10/11/2022 | MACT (Part 63) | Compliance | <p>The Semiannual Compliance report pursuant to 40 CFR Part 63 Subpart UUUUU for Coal-and Oil-Fired Electric Utility Steam Generating Units, Mercury and Air Toxics Standard (MATS) was received on time and complete. The Certification form was resubmitted with corrected dates a few days after the original submittal and is still considered to be on time.</p> <p>This report is for units 1, 2, and 3.</p> <p>EUBOILER1 and EUBOILER2 demonstrated compliance with the MATS requirements via Stack testing for PM and HCl, and through a certified Mercury (Hg) and diluent CEMS for Hg. EUBOILER1 was able to achieve LEE status on May 14, 2019 and EUBOILER2 on June 12, 2019. No emergency bypass of the control equipment was done during the reporting period. EUBOILER3 demonstrated compliance with the MATS requirements via CEMS for PM, Hg, and SO2.</p> <p>Tune-ups for the three units were conducted in August 2021, June 2021, and September 2021, respectively. No excess emission or deviations in work practice standards were reported for any of the units.</p> |

| Activity Date | Activity Type | Compliance Status | Comments |
|---------------|----------------------------|-------------------|---|
| 10/11/2022 | ROP Semi 1 Cert | Compliance | <p>The Semi-Annual Compliance Report pursuant to MI-ROP-B2835-2020b was received on time and complete (Postmarked 9/13/22). A total of two (2) deviations were reported for the reporting period. The first deviation was for EUSDA_U3 and was for intermittent visible emissions of greater than 5% opacity from Recycle Silo B vent filter (SVRS-BV3B) for less than 1 hour. A root cause analysis was conducted and the bin vent filter was subsequently replaced, and was returned to service the following day after repairs were made. The second deviation was for EUBOILER2 and was for the SCR losing continuous operations of ammonia supply for the UBAS system. This had been previously reported to the AQD, and it was verified that the NOx emissions were kept below the emission limits during the time it took to repair the UBAS System. Additionally, updates were made to the MMAP regarding repairs and maintenance to the UBAS system. No additional actions are necessary at this time.</p> |
| 10/11/2022 | CAM Excursions/Exceedances | Compliance | <p>The CAM excursion/exceedance report pursuant to MI-ROP-B2835-2020b was received on time and complete (Postmarked 9/13/22). No excursions or exceedances were reported for the reporting period.</p> |
| 10/11/2022 | CAM monitor downtime | Compliance | <p>The CAM monitor downtime report pursuant to MI-ROP-B2835-2020b was received on time and complete (Postmarked 9/13/22). Downtime was reported for the COMS monitor for EUBOILER1 and EUBOILER2, which was previously reported in the quarterly Excess Emissions Report (EER), and was due to periodic maintenance.</p> |

| Activity Date | Activity Type | Compliance Status | Comments |
|---------------|--------------------|-------------------|---|
| 10/11/2022 | CEM RATA | Compliance | <p>The Part 75 Continuous Emissions Monitoring (CEMS) Relative Accuracy Test Audit (RATA) for Unit 3 performed on 8/2/22 and 8/8-8/11/22 was received on time and complete.</p> <p>The report indicates each of the pollutants meeting the required Relative Accuracy (RA) for SO₂, NO_x, CO₂, and Flows. This report, however, is subject to review from AQD's TPU.</p> |
| 10/11/2022 | CEM RATA | Compliance | <p>The Unit 3 Mercury (Hg) Continuous Emissions Monitoring System (CEMS) Relative Accuracy Test Audit (RATA) test report was received on time and complete. The results indicate that Unit 3 meets the RA performance specification of criterion of <20% and the alternative performance specification criterion where the absolute difference of the RM and the CEMS Hg concentrations plus the confidence coefficient must be <5% ug/scm when the average Hg concentration is <2.5 ug/scm. The RA was 19.18% and the alternate RATA result was 0.196 ug/scm.</p> |
| 09/20/2022 | On-site Inspection | Compliance | <p>The purpose of this inspection was to determine compliance with the facility's renewable operating permit (ROP) MI-ROP-B2835-2020b.</p> |
| 09/12/2022 | CEM RATA | Compliance | <p>The Mercury Continuous Emissions Monitoring System (CEMS) Relative Accuracy Test Audit (RATA) for Units 1 and 2 was received on time and complete.</p> <p>The report indicates each of the pollutants meeting the required alternative RATA result as allowed under the MATS rule. This report, however, is subject to review from AQD's TPU.</p> |

| Activity Date | Activity Type | Compliance Status | Comments |
|---------------|---------------|-------------------|---|
| 08/23/2022 | Stack Test | Compliance | <p>The required triennial HCl and PM stack test report pursuant to MI-ROP-B2835-2020b to demonstrate compliance with 40 CFR Part 63 Subpart UUUU (MATS) was received on time and complete. Testing is conducted triennially since Units 1 and 2 have qualified as a low emitting EGU (LEE). The results for Units 1 and 2 are as follows:</p> <p>Unit 1: PM: Emission Limit: 0.030 lb/MMBtu and 0.015 lb/MMBtu (LEE Limit) and 0.015 lb/1,000 lb exhaust gas @ 50% exhaust air. Emission Result: 0.0006 lb/MMBTU and 0.0005 lb/1,000 lb exhaust gas @ 50% exhaust air.</p> <p>HCl: Emission Limit: 0.0020 lb/MMBtu and 0.0010 lb/MMBtu (LEE Limit) Emission Result: <0.00004 lb/MMBtu</p> <p>Unit 2: PM: Emission Limit: 0.030 lb/MMBtu and 0.015 lb/MMBtu (LEE Limit) and 0.015 lb/1,000 lb exhaust gas @ 50% exhaust air. Emission Result: 0.0011 lb/MMBTU and 0.0009 lb/1,000 lb exhaust gas @ 50% exhaust air.</p> <p>HCl: Emission Limit: 0.0020 lb/MMBtu and 0.0010 lb/MMBtu (LEE Limit) Emission Result: 0.00005 lb/MMBtu</p> |

| Activity Date | Activity Type | Compliance Status | Comments |
|---------------|------------------------|-------------------|--|
| 08/23/2022 | Excess Emissions (CEM) | Compliance | <p>The 2nd Quarter 2022 Excess Emissions report pursuant to MI-ROP-B2835-2020b for Units 1, 2 & 3, and the Opacity Monitor Assessment for 3 was received on time and complete.</p> <p>Unit 1: There was a total of 112,564 Minutes (1,876.1 hours) of operation for the reporting period. The COMS monitor had no downtime. No downtime was reported for the SO2 CEMS either. No excess emissions were reported.</p> <p>Unit 2: There was a total of 104,831 minutes (1,747.2 hours) operating hours for Unit 2 during the reporting period. Neither the COMS monitor nor the SO2 CEMS reported any downtime. Neither had any excess emissions.</p> <p>Unit 3: There was a total of 110,733 minutes (1,845.5 Hours) of operating time for Unit 3 during the reporting period. The COMS reported 132 minutes (0.12%) downtime with no associated excess emissions. The downtime was due to QA inspections and maintenance. The NOx CEMS had 4hours (0.23%) downtime and no associated excess emissions. The downtime was due to monitor malfunctions and recalibrations. The SO2 monitor had no downtime and no associated excess emissions.</p> <p>The Unit 3 Opacity tests was also received. The associated low, mid, and high level opacity checks indicated passing results.</p> |

| Activity Date | Activity Type | Compliance Status | Comments |
|---------------|----------------|-------------------|--|
| 08/19/2022 | MACT (Part 63) | Compliance | <p>The 2nd Quarter particulate matter CEMS report pursuant to 40 CFR Part 63, Subpart UUUUU for Unit 3 was received on time and complete. A PM CEMS is utilized to demonstrate compliance with the filterable PM 30-day boiler operating day rolling average limit of 0.03 lb/MMBTU. The records show the 30-day rolling average at the end of the quarter to be 0.000485 lb/MMBTU. The highest rolling average for the reporting period was 0.000535, which is compliant with the 0.030 lb/MMBTU limit.</p> |

| Activity Date | Activity Type | Compliance Status | Comments |
|---------------|---------------|-------------------|--|
| 08/02/2022 | ROP Other | Compliance | <p>The 2nd Quarter Fugitive Dust Report for 2022 was received on time and complete. The facility utilized a variety of dust control activities including, utilizing irrigation on top of coal stack out conveyor 42B and the coal pile irrigation system when temperatures were above freezing, fueling plants directly from trains when possible, operating a foam dust suppression system on four of the most heavily used conveyors within the coal handling system, spraying a dust suppression agent on western coal, grooming and compacting the coal storage piles, utilizing conditioning measures during ash unloading operations at the landfill, placing conditioned ash in horizontal lifts and utilizing a roller to compact the material in the active fill area of the storage cell, developing a plan to restore the full coal pile irrigation system during the upcoming period, returning the water truck to service in the active fill area of the storage cell as temperatures allowed, restoring the coal pile irrigation system to service following the cold weather season, applying a dust suppressant on the roadways, and conducting daily surveillance rounds on site to ensure adequate dust control was maintained. The facility also benefited from an estimated 8.51 inches of precipitation occurring on 38% of days during this time period. No further action is required at this time.</p> |

Name: Michael T. Cox

Date: 7/20/2023

Supervisor: HH