

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

B279668883

FACILITY: ST. CLAIR / BELLE RIVER POWER PLANT		SRN / ID: B2796
LOCATION: 4505 King Road, CHINA TWP		DISTRICT: Warren
CITY: CHINA TWP		COUNTY: SAINT CLAIR
CONTACT: Jason Roggenbuck , Technical Supervisor		ACTIVITY DATE: 07/25/2023
STAFF: Mark Dziadosz	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: FY 2023 Inspection.		
RESOLVED COMPLAINTS:		

On July 25, 2023, I, Michigan Department of Environment Great Lakes and Energy-Air Quality Division staff Mark Dziadosz along with Marie Reid, conducted a scheduled inspection of the Belle River Power Plant (BRPP) & Blue Water Energy Center (BWEC), located at 4505 King Road, China Township, Michigan. The purpose of this inspection was to determine the facility's compliance with the requirements of the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the administrative rules; the conditions of Renewable Operating Permit (ROP) No. MI-ROP-B2796-2015c; and the conditions of PTI Nos. 19-18 and 19-18B.

The SC/BRPP (SRN: B2796) renewable operating permit (ROP) currently consists of seven sections:

Section 1. ST. CLAIR POWER PLANT

Section 2. ST. CLAIR – DIESEL GENERATOR – PEAKERS

Section 3. BELLE RIVER POWER PLANT

Section 4. BELLE RIVER, PEAKERS

Section 5. Dean Peakers

Section 6. BELLE RIVER FUELS COMPANY, LLC

Section 7. ST. CLAIR FUELS COMPANY, LLC

I entered the facility and met with Mr. Jason Roggenbuck, Environmental Engineer. Mr. Roggenbuck escorted me throughout the inspection and provided records via email.

SECTION 1: ST. CLAIR POWER PLANT

St. Clair Power Plant consists of the following emission units:

EU-BOILER1-SC, a.k.a Unit No. 1: 150 MW Coal fired boiler – retired

EU-BOILER2-SC, a.k.a Unit No. 2: 150 MW Coal fired boiler– retired

EU-BOILER3-SC, a.k.a Unit No. 3: 150 MW Coal fired boiler– retired

EU-BOILER4-SC, a.k.a Unit No. 4: 150 MW Coal fired boiler – retired

EU-BOILER6-SC, a.k.a Unit No. 6: 350 MW Coal fired boiler– retired

EU-BOILER7-SC, a.k.a Unit No. 7: 450 MW Coal fired boiler– retired

All boilers at the SCPP have been retired. The are still ancillary operations ongoing related to coal handling and maintenance.

EU-RAILCAR-SC

EU-RAILCAR-SC is an ROP flexible group for the rail car coal dumper house. The enclosed rail car coal dumper house has a PM limit for the baghouse exhaust. VE readings and proper maintenance on the baghouse are surrogates for verifying the PM limit. VE readings are required every seven days during coal dumping activity. Method 9 reading is required at least once a year during maximum routine operating conditions. These operations have been discontinued and the dust collectors related to this flexible group have been removed.

Per VI.1, the permittee provided records of coal deliveries in tons per month and 12-month rolling average. In the time period reviewed, there were no deliveries. The rolling 12-month average was 1,315,3 tons in November 2022 and 0 in December 2022.

Per VI.2, the permittee provided records of visible emission observations, which indicated zero visible emissions.

Per VI.3, the permittee provided records of PM emissions. The monthly PM emissions have been 0 all of 2023. The 12-Month Rolling PM emissions was 0.00003 tons at the end of May 2023.

FG-ASH_HAND-SC

FG-ASH_HAND-SC is a flexible group for the flyash collection and handling. There is a PM limit for the fly ash silo loadout exhaust stacks. Weekly VE readings and proper baghouse maintenance are surrogates for verifying the PM limit. I reviewed weekly VE readings. Fly ash generated by the plant is taken to the landfill. Water is added to the fly ash during the fly ash loading. There is no particulate control system installed for controlling fugitive dust from the loadout area. The loadout area is enclosed on three sides. The South Fly Ash Silo serves Units 1-4 while the North Fly Ash Silo serves Units 6 and 7. Method 9 VE readings are conducted on each baghouse stack a minimum of once per calendar year. With the retirement of the Boilers at SCPP, these conditions are no longer relevant since ash handling no longer occurs.

Per VI.1, 1. the permittee shall perform a visible emission observation of each ash handling system baghouse exhaust stack, at least once every 7 days during routine flyash loading. The permittee is maintaining the required observation records. The VE observation records provided by the permittee indicate zero visible emissions.

Per VI.2, the permittee provided records of the date of each flyash hauling and the date of each vacuum sweeping of all paved roads.

Per VII.3, annual certifications indicate compliance with visible emission limits.

FG-COALHAND-SC

FG-COALHAND-SC is a flexible group representing coal handling equipment and coal storage piles. Weekly VE readings are conducted on each vent associated with the coal handling system and from stacker drop off points. VEs are generally not expected from the transfer house dust collector exhausts since the dust collector only operates if plant personnel are working inside the transfer house. Method 9 VE readings are conducted on each vent a minimum of once per calendar year.

All conveyor belting is totally enclosed to control particulate fallout except for the following: the conveyor system for the stacker/reclaimer (not covered and not completely enclosed); and some other conveyors between transfer houses or crushers (covered but not completely enclosed). Older conveyors, including some conveyors between transfer houses and crushers, are not part of the Phase I coal handling equipment which was covered under PTI No. 7-75 (issued June 19, 1987). NOTE: Phase I coal handling equipment was built in conjunction with the construction of Belle River Power Plant to support the combustion of western low sulfur coal for both St. Clair and Belle River. Furthermore, the conveyor serving the stacker/reclaimer cannot be enclosed because the stacker/reclaimer moves along the coal conveyor. All conveyors used for transferring coal to St. Clair or Belle River are enclosed, except the above-described coal conveyors.

The storage piles that are located at the Belle River Power Plant are handled by the fuel supply group. With EU-RAILCAR discontinued, 100% of the coal arrives by boat (western, low to mid sulfur). Eastern coal is not burned at BRPP. During the unloading of coal by boat, water sprays are utilized at the drop off and transfer points. The boat dock is located at the St. Clair side.

Coal samples are collected on a daily basis. Coal analysis is important from an operations standpoint. Dust suppressant is added to all reserve coal

piles located outdoors. The reserve is used if there is a problem with the main conveyor.

A vacuum sweeper sweeps the plant roadways daily. The vacuum sweeper is equipped with water sprays. DTE keeps a record of vacuum sweeping and water sprays.

Per V.1, The permittee shall conduct and record a Method 9 visible emissions reading from the coal handling system pollution control equipment stacks, at a minimum of once per calendar year, during maximum routine operating conditions. The permittee provided Method 9 VE observation records.

Per VI.1, the permittee shall perform a visible emission (VE) observation of the coal handling system pollution control equipment exhaust stacks, radial stackers drop points and coal storage piles at least once every 7 days during routine operating conditions. The permittee shall initiate corrective action upon observation of excessive visible emissions and maintain a written record of each required observation and corrective action. The permittee provided VE observation records which indicate VE observation was done every 7 days during routine operation.

Per VI.2, the permittee provided inspection records of conveyor belting enclosures to determine and record conditions, once per calendar year. Work orders were written to address mechanical items needing repair.

Per IX.1, the permittee provided a copy of the Malfunction Abatement and Preventative Maintenance Plan for the baghouse dust collection system.

Per IX.2, the permittee provided a copy of the fugitive dust control plan.

FG-COLDCLNR-SC

Per Jason Roggenbuck, all cold cleaners have been removed from service and from the site.

FG-EMERGENS-SC

FG-EMERGENS-SC is a flexible group for emergency generators subject to RICE MACT. Currently, St. Clair has only one emergency diesel generator (fire pump engine) subject to the RICE MACT. Preventive maintenance that includes tune-up and inspection (air cleaner, belts, and hoses) are conducted twice a year. Tune-ups and inspections are conducted annually.

Per VI.3, the permittee provided records of hours of operation, which appear to demonstrate compliance with the limits of 100 hours per year for maintenance and testing, and 50 hours per year in non-emergency

situations (counted towards the 100 hours per calendar year for maintenance and testing). There is no time limit in emergency situations.

FG-DSI/ACI-SC

FG-DSI/ACI-SC is an ROP flexible group for the MATS Compliance Project (40 CFR 63, Subpart UUUUU) for each boiler that is an electric generating unit. Dry sorbent injection (DSI) controls hydrogen chloride emissions and activated carbon injection (ACI) controls mercury emissions. Due to the retirement of the boilers at SCPP, this flexible group is no longer valid.

FG-ISLANDS-SC

FG-ISLANDS-SC is an ROP flexible group for the DSI and ACI sorbents storage. PM limits for the storage silos with bin vent filters or dust collectors are complied with by proper maintenance on the dust collectors, implementing a malfunction abatement plan for the process and emission controls, and performing daily VE readings. A Method 9 VE reading is required at least once a year. VE reading and Method 9 VE observation records were provided by DTE. Due to the retirement of the boilers at SCPP, this flexible group is no longer valid.

FG-MATSPROJECT-SC

FG-MATSPROJECT-SC is an ROP flexible group for the DSI and ACI emissions control systems. This flexible group requires an A-A emissions calculation of PM, PM10, CO2, and CO2e. The A-A emission calculation records are to be submitted only if the calendar year combined actual emissions of either PM, PM10, CO2, and CO2e exceed the baseline actual emissions by a significant amount, and the calendar year combined actual emissions differ from the preconstruction projection. Due to the retirement of the boilers at SCPP, this flexible group is no longer valid.

SECTION 2: ST. CLAIR – DIESEL GENERATOR – PEAKERS

This section is for the St. Clair Peaking Station consisting of a 23 MW natural gas-fired turbine generator (installed in 1968) and two (2) 2.75 MW diesel generator. These peakers are seldom used.

FG-MACT-ZZZZ-SP is a flexible group for the two-diesel generator peakers. Fuel oil No. 2 that is used for the diesel peakers comes from the same main fuel oil storage tank used for St. Clair Unit 6 and 7. Diesel generators are run and tested every month.

The two diesel peakers were retrofitted with catalytic oxidizers to comply with the RICE MACT 40 CFR 63 Subpart ZZZZ. However, in 2020 the catalytic oxidizers were removed and the peakers became considered limited use under the RICE MACT.

EU-CTG11-1-SP is a 23 MW natural gas-fired grandfathered combustion turbine generator. Only pipeline-quality natural gas is used as fuel.

Per VI.1, The permittee shall keep a record of the dates when the unit is in use. The permittee is keeping the required records. In the time period reviewed, the unit operated 3 days.

SECTION 3: BELLE RIVER POWER PLANT

The Belle River Power Plant consists of two base-load, Babcock and Wilcox radiant reheat coal-fired boilers with electric-generating capacity rated at 625 MWG (Unit 1) and 635 MWG (Unit 2). The boilers were installed in 1978 and use low sulfur western pulverized coal as a primary fuel, with fuel oil No. 2 for overfiring (fuel oil overfiring results in more megawatt output than what is normally provided by coal). Since fuel oil is more expensive than coal, fuel oil overfiring is only implemented to supplement coal, when a coal mill is down, or when the coal feed is not at maximum. Note: Eastern Coal is not burned at the Belle River Power Plant

A Chem Mod process (Reduced Emissions Fuel) was installed in 2009 to reduce SO₂ and mercury emissions. With regards to Reduced Emissions Fuel (REF), I have noted below that FG-REF-SCFC ceased operations on June 7, 2021, and FG-REF-BRFC ceased operations on December 27, 2021. The ROP renewal, which is in process, will not contain the FG-REF-SCFC section, which is currently Section 7 in MI-ROP-B2796-2015c.

FG-BOILERS-BR

The Belle River Power Plant is subject to the Acid Rain and Cross State Air Pollution Rule (CSAPR). Both programs require facilities to participate in an emission trading program and install a continuous emissions monitor (CEMS).

The NO_x and SO₂ CEMS can display instantaneous, 1-hr average, or 3-hr average NO_x and SO₂ emissions. The CEMS can show real-time display, real-time history, and real-time trends to predict if an exceedance will occur. Particulate Matter (PM) CEMS and Mercury Sorbent Tube Emission Monitoring System were also installed to comply with the Mercury and Air Toxics (MATS) Rule.

Belle River is subject to NSPS Subpart D. The SO₂ limit is 1.2 pounds/MM BTU, based on a 3-hr average. NO_x limit is 0.70 pounds/MM BTU, based on a 3-hr average. Compliance with the limits was initially verified during the performance tests. Belle River does not have a 12-month mass emission limit for SO₂ and NO_x.

NSPS subpart D requires quarterly reporting of NO_x and SO₂ excess emissions based on exceedances of a three-hour average, as determined from CEMS. Excess emissions reports are reviewed and entered in MACES. The compliance status is summarized in the full compliance evaluation (FCE) hard copy attached to this report and available for review in the MACES database.

The CEMS and COMS are calibrated every morning. CEMS calibration lasts about 25 minutes. A CEMS checklist is completed twice a week. Routine maintenance checks on the CEMS are performed and entered in Plant View. Dilution air cleaning filters and drying agents are replaced annually.

Blowback is performed on the sampling system twice a day. CEMS/COMS annunciator alarm panels are installed in the Control Room. The audible alarm system warns plant staff when an exceedance has occurred or if CEMS/COMS are down. There is no alarm when CEMS/COMS is auto-calibrating. The Control Room operator can verify what the problem is and inform the technician or write a work order.

The facility was required to submit a CO Minimization Plan for Units 1 and 2 during the installation of the Low-NO_x burners. Since CO emissions are not monitored, it is difficult to evaluate the effectiveness of the CO Minimization Plan. CO and O₂ analyzers are installed only as an operational tool for the operator.

Written records of activities to demonstrate that CO is being minimized are required in the ROP. In Plant View, control room operators record the options that were done to minimize emissions on a daily basis. Options to minimize CO emissions are: adjust O₂ percentage; maintain proper fuel-to-air ratio; visually monitor combustion conditions; tested coal mill fineness; measured unburned carbon in ash, and determine proper control settings. Excess O₂ at the boiler is maintained at approximately 3.5%.

There is no CO mass emission limit for the boilers. MI-ROP-B2796-2015c requires the calculation of CO emissions for Unit No. 1 only. Unit 1 CO emissions are based on a rolling 12-month period.

The ESPs have 48 TR sets and 6 fields. The operating parameters of Units 1 and 2 ESPs are electronically recorded; hence the operator does not log them daily. DTE implements a Monthly Precipitator Transformer Inspection Log for Unit 1 and 2.

Per V.1, Once every 3 years, the permittee verify and quantify particulate matter emission rates from Boilers 1 and 2. The permittee performed stack testing on Boiler 1 on 6/15/21 and Boiler 2 on 7/15/21. Both units passed the emission test. (Boiler 1- 0.013 lb/MMBtu, limit 0.10; Boiler 2-0.012 lb/MMBtu, limit-0.10).

Per VI.10, The permittee shall perform an annual COMS audit using certified filters to ensure accurate opacity readings. The permittee performed the annual audit on Unit 1 & 2 on July 6, 2023.

Per VI.11, the permittee shall keep monthly and previous 12-month CO mass emission calculation records for Boiler No. 1. Records indicate the permittee maintained monthly and 12-month CO emission calculations. The permit does not limit CO emissions.

FG-AUXBLRS-BR

FG-AUXBLRS-BR is a flexible group for the auxiliary boilers. Belle River has 2 auxiliary boilers, north and south, fired with No. 2 fuel oil. These units are seldom used. The auxiliary boilers are subject to the Major Source Boiler MACT promulgated on January 31, 2013. The aux boilers are complying as a limited-use boiler. The oil-fired boilers use fuel oil No. 2 with a sulfur content of 0.001%. A fuel meter is installed for each boiler.

Per VI.1, The permittee shall keep a record of the following on a monthly basis:

- a. Total fuel usage**
- b. Sulfur content of fuel oil**
- c. Hours of operation for equipment**
- d. Heat value of fuel oil**

The permittee is keeping the required records. In the time period reviewed, the North Aux Boiler operated for 6.8 hours using 2,292 gallons of fuel oil in May 2023 and the South Aux Boiler operated for 193.6 hours using 35,077 gallons in May 2023.

Per VI.5, The permittee shall keep a record of the fuel oil specifications and/or fuel analysis for each delivery or fuel oil used in the boiler. The facility provided a copy of the fuel oil supply agreement which lists the specifications for the fuel oil.

Visible emissions readings are only required if the auxiliary boilers operate continuously for 24 hours or more.

FG-ASH_HAND-BR

FG-ASH_HAND-BR is a flexible group for the flyash collection and handling. There is a PM limit for the fly ash silo loadout. VE readings and proper implementation of the flyash loading procedure are surrogates for the PM limit. Unit 1 & 2 fly ash silos can both load trucks. Ash is wet loaded from both silos. Unit 2 fly ash silo is equipped with a Vaculoader spout for

dry loading to minimize emissions. The spout is maintained under negative pressure – air is drawn into a filter section. During vaculoading of ash, one of the hatches in the truck has to be left open so that the operator can see the level inside the truck. For wet loading, a mixer combines water with the fly ash. To further minimize dust during wet loading water sprays are used. Fly ash goes to a landfill.

Belle River is required to conduct weekly VE readings during fly ash loading from each silo. DTE personnel conduct VE readings of fugitive emissions coming out of the loadout structure. AQD staff verified that records of VE readings are maintained, and if the operator notices fugitive emissions, it is logged, and a comment is entered.

Paved roadways inside the facility, including the roadway surrounding the ash load out silos, are vacuum swept as needed. Water sprinklers and water trucks with sprays are operated as needed. Calcium chloride is also applied to the plant roadways.

Per V.1, the permittee shall conduct and record Reference Method 9 visible emissions (VE) readings of the economizer ash silo dust collector exhaust stack, at a minimum once per calendar year, during maximum operating conditions. The economizer ash silo is no longer used and therefore no VE readings have been done.

Per VI.1, the permittee shall perform visible emission (VE) observation during flyash loading of trucks and railroad cars from the silo, at least once every seven days during routine operating conditions. The permittee shall initiate corrective action upon observation of excessive visible emissions and shall maintain a record of each required observation and corrective action. The permittee is performing the required inspections. Records indicate there was no VE during the previous 2-months of flyash loading.

FG-COALHAND-BR

FG-COALHAND-BR represent coal handling at Belle River. The following emission units make up the coal handling flexible group: transfer houses, coal silos, and cascades. Transfer houses are larger buildings; cascades run inside the Belle River Power Plant. All conveyors used for transferring coal to the boilers are enclosed, minimizing fugitive coal dust emissions. VE readings are conducted every week and logged for each vent associated with the coal handling system. I reviewed logs and verified that readings are conducted weekly. VE readings are from the dust collector exhaust. The dust collectors are only operated whenever there are personnel working inside the cascades or transfer houses. I reviewed the weekly VE reading logs.

The storage piles are located at Belle River but handled by the fuel supply group. Radial stackers are manually adjusted to limit free fall distance. A bulldozer continuously compacts the storage piles to prevent fugitive dust. In addition to the main coal pile, a reserve pile is also maintained by Belle River for its use. Dust suppressant is added to the reserve piles.

Per VI.1, the permittee shall perform a visible emission observation of the coal handling pollution control equipment stacks, reclaimers, and stacker drop points, at least once every seven days during routine operating conditions. The permittee shall initiate corrective action upon observation of excessive visible emissions and shall maintain a written record of each required observation and corrective action. The permittee is keeping the required records. Records indicate no visible emissions during the previous 7 inspections.

Per VI.2, the permittee shall inspect conveyor belting enclosures to determine and record conditions, once per calendar year. The permittee provided records of the March 13, 2023 inspection.

FG-COLDCLNR-BR

FG-COLDCLEANER is a flexible group for cold cleaners. 4 cold cleaners that were part of SCPP Fuel Supply equipment (East Tractor House (East & West), West Tractor House, Fuel Maintenance Building) were added to the BRPP inventory after retirement of the SCPP, since Fuel Supply was transferred to BRPP. These have not changed location or use. There is one other cold cleaner, located at the maintenance shop, currently in use at BRPP. All cold cleaners use a Zep Dyna 143 parts cleaner – a non-hazardous solvent.

Per VI.2, the permittee keeps records of the serial number, model number, the date the unit was installed, the air/vapor interface area, the applicable Rule 201 exemption, and the Reid vapor pressure of each solvent used. The records appear to demonstrate compliance with this permit special condition. See attached records.

Per VI. 3, an operating procedure is displayed near the cold solvent degreasers.

FG-EMERGENS-BR

FG-EMERGENS-BR is a flexible group for emergency generators subject to RICE MACT. Belle River has only one emergency diesel generator (fire pump engine) subject to the RICE MACT. Tune-ups and inspections are performed annually.

FG-DSI/ACI-BR

FG-DSI/ACI-BR is an ROP flexible group for the MATS Compliance Project (40 CFR 63, Subpart UUUUU) for each boiler that is an electric generating unit. Dry sorbent injection (DSI) controls hydrogen chloride emissions and activated carbon injection (ACI) controls mercury emissions. The DSI (Trona) portion of FG-DSI/ACI-BR has not been used since approximately 2020.

Belle River chose to comply with the following limits: for PM, 0.03 lb/MMBTU or 0.3 lb/MW hr; for hydrogen chloride, 0.002lb/MMBTU or 0.02 lb/MW hr; and for mercury, 1.2 lb/TBTU or 0.013 lb/GW hr. Belle River Power Plant installed PM CEMS and mercury sorbent tube monitoring system (STMS). For hydrogen chloride monitoring, the plant is conducting quarterly HCl emissions tests. Reports are received, entered into MACES, and the compliance status is summarized in the full compliance evaluation (FCE).

The following records are kept at the facility: each occurrence and duration of each startup and or/shutdown; records of occurrence and duration of each malfunction of an operation or air pollution control and monitoring equipment; records of actions taken during periods of malfunction to minimize emissions; and records of types and amounts of fuel used during each startup or shutdown.

Per VI.2, the permittee provided a copy of the site-specific monitoring plan dated 2/1/16.

FG-ISLANDS-BR

FG-ISLANDS-BR is an ROP flexible group for the DSI and ACI sorbents storage. PM limits for the storage silos with bin vent filters or dust collectors are complied with by proper maintenance on the dust collectors, implementing a malfunction abatement plan for the process and emission controls, and performing daily VE readings. AQD has not requested testing to verify the emission limits in SC I.2-5. The DSI (Trona) portion of FG-DSI/ACI-BR has not been used since approximately 2020.

Per I.1 and VI.1 the permittee shall perform and document non-certified visible emissions observations as required in Emission Limit SC I.1 on a daily basis when FG-ISLANDS-SC is operating. The SC I.1 visible emission limit is 7 percent. Trona is currently not used at the facility. Therefore, there have been no visible emissions observations from the Trona. The facility provided visible emission observations from the ACI. There was one instance of VE on Unit 2 on 4/20/23. It appears proper methodology followed the VE event. There was no VE on Unit 1 in the time-period reviewed.

Per VI.2, the permittee provided records of the hours of operation for FG-ISLANDS-SC on a daily basis. There were no deliveries of Trona in 2022 or 2023 and there were no hours of operation for Trona in 2022 or 2023. ACI was used.

FG-MATSPROJECT-BR

FG-MATSPROJECT-BR is an ROP flexible group for the DSI and ACI emissions control systems. This flexible group requires an A-A emissions calculations of PM, PM10, CO2, and CO2e. The A-A emission calculation records are to be submitted only if the calendar year combined actual emissions of either PM, PM10, CO2, and CO2e exceed the baseline actual emissions by a significant amount, and the calendar year combined actual emissions differ from the preconstruction projection.

Per SC VI. 1, the permittee shall calculate and keep records of PM, PM10, CO2, and CO2e emission rates from each emission unit of FG-MATSPROJECT-BR, in tons per year on a calendar year basis. This recordkeeping requirement was in place from commencement of operation and for the next 5 years, so is no longer valid. RY2020 was last report compiled on February 28, 2021.

SECTION 4: BELLE RIVER, PEAKERS

This section is for the five (5) diesel peaking units (2.5 MW each) and three (3) 82.4 MW peaking combustion turbine generators.

FG-DIESEL-BP

FG-DIESEL-BP is a flexible group for five peaking diesel generators. Fuel oil used in the diesel engines is the same oil used at the Belle River main boilers. The diesel engines are tested monthly. The diesel engines have not run continuously for more than 24 hours, therefore no VE readings have been conducted. The diesel engines, subject to RICE MACT are classified as limited use engines.

Per VI.4, the permittee provided records of fuel analysis. The most recent analysis indicates a sulfur content of 0.0010 weight percent, which complies with the permitted limit of 0.7%.

FG-CTG-BP

FG-CTG-BP is a flexible group for three natural gas-fired combustion turbine generator peakers. The combustion turbines are subject to the Acid Rain and Cross State Air Pollution Rule (CSAPR). Both programs require facilities to participate in an emission trading program and install a continuous emissions monitor (CEMS). The Belle River combustion turbine

generators' Acid Rain Permit is included with the Belle River Power Plant Acid Rain Permit.

The combustion turbine generators' rating is dependent on the ambient temperature. In the winter, the CTGs can generate more than 82.4 MW and in the summer, less than 82.4 MW. The turbines were installed in 2001 and are subject to NSPS Subpart GG.

To comply with the Acid Rain and CSAPR, the facility is allowed to install PEMS instead of CEMS because the turbines are considered peakers. PEMS is a predictive emission monitoring system. Since natural gas is the only fuel, only a NOx PEMS is required. To calculate SO2 emissions, Part 75 Appendix D allows the use of the SO2 emissions default value of 0.0006 lb/MM BTU for natural gas. However, Appendix E indicates that if at any point the peaking unit status is lost, Part 75 requires a NOx-diluent monitoring system to be installed and certified by December 31 of the calendar year following the year in which the peaking status is lost (SC VI.6) To maintain peaker status, the facility must maintain an average annual capacity factor of 10% or less over the past 3 years AND an average capacity factor of 20% or less in each of those 3 years.

A monitoring plan for the Belle River Peakers CEMS was received on September 10, 2019, for NOx and O2. Between September 25 and November 1, 2019, the initial CEMS relative accuracy test audits (RATAs) took place. (SC VI.8). The CEMS were certified on March 2 and May 6, 2020. CO CEMS are also present, but these are used only as process monitors and do not follow the QA of Part 75.

Most startups for the simple cycle combustion turbines are "cold" starts. Normal startup consists of the following steps: primary mode, lean-lean mode, secondary mode, and premix mode. Premix mode has optimized emissions. It takes 23 minutes to reach premix mode from a cold start. A motor is needed to spin the turbine during startup. The steady-state turbine speed is 3600 RPM. At 60% steady-state turbine speed, the motor is no longer needed to spin the turbine. It takes 20 minutes for a controlled shutdown of the turbine. During a controlled shutdown, fuel firing is stopped at 20% steady-state turbine speed.

Part 75 Appendix E requires a NOx emission rate test once every 20 calendar quarters at 4 loads (SC V.1). However, with the installation of the NOx CEMS, this testing requirement is no longer valid.

CO testing is done in conjunction with NOx testing at mid and high load. PM-10 testing is conducted every 5 years (ROP requirement) at 70% and 100% load. CO and PM-10 mass emissions are calculated using the worst-case emission factors obtained from the most recent stack tests. CO and NOx emission testing occurred on August 11, 2021, and PM-10 emission

testing occurred on March 15, 2022. All emissions passed their respective limits.

During inspection, the CEMS for Unit 12-2 were reading: CO- 0.1 ppm, NOx- 6.71 ppm, and O2- 15%.

Per I.4 and VI.1, DTE provided records demonstrating compliance with the 10% opacity limit and the requirement to conduct a federal Reference Method 9 visible emissions reading conducted at least once per 1200 hours of operation.

SECTION 5: DTE Electric Company – Dean Peakers

FG-CTG-DP

FG-CTG-DP is a flexible group for four (4) 82.4 MW peaking combustion turbine generators. The Dean Peakers were historically operated by DTE Energy Services, a subsidiary of DTE Energy, but was transferred to DTE Electric Company, also a subsidiary of DTE Energy, around 2016.

The combustion turbine generators are subject to the Acid Rain and Cross State Air Pollution Rule (CSAPR). Both programs require facilities to participate in an emission trading program and install a continuous emissions monitor (CEMS). The turbines were installed in 2002 and are subject to NSPS Subpart GG.

To comply with the Acid Rain and CSAPR, the facility is allowed to install PEMS instead of CEMS because the turbines are considered peakers. PEMS is a predictive emission monitoring system. Since natural gas is the only fuel, only a NOx PEMS is required. To calculate SO2 emissions, Part 75 Appendix D allows the use of the SO2 emissions default value of 0.0006 lb/MM BTU for natural gas. However, Appendix E indicates that if at any point the peaking unit status is lost, Part 75 requires a NOx-diluent monitoring system to be installed and certified by December 31 of the calendar year following the year in which the peaking status is lost (SC VI. 12). To maintain peaker status, the facility must maintain an average annual capacity factor of 10% or less over the past 3 years AND an average capacity factor of 20% or less in each of those 3 years.

A monitoring plan for the Dean Peakers CEMS was received on September 14, 2021, for NOx and O2. On October 26-29, 2021, the initial CEMS relative accuracy test audits (RATAs) took place. The CEMS were certified on January 11, 2022. CO CEMS are also present, but these are used only as process monitors and do not follow the QA of Part 75.

These combustion turbine generators are identical to the combustion turbine generators in Section 4. Most startups “cold” starts. They follow the same normal startup which consists of the following steps: primary mode,

lean-lean mode, secondary mode, and premix mode. Premix mode has optimized emissions. The combustion turbine generators' rating is also dependent on the ambient temperature. In the winter, the CTGs can generate more than 82.4 MW and in the summer, less than 82.4 MW.

NOx emission rate and NOx mass emissions must be determined to comply with the NSPS and emissions trading program. NOx emissions are monitored with CEMS.

Part 75 Appendix E requires a NOx emission rate test once every 20 calendar quarters at 4 loads (SC V.2). However, with the installation of the NOx CEMS, this testing requirement is no longer valid.

CO testing is done in conjunction with NOx testing at mid and high load. PM-10 testing is conducted every 5 years (ROP requirement) at 70% and 100% load. CO, HCOH, and PM-10 mass emissions are calculated using the worst-case emission factors obtained from the most recent stack tests. CO and NOx emission testing occurred on March 11, 2022, and PM-10 emission testing occurred on May 2, 2022. All emissions passed their respective limits. HCOH emission factors were developed from the previous stack test. The HCOH stack test is only a one-time test.

SECTION 6: BELLE RIVER FUELS COMPANY, LLC

FG-REF-BRFC

NOTE: FG-REF-BRFC ceased operations on December 27, 2021.

SECTION 7: ST. CLAIR FUELS COMPANY, LLC

FG-REF-SCFC

NOTE: FG-REF-SCFC ceased operations on June 7, 2021.

BLUE WATER ENERGY CENTER

PTI 19-18 was issued to DTE Electric Company – Belle River Combined Cycle and PTI 19-18B was issued to DTE Electric – Blue Water Energy Center, which is the current name for “Belle River Combined Cycle.” PTI 19-18B was issued to address changes to the cooling tower dimensions. Except as specified in FGCOOLINGTOWER, Sections I and VIII of permit 19-18B, all other special conditions specified in PTI No. 19-18 remain in effect.

The Blue Water Energy Center consists of the two combustion turbines in a combined cycle configuration. A combined cycle electric generating unit consisting of two (2) General Electric “H”-class combustion turbines each with a maximum fuel type-based heat input of 3,658 MMBtu/hr coupled with

a heat recovery steam generator (HRSG). Each HRSG is equipped with a natural gas-fired duct burner rated at 800 MMBtu/hr to provide heat for additional steam production. The HRSG is not capable of operating independently from the combustion turbine generators (CTG) on each unit. The CTG/HRSG is equipped with a combined oxidation catalyst for the control of CO and VOCs, and selective catalytic reduction (SCR) with dry low NOx burners for the control of nitrogen oxides. Exhaust emissions from each HRSG will be controlled by oxidation catalyst and SCR.

The facility began trial operation on the CTGs starting in November 2021 and the “market start” date was May 1, 2022.

EUAUXBOILER

A natural gas-fired auxiliary boiler, rated at 99.9 MMBTU/hr to facilitate startup of the CTG/HRSG trains and to provide steam to the steam turbine generator seals. The auxiliary boiler is equipped with low NO_x burners (LNB) and flue gas recirculation (FGR).

Per III.1, On August 6, 2021, the permittee submitted a Malfunction Abatement Plan and Startup, Shutdown, and Malfunction Emissions Minimization Plan.

Per V.1, Within 180 days after commencement of initial startup, the permittee shall verify NO_x, CO, PM, and VOCs emission rates from EUAUXBOILER by testing at the owner’s expense in accordance with EGLE requirements. The emission test conducted on April 15, 2022, provided the following results:

Total Particulate Matter: 0.1 lb/hr (Permit limit = 0.7),

NO_x: 2.8 lb/hr (Permit limit = 3.6),

CO: 0.0 lb/hr (Permit limit = 7.49),

VOC: 0.00831 lb/hr (Permit limit = 0.8).

Per VI.2, the permittee shall maintain hourly and daily natural gas usage records and calculate and keep monthly natural gas usage records. The facility is maintaining the required records.

Per VI.4, for sulfur content of natural gas, the permittee shall maintain a complete record of monthly sulfur content of the natural gas to meet the 0.34 gr per 100 scf or less limit in SC II.1. Records indicate the facility is meeting the limit. The August 2022 monthly sulfur content was 0.049 gr per 100 scf.

Per VI.5, the permittee shall calculate and keep records of hourly NOx, CO, PM, PM10, and PM2.5 emissions from EUAUXBOILER. The permittee is keeping the required records. The highest hourly emissions were:

NOx: 1.45 lb/hr

CO: 0.00 lb/hr

PM: 0.0 lb/hr

PM10: 0.0 lb/hr

PM2.5: 0.0 lb/hr

The lb/hr emissions meet the permit limits.

Per VI.6, the permittee shall calculate and keep records of monthly and 12-month rolling CO2 mass emissions from EUAUXBOILER. The permittee is keeping the required records. The limit is 25,623 TPY.

Per VI.8, the permittee shall calculate and keep records of hourly heat input (MMBtu/hr) for EUAUXBOILER based on the monthly heat value and hourly gas usage to show compliance with SC IV.1 (99.9 MMBtu/hr). The permittee is keeping the required records.

Per SC VII.1, notification of startup of EUAUXBOILER was received on September 13, 2021.

EUEMENGINE

A nominal 2 MW diesel-fueled emergency engine with a model year of 2011 or later, and a displacement of <10 liters/cylinder. The engine is an EPA Tier 2 certified engine subject to NSPS IIII.

Per II.1, the permittee shall only burn diesel fuel with a maximum sulfur content of 15 ppm. The facility provided a SDS for the fuel and it is Ultra Low Sulfur Diesel (ULSD) with a maximum content of 15 ppm sulfur.

Per V.1, Within 180 days after commencement of trial operation, the permittee shall verify VOC mass emissions from EUEMENGINE by testing at the owner's expense in accordance with EGLE requirements. The emission test conducted on April 14, 2022, provided the following results:

VOC: 0.24 lb/hr (Permit limit = 1.89).

Per VI.2.a., the permittee shall maintain records of the manufacturer certification documentation. The facility is maintaining the required records.

Per VI.6, the permittee shall calculate and keep records of hourly PM10, and PM2.5 emissions from EUENGINE. The permittee is keeping the required records. The emissions are based on emission factors from the ROP application. The highest hourly emissions were:

PM10: 1.18 lb/hr (Limit-1.18 lb/hr)

PM2.5: 1.18 lb/hr (Limit-1.18 lb/hr)

The lb/hr emissions meet the permit limits.

Per VI.7, the permittee shall calculate and keep records of monthly and 12-month rolling CO2 mass emissions from EUENGINE. The permittee is keeping the required records. The limit is 161 TPY.

Per VI.8, for the hours of operation of EUENGINE, the permittee shall monitor and record the hours of operation and the hours of operation during non-emergencies for EUENGINE, on an hourly, daily, monthly, and 12-month rolling time period basis. The permittee is keeping the required records.

Per VI.9, for the fuel supplier certification records, the permittee shall maintain a record of each delivery of diesel fuel oil used in EUENGINE, demonstrating the fuel meets the requirements of 40 CFR 80.510(b), as specified in SC II.1. Records indicate the facility is meeting the limit. DTE has a contract with Marathon Petroleum to only provide No. 2 Diesel Fuel Oil with a minimum of 40 cetane index.

Per VII.1 and 2. On August 25, 2021, notice of completed installation of EUENGINE were submitted. This notice states that the first startup (trial operation) occurred on August 24, 2021, and that the EPA Tier 2 certified engine will be operated in a certified manner.

EUPENGINE

A 399 brake HP diesel-fueled emergency fire pump engine with a model year of 2011 or later, and a displacement of <10 liters/cylinder. The engine is an EPA Tier 3 certified engine subject to NSPS III.

Per II.1, the permittee shall only burn diesel fuel with a maximum sulfur content of 15 ppm. The facility provided a SDS for the fuel and it is Ultra Low Sulfur Diesel (ULSD) with a maximum content of 15 ppm sulfur.

Per VI.4, the permittee shall calculate and keep records of hourly PM10 and PM2.5 emissions from EUPENGINE. The permittee is keeping the required records. The emissions are based on emission factors from the ROP application. The highest hourly emissions were:

PM10: 0.07 lb/hr

PM2.5: 0.07 lb/hr

The lb/hr emissions meet the permit limits (0.13 lb/hr).

Per VI.5, the permittee shall calculate and keep records of monthly and 12-month rolling CO₂ mass emissions from EUPENGINE. The permittee is keeping the required records.

Per VI.6, for the hours of operation of EUPENGINE, the permittee shall monitor and record the hours of operation and the hours of operation during non-emergencies for EUPENGINE, on an hourly, daily, monthly, and 12-month rolling time period basis. The permittee is keeping the required records.

Per VI.7, for the fuel supplier certification records, the permittee shall maintain a record of each delivery of diesel fuel oil used in EUPENGINE, demonstrating the fuel meets the requirements of 40 CFR 80.510(b), as specified in SC II.1. Records indicate the facility is meeting the limit.

Per VI.8, the permittee shall keep records of maintenance activity on EUPENGINE, including manufacturers emissions-related instructions and records demonstrating the engine has been maintained according to those instructions. The permittee is keeping the required records.

Per VI.9, the permittee shall calculate and keep records of hourly VOC emissions from EUPENGINE. The permittee is keeping the required records.

Per VII.1, On June 4, 2021, notice of completed installation of EUPENGINE. First startup (trial operation) occurred on June 3, 2021. This notice states the EPA Tier 3 CERTIFIED stationary emergency engine shall be operated in a certified manner.

EUCOLDCLEANER

Per Jason, EUCOLDCLEANER was not installed.

FGCTGHRSG

Two 3,658 MMBTU/hr natural gas-fired combustion turbine generators (CTGs) coupled with heat recovery steam generators (HRSGs). The HRSGs are equipped with natural gas-fired duct burners rated at 800 MMBTU/hr to provide heat for additional steam production. The HRSGs are not capable of operating independently from the CTG. The CTGs/HRSGs are equipped with a combined oxidation catalyst for the control of CO and VOCs, and selective catalytic reduction (SCR) with dry low NO_x burners for the control of NO_x.

Per II.1, the permittee shall only burn pipeline natural gas with a maximum sulfur content of 0.34 grains per 100 scf or less. The facility provided records of the sulfur content and it met the sulfur content requirements. The highest sulfur content recorded was 0.070 grains per 100 scf.

Per III.1 and 2, On September 21, 2021, the permittee submitted the required malfunction abatement plan (MAP) as described in Rule 911(2), and a plan that describes how emissions will be minimized during startup and shutdown, in a single document.

Per IV. 3 and 4, On October 22, 2021, the permittee submitted a monitor installation for CO, NOx, and O2 CEMS from FGCTGHRSG. The CEMS have an installation date of 1/1/2022. The CEMS are meeting the timelines, requirements, and reporting detailed in Appendix A.

Per IV. 5, According to the Part 75 Monitoring Plan submitted to the EPA, each unit has 2 fuel flow meters.

Per V.1, Within 180 days after commencement of initial startup, the permittee shall verify PM, PM10, PM2.5, SO2, VOC, and H2SO4 emission rates from EUCTGHRSG1 and EUCTGHRSG2 of FGCTGHRSG at maximum routine operating conditions by testing at the owner's expense in accordance with EGLE requirements. The emission test was conducted on April 8, 9, 10 & 12, 2022, and provided the following results:

CTG 11 with duct firing

Total Particulate Matter: 8.8 lb/hr (Permit limit = 16),

SO2: 0.000085 lb/MMBtu (Permit limit = 0.0012),

H2SO4: 0.214 lb/hr (Permit limit = 5.04),

H2SO4: 0.000006 lb/MMBtu (Permit limit = 0.0013),

VOC: 0.000 lb/hr (Permit limit = 0.0026).

CTG 11 without duct firing

Total Particulate Matter: 11.53 lb/hr (Permit limit = 12.2),

SO2: 0.000086 lb/MMBtu (Permit limit = 0.0012),

H2SO4: 0.0125 lb/hr (Permit limit = 5.04),

H2SO4: 0.000004 lb/MMBtu (Permit limit = 0.0013),

VOC: 0.000 lb/hr (Permit limit = 0.0013).

CTG 12 with duct firing

Total Particulate Matter: 8.9 lb/hr (Permit limit = 16),

SO2: 0.000086 lb/MMBtu (Permit limit = 0.0012),

H2SO4: 0.0303 lb/hr (Permit limit = 5.04),

H2SO4: 0.000008 lb/MMBtu (Permit limit = 0.0013),

VOC: 0.000 lb/hr (Permit limit = 0.0026).

CTG 12 without duct firing

Total Particulate Matter: 8.13 lb/hr (Permit limit = 12.2),

SO2: 0.000086 lb/MMBtu (Permit limit = 0.0012),

H2SO4: 0.0383 lb/hr (Permit limit = 5.04),

H2SO4: 0.000011 lb/MMBtu (Permit limit = 0.0013),

VOC: 0.000 lb/hr (Permit limit = 0.0026).

Per VI.3, the permittee shall calculate and keep records of hourly, and 24-hour rolling average NOx concentration and mass emission records, and 30-day rolling average NOx concentration from FGCTGHRSG. The permittee is keeping the required records and the emissions are meeting the limits. The highest 24-hour rolling average NOx lb/hr emissions on either unit for the time period reviewed were approximately 21 lbs/hr. (Limit-28.9 lbs/hr). The highest 24-hr NOx ppm @ 15% emissions on either unit for the time period reviewed were approximately 1.7 ppm @ 15% O2. (Limit-2.0 ppmvd @ 15% O2).

Per VI.4, the permittee shall calculate and keep records of hourly, and 24-hour rolling average CO concentration and mass emission records from FGCTGHRSG. The permittee is keeping the required records and the emissions are meeting the limits. The highest 24-hour rolling average CO emissions on either unit for the time period reviewed were approximately 3.5 lbs/hr. (Limit-17.59 lbs/hr)

Per VI.5, the permittee shall monitor and records the natural gas usage records on a monthly basis. The facility is maintaining the required records.

Per VI.6, the permittee shall calculate and keep records of monthly and 12-month rolling CO2 mass emissions from FGCTGHRSG. The permittee is keeping the required records.

Per VI.7, the permittee shall calculate and keep records of hourly CO2 mass emissions and gross energy output from FGCTGHRSG. The permittee is keeping the required CO2 and gross energy output records.

Per VI.9, the permittee shall keep records of the monthly and 12-month rolling total hours of startup and shutdown for EUCTGHRSG1 and EUCTGHRSG2. The facility is maintaining the required records.

Per VI.10, the permittee shall maintain records of all information necessary for all notification and reports as specified and information necessary to demonstrate compliance with the emission limits. The facility is maintaining the required records.

FGCOOLINGTOWER

A 14-cell wet mechanical draft cooling tower equipped with drift eliminators.

Per V.1, Within 180 days after start-up of the plant, and every seven years thereafter, the permittee shall determine drift loss from each cooling tower by testing, at owner's expense, in accordance with Department requirements. The emission test was conducted on July 15-16, 2022, and provided the following drift loss results: 0.00088%, which exceeds the 0.0005% maximum drift rate required by S.C IV.1. The facility has certification from the vendor certifying the drift loss to 0.0005% or less. According to an e-mail from Mark Grigereit on 9/14/2022, the cooling tower manufacturer was brought onsite to inspect and provide any repairs and sealants, as necessary. A re-test was performed on 9/21-9/23/2022, and provided the following drift loss results: 0.00078%, which again exceeded the 0.0005% maximum drift rate required by S.C IV.1. A retest was scheduled for the week of July 3rd, results have not yet been received. The PM/PM10/PM2.5 emissions have not exceeded the limits. A violation notice will not be issued.

Per VI.2, the permittee shall maintain a record of the vendor's certification required by SC IV.1. The facility has a vendor certification indicating the drift eliminator will have a drift rate of 0.0005% or less.

Per VI.3, the permittee shall monitor the following: parameters to determine the total dissolved solids of the circulating water on a weekly basis; and parameters needed to determine the water recirculation rate on a monthly basis. The facility is maintaining the required records.

Per VI.4, the permittee shall calculate and keep records of the TDS in the circulating water for each cooling tower in FG-COOLTWRS on a monthly basis. The permittee is keeping the required records.

Per VI.5, the permittee shall keep a record of the date of the 2 most recent drift loss tests. Drift loss tests occurred on September 22-24, 2022, July 15-16, 2022, and the week of July 3rd, 2023. Results are not yet available from the July 3rd test. The permittee is keeping the required records.

Per VI.6, the permittee shall calculate and keep records of the PM, PM10, and PM2.5 emission rates, as specified in SC I.1 through SC I.3, for each cooling tower in FG-COOLTWRS on a monthly basis. The permittee is keeping the required records.

FGFUELHTR

Two (2) natural gas-fired fuel gas heaters. One heater (EUFUELHTR1) is a high pressure heater rated at 20.8 MMBtu/hr and the other heater (EFFUELHTR2), is a low pressure heater rated at 3.8 MMBtu/hr.

Per VI.2, Within 180 days after commencement of initial startup, the permittee shall verify PM emission rates, as an emission factor and pph, from each unit in FGFUELHTR by testing at the owner's expense, in accordance with Department requirements. The emission test was conducted on April 13 and 14, 2022, and provided the following results:

HP Heater

PM: 0.017 lb/hr (limit 0.15 lb/hr)

LP Heater

PM: 0.005 lb/hr (limit 0.03 lb/hr)

The lb/hr emissions meet the permit limits.

Per VI.2, the permittee shall keep hourly and monthly natural gas usage records, indicating the amount used, in cubic feet, on a clock hour basis for each unit in FGFUELHTR, and shall calculate and keep monthly natural gas usage records, in cubic feet, on a calendar month basis and a 12-month rolling time period basis. The permittee is keeping the required records.

Per VI.3, The permittee shall maintain monthly records of the heating value content of the natural gas based on information from the natural gas supplier. The permittee is keeping the required records.

Per VI.4, The permittee shall calculate and keep records of hourly heat input (MMBtu/hr) for each heater in FGFUELHTR based on the monthly heat value of natural gas and the hourly gas usage to show compliance with SC IV.1 (maximum heat input capacity of 20.8 MMBtu/hr Unit 1 and 3.8 MMBtu/hr Unit 2). The permittee is keeping the required records.

Per VI.5, The permittee shall calculate and keep, in a satisfactory manner, records of hourly NO_x, CO, PM, PM10, PM2.5, and VOC mass emissions for each unit in FGFUELHTR. The permittee is keeping the required records. The NO_x, CO, and VOC emissions are based on emission factors from the ROP application. The highest hourly emissions were:

Unit 1

NOx: 0.75 lb/hr (Limit-0.75 lb/hr)

CO: 0.77 lb/hr (Limit-0.77 lb/hr)

PM: 0.017 lb/hr (Limit-0.15 lb/hr)

PM2.5: 0.017 lb/hr (Limit-0.15 lb/hr)

PM10: 0.017 lb/hr (Limit-0.15 lb/hr)

VOC: 0.001 lb/hr (Limit-0.17 lb/hr)

Unit 2

Unit 2 did not operate in the time period reviewed.

Per VI.6, the permittee shall calculate and keep records of monthly and 12-month rolling CO2 mass emissions from FGFUELHTR. The permittee is keeping the required records. The limit is 6,310 TPY.

Per VII.1, The permittee shall provide written notification of the date construction commences and actual startup for EUFUELHTR1 in accordance with 40 CFR 60.7 and 60.48c. The notification shall include the design heat input, an identification of the fuels to be combusted, and the annual capacity factor. The permittee provided notification of start up on September 10, 2021.

FGTANKS

Miscellaneous storage tanks.

According to Jason, EUGCLUBEOILTANKS was not installed.

FGMACT

All equipment subject to the Industrial Boiler MACT.

SC VII.1, initial notification for EUAUXBOILER was received on September 13, 2021.

FGPROJECT

All equipment associated with the natural gas combined cycle power plant.

Per II.1, for sulfur content of natural gas, the permittee shall only burn pipeline natural gas with a sulfur content of 0.34 gr per 100 scf or less on an annual basis. Records indicate the facility is meeting the limit. The July 2023 monthly sulfur content was 0.049 gr per 100 scf.

Per II.2, the permittee shall only burn diesel fuel with a maximum sulfur content of 15 ppm. The facility provided a SDS for the fuel and it is Ultra Low Sulfur Diesel (ULSD) with a maximum content of 15 ppm sulfur. According to the DTE laboratory report, the sulfur content of the September 18, 2021, delivery was 10 ppm sulfur.

Per II. 3, for the natural gas usage, the permittee shall not exceed 81,158 million cubic feet (MMCF) per year on a 12-month rolling time period, as determined at the end of each month. The facility is keeping the required records.

Per II. 4, for the diesel fuel usage, the permittee shall not exceed 35,731 gallons per year on a 12-month rolling time period, as determined at the end of each month. The facility is keeping the required records.

Per VI. 4, for the SO₂ emissions, the permittee shall calculate monthly and 12-month rolling time period SO₂ mass emissions for FGPROJECT, using the most recent natural as sampling results. as determined at the end of each month. The facility is keeping the required records.

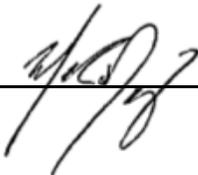
Per VI. 5, for the natural gas usage, the permittee shall monitor and record the natural gas usage for FGPROJECT on monthly basis and 12-month rolling time period. The facility is keeping the required records.

Per VI. 6, for the diesel fuel usage, the permittee shall monitor and record the diesel usage for FGPROJECT on monthly basis and 12-month rolling time period. The facility is keeping the required records.

Conclusion

DTE St. Clair/Belle River Power and BWEC appears to be in compliance with all evaluated permit conditions.

NAME

DATE September 8, 2023

SUPERVISOR

