

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

February 11, 2022  
Revised December 6, 2022

**PERMIT TO INSTALL  
16-22**

**ISSUED TO**  
DTE Electric – St. Clair Power Plant

**LOCATED AT**  
4901 Pointe Drive  
St. Clair, Michigan 48054

**IN THE COUNTY OF**  
St. Clair

**STATE REGISTRATION NUMBER**  
B2796

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: <b>July 20, 2021</b>	
DATE PERMIT TO INSTALL APPROVED: <b>February 11, 2022</b>	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 <sub>2</sub> 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 <sub>2</sub> S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO <sub>x</sub>	Oxides of Nitrogen
ng	Nanogram
PM	Particulate Matter
PM10	Particulate Matter equal to or less than 10 microns in diameter
PM2.5	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 <sub>2</sub>	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 condition 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-BOILER2-SC*	St. Clair Boiler No. 2. Nominally rated 150 MW coal fired boiler (ignition with natural gas). Also, fires #6 fuel oil, off specification used oil, and/or their blends as auxiliary fuel. The boiler is equipped with low NO <sub>x</sub> burners, dry cold-side electrostatic precipitators ESP, overfire air, DSI, ACI.	02-01-1951/ 01-04-2006/ 01-30-2012/ 07-25-2014	FG-BLR_GEN-SC FG- BLR2-3-SC FG-MATS-SC
EU-BOILER3-SC*	St. Clair Boiler No. 3. Nominally rated 150 MW coal fired boiler (ignition with natural gas). Also, fires #6 fuel oil, off specification used oil, and/or their blends as auxiliary fuel. The boiler is equipped with low NO <sub>x</sub> burners, dry cold-side electrostatic precipitators ESP, overfire air, DSI, ACI.	02-01-1951/ 06-20-2004/ 01-30-2012/ 07-25-2014	FG-BLR_GEN-SC FG-BLR2-3-SC FGMATS-SC
EU-BOILER6-SC*	St. Clair Boiler No. 6. Nominally rated 350 MW coal fired boiler (ignition with natural gas) and natural gas as a secondary fuel. The boiler is equipped with low NO <sub>x</sub> burners, dry cold-side ESP, overfire air, DSI, and ACI. Also, fires natural gas and #2 fuel oil for the primary air duct heaters.	01-01-1959/ 02-23-2003/ 07-25-2014	FG-BLR_GEN-SC FG-MATS-SC
EU-BOILER7-SC*	St. Clair Boiler No. 7. Nominally rated 450 MW coal fired boiler (ignition with #2 fuel oil) and #2 fuel oil as a secondary fuel. The boiler is equipped with low NO <sub>x</sub> burners, dry cold-side ESP, overfire air, DSI, and ACI. Also, fires natural gas and #2 fuel oil for the primary air duct heaters.	01-01-1967/ 04-11-2001/ 07-25-2014	FG-BLR_GEN-SC FG-MATS-SC
*Other applicable permit requirements for the emission units in this table can be found in the Title V permit, MI-ROP-B2796-2015c.			

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-BOILER6-SC  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

St. Clair Boiler No. 6. Nominally rated, 350 MW coal fired boiler. See FG-BLR\_GEN-SC for description.

**Flexible Group ID:** FG-BLR\_GEN-SC

**POLLUTION CONTROL EQUIPMENT**

Electrostatic Precipitators and Low-NOx burners.

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. Particulate Matter (PM)	0.15 lb/1,000 lbs of exhaust gases on a wet basis, corrected to 50% excess air <sup>2</sup>	Test Protocol	EU-BOILER6-SC	SC V.1	R 336.1331(1)
2. PM	0.030 lb/MMBTU <sup>2,3,4</sup>	30-day Rolling Average Emission Rate <sup>2,3,4</sup>	EU-BOILER6-SC	SC VI.3	Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 24
3. NO <sub>x</sub>	0.350 lb/MMBTU <sup>2,3,4</sup>	30-day Rolling Average Emission Rate <sup>2,3,4</sup>	EU-BOILER6-SC	SC VI.2	Act 451, Section 324.5503(b); 2020 Civil Action No 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 9
4. SO <sub>2</sub>	1.200 lb/MMBTU <sup>2,3,4</sup>	30-day Rolling Average Emission Rate <sup>2,3,4</sup>	EU-BOILER6-SC	SC VI.2	Act 451, Section 324.5503(b); 2020 Civil Action No 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 9

Test Protocol will specify averaging time period.

5. The permittee shall comply with the System-Wide Annual SO<sub>2</sub> and NO<sub>x</sub> Tonnage Limitations specified in Appendix 11-1-A. Emissions from EU-BOILER6-SC shall be counted toward the system-wide total emissions.<sup>2,3,4</sup> **(R 336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 11)**
6. The permittee shall comply with the SO<sub>2</sub> and NO<sub>x</sub> use & surrender allowance and super-compliance allowance provisions listed in Appendix 11-1-B: Allowance Provisions.<sup>2,3,4</sup> **(R 336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 14 - 18)**

See Appendices 11-1-A & 11-1-B

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. # 2 Fuel Oil	0.5% sulfur by weight <sup>2</sup>	As-fired	EU-BOILER6-SC	SC VI.1	R 336.1401

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall not operate EU-BOILER6-SC unless the electrostatic precipitators are installed, maintained, and operated satisfactorily.<sup>2</sup> **(R 336.1910)**
2. The permittee shall continually operate each PM Control Device for EU-BOILER6-SC and use good air pollution control practices to maximize PM emission reductions at all times when EU-BOILER6-SC is in operation. The permittee shall meet the requirements of Appendix 3.6 of this Section to optimize ESP operation.<sup>2,3,4</sup> **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, Paragraph 23)**
3. The permittee shall continually operate the Low NO<sub>x</sub> Combustion System (including Overfire Air) for EU-BOILER6-SC at all times when EU-BOILER6-SC is in operation.<sup>2,3,4</sup> **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, Paragraph 10)**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

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

1. Once every three years or more frequently upon the request of the AQD District Supervisor, the permittee shall verify and quantify particulate matter emission rates by testing at owner's expense in accordance with EGLE requirements. **(R 336.2001)**
2. The permittee shall submit a complete test protocol to the AQD for approval at least 30 days prior to the anticipated test date. The permittee shall notify the AQD no less than 7 days prior to the anticipated test date. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1331, R 336.2001, R 336.2003, R 336.2004)**

**VI. MONITORING/RECORDKEEPING**

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

1. For sulfur content of fuel oil, the permittee shall maintain a complete record of fuel oil specifications and/or fuel analysis for each delivery, or storage tank, of fuel oil. These records may include purchase records for ASTM specification fuel oil, specifications or analyses provided by vendor at time of delivery, analytical results from laboratory testing, or any other records adequate to demonstrate compliance with percent sulfur limit in fuel oil. **(R 336.1205)**
2. For purposes of determining compliance with the 30-day rolling average emission rates for NO<sub>x</sub> and SO<sub>2</sub> as found in SC.I.3 and SC I.4, the permittee shall use emission data obtained from a CEMS in accordance with the procedures of 40 CFR Part 75, except that the emissions data need not be bias adjusted and the missing data substitution procedures of 40 CFR Part 75 shall not apply to such determinations. Diluent capping (i.e., 5% CO<sub>2</sub>) shall be applied to the emission rate for any hours where the measured CO<sub>2</sub> concentration is less than 5% following the procedures in 40 CFR Part 75, Appendix F, Section 3.3.4.1.<sup>2,3,4</sup> **(R 336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 12)**

3. The permittee shall maintain and continuously operate a PM CEMS pursuant to the conditions contained in Appendix 3.5; PM CEMS. <sup>2,3,4</sup> (R 336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 25 & 26)

## VII. REPORTING

NA

See Appendix 8-1

## 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 Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV002-060-SC	160 <sup>2</sup>	425 <sup>2</sup>	R 336.1201(3)

## IX. OTHER REQUIREMENT(S)

1. Any readings, measurements, calculations and records required by this permit and the Department's Rules for Air Pollution Control shall be rounded to the nearest significant digit specified; i.e., for a limit specified as 0.5, 0.54 shall be 0.5, and 0.55 shall be 0.6.<sup>2</sup> (R 336.1201(3))
2. The shall maintain and implement the approved Startup/Shutdown and Malfunction Abatement and Preventative Maintenance Plan for the electrostatic precipitators. Alternate formats or revisions to the approved Program must be approved by the AQD District Supervisor.<sup>2</sup> (R 336.1911)

### Footnotes:

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

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

<sup>3</sup>This condition is federally enforceable and was originally established in the consent decree settling "U.S. v. DTE Energy and Detroit Edison Company, Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, 2020" and also pursuant to Act 451, Section 324.5503(b), and will remain in effect after termination of this consent decree.

<sup>4</sup>Definitions specific to this condition may be found in Appendix 1-1-B.

**EU-BOILER7-SC  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

St. Clair Boiler No. 7. Nominally rated 450 MW coal fired boiler. See FG-BLR\_GEN-SC for description.

**Flexible Group ID:** FG-BLR\_GEN-SC

**POLLUTION CONTROL EQUIPMENT**

Electrostatic Precipitators and Low-NOx burners.

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. Particulate Matter (PM)	0.15 lb/1,000 lbs of exhaust gases on a wet basis, corrected to 50% excess air <sup>2</sup>	Test Protocol	EU-BOILER7-SC	SC V.1	R 336.1331(1)
2. PM	0.030 lb/MMBTU <sup>2,3,4</sup>	30-day Rolling Average Emission Rate <sup>2,3,4</sup>	EU-BOILER7-SC	SC VI.3	Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 24
3. NO <sub>x</sub>	0.250 lb/MMBTU <sup>2,3,4</sup>	30-day Rolling Average Emission Rate <sup>2,3,4</sup>	EU-BOILER7-SC	SC VI.2	Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 9
4. SO <sub>2</sub>	1.200 lb/MMBTU <sup>2,3,4</sup>	30-day Rolling Average Emission Rate <sup>2,3,4</sup>	EU-BOILER7-SC	SC VI.2	Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 9

Test Protocol will specify averaging time period.

5. The permittee shall comply with the System-Wide Annual SO<sub>2</sub> and NO<sub>x</sub> Tonnage Limitations specified in Appendix 11-1-A. Emissions from EU-BOILER7-SC shall be counted toward the system-wide total emissions.<sup>2,4,5</sup> **(R 336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 11)**
6. The permittee shall comply with the SO<sub>2</sub> and NO<sub>x</sub> use & surrender allowance and super-compliance allowance provisions listed in Appendix 11-1-B: Allowance Provisions.<sup>2,4,5</sup> **(R 336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 14 - 18)**

See Appendices 11-1-A & 11-1-B

## II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. # 2 Fuel Oil	0.5% sulfur by weight <sup>2</sup>	As-fired	Boiler No. 7	SC VI.1	R 336.1401

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-BOILER7-SC unless the electrostatic precipitator are installed, maintained, and operated satisfactorily.<sup>2</sup> **(R 336.1910)**
2. The permittee shall continually operate each PM Control Device for EU-BOILER7-SC and use good air pollution control practices to maximize PM emission reductions at all times when EU-BOILER7-SC is in operation. The permittee shall meet the requirements of Appendix 3.6 of this Section to optimize ESP operation.<sup>2,3,4</sup> **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, Paragraph 23)**
3. The permittee shall continually operate the Low NO<sub>x</sub> Combustion System (including Overfire Air) for EU-BOILER7-SC at all times when EU-BOILER7-SC is in operation.<sup>2,3,4</sup> **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, Paragraph 10)**

## IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

## V. TESTING/SAMPLING

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

1. Once every three years or more frequently upon the request of the AQD District Supervisor, the permittee shall verify and quantify particulate matter (PM) emission rates by testing at owner's expense in accordance with EGLE requirements. **(R 336.1201(3), R 336.2001)**
2. The permittee shall submit a complete test protocol to the AQD for approval at least 30 days prior to the anticipated test date. The permittee shall notify the AQD no less than 7 days prior to the anticipated test date. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1331, R 336.2001, R 336.2003, R 336.2004)**

## VI. MONITORING/RECORDKEEPING

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

1. For Sulfur content of fuel oil, the permittee shall maintain a complete record of fuel oil specifications and/or fuel analysis for each delivery, or storage tank, of fuel oil. These records may include purchase records for ASTM specification fuel oil, specifications or analyses provided by vendor at time of delivery, analytical results from laboratory testing, or any other records adequate to demonstrate compliance with percent sulfur in fuel oil.<sup>2</sup> **(R 336.1205)**
2. For purposes of determining compliance with the 30-day rolling average emission rates for NO<sub>x</sub> and SO<sub>2</sub> as found in SC.I.3 and SC I.4, the permittee shall use emission data obtained from a CEMS in accordance with the procedures of 40 CFR Part 75, except that the emissions data need not be bias adjusted and the missing data substitution procedures of 40 CFR Part 75 shall not apply to such determinations. Diluent capping (i.e., 5% CO<sub>2</sub>) shall be applied to the emission rate for any hours where the measured CO<sub>2</sub> concentration is less than 5% following the procedures in 40 CFR Part 75, Appendix F, Section 3.3.4.1.<sup>2,3,4</sup>

**(R 336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 12)**

3. The permittee shall maintain and continuously operate a PM CEMS pursuant to the conditions contained in Appendix 3.5; PM CEMS. <sup>2,3,4</sup> **(R 336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 25 & 26)**

## **VII. REPORTING**

NA

See Appendix 8-1

## **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:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter / Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SV002-070-SC	192 <sup>2</sup>	600 <sup>2</sup>	R 336.1201(3)

## **IX. OTHER REQUIREMENT(S)**

1. Any readings, measurements, calculations and records required by this permit and the Department's Rules for Air Pollution Control shall be rounded to the nearest significant digit specified; i.e., for a limit specified as 0.5, 0.54 shall be 0.5, and 0.55 shall be 0.6.<sup>2</sup> **(R 336.1201(3))**
2. The permittee shall maintain and implement the approved malfunction abatement and preventative maintenance program (Program) for the electrostatic precipitators. Alternate formats or revisions to the approved Program must be approved by the AQD District Supervisor.<sup>2</sup> **(R 336.1911)**

### **Footnotes:**

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

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

<sup>3</sup>This condition is federally enforceable and was originally established in the consent decree settling "U.S. v. DTE Energy and Detroit Edison Company, Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, 2020" and also pursuant to Act 451, Section 324.5503(b), and will remain in effect after termination of this consent decree.

<sup>4</sup>Definitions specific to this condition may be found in Appendix 1-1-B.

## FLEXIBLE GROUP SPECIAL CONDITIONS

### FLEXIBLE GROUP SUMMARY TABLE

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

<b>Flexible Group ID</b>	<b>Flexible Group Description</b>	<b>Associated Emission Unit IDs</b>
FG-BLR_GEN-SC	Applicable requirements associated with St. Clair Power Plant Boiler Nos. 2, 3, 6, and 7, including low-NOx burner & CAM requirements	EU-BOILER2-SC EU-BOILER3-SC EU-BOILER6-SC EU-BOILER7-SC
FG-BLRS2-3-SC	Common particulate matter and used oil requirements for St. Clair Power Plant Boiler Nos. 2 & 3	EU-BOILER2-SC EU-BOILER3-SC

**FG-BLR\_GEN-SC  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Applicable requirements associated with St. Clair Power Plant Boiler Nos. 2 and 3, 6, and 7; including low-NO<sub>x</sub> burners & CAM requirements

**Emission Units:**

- EU-BOILER2-SC St. Clair Power Plant Boiler No. 2. Nominally rated 150 MW coal fired boiler (ignition with natural gas) with ability to be fueled by recovered paint solids and equipped with electrostatic precipitators, low-NO<sub>x</sub> burners, overfire air, dry sorbent injection (DSI) and activated carbon injection (ACI). Also fires #6 fuel oil, off-specification used oil, and their blends as auxiliary fuel.
- EU-BOILER3-SC St. Clair Power Plant Boiler No. 3. Nominally rated 150 MW coal fired boiler (ignition with natural gas) with ability to be fueled by recovered paint solids and equipped with electrostatic precipitators, low-NO<sub>x</sub> burners, overfire air, dry sorbent injection (DSI) and activated carbon injection (ACI). Also fires #6 fuel oil, off- specification used oil, and their blends as auxiliary fuel.
- EU-BOILER6-SC St. Clair Power Plant Boiler No. 6. Nominally rated 350 MW coal fired boiler with electrostatic precipitators, low-NO<sub>x</sub> burners, overfire air, dry sorbent injection (DSI) and activated carbon injection (ACI). Natural gas as secondary fuel, ignition, and primary air duct heaters. Also fires #2 fuel oil for primary air duct heaters.
- EU-BOILER7-SC St. Clair Power Plant Boiler No. 7. Nominally rated 450 MW coal fired boiler with electrostatic precipitators, low-NO<sub>x</sub> burners, overfire air, dry sorbent injection (DSI) and activated carbon injection (ACI). #2 fuel oil for boiler ignition, primary air duct heaters and as auxiliary fuel into boiler. Also fires natural gas for primary air duct heaters.

**POLLUTION CONTROL EQUIPMENT**

Electrostatic Precipitators, Low-NO<sub>x</sub> Burners, Overfire Air, Dry Sorbent Injection (DSI) and Activated Carbon Injection (ACI)

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. SO <sub>2</sub> <sup>a</sup>	1.67 lbs per MM BTU <sup>2</sup>	Monthly average <sup>b</sup>	FG-BLR_GEN-SC	SC VI.1	R 336.1401(3)

<sup>a</sup> The SO<sub>2</sub> limit is a combined limit for St. Clair Power Plant Boiler Nos. 2, 3, 6, and 7, and is based on a 1% sulfur content of coal with a heat value of 12,000 BTU/lb.

<sup>b</sup> The permittee may monitor the SO<sub>2</sub> emission rate on a monthly average using a CEMS certified under 40 CFR 60 or 75.

**II. MATERIAL LIMIT(S)**

NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall not operate any individual boiler unless the associated electrostatic precipitators and low-NO<sub>x</sub> burners are installed, maintained, and operated satisfactorily.<sup>2</sup> **(R 336.1910)**
2. The permittee shall maintain and operate the boilers in a satisfactory manner using efficient combustion practices. Satisfactory operation includes operating the boilers according to the procedures outlined in the Startup/Shutdown and Malfunction Abatement Plan for the electrostatic precipitators and the Carbon Monoxide (CO) Minimization Protocol.<sup>2</sup> **(R 336.1910, R 336.1911, 40 CFR 52.21(j))**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

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

1. For EU-BOILER2-SC, test records to verify and quantify CO emission rates and efficient combustion parameters shall be kept on file and made available to EGLE upon request.<sup>2</sup> **(R 336.1205(1)(a) & (b), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(j))**

**VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a device to monitor and record the opacity on a continuous basis and in accordance with 40 CFR 60.<sup>2</sup> **See Appendix 3.3-SC. (40 CFR 60.13, 40 CFR 60 Appendix B)**
2. For EU-BOILER2-SC, the permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period CO calculation records. The permittee shall keep all records on file for a period of at least five years and make them available to EGLE upon request.<sup>2</sup> **(R 336.1205(1)(a) & (b), 40 CFR 52.21(c) & (d), 40 CFR 52.21(j))**

**VII. REPORTING**

1. The permittee shall submit to the Chief of the Air Compliance Branch, U.S. Environmental Protection Agency and the District Supervisor of the Air Quality Division, within 30 days of the end of the calendar quarter, a written report for each calendar quarter which shall include sulfur dioxide monthly emission rate averages.<sup>2</sup> **(R 336.1401, Clean Air Act Section 114(a))**

**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:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter / Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SV002-060-SC	160 <sup>2</sup>	425 <sup>2</sup>	R 336.1201(3)
2. SV002-070-SC	192 <sup>2</sup>	600 <sup>2</sup>	R 336.1201(3)

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with the NO<sub>x</sub> standards which have been promulgated in a federal implementation plan under section 110(c) or required under Section 126 of the CAA.<sup>2</sup> **(R 336.1801(14))**

2. The permittee shall comply with applicable requirements of the federal National Emissions Standards for Hazardous Air Pollutants as set forth in 40 CFR 63, Subparts A and UUUUU (NESHAP for Coal and Oil-fired Electric Utility Steam Generating Units). The permittee shall comply with all notice requirements, emissions standards and continuous emissions monitoring, recordkeeping, and reporting requirements as required in 40 CFR 63, Subparts A and UUUUU. All emission and operating data shall be kept on file for a period of at least five years and made available to the AQD upon request. **(40 CFR 63 Subparts A and UUUUU)**

**Footnotes:**

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

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

**FG-BLRS2-3-SC  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Particulate matter and used oil requirements for St. Clair Power Plant Boiler Nos. 2 and 3 . For a description of Boiler Nos. 2 and 3, see FG-BLR\_GEN-SC.

**Emission Unit:** EU-BOILER2-SC and EU-BOILER3-SC

**POLLUTION CONTROL EQUIPMENT**

Electrostatic Precipitators and Low-NO<sub>x</sub> burners

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. Particulate Matter (PM)	0.17 lb/1,000 lbs of exhaust gases on a wet basis, corrected to 50% excess air <sup>2</sup>	Test Protocol	Each emission unit in FG-BLRS2-3-SC	SC V.1	R 336.1331(1)
2. PM	0.030 lb/MMBTU <sup>2,3,4</sup>	30-day Rolling Average Emission Rate <sup>2,3,4</sup>	Each emission unit in FG-BLRS2-3-SC	SC VI.3	Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 24
3. NO <sub>x</sub>	0.470 lb/MMBTU <sup>2,3,4</sup>	30-day Rolling Average Emission Rate <sup>2,3,4</sup>	Each emission unit in FG-BLRS2-3-SC	SC VI.2	Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 9
4. SO <sub>2</sub>	1.000 lb/MMBTU <sup>2,3,4</sup>	30-day Rolling Average Emission Rate <sup>2,3,4</sup>	Each emission unit in FG-BLRS2-3-SC	SC VI.2	Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 9

Test protocol will specify averaging time period.

5. The permittee shall comply with the System-Wide Annual SO<sub>2</sub> and NO<sub>x</sub> Tonnage Limitations specified in Appendix 11-1-A. Emissions from EU-BOILER2-SC and EU-BOILER3-SC shall be counted toward the system-wide total emissions.<sup>2,3,4</sup> **(R 336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 11)**
6. The permittee shall comply with the SO<sub>2</sub> and NO<sub>x</sub> use & surrender allowance and super-compliance allowance provisions listed in Appendix 11-1-B: Allowance Provisions.<sup>2,3,4</sup> **(R 336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 14 - 18)**

See Appendices 11-1-A & 11-1-B

**II. MATERIAL LIMIT(S)**

<b>Material</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. # 6 Fuel Oil, Off-Specification Used Oil, or Blends of the Two Oils	1.0% sulfur by wt. <sup>2</sup>	As-fired	Each emission unit in FG-BLRS2-3-SC	SC VI.1	R 336.1401

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall not operate any of the boilers unless the electrostatic precipitators are installed, maintained, and operated satisfactorily.<sup>2</sup> (R 336.1910)
2. The permittee shall continually operate each PM Control Device for FG-BLRS2-3-SC and use good air pollution control practices to maximize PM emission reductions at all times when FG-BLRS2-3-SC is in operation. The permittee shall meet the requirements of Appendix 3.6 of this Section to optimize ESP operation.<sup>2,3,4</sup> (R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, Paragraph 23)
3. The permittee shall continually operate the Low NO<sub>x</sub> Combustion System (including Overfire Air) for EU-BOILER2-SC and EU-BOILER3-SC at all times when the associated boiler is in operation.<sup>2,3,4</sup> (R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, Paragraph 10)

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

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

1. Once every three years or more frequently upon the request of the AQD District Supervisor, the permittee shall verify and quantify particulate matter (PM) emission rates by testing at owner’s expense in accordance with EGLE requirements.<sup>2</sup> (R 336.1201(3), R 336.2001)
2. The permittee shall submit a complete test protocol to the AQD for approval at least 30 days prior to the anticipated test date. The permittee shall notify the AQD no less than 7 days prior to the anticipated test date. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.<sup>2</sup> (R 336.1331, R 336.2001, R 336.2003, R 336.2004)

**VI. MONITORING/RECORDKEEPING**

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

1. For Sulfur content of fuel oil burned, the permittee shall maintain a complete record of fuel oil specifications and/or fuel analysis for each delivery, or storage tank, of fuel oil. These records may include purchase records for ASTM specification fuel oil, specifications or analyses provided by the vendor at the time of delivery, analytical results from laboratory testing, or any other records adequate to demonstrate compliance with the percent sulfur limit in fuel oil.<sup>2</sup> (R 336.1205)
2. For purposes of determining compliance with the 30-day rolling average emission rates for NO<sub>x</sub> and SO<sub>2</sub> as found in SC.I.3 and SC I.4, the permittee shall use emission data obtained from a CEMS in accordance with the procedures of 40 CFR Part 75, except that the emissions data need not be bias adjusted and the missing data substitution procedures of

Part 75 shall not apply to such determinations. Diluent capping (i.e., 5% CO<sub>2</sub>) shall be applied to the emission rate for any hours where the measured CO<sub>2</sub> concentration is less than 5% following the procedures in 40 CFR Part 75, Appendix F, Section 3.3.4.1.<sup>2,3,4</sup> **(R 336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 12)**

3. The permittee shall maintain and continuously operate a PM CEMS pursuant to the conditions contained in Appendix 3.5; PM CEMS.<sup>2,3,4</sup> **(R 336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 25 & 26)**

## **VII. REPORTING**

1. The permittee shall submit a periodic report, within 60 days after the end of each half of the calendar year (January through June and July through December) to demonstrate compliance with the Consent Decree as specified in Appendix 8-1.<sup>2,4,5</sup> **(R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 48)**

See Appendix 8-1

## **VIII. STACK/VENT RESTRICTION(S)**

NA

## **IX. OTHER REQUIREMENT(S)**

1. The permittee shall maintain and implement the approved Startup/Shutdown and Malfunction Abatement Plan for the electrostatic precipitators. Alternate formats or revisions to the approved Program must be approved by the AQD District Supervisor.<sup>2</sup> **(R 336.1911)**

### **Footnotes:**

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

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

<sup>3</sup>This condition is federally enforceable and was originally established in the consent decree settling “U.S. v. DTE Energy and Detroit Edison Company, Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, 2020” and also pursuant to Act 451, Section 324.5503(b), and will remain in effect after termination of this consent decree.

<sup>4</sup>Definitions specific to this condition may be found in Appendix 1-1-B.

## APPENDICES

### Appendix 1 Definitions

#### 1-1-B. Definitions Applicable to Specified Permit Conditions

The following definitions apply to permit conditions originally established in the consent decree settling “U.S. v DTE Energy and Detroit Edison Company, Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, 2020.” This Appendix is also federally enforceable pursuant to Section 324.5503(b) of the Natural Resources and Environmental Protection Act, 1994 Act 451, as amended, Rule 201(1)(a), and Rule 214(a), and will remain in effect after termination of the consent decree. (Act 451, Section 324.5503(b))

For the purpose of the Consent Decree, every term expressly defined by this Section shall have the meaning given that term herein. Every other term used in the Consent Decree that is also a term used under the Act or in a regulation implementing the Act, including regulations approved as part of the Michigan SIP, shall mean in the Consent Decree what such term means under the Act or those regulations. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4)**

- 1) A “30-Day Rolling Average Emission Rate” for a Unit shall be expressed as lb/MMBtu and calculated in accordance with the following procedure: First, sum the total pounds of the pollutant in question emitted from the Unit during an Operating Day and the previous 29 Operating Days; second, sum the total heat input to the Unit in MMBtu during the Operating Day and the previous 29 Operating Days; and third, divide the total number of pounds of the pollutant emitted during the 30 Operating Days by the total heat input during the 30 Operating Days. A new 30-Day Rolling Average Emission Rate shall include all emissions of the applicable pollutant that occur during all periods within any Operating Day, including emissions from startup, shutdown, and malfunction. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(a))**
- 2) A “24-Hour Rolling Average Emission Rate” for a Unit shall be expressed as lb/MMBtu and calculated in accordance with the following procedure: First, sum the total pounds of the pollutant emitted from the Unit during an operating hour and the previous 23 operating hours; second, sum the total heat input to the Unit in MMBtu during the operating hour and the previous 23 operating hours; and third, divide the total number of pounds of the pollutant emitted during the 24 operating hours by the total heat input during the 24 operating hours. A new 24-Hour Rolling Average Emission Rate shall be calculated for each new operating hour. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(b))**
- 3) “Baghouse” means a full stream (fabric filter or membrane) particulate emissions control device. In this context, full stream means that it captures the entire stream of exhaust gas with no concurrent bypass. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(c))**
- 4) “Belle River” means DTE’s Belle River Power Plant consisting of two electric utility steam-generating units designated as Unit 1 (638 MW) and Unit 2 (602 MW) and related equipment, located in East China Township, Michigan. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(d))**
- 5) “Boiler Island” means a Unit’s (a) fuel combustion system (including bunker, coal pulverizers, crusher, stoker, and fuel burners); (b) combustion air system; (c) steam generating system (firebox, boiler tubes, and walls); and (d) draft system (excluding the stack), all as further described in “Interpretation of Reconstruction,” by John B. Rasnic, U.S. EPA (November 25, 1986) and attachments thereto. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(e))**
- 6) “Capital Expenditures” means all capital expenditures, as defined by Generally Accepted Accounting Principles (“GAAP”), as those principles exist at the Date of Entry of this Consent Decree, excluding the cost of installing or upgrading pollution control devices. **(R 336.1201, Act 451,**

**Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(f))**

- 7) "CEMS" or "Continuous Emission Monitoring System" means, for obligations involving the monitoring of NO<sub>x</sub>, SO<sub>2</sub>, and PM emissions under the Consent Decree, the devices defined in 40 C.F.R. §72.2 and installed and maintained as required by 40 C.F.R. Part 75. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(g))**
- 8) "Clean Air Act", "CAA", or "Act" means the federal Clean Air Act, 42 U.S.C. §§ 7401-7671q, and its implementing regulations. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(h))**
- 9) "Complaints" shall mean the amended complaints filed by the United States and Sierra Club in this case on April 9, 2014, and May 22, 2014, respectively. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(i))**
- 10) "Consent Decree" means Consent Decree ("U.S. v DTE Energy and Detroit Edison Company, Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, 2020") and its Appendices. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(j))**
- 11) "Continuously Operate" or "Continuous Operation" means that when a pollution control technology or combustion control is required to be continuously used at a Unit pursuant to the Consent Decree (including, but not limited to, SCR, FGD, ESP, Baghouse, or Low NO<sub>x</sub> Combustion System), it shall be operated at all times such Unit is in operation (except as otherwise provided by Section XII (Force Majeure) of the Consent Decree), consistent with the technological limitations, manufacturers' specifications, good engineering and maintenance practices, and good air pollution control practices for minimizing emissions (as defined in 40 C.F.R. §60.11(d)) for such equipment and the Unit. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(k))**
- 12) "Date of Entry" means the date the Consent Decree is entered by the Court or a motion to enter the Consent Decree is granted, whichever occurs first, as recorded on the Court's docket. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(l))**
- 13) "Date of Lodging" means the date this Consent Decree is filed for lodging with the Clerk of the Court for the United States District Court for the Eastern District of Michigan. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(m))**
- 14) "Day" means calendar day unless otherwise specified in the consent decree. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(n))**
- 15) "Defendants" or "DTE" mean DTE Energy and Detroit Edison Company. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(o))**
- 16) "Electrostatic Precipitator" or "ESP" means a device for removing particulate matter from combustion gases by imparting an electric charge to the particles and then attracting them to a metal plate or screen of opposite charge before the combustion gases are exhausted to the atmosphere. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(p))**
- 17) "Emission Rate" for a given pollutant means the number of pounds of that pollutant emitted per million British thermal units of heat input (lb/MMBtu), measured in accordance with the Consent Decree. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(q))**

- 18) "Environmental Mitigation Project" or "Project" means the project set forth in Section VI (Environmental Mitigation Project) and Appendix A of this Consent Decree, and any other project undertaken for the purpose of fulfilling Defendants' obligations under Section VI and Appendix A and approved for that purpose by EPA pursuant to Section X (Review and Approval of Submittals). **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(r))**
- 19) "EPA" means the United States Environmental Protection Agency. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(s))**
- 20) "Flue Gas Desulfurization System" or "FGD" means a pollution control device that removes sulfur compounds from a flue gas stream, including an absorber or absorbers utilizing lime or limestone, or a sodium based material, for the reduction of SO<sub>2</sub> emissions. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(t))**
- 21) "Fossil Fuel" means any hydrocarbon fuel, including but not limited to coal, metallurgical coke, petroleum coke, petroleum oil, natural gas, or any other fuel made or derived from the foregoing. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(u))**
- 22) "Greenhouse Gases" means the air pollutant defined at 40 C.F.R. §86.1818-12(a) as of the Date of Lodging of this Consent Decree as the aggregate group of six greenhouse gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. This definition continues to apply even if 40 C.F.R. §86.1818-12(a) is subsequently revised, stayed, vacated or otherwise modified. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(v))**
- 23) "KW means Kilowatt or one thousand watts net. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(w))**
- 24) "lb/MMBtu" means pounds of a pollutant per million British thermal units of heat input. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(x))**
- 25) "Low NO<sub>x</sub> Combustion System" means burners and associated combustion air control equipment, including Overfire Air (if installed at the Unit), which control mixing characteristics of Fossil Fuel and oxygen, thus restraining the formation of NO<sub>x</sub> during combustion of fuel in the boiler. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(y))**
- 26) "Malfunction" means any sudden, infrequent, and no reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not Malfunctions. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(z))**
- 27) "MW" means a megawatt or one million units. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(aa))**
- 28) "Michigan SIP" means the Michigan State Implementation Plan, and any amendments thereto, as approved by EPA pursuant to Section 110 of the Act, 42 U.S.C. §7410. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(bb))**
- 29) "Monroe" means DTE's Monroe Power Plant consisting of four electric utility steam-generating units designated as Unit 1 (764 MW), Unit 2 (772 MW), Unit 3 (773 MW), and Unit 4 (765 MW) and related equipment, located in Monroe, Michigan. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(cc))**

- 30) "Natural Gas" means natural gas received directly or indirectly through a connection to an interstate pipeline transporting natural gas governed by a tariff approved by the Federal Energy Regulatory Commission. The Parties recognize that Natural Gas is expected to contain no more than 0.5 grains of sulfur per 100 standard cubic feet of Natural Gas. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(dd))**
- 31) "Netting" shall mean the process of determining whether a particular physical change or change in the method of operation of a major stationary source results in a "net emissions increase" or "net significant emissions increase" as those terms are defined at 40 C.F.R. 52.21 (b)(3)(i) and (ii) and in the Michigan SIP. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(ee))**
- 32) "NO<sub>x</sub>" means oxides of nitrogen. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(ff))**
- 33) "NO<sub>x</sub> Allowance" means an authorization to emit a specified amount of NO<sub>x</sub> that is allocated or issued under an emissions trading or marketable permit program of any kind established under the Clean Air Act or the Michigan SIP, provided, however, that with respect to any such program that first applies to emissions occurring after December 31, 2018, a "NO<sub>x</sub> Allowance" shall include an allowance created and allocated under such program only for control periods starting on or after the first anniversary of the Date of Entry of the Consent Decree. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(gg))**
- 34) "Nonattainment NSR" means the new source review program within the meaning of Part D of Subchapter I of the Act, 42 U.S.C. 7501-7515 and 40 C.F.R. Part 51, and corresponding provisions of the federally enforceable Michigan SIP. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(hh))**
- 35) "Operating Day" or "Operating Days" means any calendar day(s) during which a Unit fires any fuel. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(ii))**
- 36) "Operating Hour" or "Operating Hours" means any clock hour during which a Unit first any fuel. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(jj))**
- 37) "Operational or Ownership Interest" means part or all of DTE's legal or equitable operational or ownership interest in any operating, not-Retired Unit. The Parties recognize that under this definition, Section XVII (Sales or Transfers or Operational or Ownership Interests) of the Consent Decree does not apply to salvage, scrap, or demolition of a Retired Unit. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(kk))**
- 38) "Over-Fire Air" or "OFA" means and in-furnace staged combustion control to reduce NO<sub>x</sub> emissions. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(ll))**
- 39) "Parties" means the United States of America, the Sierra Club, and Defendants. "Party" means one of the named "Parties". **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10 cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(mm))**
- 40) "PM" means total filterable particulate matter. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(nn))**
- 41) "PM CEMS" or "PM Continuous Emission Monitoring System" means the equipment that samples, analyzes, measures, and provides, by readings taken at frequent intervals, an electronic or paper record of PM emissions. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(oo))**

- 42) "PM Control Device" means any device, including an ESP or Baghouse, which reduces emissions of PM. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(pp))**
- 43) "PM Emission Rate" means the number of pounds of PM emitted per million BTU of heat input (lb/MMBtu). **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(qq))**
- 44) "Prevention of Significant Deterioration" or "PSD" means the new source review program within the meaning of Part C of Subchapter I of the Clean Air Act, 42 U.S.C. §§7470-7492 and 40 C.F.R. Part 52, and corresponding provisions of the federally enforceable Michigan SIP. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(rr))**
- 45) "Project Dollars" means Defendants' expenditures and payments incurred or made in carrying out the Environmental Mitigation Project identified in Section VI (Environmental Mitigation Project) of this Consent Decree to the extent that such expenditures or payments both: (a) comply with the requirements set forth in Section VI (Environmental Mitigation Project) and Appendix A of this Consent Decree, and (b) constitute Defendants' direct payments for such project or Defendants' external costs for contractors, vendors, and equipment. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(ss))**
- 46) "Refuel" or "Refueled" means the modification of a Unit such that the modified unit generates electricity solely through the combustion of Natural Gas. Nothing herein shall prevent the reuse of any equipment at any existing Unit provided that the unit owner(s) applies for, and obtains, all required permits, including, if applicable, a PSD or Nonattainment NSR permit. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(tt))**
- 47) "Repower" or "Repowered" means the removal and replacement of the Unit components such that the replaced unit generates electricity solely through the combustion of Natural Gas through the use of a combined cycle combustion turbine technology. Nothing herein shall prevent the reuse of any equipment at any existing unit or new emissions unit, provided that the Unit owner(s) applies for, and obtains, all required permits, including, if applicable, a PSD or Nonattainment NSR permit. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(uu))**
- 48) "Retire", "Retired", or "Retirement" means to permanently shut down and cease to operate the Unit, and to comply with applicable state and federal requirements for permanently ceasing operation of the Unit, including removing the Unit from Michigan's air emissions inventory, and amending all applicable permits so as to reflect the permanent shutdown status of each Unit. The terms "Retire", "Retired", or "Retirement" shall not be construed to apply to electric synchronization motors, capacitors, switch gears, transformers, interconnection equipment and other non-combustion equipment and activities at the sites of System Units, regardless of whether such equipment was part of the System Units. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(vv))**
- 49) "Retrofit" means that the Unit must install and Continuously Operate both an FGD and an SCR, or equivalent pollution control technologies approved by EPA, and achieve and maintain the following 30-Day Rolling Average Emission Rates: **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(ww))**
- NO<sub>x</sub>: 0.080 lb/mmBTU
  - SO<sub>x</sub> 0.060 lb/mmBTU
- 50) "River Rouge" means Defendants' River Rouge Power Plant consisting of one electric utility steam-generating unit designated as Unit 3 (276 MW) and related equipment, located in River Rouge, Michigan. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(xx))**

- 51) “SCR” or “Selective Catalytic Reduction” means an air pollution control device for reducing NO<sub>x</sub> emissions in which ammonia (“NH<sub>3</sub>”) is added to the flue gas and then passed through layers of a catalyst material. The ammonia and NO<sub>x</sub> in the flue gas stream react on the surface of the catalyst, forming nitrogen (“N<sub>2</sub>”) and water vapor. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(yy))**
- 52) “SO<sub>2</sub>” means sulfur dioxide. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(zz))**
- 53) “SO<sub>2</sub> Allowance” means an authorization to emit a specified amount of SO<sub>2</sub> that is allocated or issued under an emissions trading or marketable permit program of any kind established under the Clean Air Act or the Michigan SIP; provided, however, that with respect to any such program that first applies to emissions occurring after December 31, 2018, an “SO<sub>2</sub> Allowance” shall include an allowance created and allocated under such program only for control period starting on or after the first anniversary of the Date of Entry of the Consent Decree. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(aaa))**
- 54) “State” means the State of Michigan. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(bbb))**
- 55) “St. Clair” means, for purposes of this Consent Decree, Defendants’ St. Clair Power Plant consisting of five electric utility steam-generating units designated as Unit 1 (152 MW), Unit 2 (160 MW), Unit 3 (165 MW), Unit 6 (319 MW) and Unit 7 (452 MW) and related equipment, located in East China Township, Michigan. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(ccc))**
- 56) “Surrender” or “Surrender of Allowances” means, for purposes of SO<sub>2</sub> and NO<sub>x</sub> Allowances, permanently surrendering allowances from the accounts administered by EPA and the State of Michigan, if applicable, so that such allowances can never be used thereafter to meet any compliance requirements under the CAA, a state implementation plan, or the Consent Decree. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(ddd))**
- 57) “System” means the Belle River, Monroe, River Rouge, St. Clair, and Trenton Channel facilities as defined herein. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(eee))**
- 58) “System-Wide Annual Tonnage Limitation” for a pollutant means the sum of the tons of the pollutant emitted from all the Units in Defendants’ System including, without limitations, all tons of that pollutant emitted during periods of startup, shutdown, and Malfunction, in the designated year. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(fff))**
- 59) “Title V Permit” means the permit required of major sources pursuant to Subchapter V of the Act, 42 U.S.C. §§ 7661-7661e. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(ggg))**
- 60) “Trenton Channel” means Defendants’ Trenton Channel Power Plant consisting of one electric utility steam-generating unit designated as Unit 9 (536 MW) and related equipment, located in Trenton, Michigan. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(hhh))**
- 61) “Unit” means collectively, the coal pulverizer, stationary equipment that feeds coal to the boiler, the boiler that produces steam for the steam turbine, the steam turbine, the generator, the equipment necessary to operate the generator, steam turbine, and boiler, and all ancillary equipment, including pollution control equipment and systems necessary for production of electricity. An electric steam generating station may be comprised of one or more Units. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(iii))**

### Appendix 3. Monitoring Requirements

**3-1-A** The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in EU-BOILER6-SC, EU-BOILER7-SC, FG-BLR2-3-SC.

#### **NO<sub>x</sub>, SO<sub>2</sub>, CO, PM, CO<sub>2</sub>/O<sub>2</sub>, 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 <sub>x</sub> /SO <sub>2</sub>	2
CO	4
CO <sub>2</sub> /O <sub>2</sub>	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).

### 3-1-B. PM CEMS

This Appendix is federally enforceable and was established pursuant to Rule 201(1)(a). This Appendix was originally established in the consent decree settling “U.S. v DTE Energy and Detroit Edison Company, Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, 2020” and also pursuant to Section 324.5503(b) of the Natural Resources and Environmental Protection Act, 1994 Act 451, as amended, and will remain in effect after termination of the consent decree. Definitions specific to this Appendix may be found in Appendix 1-1-B: Definitions. **(Act 451, Section 324.5503(b))**

1. In determining the PM Emissions Rates, DTE shall use the PM CEMS installed at each unit. The PM CEMS shall be comprised of a continuous particle mass monitor measuring filterable particulate matter concentration, directly or indirectly, on an hourly average basis and a diluent monitor used to convert the concentration to units expressed in lb/MMBtu. The PM CEMS installed at each Unit must be appropriate for the anticipated stack conditions and capable of measuring filterable PM concentrations on an hourly average basis. DTE shall maintain, in an electronic database, the hourly average emission values of all PM CEMS in lb/MMBtu. Except for period of monitor Malfunction, maintenance, or repair, DTE shall operate the PM CEMS at all times when the Unit it serves is operating. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 25)**
2. In maintaining and operating the PM CEMS required under the Consent Decree, DTE shall use the criteria set forth in 40 C.F.R. Part 60, Appendix B, Performance Specification 11, and 40 C.F.R. Part 60, Appendix F, Procedure 2. With respect to relative correlation audits, DTE must conduct such audits no less frequently than

once every 12 operating quarters in which the boiler operates 168 hours or more, or earlier if the characteristics of the PM or gas change such that the PM CEMS measurement technology is no longer valid. For each Unit at which DTE installs, certifies, operates, and maintain a PM CEMS, DTE may use the procedures specified in 40 C.F.R. § 63.10010(i)(1)-(3) (including the specified temperature) for purposes of correlating the PM CEMS under the Consent Decree. Diluent capping (i.e.: 5% CO<sub>2</sub>) will be applied to the PM rate data for any hours where the measured CO<sub>2</sub> concentration is less than 5% following the procedures in 40 C.F.R. Part 75, Appendix F, Section 3.3.4.1. DTE shall operate the PM CEMS in accordance with all EPA reviewed QA/QC protocols. Compliance with the PM CEMS correlation and quality assurance procedures in 40 C.F.R. Part 63, Subpart UUUUU constitutes compliance with this condition. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 26)**

### 3-1-C. Optimization of ESPs

This Appendix is federally enforceable and was established pursuant to Rule 201(1)(a). This Appendix was originally established in the consent decree settling “U.S. v DTE Energy and Detroit Edison Company, Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, 2020” and also pursuant to Section 324.5503(b) of the Natural Resources and Environmental Protection Act, 1994 Act 451, as amended, and will remain in effect after termination of the consent decree. Definitions specific to this Appendix may be found in Appendix 1-1-B: Definitions. **(Act 451, Section 324.5503(b))**

#### DTE Shall:

1. At a minimum, to the extent practicable: (i) fully energize each section of the ESP for each Unit, where applicable; (ii) operate automatic control systems on each ESP to maximize PM collection efficiency, where applicable; (iii) maintain power levels delivered to the ESPs, consistent with manufacturers’ specifications, the operational design of the Unit, and good engineering practices; and (iv) evaluate and restore the plate-cleaning and discharge-electrode cleaning systems for the ESPs at each Unit by varying the time cycle, cycle frequency, rapper vibrator intensity, and number of strikes per cleaning event; and
2. During the next planned Unit outage (or unplanned outage of sufficient length), optimize the PM controls on that Unit by inspecting for and repairing any failed ESP section and any openings in ESP casings, ductwork, and expansion joints to minimize air leakage.

The above requirements are found in “U.S. v DTE Energy and Detroit Edison Company, Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, 2020” paragraph 23.

## **Appendix 8-1. Reporting**

### **8-1-A. Annual, Semiannual, and Deviation Certification Reporting**

The permittee shall use the EGLE, AQD, Report Certification form (EQP 5736) and EGLE, AQD, Deviation Report form (EQP 5737) for the annual, semiannual, and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213 (4)(c) and Rule 213 (3)(c)(i), respectively, and be approved by the AQD District Supervisor.

## Appendix 11-1. NO<sub>x</sub> and SO<sub>2</sub> Allowances and Limitations

### 11-1-A. System Wide NO<sub>x</sub> and SO<sub>2</sub> Tonnage Limitations

This appendix is federally enforceable and was established pursuant to Rule 201(1)(a). Appendix 11-1-A and 11-1-B were originally established in the consent decree settling, “U.S. v DTE Energy and Detroit Edison Company, Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, 2020” and also pursuant Section 324.5503(b) of the Natural Resources and Environmental Protection Act, 1994 Act 451, as amended, and will remain in effect after termination of the consent decree. Definitions specific to this Appendix may be found in Appendix 1-1-B: Definitions. **(Act 451, Section 324.5503(b))**

#### System-Wide Annual NO<sub>x</sub> and SO<sub>2</sub> Tonnage Limitations

The DTE System, collectively, shall operate so as not to exceed the following System-Wide Annual NO<sub>x</sub> and SO<sub>2</sub> Tonnage Limitations:

For the Calendar Year Specified Below:	System-Wide Annual NO <sub>x</sub> Tonnage Limitation	System-Wide Annual SO <sub>2</sub> Tonnage Limitation:
2020-2022	23,850	54,400
2023-2030	15,400	31,800
2031 and later years	6,400	4,650

**(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 11)**

1. For purposes of determining compliance with any System-Wide Annual Tonnage Limitation, DTE shall use NO<sub>x</sub> and SO<sub>2</sub> emission data obtained from a CEMS in accordance with the procedures specified in 40 CFR Part 75. If a Unit is Refueled, SO<sub>2</sub> emissions shall be calculated using methods set forth in EPA document AP-42 or by use of a stack test emission factor. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 13)**

### 11-1-B. NO<sub>x</sub> and SO<sub>2</sub> Allowance Provisions

This appendix is federally enforceable and was established pursuant to Rule 201(1)(a). Appendix 11-1-A and 11-1-B were originally established in the consent decree settling, “U.S. v DTE Energy and Detroit Edison Company, Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, 2020” and also pursuant Section 324.5503(b) of the Natural Resources and Environmental Protection Act, 1994 Act 451, as amended, and will remain in effect after termination of the consent decree. Definitions specific to this Appendix may be found in Appendix 1-1-B: Definitions. **(Act 451, Section 324.5503(b))**

#### Use and Surrender of NO<sub>x</sub> and SO<sub>2</sub> Allowances

1. DTE shall not use NO<sub>x</sub> or SO<sub>2</sub> Allowances to comply with any requirement of the Consent Decree, as enumerated in this permit, including by claiming compliance with any emission limitation required by the Consent Decree, as provided in this permit, by using, tendering, or otherwise applying NO<sub>x</sub> or SO<sub>2</sub> Allowances to offset any excess emissions. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 14)**
2. Except as provided by Appendix 11-1-B: Allowance Provisions, DTE shall not sell, bank, trade, or transfer their interest in any NO<sub>x</sub> or SO<sub>2</sub> Allowances allocated to Units in the System. Nothing in the Consent Decree shall restrict DTE’s ability to transfer NO<sub>x</sub> or SO<sub>2</sub> Allowances among their own facility or general accounts. **(“U.S. v DTE Energy and Detroit Edison Company, Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, 2020” paragraph 15)**

3. Beginning in 2021 and continuing in each calendar year thereafter, DTE shall Surrender all NO<sub>x</sub> and SO<sub>2</sub> Allowances allocated to the Units in the System for that calendar year that DTE does not need to meet federal and/or state CAA regulatory requirements for the System Units. However, NO<sub>x</sub> and SO<sub>2</sub> Allowances allocated to the System may be used by DTE to meet their own federal and/or state CAA regulatory requirements for such Units. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 16)**
4. Nothing in the Consent Decree shall prevent DTE from purchasing or otherwise obtaining NO<sub>x</sub> or SO<sub>2</sub> Allowances from another source for purposes of complying with federal and/or state CAA regulatory requirements to the extent otherwise allowed by law. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 17)**

#### Super-Compliant NO<sub>x</sub> and SO<sub>2</sub> Allowances

5. Beginning with the year 2021 and continuing in each calendar year thereafter, DTE may sell, bank, use, trade, or transfer NO<sub>x</sub> or SO<sub>2</sub> Allowances made available in that calendar year solely as a result of:
  - a) achievement and maintenance of an Emission Rate below a 30-Day Rolling Average Emission Rate (per individual unit) of 0.090 lb/MMBtu for NO<sub>x</sub> and 0.100 lb/MMBtu for SO<sub>2</sub>
  - b) compliance with the Consent Decree through Retrofit, Refuel, or Repowering by the Unit specific dates specified in the Consent Decree paragraph 7 provided that DTE is also in compliance for that calendar year with all emission limitation for NO<sub>x</sub> or SO<sub>2</sub> set forth in the Consent Decree as provided in this permit. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 19)**

#### Method for Surrender of NO<sub>x</sub> and SO<sub>2</sub> Allowances

6. DTE shall Surrender, or transfer to a non-profit third-party selected by DTE for Surrender, all NO<sub>x</sub> and SO<sub>2</sub> Allowances required to be Surrendered pursuant to Appendix 11-1-B by June 30 of the immediately following calendar year. Such Surrender need not include the specific Allowances that were allocated to DTE System Units, so long as DTE surrenders Allowances that are from the same year or an earlier year and that are equal to the number required to be Surrendered under the Consent Decree as provided in this permit. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 20)**
7. If any NO<sub>x</sub> or SO<sub>2</sub> Allowances required to be Surrendered under Appendix 11-1-B: Allowance Provisions are transferred directly to a non-profit third-party, DTE shall include a description of such transfer in the next report submitted to EPA pursuant to the Periodic Reporting provisions of the Consent Decree (beginning at paragraph 48 of the Consent Decree). Such report shall:
  - a) Identify the non-profit third-party recipient(s) of the Allowances and list the serial numbers of the transferred Allowances, and
  - b) Include a certification by the third-party recipient(s) stating that the recipient(s) will not sell, trade, or otherwise exchange any of the Allowances and will not use any of the Allowances to meet any obligation imposed by any environmental law;
  - c) included specific calculations demonstrating the basis and specific amounts of NO<sub>x</sub> and SO<sub>2</sub> Allowances to be surrendered.

No later than the third periodic report due after the transfer of any Allowances, DTE shall include a statement that the third-party recipient(s) Surrendered the Allowances for permanent Surrender to EPA in accordance with the provisions of Appendix 11-1-B, "Method for Surrender of NO<sub>x</sub> and SO<sub>2</sub> Allowances", within one year after DTE transferred the Allowances to them. DTE shall not have complied with the Allowance Surrender requirements of the NO<sub>x</sub> and SO<sub>2</sub> Allowance Surrender requirements of Appendix 11-1-B, "Method for Surrender of NO<sub>x</sub> and SO<sub>2</sub> Allowances", until all third-party recipient(s) have actually Surrendered the transferred Allowances to EPA. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 21 and 48a(4))**

8. For all Allowances required to be Surrendered, DTE or the third-party recipient(s) (as the case may be) shall, with respect to the Allowances that DTE is to Surrender, ensure that an Allowance transfer request form is first submitted to EPA's Office of Air and Radiation's Clean Air Markets Division directing the transfer of such Allowances to the EPA Enforcement Surrender Account or to any other EPA account that EPA may direct in writing. Such Allowance transfer requests may be made in an electronic manner using the EPA's Clean Air Markets Division Business System, or similar system provided by EPA. As part of submitting these transfer requests, DTE shall ensure that the transfer of their Allowances is irrevocably authorized and that the source and location of the Allowances being Surrendered are identified by name of account and any applicable serial or other identification numbers or station names. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 22)**