

**MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION**

December 9, 2024

**PERMIT TO INSTALL
27-13D**

ISSUED TO
DTE Electric Company – Monroe Power Plant

LOCATED AT
3500 East Front Street
Monroe, Michigan 48161

IN THE COUNTY OF
Monroe

STATE REGISTRATION NUMBER
B2816

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environment, Great Lakes, and Energy. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203:

November 25, 2024

DATE PERMIT TO INSTALL APPROVED:

December 9, 2024

SIGNATURE:

DATE PERMIT VOIDED:

SIGNATURE:

DATE PERMIT REVOKED:

SIGNATURE:

PERMIT TO INSTALL

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COMMON ACRONYMS

AQD	Air Quality Division
BACT	Best Available Control Technology
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
COMS	Continuous Opacity Monitoring System
Department/department/EGLE	Michigan Department of Environment, Great Lakes, and Energy
EU	Emission Unit
FG	Flexible Group
GACS	Gallons of Applied Coating Solids
GC	General Condition
GHGs	Greenhouse Gases
HVLP	High Volume Low Pressure*
ID	Identification
IRSL	Initial Risk Screening Level
ITSL	Initial Threshold Screening Level
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MAERS	Michigan Air Emissions Reporting System
MAP	Malfunction Abatement Plan
MSDS	Material Safety Data Sheet
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standard for Hazardous Air Pollutants
NSPS	New Source Performance Standards
NSR	New Source Review
PS	Performance Specification
PSD	Prevention of Significant Deterioration
PTE	Permanent Total Enclosure
PTI	Permit to Install
RACT	Reasonable Available Control Technology
ROP	Renewable Operating Permit
SC	Special Condition
SCR	Selective Catalytic Reduction
SNCR	Selective Non-Catalytic Reduction
SRN	State Registration Number
TBD	To Be Determined
TEQ	Toxicity Equivalence Quotient
USEPA/EPA	United States Environmental Protection Agency
VE	Visible Emissions

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

POLLUTANT / MEASUREMENT ABBREVIATIONS

acfm	Actual cubic feet per minute
BTU	British Thermal Unit
°C	Degrees Celsius
CO	Carbon Monoxide
CO ₂ e	Carbon Dioxide Equivalent
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
°F	Degrees Fahrenheit
gr	Grains
HAP	Hazardous Air Pollutant
Hg	Mercury
hr	Hour
HP	Horsepower
H ₂ S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO _x	Oxides of Nitrogen
ng	Nanogram
PM	Particulate Matter
PM ₁₀	Particulate Matter equal to or less than 10 microns in diameter
PM _{2.5}	Particulate Matter equal to or less than 2.5 microns in diameter
pph	Pounds per hour
ppm	Parts per million
ppmv	Parts per million by volume
ppmw	Parts per million by weight
psia	Pounds per square inch absolute
psig	Pounds per square inch gauge
scf	Standard cubic feet
sec	Seconds
SO ₂	Sulfur Dioxide
TAC	Toxic Air Contaminant
Temp	Temperature
THC	Total Hydrocarbons
tpy	Tons per year
µg	Microgram
µm	Micrometer or Micron
VOC	Volatile Organic Compounds
yr	Year

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**
2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to Rule 210 (R 336.1210), operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**
5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to Rule 219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. **(R 336.1219)**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**
7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of Rule 301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with Rule 303 (R 336.1303). **(R 336.1301)**
 - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
 - b) A visible emission limit specified by an applicable federal new source performance standard.
 - c) A visible emission limit specified as a condition of this Permit to Install.
12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

EMISSION UNIT SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EU-UNIT1	Boiler Unit No. 1 - Coal-fired boiler nominally rated 817 MW (gross) with low-NOx burners, selective catalytic reduction (SCR), dry wire electrostatic precipitators (ESP), and wet flue gas desulfurization (FGD). Fires diesel fuel oil for boiler start-up.	01-01-1968 / 03-03-2006 / 12-21-2010	FG-ProjectPC1-4, FG- COALBLRCAM, FG-MATS
EU-UNIT2	Boiler Unit No. 2 - Coal-fired boiler nominally rated 823 MW (gross) with low-NOx burners, selective catalytic reduction (SCR), dry wire electrostatic precipitators (ESP), and wet flue gas desulfurization (FGD). Fires diesel fuel oil for boiler start-up.	01-01-1969 / 03-23-2005 / 12-21-2010	FG-ProjectPC1-4, FG- COALBLRCAM, FG-MATS
EU-UNIT3	Boiler Unit No. 3 - Coal-fired boiler nominally rated 823 MW (gross) with low-NOx burners, selective catalytic reduction (SCR), dry wire electrostatic precipitators (ESP), and wet flue gas desulfurization (FGD). Fires diesel fuel oil for boiler start-up.	06-01-1969 / 8-28-2006 / 08-02-2010	FG-ProjectPC1-4, FG- COALBLRCAM, FG-MATS
EU-UNIT4	Boiler Unit No. 4 - Coal-fired boiler nominally rated 817 MW (gross) with low-NOx burners, selective catalytic reduction (SCR), dry wire electrostatic precipitators (ESP), and wet flue gas desulfurization (FGD). Fires diesel fuel oil for boiler start-up.	06-01-1969 / 11-15-2005 / 08-02-2010	FG-ProjectPC1-4, FG- COALBLRCAM, FG-MATS

Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1291.

EU-UNIT1 EMISSION UNIT CONDITIONS

DESCRIPTION

Coal-fired cell burner boiler nominally rated at a maximum heat input of 7,624 MMBtu per hour on a fuel input basis. The boiler serves a steam turbine electric generator nominally rated at 817 MW (gross). Fires diesel fuel oil for boiler start-up and flame stabilization.

Flexible Group ID: FG-ProjectPC1-4, FG-COALBLRCAM, FG-MATS

POLLUTION CONTROL EQUIPMENT

Low-NOx burners, overfire air, selective catalytic reduction (SCR), dry wire electrostatic precipitators (ESP), and wet flue gas desulfurization (FGD).

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity	10 percent	6-minute average except one 6-minute average per hour of not more than 20 percent	EU-UNIT1	SC V.1, SC V.2, SC VI.2	R 336.1301(1)(c), R 336.2810, 40 CFR 52.21(j)
2. PM	0.011 lb/MMBtu heat input	24-hr rolling average as determined each hour the boiler operates	EU-UNIT1	SC V.1, SC V.2, SC VI.2	R 336.1224, R 336.1225, R 336.1331(1)(c), R 336.2810, 40 CFR 52.21(j)
3. PM10	0.024 lb/MMBtu heat input	Test protocol will specify averaging time	EU-UNIT1	SC V.1, SC V.2, FG-COALBLRCAM SC VI.1	R 336.2810, 40 CFR 52.21(j)
4. PM10	183.0 pph	Test protocol will specify averaging time	EU-UNIT1	SC V.1, SC V.2, FG-COALBLRCAM SC VI.1	R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j)
5. SO ₂	0.107 lb/MMBtu heat input	24-hour rolling average as determined each hour the boiler operates	EU-UNIT1	SC VI.3, SC VI.7	R 336.1401, R 336.2810, 40 CFR 52.21(j), R 336.2902(2)(c), 40 CFR Part 51, Appendix S
6. SO ₂	815.8 pph	24-hour rolling average as determined each hour the boiler operates	EU-UNIT1	SC VI.3, SC VI.5, SC VI.7	R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j), R 336.2902(2)(c), 40 CFR Part 51, Appendix S

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
7. NOx	0.08 lb/MMBtu heat input	12-month rolling average as determined each calendar month	EU-UNIT1	SC VI.3, SC VI.8	R 336.2810, 40 CFR 52.21(j)
8. NOx	222.6 ton/month	12-month rolling average as determined each calendar month	EU-UNIT1	SC VI.3, SC VI.5, SC VI.8	R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j)
9. CO	0.15 lb/MMBtu heat input excluding periods of start-up and shutdown	30-day rolling average as determined each calendar day the boiler operates	EU-UNIT1	SC VI.3, SC VI.9	R 336.2810, 40 CFR 52.21(j)
10. CO	27,446.4 lb/day	30-day rolling average as determined each calendar day the boiler operates	EU-UNIT1	SC VI.3, SC VI.5, SC VI.9	R 336.2804, R 336.2810, 40 CFR 52.21(d) and (j)
11. VOC	0.0034 lb/MMBtu heat input	Test protocol will specify averaging time	EU-UNIT1	SC III.1, SC V.1, SC V.2	R 336.1122(f), R 336.1224, R 336.1225, R 336.1702(a), R 336.2810, 40 CFR 52.21(j)
12. VOC	25.9 pph	Test protocol will specify averaging time	EU-UNIT1	SC III.1, SC V.1, SC V.2	R 336.1122(f), R 336.1224, R 336.1225, R 336.1702(a), R 336.2810, 40 CFR 52.21(j)
13. Lead (Pb)	1.69×10^{-5} lb/MMBtu heat input	Test protocol will specify averaging time	EU-UNIT1	SC V.1, SC V.2, FGMATS SC VI.3	R 336.1901, R 336.2810, 40 CFR 52.21(j)
14. Lead (Pb)	0.13 pph	Test protocol will specify averaging time	EU-UNIT1	SC V.1, SC V.2, FG- COALBLRCAM SC VI.1	R 336.1901, R 336.2804, R 336.2810, 40 CFR 52.21(d) and (j)
15. Sulfuric acid mist (H ₂ SO ₄)	0.005 lb/MMBtu heat input	Test protocol will specify averaging time	EU-UNIT1	SC III.1, SC V.1, SC V.2	R 336.1224, R 336.1225, R 336.2810, 40 CFR 52.21(j)
16. Hydrogen Chloride (HCl)	0.0024 lb/MMBtu heat input ¹	Test protocol will specify averaging time	EU-UNIT1	SC V.1, SC V.2, FGMATS SC VI.5	R 336.1224, R 336.1225,
17. Hydrogen Fluoride (HF)	0.00023 lb/MMBtu heat input	Test protocol will specify averaging time	EU-UNIT1	SC V.1, SC V.2, FG- COALBLRCAM SC VI.2	R 336.1224, R 336.1225, R 336.2810, 40 CFR 52.21(j)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
18. Mercury (Hg)	0.02 lb/GW-hr gross energy output	12-month rolling average as determined each calendar month	EU-UNIT1	SC V.1, SC V.2, SC VI.4, SC VI.6, SC VI.10	R 336.1224, R 336.1228, R 336.1229(2)(b), R 336.2503(2)
19. Mercury (Hg)	143.1 lb/year	12-month rolling time period as determined at the end of each calendar month	EU-UNIT1	SC V.1, SC V.2, SC VI.4, SC VI.5, SC VI.6, SC VI.10	R 336.1224, R 336.1228, R 336.1229(2)(b), R 336.2503(2)
20. Arsenic (As)	6.3 x 10 ⁻⁶ lb/MMBtu heat input ¹	Test protocol will specify averaging time	EU-UNIT1	SC V.1, SC V.2, FGMATS SC VI.3	R 336.1224, R 336.1225(2)

II. MATERIAL LIMIT(S)

- The permittee shall only use diesel for the initial start-up fuel, flame stabilization, and overfiring. Start-up is defined in SC III.2. (R 336.1205(1)(a) and (1)(b), R 336.2810, 40 CFR 52.21(j))
- The permittee shall only combust bituminous coal, subbituminous coal, and up to 23,652 tons per calendar month of petroleum coke in EU-UNIT1. (R 336.1205(1)(a) and (1)(b), R 336.1224, R 336.1225, R 336.1702(a), R 336.1901, R 336.2810, 40 CFR 52.21(j))

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate EU-UNIT1 unless a malfunction abatement plan (MAP) as described in Rule 911(2), for operation of the process and emission control equipment, is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. (R 336.1224, R 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.1911, R 336.1912, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))
- Start-up is defined as the period of time from initiation of combustion firing until the unit reaches steady state operation and the SCR is brought into service upon the flue gas reaching a minimum operating temperature for the SCR of 650°F. Shutdown is defined as that period of time beginning when the flue gas temperature entering the SCR drops below the operating temperature of the SCR system. (R 336.1912, R 336.2810, 40 CFR 52.21(j))
- The permittee shall not operate EU-UNIT1 unless an emissions minimization plan for all start-ups and shutdowns is implemented and maintained. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. (R 336.1911, R 336.1912, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The maximum design heat input rate of EU-UNIT1 shall not exceed 7,624 million British thermal units per hour (MMBtu/hr) on a fuel heat input basis. **(R 336.1205(1)(a) and (1)(b))**
2. The permittee shall not operate EU-UNIT1 unless the low-NOx burners, overfire air, SCR system, ESP, and wet FGD system are installed, maintained, and operated in a satisfactory manner. Satisfactory manner includes operating and maintaining each control device in accordance with an approved MAP for EU-UNIT1 as required in SC III.1. **(R 336.1224, R 336.1225, R 336.1901, R 336.1910, R 336.2810, 40 CFR 52.21(j))**
3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a process monitor to measure mercury emissions from the unit and provide real time indicators of potential noncompliance. This process monitor, because it does not meet EPA Specification 12A, is in addition to the certified mercury monitoring system which provides quality assured data used in emissions reporting and compliance verification under the Mercury Air Toxics rule. Satisfactory manner includes operating the process monitor on a continuous basis to obtain mercury emission data such that the permittee can initiate corrective actions in the event of elevated mercury emissions. Satisfactory manner includes operating and maintaining the process monitor in accordance with an approved malfunction abatement plan. ³ **(R 336.1201, Act 451 324.5503(b), EPA-5-2018-113(a)-MI-07 paragraph 16)**
4. The permittee shall install and maintain a halogenated compound application system (e.g. calcium bromide) in a satisfactory manner to promote mercury oxidation and maintain compliance with the unit's mercury emission limits. Satisfactory manner includes operating the application system when the mercury process monitor demonstrates elevated mercury emissions, and as otherwise needed for mercury emissions control in accordance with an approved malfunction abatement plan. ³ **(R 336.1201 Act 451 324.5503(b), EPA-5-2018-113(a)-MI-07 paragraph 17)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall verify visible emissions, PM, PM10, PM2.5, VOC, Pb, As, H₂SO₄, HCl, HF, and Hg emission rates from EU-UNIT1 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
PM10/PM2.5	40 CFR Part 51, Appendix M
VOC	40 CFR Part 60, Appendix A
Metals	40 CFR Part 60, Appendix A; 40 CFR Part 61, Appendix B; 40 CFR Part 63, Appendix A
Sulfuric Acid Mist	40 CFR Part 60, Appendix A
Total Fluoride	40 CFR Part 60, Appendix A
Hydrogen Chloride	40 CFR Part 60, Appendix A
Mercury	40 CFR Part 60, Appendix A; 40 CFR Part 61, Appendix B; 40 CFR Part 63, Appendix A
Visible Emission	40 CFR Part 51, Appendix M; 40 CFR Part 60, Appendix A and B
HAPs	40 CFR Part 63, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.2001, R 336.2003, R 336.2004)**

2. The permittee shall verify the visible emissions, PM, PM₁₀, VOC, Pb, As, H₂SO₄, HCl, HF, and Hg emission rates from EU-UNIT1, at a minimum, every five years from the date of the last test. ² (R 336.2001, R 336.2003, R 336.2004)
3. The permittee shall verify the PM_{2.5} emission rates from EU-UNIT1, and at a minimum, must complete the test once every calendar year for the next ten years of operation after the modification on January 29, 2014. ² (R 336.2001, R 336.2003, R 336.2004)
4. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. (R 336.2001(4))

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² (R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1901)
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the PM emissions from EU-UNIT1 on a continuous basis. The permittee shall install and operate the CEM to meet the timelines, requirements and reporting detailed in Appendix 3-1. The permittee shall also meet the following requirements:² (40 CFR 52.21(j), R 336.1205, R 336.1301, R 336.1303, R 336.1331, R 336.1901, R 336.1911, R 336.2810)
 - a) The MAP required in SC III.1 shall include provisions for alternative monitoring in the event that the PM CEM is out of control based upon the results of quality assurance tests conducted in accordance with Procedure 2 of 40 CFR Part 60 (Appendix F). This alternative monitoring shall, unless alternate methods and frequencies are approved in writing by the AQD District Supervisor, require verification of the presence of visible emissions by taking 6-minute visible emission readings for EU-UNIT1 a minimum of once per calendar day when the boiler is operating. Either a certified or non-certified reader shall take each visible emission reading during routine operating conditions. If the permittee observes any visible emissions, the permittee shall immediately implement the following procedures:
 - i. The permittee shall perform the 6-minute visible emission readings at least once every 30 minutes until emissions are no longer visible or until emissions have been observed for more than two hours.
 - ii. If visible emissions have been observed for more than two hours, a certified reader shall determine the opacity using federal Reference Test Method 9 (40 CFR Part 60 (Appendix A)).
3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner device(s) to monitor and record the SO₂, NO_x, and CO emissions, and oxygen or carbon dioxide (O₂ or CO₂) content of the exhaust gas from EU-UNIT1 on a continuous basis. Satisfactory manner means the permittee should follow the recommendations of the device vendor/system's designer to ensure proper installation, maintenance, and operation. The permittee shall install and operate each CEM to meet the timelines, requirements, and reported detailed in Appendix 3-1.² (40 CFR 52.21(j), 40 CFR Part 51, Appendix S, R 336.2902(2)(c), R 336.1205, R 336.2810)
4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the mercury emissions from EU-UNIT1 on a continuous basis. The permittee shall install and operate an Hg monitor to meet the timelines, requirements and reporting detailed in Appendix 3-1.² (R 336.1224, R 336.1228, R 336.1229(2)(b), R 336.2503(2))
5. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the exhaust gas flow rate from EU-UNIT1 on a continuous basis. The monitor shall be operated in accordance with procedures outlined in Appendix 3-1.² (R 336.2810, 40 CFR 52.21(j), R 336.2902(2)(c), 40 CFR Part 51, Appendix S)

6. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the gross energy output from EU-UNIT1 on a continuous basis. The monitor shall be operated in accordance with procedures outlined in 40 CFR 60.49Da(k).¹ **(R 336.1224)**
7. The permittee shall keep, in a satisfactory manner, hourly and 24-hour rolling average SO₂ emission rate and mass records for EU-UNIT1, as described in emission limits SC I.5 and I.6, respectively. Satisfactory manner means in a manner of that is clear to understand and read. **(R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j), R 336.2902(2)(c), 40 CFR Part 51, Appendix S)**
8. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling average NO_x emission rate and mass records for EU-UNIT1, as described in emission limits SC I.7, and I.8. **(R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))**
9. The permittee shall keep, in a satisfactory manner, daily and 30-day rolling average CO emission rate and mass records for EU-UNIT1, as described in emission limits SC I.9 and I.10. **(R 336.2804, R 336.2810, 40 CFR 52.21(d) and (j))**
10. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling average mercury emission rate records, expressed on a basis of gross energy output, and monthly and 12-month rolling time period mercury mass emission rate records for EU-UNIT1, as described in emission limits SC I.18 and SC I.19. If the monitoring required by SC VI.4 is only capable of detecting gaseous mercury, the permittee shall use the testing required by SC V.9 to develop a correction factor to adjust the mercury monitoring data to total mercury. Based on the available testing and monitoring data, the correction factor may be adjusted upon review and approval of the AQD District Supervisor. ¹ **(R 336.1224, R 336.1228, R 336.1229(2)(b))**
11. The permittee shall maintain records of all information necessary for all notifications and reports as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of this permit. This information shall include, but shall not be limited to the following:
 - a) Compliance tests and any testing required under the special conditions of this permit;
 - b) Monitoring data;
 - c) Heat input calculations required to show compliance with SC IV.1;
 - d) Identification, type and the amounts of all fuels combusted in EU-UNIT1 on a calendar month basis;
 - e) Total gigawatt-hours of energy produced on a monthly basis;
 - f) Records of the duration of all times EU-UNIT1 is operated under start-up or shutdown conditions as defined in SC III.2;
 - g) All calculations necessary to show compliance with the limits contained in this permit.

All of the above information shall be stored in a format acceptable to the Air Quality Division and made available to the Department upon request. **(R 336.1205(1)(a), R 336.1224, R 336.1225, R 336.1228, R 336.1229(2)(b), R 336.1301, R 336.1331, R 336.1401, R 336.1702(a), R 336.1901, R 336.1912, R 336.2802(4), R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))**

VII. REPORTING

1. The permittee shall submit an excess emission report (EER) and summary report in an acceptable format to the AQD District Supervisor and the TPU Supervisor within 30 days following the end of each calendar quarter as specified in 40 CFR 60.7(c) and (d). The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information: **(R 336.1205, R 336.1224, R 336.1228, R 336.1229(2)(b), R 336.2803, R 336.2804, R 336.2810, R 336.2902(2)(c), 40 CFR Part 51, Appendix S, 40 CFR 52.21(c), (d), and (j), 40 CFR 60.7(c) and (d))**
 - a) A report of each exceedance above the limits specified in the emission limits of this permit. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.

- b) A report of all periods of the Continuous Emission Monitoring and Continuous Emission Rate Monitoring System (CEMS/CERMS), and if applicable Predictive Emission Monitoring System (PEMS), downtime and corrective action.
 - c) A report of the total operating time of the boiler during the reporting period.
 - d) A report of any periods that the CEMS/CERMS, and if applicable PEMS, exceed the instrument range.
 - e) If no exceedances or CEMS/CERMS, and if applicable PEMS, downtime occurred during the reporting period, the permittee shall report that fact.
2. The permittee shall submit any performance test reports, including RATA reports, to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.2001(5), R 336.2156(c))**

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV015-001	336	579	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all of the applicable requirements contained in the federal Acid Rain Program, as it applies to EU-UNIT1. **(40 CFR Parts 72 - 76)**
2. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart UUUUU, as they apply to EU-UNIT1, by the initial compliance date. **(40 CFR Part 63 Subparts A and UUUUU)**
3. An affected existing EGU shall meet the requirements of Part 15 Emission Limitations and Prohibitions – Mercury. **(R 336.2503(1))**

Footnotes:

¹This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).

³This condition is federally enforceable and was originally established in the consent decree settling, “U.S. v DTE Energy Company, Civil Action No. EPA-5-2018-113(a)-MI-07” and also pursuant to Act 451, Section 324.5503(b), and will remain in effect after termination of the consent decree.

EU-UNIT2 EMISSION UNIT CONDITIONS

DESCRIPTION

Coal-fired cell burner boiler nominally rated at a maximum heat input of 7,624 MMBtu per hour on a fuel input basis. The boiler serves a steam turbine electric generator nominally rated at 823 MW (gross). Fires No. 2 fuel oil for boiler start-up and flame stabilization.

Flexible Group ID: FG-ProjectPC1-4, FG-COALBLRCAM, FG-MATS

POLLUTION CONTROL EQUIPMENT

Low-NOx burners, overfire air, selective catalytic reduction (SCR), dry wire electrostatic precipitators (ESP), and wet flue gas desulfurization (FGD).

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity	10 percent	6-minute average except one 6-minute average per hour of not more than 20 percent	EU-UNIT2	SC V.1, SC V.2 SC VI.2	R 336.1301(1)(c), R 336.2810, 40 CFR 52.21(j)
2. PM	0.011 lb/MMBtu heat input	24-hr rolling average as determined each hour the boiler operates	EU-UNIT2	SC V.1, SC V.2 SC VI.2	R 336.1224, R 336.1225, R 336.1331(1)(c), R 336.2810, 40 CFR 52.21(j)
3. PM10	0.024 lb/MMBtu heat input	Test protocol will specify averaging time	EU-UNIT2	SC V.1, SC V.2, FG-COALBLRCAM SC VI.1	R 336.2810, 40 CFR 52.21(j)
4. PM10	183.0 pph	Test protocol will specify averaging time	EU-UNIT2	SC V.1, SC V.2, FG-COALBLRCAM SC VI.1	R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j)
5. SO ₂	0.107 lb/MMBtu heat input	24-hour rolling average as determined each hour the boiler operates	EU-UNIT2	SC VI.3, SC VI.7	R 336.1401, R 336.2810, 40 CFR 52.21(j), R 336.2902(2)(c), 40 CFR Part 51, Appendix S
6. SO ₂	815.8 pph	24-hour rolling average as determined each hour the boiler operates	EU-UNIT2	SC VI.3, SC VI.5, SC VI.7	R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j), R 336.2902(2)(c), 40 CFR Part 51, Appendix S

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
7. NOx	0.08 lb/MMBtu heat input	12-month rolling average as determined each calendar month	EU-UNIT2	SC VI.3, SC VI.8	R 336.2810, 40 CFR 52.21(j)
8. NOx	222.6 ton/month	12-month rolling average as determined each calendar month	EU-UNIT2	SC VI.3, SC VI.5, SC VI.8	R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j)
9. CO	0.15 lb/MMBtu heat input excluding periods of start-up and shutdown	30-day rolling average as determined each calendar day the boiler operates	EU-UNIT2	SC VI.3, SC VI.9	R 336.2810, 40 CFR 52.21(j)
10. CO	27,446.4 lb/day	30-day rolling average as determined each calendar day the boiler operates	EU-UNIT2	SC VI.3, SC VI.5, SC VI.9	R 336.2804, R 336.2810, 40 CFR 52.21(d) and (j)
11. VOC	0.0034 lb/MMBtu heat input	Test protocol will specify averaging time	EU-UNIT2	SC III.1, SC V.1, SC V.2	R 336.1122(f), R 336.1224, R 336.1225, R 336.1702(a), R 336.2810, 40 CFR 52.21(j)
12. VOC	25.9 pph	Test protocol will specify averaging time	EU-UNIT2	SC III.1, SC V.1, SC V.2	R 336.1122(f), R 336.1224, R 336.1225, R 336.1702(a), R 336.2810, 40 CFR 52.21(j)
13. Lead (Pb)	1.69×10^{-5} lb/MMBtu heat input	Test protocol will specify averaging time	EU-UNIT2	SC V.1, SC V.2, FGMATS SC VI.3	R 336.1901, R 336.2810, 40 CFR 52.21(j)
14. Lead (Pb)	0.13 pph	Test protocol will specify averaging time	EU-UNIT2	SC V.1, SC V.2, FG- COALBLRCAM SC VI.1	R 336.1901, R 336.2804, R 336.2810, 40 CFR 52.21(d) and (j)
15. Sulfuric acid mist (H ₂ SO ₄)	0.005 lb/MMBtu heat input	Test protocol will specify averaging time	EU-UNIT2	SC III.1, SC V.1, SC V.2	R 336.1224, R 336.1225, R 336.2810, 40 CFR 52.21(j)
16. Hydrogen Chloride (HCl)	0.0024 lb/MMBtu heat input ¹	Test protocol will specify averaging time	EU-UNIT2	SC V.1, SC V.2, FGMATS SC VI.5	R 336.1224, R 336.1225,
17. Hydrogen Fluoride (HF)	0.00023 lb/MMBtu heat input	Test protocol will specify averaging time	EU-UNIT2	SC V.1, SC V.2, FG- COALBLRCAM SC VI.2	R 336.1224, R 336.1225, R 336.2810, 40 CFR 52.21(j)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
18. Mercury (Hg)	0.02 lb/GW-hr gross energy output	12-month rolling average as determined each calendar month	EU-UNIT2	SC V.1, SC V.2, SC VI.4, SC VI.6, SC VI.10	R 336.1224, R 336.1228, R 336.1229(2)(b), R 336.2503(2)
19. Mercury (Hg)	144.2 lb/year	12-month rolling time period as determined at the end of each calendar month	EU-UNIT2	SC V.1, SC V.2, SC VI.4, SC VI.5, SC VI.6, SC VI.10	R 336.1224, R 336.1228, R 336.1229(2)(b), R 336.2503(2)
20. Arsenic (As)	6.3 x 10 ⁻⁶ lb/MMBtu heat input ¹	Test protocol will specify averaging time	EU-UNIT2	SC V.1, SC V.2, FGMATS SC VI.3	R 336.1224, R 336.1225(2)

II. MATERIAL LIMIT(S)

1. The permittee shall only use diesel for the initial start-up fuel, flame stabilization, and overfiring. Start-up is defined in SC III.2. **(R 336.1205(1)(a) and (1)(b), R 336.2810, 40 CFR 52.21(j))**
2. The permittee shall only combust bituminous coal, subbituminous coal, and up to 23,652 tons per calendar month of petroleum coke in EU-UNIT2. **(R 336.1205(1)(a) and (1)(b), R 336.1224, R 336.1225, R 336.1702(a), R 336.1901, R 336.2810, 40 CFR 52.21(j))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-UNIT2 unless a MAP as described in Rule 911(2), for operation of the process and emission control equipment, is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1224, R 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.1911, R 336.1912, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))**
2. Start-up is defined as the period of time from initiation of combustion firing until the unit reaches steady state operation and the SCR (after start-up and shakedown) is brought into service upon the flue gas reaching a minimum operating temperature for the SCR of 650°F. Shutdown is defined as that period of time beginning when the flue gas temperature entering the SCR drops below the operating temperature of the SCR system. **(R 336.1912, R 336.2810, 40 CFR 52.21(j))**
3. The permittee shall not operate EU-UNIT2 unless an emissions minimization plan for start-ups and shutdowns has been implemented and maintained. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. **(R 336.1911, R 336.1912, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The maximum design heat input rate of EU-UNIT2 shall not exceed 7,624 million British thermal units per hour (MMBtu/hr) on a fuel heat input basis. **(R 336.1205(1)(a) and (1)(b))**
2. The permittee shall not operate EU-UNIT2 unless the low-NOx burners, overfire air, SCR system, ESP, and wet FGD system are installed, maintained, and operated in a satisfactory manner. Satisfactory manner includes operating and maintaining each control device in accordance with an approved MAP for EU-UNIT2 as required in SC III.1. **(R 336.1224, R 336.1225, R 336.1901, R 336.1910, R 336.2810, 40 CFR 52.21(j))**
3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a process monitor to measure mercury emissions from the unit and provide real time indicators of potential noncompliance. This process monitor, because it does not meet EPA Specification 12A, is in addition to the certified mercury monitoring system which provides quality assured data used in emissions reporting and compliance verification under the Mercury Air Toxics rule. Satisfactory manner includes operating the process monitor on a continuous basis to obtain mercury emission data such that the permittee can initiate corrective actions in the event of elevated mercury emissions. Satisfactory manner includes operating and maintaining the process monitor in accordance with an approved malfunction abatement plan. ³ **(R 336.1201, Act 451 324.5503(b), EPA-5-2018-113(a)-MI-07 paragraph 16)**
4. The permittee shall install and maintain a halogenated compound application system (e.g. calcium bromide) in a satisfactory manner to promote mercury oxidation and maintain compliance with the unit's mercury emission limits. Satisfactory manner includes operating the application system when the mercury process monitor demonstrates elevated mercury emissions, and as otherwise needed for mercury emissions control in accordance with an approved malfunction abatement plan. ³ **(R 336.1201 Act 451 324.5503(b), EPA-5-2018-113(a)-MI-07 paragraph 17)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall verify visible emissions, PM, PM10, PM2.5, VOC, Pb, As, H2SO4, HCl, HF, and Hg emission rates from EU-UNIT2 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
PM10/PM2.5	40 CFR Part 51, Appendix M
VOC	40 CFR Part 60, Appendix A
Metals	40 CFR Part 60, Appendix A; 40 CFR Part 61, Appendix B; 40 CFR Part 63, Appendix A
Sulfuric Acid Mist	40 CFR Part 60, Appendix A
Total Fluoride	40 CFR Part 60, Appendix A
Hydrogen Chloride	40 CFR Part 60, Appendix A
Mercury	40 CFR Part 60, Appendix A; 40 CFR Part 61, Appendix B; 40 CFR Part 63, Appendix A
Visible Emission	40 CFR Part 51, Appendix M; 40 CFR Part 60, Appendix A and B
HAPs	40 CFR Part 63, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The

permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.2001, R 336.2003, R 336.2004)**

2. The permittee shall verify the visible emissions, PM, PM₁₀, VOC, Pb, As, H₂SO₄, HCl, HF, and Hg emission rates from EU-UNIT2, at a minimum, every five years from the date of the last test. **(R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall verify the PM_{2.5} emission rates from EU-UNIT2, and at a minimum, must complete the test once every calendar year for the next ten years of operation after the modification on November 13, 2014. **(R 336.2001, R 336.2003, R 336.2004)**
4. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. **(R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1901)**
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the PM emissions from EU-UNIT2 on a continuous basis. The permittee shall install and operate the CEM to meet the timelines, requirements and reporting detailed in Appendix 3-1. The permittee shall also meet the following requirements: **(R 336.1205, R 336.1301, R 336.1303, R 336.1331, R 336.1901, R 336.1911, R 336.2810, 40 CFR 52.21(j))**
 - a) The MAP required in SC III.1 shall include provisions for alternative monitoring in the event that the PM CEM is out of control based upon the results of quality assurance tests conducted in accordance with Procedure 2 of 40 CFR Part 60 (Appendix F). This alternative monitoring shall, unless alternate methods and frequencies are approved in writing by the AQD District Supervisor, require verification of the presence of visible emissions by taking 6-minute visible emission readings for EU-UNIT2 a minimum of once per calendar day when the boiler is operating. Either a certified or non-certified reader shall take each visible emission reading during routine operating conditions. If the permittee observes any visible emissions, the permittee shall immediately implement the following procedures:
 - i. The permittee shall perform the 6-minute visible emission readings at least once every 30 minutes until emissions are no longer visible or until emissions have been observed for more than two hours.
 - ii. If visible emissions have been observed for more than two hours, a certified reader shall determine the opacity using federal Reference Test Method 9 (40 CFR Part 60 (Appendix A)).
3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner device(s) to monitor and record the SO₂, NO_x, and CO emissions, and oxygen or carbon dioxide (O₂ or CO₂) content of the exhaust gas from EU-UNIT2 on a continuous basis. The permittee shall install and operate each CEM to meet the timelines, requirements and reporting detailed in Appendix 3-1. **(R 336.1205, R 336.2810, 40 CFR 52.21(j), R 336.2902(2)(c), 40 CFR Part 51, Appendix S)**
4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the mercury emissions from EU-UNIT2 on a continuous basis. The permittee shall install and operate an Hg monitor to meet the timelines, requirements and reporting detailed in Appendix 3-1. **(R 336.1224, R 336.1228, R 336.1229(2)(b), R 336.2503(2))**
5. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the exhaust gas flow rate from EU-UNIT2 on a continuous basis. The monitor shall be operated in

accordance with procedures outlined in Appendix 3-1. **(R 336.2810, 40 CFR 52.21(j), R 336.2902(2)(c), 40 CFR Part 51, Appendix S)**

6. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the gross energy output from EU-UNIT2 on a continuous basis. The monitor shall be operated in accordance with procedures outlined in 40 CFR 60.49Da(k).¹ **(R 336.1224)**
7. The permittee shall keep, in a satisfactory manner, hourly and 24-hour rolling average SO₂ emission rate and mass records for EU-UNIT2, as described in emission limits SC I.5 and I.6, respectively. **(R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j), R 336.2902(2)(c), 40 CFR Part 51, Appendix S)**
8. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling average NO_x emission rate and mass records for EU-UNIT2, as described in emission limits SC I.7, and I.8. **(R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))**
9. The permittee shall keep, in a satisfactory manner, daily and 30-day rolling average CO emission rate and mass records for EU-UNIT2, as described in emission limits SC I.9 and I.10. **(R 336.2804, R 336.2810, 40 CFR 52.21(d), and (j))**
10. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling average mercury emission rate records, expressed on a basis of gross energy output, and monthly and 12-month rolling time period mercury mass emission rate records for EU-UNIT2, as described in emission limits SC I.18 and SC I.19. If the monitoring required by SC VI.4 is only capable of detecting gaseous mercury, the permittee shall use the testing required by SC V.9 to develop a correction factor to adjust the mercury monitoring data to total mercury. Based on the available testing and monitoring data, the correction factor may be adjusted upon review and approval of the AQD District Supervisor.¹ **(R 336.1224, R 336.1228, R 336.1229(2)(b))**
11. The permittee shall maintain records of all information necessary for all notifications and reports as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of this permit. This information shall include, but shall not be limited to the following:
 - a) Compliance tests and any testing required under the special conditions of this permit;
 - b) Monitoring data;
 - c) Heat input calculations required to show compliance with SC IV.1;
 - d) Identification, type and the amounts of all fuels combusted in EU-UNIT2 on a calendar month basis;
 - e) Total gigawatt-hours of energy produced on a monthly basis;
 - f) Records of the duration of all times EU-UNIT2 is operated under start-up or shutdown conditions as defined in SC III.2;
 - g) All calculations necessary to show compliance with the limits contained in this permit.

All of the above information shall be stored in a format acceptable to the Air Quality Division and made available to the Department upon request. **(R 336.1205(1)(a), R 336.1224, R 336.1225, R 336.1228, R 336.1229(2)(b), R 336.1301, R 336.1331, R 336.1401, R 336.1702(a), R 336.1901, R 336.1912, R 336.2802(4), R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))**

VII. REPORTING

1. The permittee shall submit an excess emission report (EER) and summary report in an acceptable format to the AQD District Supervisor and the TPU Supervisor within 30 days following the end of each calendar quarter as specified in 40 CFR 60.7(c) and (d). The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information: **(R 336.1205, R 336.1224, R 336.1228, R 336.1229(2)(b), R 336.2803, R 336.2804, R 336.2810, R 336.2902(2)(c), 40 CFR Part 51, Appendix S, 40 CFR 52.21(c), (d), and (j), 40 CFR 60.7(c) and (d))**

- a) A report of each exceedance above the limits specified in the emission limits of this permit. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.
 - b) A report of all periods of the Continuous Emission Monitoring and Continuous Emission Rate Monitoring System (CEMS/CERMS), and if applicable Predictive Emission Monitoring System (PEMS), downtime and corrective action.
 - c) A report of the total operating time of the boiler during the reporting period.
 - d) A report of any periods that the CEMS/CERMS, and if applicable PEMS, exceed the instrument range.
 - e) If no exceedances or CEMS/CERMS, and if applicable PEMS, downtime occurred during the reporting period, the permittee shall report that fact.
2. The permittee shall submit any performance test reports including RATA reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.2001(5), R 336.2156(c))**

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV015-002	336	579	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all of the applicable requirements contained in the federal Acid Rain Program, as it applies to EU-UNIT2. **(40 CFR Parts 72 - 76)**
2. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart UUUUU, as they apply to EU-UNIT2, by the initial compliance date. **(40 CFR Part 63 Subparts A and UUUUU)**
3. An affected existing EGU shall meet the requirements of Part 15 Emission Limitations and Prohibitions – Mercury. **(R 336.2503(1))**

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

² This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

³ This condition is federally enforceable and was originally established in the consent decree settling, “U.S. v DTE Energy Company, Civil Action No. EPA-5-2018-113(a)-MI-07” and also pursuant to Act 451, Section 324.5503(b), and will remain in effect after termination of the consent decree.

EU-UNIT3 EMISSION UNIT CONDITIONS

DESCRIPTION

Coal-fired cell burner boiler nominally rated at a maximum heat input of 7,624 MMBtu per hour on a fuel input basis. The boiler serves a steam turbine electric generator nominally rated at 823 MW (gross). Fires No. 2 fuel oil for boiler start-up and flame stabilization.

Flexible Group ID: FG-ProjectPC1-4, FG-COALBLRCAM, FG-MATS

POLLUTION CONTROL EQUIPMENT

Low-NOx burners, overfire air, selective catalytic reduction (SCR), dry wire electrostatic precipitators (ESP), and wet flue gas desulfurization (FGD).

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity	10 percent	6-minute average except one 6-minute average per hour of not more than 20 percent	EU-UNIT3	SC V.1, SC V.2, SC VI.2	R 336.1301(1)(c) R 336.2810 40 CFR 52.21(j)
2. PM	0.011 lb/MMBtu heat input	24-hr rolling average as determined each hour the boiler operates	EU-UNIT3	SC V.1, SC V.2, SC VI.2	R 336.1224 R 336.1225 R 336.1331(1)(c) R 336.2810 40 CFR 52.21(j)
3. PM10	0.024 lb/MMBtu heat input	Test protocol will specify averaging time	EU-UNIT3	SC V.1, SC V.2, FG-COALBLRCAM SC VI.1	R 336.2810 40 CFR 52.21(j)
4. PM10	183.0 pph	Test protocol will specify averaging time	EU-UNIT3	SC V.1, SC V.2, FG-COALBLRCAM SC VI.1	R 336.2803 R 336.2804 R 336.2810, 40 CFR 52.21(c), (d), and (j)
5. SO ₂	0.107 lb/MMBtu heat input	24-hour rolling average as determined each hour the boiler operates	EU-UNIT3	SC VI.3, SC VI.7	R 336.1401 R 336.2810 40 CFR 52.21(j) R 336.2902(2)(c) 40 CFR Part 51, Appendix S
6. SO ₂	815.8 pph	24-hour rolling average as determined each hour the boiler operates	EU-UNIT3	SC VI.3, SC VI.5, SC VI.7	R 336.2803 R 336.2804 R 336.2810 40 CFR 52.21(c), (d), and (j), R 336.2902(2)(c) 40 CFR Part 51, Appendix S

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
7. NOx	0.08 lb/MMBtu heat input	12-month rolling average as determined each calendar month	EU-UNIT3	SC VI.3, SC VI.8	R 336.2810 40 CFR 52.21(j)
8. NOx	222.6 ton/month	12-month rolling average as determined each calendar month	EU-UNIT3	SC VI.3, SC VI.5, SC VI.8	R 336.2803 R 336.2804 R 336.2810 40 CFR 52.21(c), (d), and (j)
9. CO	0.15 lb/MMBtu heat input excluding periods of start-up and shutdown	30-day rolling average as determined each calendar day the boiler operates	EU-UNIT3	SC VI.3, SC VI.9	R 336.2810 40 CFR 52.21(j)
10. CO	27,446.4 lb/day	30-day rolling average as determined each calendar day the boiler operates	EU-UNIT3	SC VI.3, SC VI.5, SC VI.9	R 336.2804 R 336.2810 40 CFR 52.21(d) and (j)
11. VOC	0.0034 lb/MMBtu heat input	Test protocol will specify averaging time	EU-UNIT3	SC III.1, SC V.1, SC V.2	R 336.1122(f) R 336.1224 R 336.1225 R 336.1702(a) R 336.2810 40 CFR 52.21(j)
12. VOC	25.9 pph	Test protocol will specify averaging time	EU-UNIT3	SC III.1, SC V.1, SC V.2	R 336.1122(f) R 336.1224 R 336.1225 R 336.1702(a) R 336.2810 40 CFR 52.21(j)
13. Lead (Pb)	1.69 x 10 ⁻⁵ lb/MMBtu heat input	Test protocol will specify averaging time	EU-UNIT3	SC V.1, SC V.2, FGMATS SC VI.3	R 336.1901 R 336.2810 40 CFR 52.21(j)
14. Lead (Pb)	0.13 pph	Test protocol will specify averaging time	EU-UNIT3	SC V.1, SC V.2, FG- COALBLRCAM SC VI.1	R 336.1901 R 336.2804 R 336.2810 40 CFR 52.21(d) and (j)
15. Sulfuric acid mist (H ₂ SO ₄)	0.005 lb/MMBtu heat input	Test protocol will specify averaging time	EU-UNIT3	SC III.1, SC V.1, SC V.2	R 336.1224 R 336.1225 R 336.2810 40 CFR 52.21(j)
16. Hydrogen Chloride (HCl)	0.0024 lb/MMBtu heat input ¹	Test protocol will specify averaging time	EU-UNIT3	SC V.1, SC V.2, FGMATS SC VI.5	R 336.1224 R 336.1225
17. Hydrogen Fluoride (HF)	0.00023 lb/MMBtu heat input	Test protocol will specify averaging time	EU-UNIT3	SC V.1, SC V.2, FG- COALBLRCAM SC VI.2	R 336.1224 R 336.1225 R 336.2810 40 CFR 52.21(j)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
18. Mercury (Hg)	0.02 lb/GW-hr gross energy output	12-month rolling average as determined each calendar month	EU-UNIT3	SC V.1, SC V.2, SC VI.4, SC VI.6, SC VI.10	R 336.1224 R 336.1228 R 336.1229(2)(b) R 336.2503(2)
19. Mercury (Hg)	144.2 lb/year	12-month rolling time period as determined at the end of each calendar month	EU-UNIT3	SC V.1, SC V.2, SC VI.4, SC VI.5, SC VI.6, SC VI.10	R 336.1224 R 336.1228 R 336.1229(2)(b) R 336.2503(2)
20. Arsenic (As)	6.3 x 10 ⁻⁶ lb/MMBtu heat input ¹	Test protocol will specify averaging time	EU-UNIT3	SC V.1, SC V.2, FGMATS SC VI.3	R 336.1224 R 336.1225(2)

II. MATERIAL LIMIT(S)

- The permittee shall only use diesel for the initial start-up fuel, flame stabilization, and overfiring. Start-up is defined in SC III.2. **(R 336.1205(1)(a) and (1)(b), R 336.2810, 40 CFR 52.21(j))**
- The permittee shall only combust bituminous coal, subbituminous coal, and up to 23,652 tons per calendar month of petroleum coke in EU-UNIT3. **(R 336.1205(1)(a) and (1)(b), R 336.1224, R 336.1225, R 336.1702(a), R 336.1901, R 336.2810, 40 CFR 52.21(j))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate EU-UNIT3 unless a MAP as described in Rule 911(2), for operation of the process and emission control equipment, is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1224, R 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.1911, R 336.1912, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))**
- Start-up is defined as the period of time from initiation of combustion firing until the unit reaches steady state operation and the SCR is brought into service upon the flue gas reaching a minimum operating temperature for the SCR of 650°F. Shutdown is defined as that period of time beginning when the flue gas temperature entering the SCR drops below the operating temperature of the SCR system. **(R 336.1912, R 336.2810, 40 CFR 52.21(j))**
- The permittee shall not operate EU-UNIT3 unless an emissions minimization plan for start-ups and shutdowns has been implemented and maintained. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. **(R 336.1911, R 336.1912, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The maximum design heat input rate of EU-UNIT3 shall not exceed 7,624 million British thermal units per hour (MMBtu/hr) on a fuel heat input basis. **(R 336.1205(1)(a) and (1)(b))**
2. The permittee shall not operate EU-UNIT3 unless the low-NOx burners, overfire air, SCR system, ESP, and wet FGD system are installed, maintained, and operated in a satisfactory manner. Satisfactory manner includes operating and maintaining each control device in accordance with an approved MAP for EU-UNIT3 as required in SC III.1. **(R 336.1224, R 336.1225, R 336.1901, R 336.1910, R 336.2810, 40 CFR 52.21(j))**
3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a process monitor to measure mercury emissions from the unit and provide real time indicators of potential noncompliance. This process monitor, because it does not meet EPA Specification 12A, is in addition to the certified mercury monitoring system which provides quality assured data used in emissions reporting and compliance verification under the Mercury Air Toxics rule. Satisfactory manner includes operating the process monitor on a continuous basis to obtain mercury emission data such that the permittee can initiate corrective actions in the event of elevated mercury emissions. Satisfactory manner includes operating and maintaining the process monitor in accordance with an approved malfunction abatement plan. ³ **(R 336.1201, Act 451 324.5503(b), EPA-5-2018-113(a)-MI-07 paragraph 16)**
4. The permittee shall install and maintain a halogenated compound application system (e.g. calcium bromide) in a satisfactory manner to promote mercury oxidation and maintain compliance with the unit's mercury emission limits. Satisfactory manner includes operating the application system when the mercury process monitor demonstrates elevated mercury emissions, and as otherwise needed for mercury emissions control in accordance with an approved malfunction abatement plan. ³ **(R 336.1201 Act 451 324.5503(b), EPA-5-2018-113(a)-MI-07 paragraph 17)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall verify visible emissions, PM, PM10, PM2.5, VOC, Pb, As, H2SO4, HCl, HF, and Hg emission rates from EU-UNIT3 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
PM10/PM2.5	40 CFR Part 51, Appendix M
VOC	40 CFR Part 60, Appendix A
Metals	40 CFR Part 60, Appendix A; 40 CFR Part 61, Appendix B; 40 CFR Part 63, Appendix A
Sulfuric Acid Mist	40 CFR Part 60, Appendix A
Total Fluoride	40 CFR Part 60, Appendix A
Hydrogen Chloride	40 CFR Part 60, Appendix A
Mercury	40 CFR Part 60, Appendix A; 40 CFR Part 61, Appendix B; 40 CFR Part 63, Appendix A
Visible Emission	40 CFR Part 51, Appendix M; 40 CFR Part 60, Appendix A and B
HAPs	40 CFR Part 63, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing,

including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.2001, R 336.2003, R 336.2004)**

2. The permittee shall verify the visible emissions, PM, PM₁₀, VOC, Pb, As, H₂SO₄, HCl, HF, and Hg emission rates from EU-UNIT3, at a minimum, every five years from the date of the last test. **(R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall verify the PM_{2.5} emission rates from EU-UNIT3, and at a minimum, must complete the test once every calendar year for the next ten years of operation after the modification in November 2009. **(R 336.2001, R 336.2003, R 336.2004)**
4. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. **(R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1901)**
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the PM emissions from EU-UNIT3 on a continuous basis. The permittee shall install and operate the CEM to meet the timelines, requirements and reporting detailed in Appendix 3-1. The permittee shall also meet the following requirements: **(R 336.1205, R 336.1301, R 336.1303, R 336.1331, R 336.1901, R 336.1911, R 336.2810, 40 CFR 52.21(j), 40 CFR 64.6(c)(1)(iii))**
 - a) The MAP required in SC III.1 shall include provisions for alternative monitoring in the event that the PM CEM is out of control based upon the results of quality assurance tests conducted in accordance with Procedure 2 of 40 CFR Part 60 (Appendix F). This alternative monitoring shall, unless alternate methods and frequencies are approved in writing by the AQD District Supervisor, require verification of the presence of visible emissions by taking 6-minute visible emission readings for EU-UNIT3 a minimum of once per calendar day when the boiler is operating. Either a certified or non-certified reader shall take each visible emission reading during routine operating conditions. If the permittee observes any visible emissions, the permittee shall immediately implement the following procedures:
 - i. The permittee shall perform the 6-minute visible emission readings at least once every 30 minutes until emissions are no longer visible or until emissions have been observed for more than two hours.
 - ii. If visible emissions have been observed for more than two hours, a certified reader shall determine the opacity using federal Reference Test Method 9 (40 CFR Part 60 (Appendix A)).
3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner device(s) to monitor and record the SO₂, NO_x, and CO emissions, and oxygen or carbon dioxide (O₂ or CO₂) content of the exhaust gas from EU-UNIT3 on a continuous basis. The permittee shall install and operate each CEM to meet the timelines, requirements and reporting detailed in Appendix 3-1. **(R 336.1205, R 336.2810, 40 CFR 52.21(j), R 336.2902(2)(c), 40 CFR Part 51, Appendix S, 40 CFR 64.6(c)(1)(iii))**
4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the mercury emissions from EU-UNIT3 on a continuous basis. The permittee shall install and operate an Hg monitor to meet the timelines, requirements and reporting detailed in Appendix 3-1. **(R 336.1224, R 336.1228, R 336.1229(2)(b), R 336.2503(2))**

5. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the exhaust gas flow rate from EU-UNIT3 on a continuous basis. The monitor shall be operated in accordance with procedures outlined in Appendix 3-1. **(R 336.2810, 40 CFR 52.21(j), R 336.2902(2)(c), 40 CFR Part 51, Appendix S)**
6. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the gross energy output from EU-UNIT3 on a continuous basis. The monitor shall be operated in accordance with procedures outlined in 40 CFR 60.49Da(k).¹ **(R 336.1224)**
7. The permittee shall keep, in a satisfactory manner, hourly and 24-hour rolling average SO₂ emission rate and mass records for EU-UNIT3, as described in emission limits SC I.5 and I.6, respectively. **(R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j), R 336.2902(2)(c), 40 CFR Part 51, Appendix S)**
8. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling average NO_x emission rate and mass records for EU-UNIT3, as described in emission limits SC I.7, and I.8. **(R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))**
9. The permittee shall keep, in a satisfactory manner, daily and 30-day rolling average CO emission rate and mass records for EU-UNIT3, as described in emission limits SC I.9 and I.10. **(R 336.2804, R 336.2810, 40 CFR 52.21(d), and (j))**
10. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling average mercury emission rate records, expressed on a basis of gross energy output, and monthly and 12-month rolling time period mercury mass emission rate records for EU-UNIT3, as described in emission limits SC I.18 and SC I.19. If the monitoring required by SC VI.4 is only capable of detecting gaseous mercury, the permittee shall use the testing required by SC V.9 to develop a correction factor to adjust the mercury monitoring data to total mercury. Based on the available testing and monitoring data, the correction factor may be adjusted upon review and approval of the AQD District Supervisor.¹ **(R 336.1224, R 336.1228, R 336.1229(2)(b))**
11. The permittee shall maintain records of all information necessary for all notifications and reports as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of this permit. This information shall include, but shall not be limited to the following:
 - a) Compliance tests and any testing required under the special conditions of this permit;
 - b) Monitoring data;
 - c) Heat input calculations required to show compliance with SC IV.1;
 - d) Identification, type and the amounts of all fuels combusted in EU-UNIT3 on a calendar month basis;
 - e) Total gigawatt-hours of energy produced on a monthly basis;
 - f) Records of the duration of all times EU-UNIT3 is operated under start-up or shutdown conditions as defined in SC III.2;
 - g) All calculations necessary to show compliance with the limits contained in this permit.

All of the above information shall be stored in a format acceptable to the Air Quality Division and made available to the Department upon request. **(R 336.1205(1)(a), R 336.1224, R 336.1225, R 336.1228, R 336.1229(2)(b), R 336.1301, R 336.1331, R 336.1401, R 336.1702(a), R 336.1901, R 336.1912, R 336.2802(4), R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))**

VII. REPORTING

1. The permittee shall submit an excess emission report (EER) and summary report in an acceptable format to the AQD District Supervisor and the TPU Supervisor within 30 days following the end of each calendar quarter as specified in 40 CFR 60.7(c) and (d). The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:² **(R 336.1205, R 336.1224, R 336.1228, R 336.1229(2)(b), R 336.2803, R 336.2804, R 336.2810, R 336.2902(2)(c), 40 CFR Part 51, Appendix S, 40 CFR 52.21(c), (d), and (j), 40 CFR 60.7(c) and (d))**

- a) A report of each exceedance above the limits specified in the emission limits of this permit. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.
 - b) A report of all periods of the Continuous Emission Monitoring and Continuous Emission Rate Monitoring System (CEMS/CERMS), and if applicable Predictive Emission Monitoring System (PEMS), downtime and corrective action.
 - c) A report of the total operating time of the boiler during the reporting period.
 - d) A report of any periods that the CEMS/CERMS, and if applicable PEMS, exceed the instrument range.
 - e) If no exceedances or CEMS/CERMS, and if applicable PEMS, downtime occurred during the reporting period, the permittee shall report that fact.
2. The permittee shall submit any performance test reports including RATA reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.2001(5), R 336.2156(c))**

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV016-003	336	579	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all of the applicable requirements contained in the federal Acid Rain Program, as it applies to EU-UNIT3. **(40 CFR Parts 72 - 76)**
2. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart UUUUU, as they apply to EU-UNIT3, by the initial compliance date. **(40 CFR Part 63 Subparts A and UUUUU)**
3. An affected existing EGU shall meet the requirements of Part 15 Emission Limitations and Prohibitions – Mercury. **(R 336.2503(1))**

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

² This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

³ This condition is federally enforceable and was originally established in the consent decree settling, “U.S. v DTE Energy Company, Civil Action No. EPA-5-2018-113(a)-MI-07” and also pursuant to Act 451, Section 324.5503(b), and will remain in effect after termination of the consent decree.

EU-UNIT4 EMISSION UNIT CONDITIONS

DESCRIPTION

Coal-fired cell burner boiler nominally rated at a maximum heat input of 7,624 MMBtu per hour on a fuel input basis. The boiler serves a steam turbine electric generator nominally rated at 817 MW (gross). Fires No. 2 fuel oil for boiler start-up and flame stabilization.

Flexible Group ID: FG-ProjectPC1-4, FG-COALBLRCAM, FG-MATS

POLLUTION CONTROL EQUIPMENT

Low-NOx burners, overfire air, selective catalytic reduction (SCR), dry wire electrostatic precipitators (ESP), and wet flue gas desulfurization (FGD).

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity	10 percent	6-minute average except one 6-minute average per hour of not more than 20 percent	EU-UNIT4	SC V.1, SC V.2, SC VI.2	R 336.1301(1)(c), R 336.2810, 40 CFR 52.21(j)
2. PM	0.011 lb/MMBtu heat input	24-hr rolling average as determined each hour the boiler operates	EU-UNIT4	SC V.1, SC V.2, SC VI.2	R 336.1224, R 336.1225, R 336.1331(1)(c), R 336.2810, 40 CFR 52.21(j)
3. PM10	0.024 lb/MMBtu heat input	Test protocol will specify averaging time	EU-UNIT4	SC V.1, SC V.2, FG-COALBLRCAM SC VI.1	R 336.2810, 40 CFR 52.21(j)
4. PM10	183.0 pph	Test protocol will specify averaging time	EU-UNIT4	SC V.1, SC V.2, FG-COALBLRCAM SC VI.1	R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j)
5. SO ₂	0.107 lb/MMBtu heat input	24-hour rolling average as determined each hour the boiler operates	EU-UNIT4	SC VI.3, SC VI.7	R 336.1401, R 336.2810, 40 CFR 52.21(j), R 336.2902(2)(c), 40 CFR Part 51, Appendix S
6. SO ₂	815.8 pph	24-hour rolling average as determined each hour the boiler operates	EU-UNIT4	SC VI.3, SC VI.5, SC VI.7	R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j), R 336.2902(2)(c), 40 CFR Part 51, Appendix S

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
7. NOx	0.08 lb/MMBtu heat input	12-month rolling average as determined each calendar month	EU-UNIT4	SC VI.3, SC VI.8	R 336.2810, 40 CFR 52.21(j)
8. NOx	222.6 ton/month	12-month rolling average as determined each calendar month	EU-UNIT4	SC VI.3, SC VI.5, SC VI.8	R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j)
9. CO	0.15 lb/MMBtu heat input excluding periods of start-up and shutdown	30-day rolling average as determined each calendar day the boiler operates	EU-UNIT4	SC VI.3, SC VI.9	R 336.2810, 40 CFR 52.21(j)
10. CO	27,446.4 lb/day	30-day rolling average as determined each calendar day the boiler operates	EU-UNIT4	SC VI.3, SC VI.5, SC VI.9	R 336.2804, R 336.2810, 40 CFR 52.21(d) and (j)
11. VOC	0.0034 lb/MMBtu heat input	Test protocol will specify averaging time	EU-UNIT4	SC III.1, SC V.1, SC V.2	R 336.1122(f), R 336.1224, R 336.1225, R 336.1702(a), R 336.2810, 40 CFR 52.21(j)
12. VOC	25.9 pph	Test protocol will specify averaging time	EU-UNIT4	SC III.1, SC V.1, SC V.2	R 336.1122(f), R 336.1224, R 336.1225, R 336.1702(a), R 336.2810, 40 CFR 52.21(j)
13. Lead (Pb)	1.69×10^{-5} lb/MMBtu heat input	Test protocol will specify averaging time	EU-UNIT4	SC V.1, SC V.2, FGMATS SC VI.3	R 336.1901, R 336.2810, 40 CFR 52.21(j)
14. Lead (Pb)	0.13 pph	Test protocol will specify averaging time	EU-UNIT4	SC V.1, SC V.2, FG- COALBLRCAM SC VI.1	R 336.1901, R 336.2804, R 336.2810, 40 CFR 52.21(d) and (j)
15. Sulfuric acid mist (H ₂ SO ₄)	0.005 lb/MMBtu heat input	Test protocol will specify averaging time	EU-UNIT4	SC III.1, SC V.1, SC V.2	R 336.1224, R 336.1225, R 336.2810, 40 CFR 52.21(j)
16. Hydrogen Chloride (HCl)	0.0024 lb/MMBtu heat input ¹	Test protocol will specify averaging time	EU-UNIT4	SC V.1, SC V.2, FGMATS SC VI.5	R 336.1224, R 336.1225
17. Hydrogen Fluoride (HF)	0.00023 lb/MMBtu heat input	Test protocol will specify averaging time	EU-UNIT4	SC V.1, SC V.2, FG- COALBLRCAM SC VI.2	R 336.1224, R 336.1225, R 336.2810, 40 CFR 52.21(j)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
18. Mercury (Hg)	0.02 lb/GW-hr gross energy output	12-month rolling average as determined each calendar month	EU-UNIT4	SC V.1, SC V.2, SC VI.4, SC VI.6, SC VI.10	R 336.1224, R 336.1228, R 336.1229(2)(b), R 336.2503(2)
19. Mercury (Hg)	143.1 lb/year	12-month rolling time period as determined at the end of each calendar month	EU-UNIT4	SC V.1, SC V.2, SC VI.4, SC VI.5, SC VI.6, SC VI.10	R 336.1224, R 336.1228, R 336.1229(2)(b), R 336.2503(2)
20. Arsenic (As)	6.3 x 10 ⁻⁶ lb/MMBtu heat input ¹	Test protocol will specify averaging time	EU-UNIT4	SC V.1, SC V.2, FGMATs SC VI.3	R 336.1224, R 336.1225(2)

II. MATERIAL LIMIT(S)

- The permittee shall only use diesel for the initial start-up fuel, flame stabilization, and overfiring. Start-up is defined in SC III.2. (R 336.1205(1)(a) and (1)(b), R 336.2810, 40 CFR 52.21(j))
- The permittee shall only combust bituminous coal, subbituminous coal, and up to 23,652 tons per calendar month of petroleum coke in EU-UNIT4. (R 336.1205(1)(a) and (1)(b), R 336.1224, R 336.1225, R 336.1702(a), R 336.1901, R 336.2810, 40 CFR 52.21(j))

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate EU-UNIT4 unless a MAP as described in Rule 911(2), for operation of the process and emission control equipment, is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. (R 336.1224, R 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.1911, R 336.1912, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))
- Start-up is defined as the period of time from initiation of combustion firing until the unit reaches steady state operation and the SCR is brought into service upon the flue gas reaching a minimum operating temperature for the SCR of 650°F. Shutdown is defined as that period of time beginning when the flue gas temperature entering the SCR drops below the operating temperature of the SCR system. (R 336.1912, R 336.2810, 40 CFR 52.21(j))
- The permittee shall not operate EU-UNIT4 unless an emissions minimization plan for start-ups and shutdowns has been implemented and maintained. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. (R 336.1911, R 336.1912, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The maximum design heat input rate of EU-UNIT4 shall not exceed 7,624 million British thermal units per hour (MMBtu/hr) on a fuel heat input basis. **(R 336.1205(1)(a) and (1)(b))**
2. The permittee shall not operate EU-UNIT4 unless the low-NOx burners, overfire air, SCR system, ESP, and wet FGD system are installed, maintained, and operated in a satisfactory manner. Satisfactory manner includes operating and maintaining each control device in accordance with an approved MAP for EU-UNIT4 as required in SC III.1. **(R 336.1224, R 336.1225, R 336.1901, R 336.1910, R 336.2810, 40 CFR 52.21(j))**
3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a process monitor to measure mercury emissions from the unit and provide real time indicators of potential noncompliance. This process monitor, because it does not meet EPA Specification 12A, is in addition to the certified mercury monitoring system which provides quality assured data used in emissions reporting and compliance verification under the Mercury Air Toxics rule. Satisfactory manner includes operating the process monitor on a continuous basis to obtain mercury emission data such that the permittee can initiate corrective actions in the event of elevated mercury emissions. Satisfactory manner includes operating and maintaining the process monitor in accordance with an approved malfunction abatement plan. ³ **(R 336.1201, Act 451 324.5503(b), EPA-5-2018-113(a)-MI-07 paragraph 16)**
4. The permittee shall install and maintain a halogenated compound application system (e.g. calcium bromide) in a satisfactory manner to promote mercury oxidation and maintain compliance with the unit's mercury emission limits. Satisfactory manner includes operating the application system when the mercury process monitor demonstrates elevated mercury emissions, and as otherwise needed for mercury emissions control in accordance with an approved malfunction abatement plan. ³ **(R 336.1201 Act 451 324.5503(b), EPA-5-2018-113(a)-MI-07 paragraph 17)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall verify visible emissions, PM, PM10, PM2.5, VOC, Pb, As, H2SO4, HCl, HF, and Hg emission rates from EU-UNIT4 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
PM10/PM2.5	40 CFR Part 51, Appendix M
VOC	40 CFR Part 60, Appendix A
Metals	40 CFR Part 60, Appendix A; 40 CFR Part 61, Appendix B; 40 CFR Part 63, Appendix A
Sulfuric Acid Mist	40 CFR Part 60, Appendix A
Total Fluoride	40 CFR Part 60, Appendix A
Hydrogen Chloride	40 CFR Part 60, Appendix A
Mercury	40 CFR Part 60, Appendix A; 40 CFR Part 61, Appendix B; 40 CFR Part 63, Appendix A
Visible Emission	40 CFR Part 51, Appendix M; 40 CFR Part 60, Appendix A and B
HAPs	40 CFR Part 63, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.2001, R 336.2003, R 336.2004)**

2. The permittee shall verify the visible emissions, PM, PM₁₀, VOC, Pb, As, H₂SO₄, HCl, HF, and Hg emission rates from EU-UNIT4, at a minimum, every five years from the date of the last test. **(R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall verify the PM_{2.5} emission rates from EU-UNIT4, and at a minimum, must complete the test once every calendar year for the next ten years of operation after the modification on July 12, 2012. **(R 336.2001, R 336.2003, R 336.2004)**
4. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. **(R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1901)**
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the PM emissions from EU-UNIT4 on a continuous basis. The permittee shall install and operate the CEM to meet the timelines, requirements and reporting detailed in Appendix 3-1. The permittee shall also meet the following requirements: **(R 336.1205, R 336.1301, R 336.1303, R 336.1331, R 336.1901, R 336.1911, R 336.2810, 40 CFR 52.21(j))**
 - a) The MAP required in SC III.1 shall include provisions for alternative monitoring in the event that the PM CEM is out of control based upon the results of quality assurance tests conducted in accordance with Procedure 2 of 40 CFR Part 60 (Appendix F). This alternative monitoring shall, unless alternate methods and frequencies are approved in writing by the AQD District Supervisor, require verification of the presence of visible emissions by taking 6-minute visible emission readings for EU-UNIT4 a minimum of once per calendar day when the boiler is operating. Either a certified or non-certified reader shall take each visible emission reading during routine operating conditions. If the permittee observes any visible emissions, the permittee shall immediately implement the following procedures:
 - i. The permittee shall perform the 6-minute visible emission readings at least once every 30 minutes until emissions are no longer visible or until emissions have been observed for more than two hours.
 - ii. If visible emissions have been observed for more than two hours, a certified reader shall determine the opacity using federal Reference Test Method 9 (40 CFR Part 60 (Appendix A)).
3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner device(s) to monitor and record the SO₂, NO_x, and CO emissions, and oxygen or carbon dioxide (O₂ or CO₂) content of the exhaust gas from EU-UNIT4 on a continuous basis. The permittee shall install and operate each CEM to meet the timelines, requirements and reporting detailed in Appendix 3-1. **(R 336.1205, R 336.2810, 40 CFR 52.21(j), R 336.2902(2)(c), 40 CFR Part 51, Appendix S)**
4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the mercury emissions from EU-UNIT4 on a continuous basis. The permittee shall install and operate an Hg monitor to meet the timelines, requirements and reporting detailed in Appendix 3-1. **(R 336.1224, R 336.1228, R 336.1229(2)(b), R 336.2503(2))**
5. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the exhaust gas flow rate from EU-UNIT4 on a continuous basis. The monitor shall be operated in accordance with procedures outlined in Appendix 3-1. **(R 336.2810, 40 CFR 52.21(j), R 336.2902(2)(c), 40 CFR Part 51, Appendix S)**

6. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the gross energy output from EU-UNIT4 on a continuous basis. The monitor shall be operated in accordance with procedures outlined in 40 CFR 60.49Da(k).¹ **(R 336.1224)**
7. The permittee shall keep, in a satisfactory manner, hourly and 24-hour rolling average SO₂ emission rate and mass records for EU-UNIT4, as described in emission limits SC I.5 and I.6, respectively. **(R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j), R 336.2902(2)(c), 40 CFR Part 51, Appendix S)**
8. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling average NO_x emission rate and mass records for EU-UNIT4, as described in emission limits SC I.7, and I.8. **(R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))**
9. The permittee shall keep, in a satisfactory manner, daily and 30-day rolling average CO emission rate and mass records for EU-UNIT4, as described in emission limits SC I.9 and I.10. **(R 336.2804, R 336.2810, 40 CFR 52.21(d) and (j))**
10. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling average mercury emission rate records, expressed on a basis of gross energy output, and monthly and 12-month rolling time period mercury mass emission rate records for EU-UNIT4, as described in emission limits SC I.18 and SC I.19. If the monitoring required by SC VI.4 is only capable of detecting gaseous mercury, the permittee shall use the testing required by SC V.9 to develop a correction factor to adjust the mercury monitoring data to total mercury. Based on the available testing and monitoring data, the correction factor may be adjusted upon review and approval of the AQD District Supervisor.¹ **(R 336.1224, R 336.1228, R 336.1229(2)(b))**
11. The permittee shall maintain records of all information necessary for all notifications and reports as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of this permit. This information shall include, but shall not be limited to the following:
 - a) Compliance tests and any testing required under the special conditions of this permit;
 - b) Monitoring data;
 - c) Heat input calculations required to show compliance with SC IV.1;
 - d) Identification, type and the amounts of all fuels combusted in EU-UNIT4 on a calendar month basis;
 - e) Total gigawatt-hours of energy produced on a monthly basis;
 - f) Records of the duration of all times EU-UNIT4 is operated under start-up or shutdown conditions as defined in SC III.2;
 - g) All calculations necessary to show compliance with the limits contained in this permit.

All of the above information shall be stored in a format acceptable to the Air Quality Division and made available to the Department upon request. **(R 336.1205(1)(a), R 336.1224, R 336.1225, R 336.1228, R 336.1229(2)(b), R 336.1301, R 336.1331, R 336.1401, R 336.1702(a), R 336.1901, R 336.1912, R 336.2802(4), R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))**

VII. REPORTING

1. The permittee shall submit an excess emission report (EER) and summary report in an acceptable format to the AQD District Supervisor and the TPU Supervisor within 30 days following the end of each calendar quarter as specified in 40 CFR 60.7(c) and (d). The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information: **(R 336.1205, R 336.1224, R 336.1228, R 336.1229(2)(b), R 336.2803, R 336.2804, R 336.2810, R 336.2902(2)(c), 40 CFR Part 51, Appendix S, 40 CFR 52.21(c), (d), and (j), 40 CFR 60.7(c) and (d))**
 - a) A report of each exceedance above the limits specified in the emission limits of this permit. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.

- b) A report of all periods of the Continuous Emission Monitoring and Continuous Emission Rate Monitoring System (CEMS/CERMS), and if applicable Predictive Emission Monitoring System (PEMS), downtime and corrective action.
 - c) A report of the total operating time of the boiler during the reporting period.
 - d) A report of any periods that the CEMS/CERMS, and if applicable PEMS, exceed the instrument range.
 - e) If no exceedances or CEMS/CERMS, and if applicable PEMS, downtime occurred during the reporting period, the permittee shall report that fact.
2. The permittee shall submit any performance test reports including RATA reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.2001(5), R 336.2156(c))**

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV016-004	336	579	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all of the applicable requirements contained in the federal Acid Rain Program, as it applies to EU-UNIT4. **(40 CFR Parts 72 - 76)**
2. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart UUUUU, as they apply to EU-UNIT4, by the initial compliance date. **(40 CFR Part 63 Subparts A and UUUUU)**
3. An affected existing EGU shall meet the requirements of Part 15 Emission Limitations and Prohibitions – Mercury. **(R 336.2503(1))**

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

² This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

³ This condition is federally enforceable and was originally established in the consent decree settling, “U.S. v DTE Energy Company, Civil Action No. EPA-5-2018-113(a)-MI-07” and also pursuant to Act 451, Section 324.5503(b), and will remain in effect after termination of the consent decree.

APPENDIX 3-1
NO_x, SO₂, CO, PM, CO₂/O₂, Mercury Monitoring
Continuous Emission Monitoring and Continuous Emission Rate Monitoring System (CEMS/CERMS)
Requirements

1. Within 60 days of completion of testing, the permittee shall submit to the AQD two copies of the final report demonstrating the CEMS/CERMS complies with the requirements of the corresponding Performance Specifications (PS) in the following table:

Pollutant	Applicable PS
NO _x /SO ₂	2
CO	4
CO ₂ /O ₂	3
CERMS	6
PM	11
Mercury	12A*
*Or other PS as approved by the AQD	

2. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.
3. The CEMS/CERMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and PS 2, 3, 6, 11, and 12A (see No. 1 above) of Appendix B to 40 CFR Part 60 or 40 CFR Part 75, Appendices A and B, as applicable.
4. Each calendar quarter, the permittee shall perform the Quality Assurance Procedures of the CEMS/CERMS set forth in Appendix F of 40 CFR Part 60 or 40 CFR Part 75, Appendix B. Within 30 days following the end of each calendar quarter, the permittee shall submit the results to the AQD in the format of the data assessment report (Figure 1, Appendix F of 40 CFR Part 60).