



February 16, 2024

Mr. Scott Miller
AQD District Supervisor – Jackson District Office
EGLE AQD
301 E. Louis Glick Highway
Jackson, MI 49201

Subject: SRN #B2816 ROP Renewal Application for MI-ROP-B2816-2019
DTE Electric Company – Monroe Power Plant

Dear Mr. Scott Miller,

Enclosed is the ROP Renewal Application for DTE Electric Company's ROP No: MI-ROP-B2816-2019 (SRN #B2816) for Monroe Power Plant, Diesel Generator Peaking Units, and Monroe Fuels Company, LLC located at 3500 E. Front Street in Monroe, Michigan 48161 in Monroe County. This application includes the required forms and attachments, which are detailed below under the listed enclosures.

This submittal is considered timely, at least six (6) months prior to permit expiration on October 16, 2024. Please provide administrative completeness within 15 days.

Should you have any questions regarding this permit renewal application, please contact me at alexis.thomas@dteenergy.com or (248) 794-9390.

Sincerely,

Alexis Thomas/s/

Alexis Thomas
Staff Engineer
Environmental Management & Safety – Emissions Quality
DTE Electric

Enclosure: MI- ROP-B2816-2019 ROP Renewal Application comprised of:

1. ROP Renewal Application Form Section 1 (EQP 6000)
2. ROP Renewal Application Form Section 2 (EQP 6000)
3. ROP Renewal Application Form Section 3 (EQP 6000)
4. AI-001 for Section 1 (AI-Section1)
5. AI-001 for Section 2 (AI-Section2)
6. AI-001 for Section 3 (AI-Section3)
7. ROP Markup for MI-ROP-B2816-2019
8. AI-001 for Section 1, Part C (AI-PARTC) and supporting documentation
9. AI-001 for PTIs (AI-PTI) and supporting documentation
10. NSR Consent Decree – Civil Action No. 2.10-cv-13101



Cc: Mr. Scott Miller, EGLE AQD, Jackson District Supervisor
via email at millers@michigan.gov

EGLE AQD, ROP Application Review for Administrative Completeness
via email at EGLE-ROP@michigan.gov

Mr. Brian Carley, EGLE AQD, Jackson District Environmental Quality Analyst,
via email at carleyb@michigan.gov

Daniel Casey, DTE, Energy Supply, Plant Manager – Monroe Power Plant via
email at daniel.casey@dteenergy.com

Eric Molnar, DTE, EM&S, Environmental Engineer – Monroe Power Plant via
email at eric.molnar@dteenergy.com

Gerald Chilson, DTE, EM&S, Environmental Engineer – Monroe Power Plant
via email at gerald.chilson@dteenergy.com

Biljana Pecov, DTE, Energy Supply, Plant Manager – Peakers via email at
biljana.naumoska@dteenergy.com

Zachary Josefiak, DTE, EM&S, Environmental Engineer – Peakers via email at
zachary.josefiak@dteenergy.com

Christopher Berkimer, DTE Vantage, Director – Assets via email at
christopher.berkimer@dteenergy.com

Nicholas Diedrich, DTE, EM&S, Supervisor – Environmental Affairs, via email
at nicholas.diedrich@dteenergy.com

I. Andrew Fadanelli, DTE, EM&S, Environmental Engineer – Emissions Quality
via email at ignatius.fadanelli@dteenergy.com

Barry Marietta, DTE, EM&S, Manager – Emissions Quality
via email at Barry.Marietta@dteenergy.com

File in EM&S SharePoint

File on Air Drive: *X:\5.5 Permit Activity\ROP\DTE Electric Co\MONPP\1-Application Yr2024*



RENEWABLE OPERATING PERMIT RENEWAL APPLICATION FORM

This information is required by Article II, Chapter 1, Part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Refer to instructions for additional information to complete the Renewable Operating Permit Renewal Application Form.

GENERAL INSTRUCTIONS

This application form should be submitted as part of an administratively complete application package for renewal of a Renewable Operating Permit (ROP). This application form consists of nine parts. Parts A – H must be completed for all applications and must also be completed for each section of a sectioned ROP. Answer all questions in all parts of the form unless directed otherwise. Detailed instructions for this application form can be found at <http://michigan.gov/air> (select the Permits Tab, “Renewable Operating Permits (ROP)/Title V”, then “ROP Forms & Templates”).

PART A: GENERAL INFORMATION

Enter information about the source, owner, contact person and the responsible official.

SOURCE INFORMATION

SRN B2816	SIC Code 4911	NAICS Code 221112	Existing ROP Number MI-ROP-B2816-2019	Section Number (if applicable) 1
Source Name DTE Electric Company – Monroe Power Plant				
Street Address 3500 E. Front Street				
City Monroe	State MI	ZIP Code 48161	County Monroe	
Section/Town/Range (if address not available)				
Source Description Monroe Power Plant operates four (4) cell burner boilers, designated as Units 1, 2, 3, and 4, for the generation of electricity for sale. These units have a total nominal generating capacity of 3,140 megawatts. The source also includes auxiliary boilers, parts cleaning stations, and material handling for limestone, gypsum, FGD, and Petroleum Coke.				
<input type="checkbox"/> Check here if any of the above information is different than what appears in the existing ROP. Identify any changes on the marked-up copy of your existing ROP.				

OWNER INFORMATION

Owner Name DTE Energy	Section Number (if applicable) 1			
Mailing address (<input type="checkbox"/> check if same as source address) One Energy Plaza				
City Detroit	State MI	ZIP Code 48226	County Wayne	Country USA

Check here if any information in this ROP renewal application is confidential. Confidential information should be identified on an Additional Information (AI-001) Form.

PART A: GENERAL INFORMATION (continued)

At least one contact and responsible official must be identified. Additional contacts and responsible officials may be included if necessary.

CONTACT INFORMATION

Contact 1 Name Alexis Thomas		Title Staff Engineer - Environmental		
Company Name & Mailing address (<input type="checkbox"/> check if same as source address) One Energy Plaza, GO 405				
City Detroit	State MI	ZIP Code 48226	County Wayne	Country USA
Phone number (248) 794-9390		E-mail address Alexis.thomas@dteenergy.com		

Contact 2 Name (optional)		Title		
Company Name & Mailing address (<input type="checkbox"/> check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		

RESPONSIBLE OFFICIAL INFORMATION

Responsible Official 1 Name Daniel Casey		Title Plant Manager – Energy Supply		
Company Name & Mailing address (<input checked="" type="checkbox"/> check if same as source address)				
City	State	ZIP Code	County	Country
Phone number (734) 384-2207		E-mail address Daniel.casey@dteenergy.com		

Responsible Official 2 Name (optional)		Title		
Company Name & Mailing address (<input type="checkbox"/> check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		

<input type="checkbox"/> Check here if an AI-001 Form is attached to provide more information for Part A. Enter AI-001 Form ID:

PART B: APPLICATION SUBMITTAL and CERTIFICATION by Responsible Official

Identify the items that are included as part of your administratively complete application in the checklist below. For your application to be complete, it must include information necessary to evaluate the source and to determine all applicable requirements. Answer the compliance statements as they pertain to all the applicable requirements to which the source is subject. The source's Responsible Official must sign and date this form.

Listing of ROP Application Contents. Check the box for the items included with your application.

<input checked="" type="checkbox"/> Completed ROP Renewal Application Form (and any AI-001 Forms) (required)	<input type="checkbox"/> Compliance Plan/Schedule of Compliance
<input checked="" type="checkbox"/> Mark-up copy of existing ROP using official version from the AQD website (required)	<input type="checkbox"/> Stack information
<input checked="" type="checkbox"/> Copies of all Permit(s) to Install (PTIs) that have not been incorporated into existing ROP (required)	<input checked="" type="checkbox"/> Acid Rain Permit Initial/Renewal Application
<input type="checkbox"/> Criteria Pollutant/Hazardous Air Pollutant (HAP) Potential to Emit Calculations	<input checked="" type="checkbox"/> Cross-State Air Pollution Rule (CSAPR) Information
<input type="checkbox"/> MAERS Forms (to report emissions not previously submitted)	<input type="checkbox"/> Confidential Information
<input checked="" type="checkbox"/> Copies of all Consent Order/Consent Judgments that have not been incorporated into existing ROP	<input checked="" type="checkbox"/> Paper copy of all documentation provided (required)
<input checked="" type="checkbox"/> Compliance Assurance Monitoring (CAM) Plan	<input checked="" type="checkbox"/> Electronic documents provided (optional)
<input checked="" type="checkbox"/> Other Plans (e.g., Malfunction Abatement, Fugitive Dust, Operation and Maintenance, etc.)	<input type="checkbox"/> Other, explain:

Compliance Statement

This source is in compliance with all of its applicable requirements, including those contained in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and other applicable requirements not currently contained in the existing ROP. Yes No

This source will continue to be in compliance with all of its applicable requirements, including those contained in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and other applicable requirements not currently contained in the existing ROP. Yes No

This source will meet in a timely manner applicable requirements that become effective during the permit term. Yes No

The method(s) used to determine compliance for each applicable requirement is/are the method(s) specified in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and all other applicable requirements not currently contained in the existing ROP.

If any of the above are checked No, identify the emission unit(s) or flexible group(s) affected and the specific condition number(s) or applicable requirement for which the source is or will be out of compliance at the time of issuance of the ROP renewal on an AI-001 Form. Provide a compliance plan and schedule of compliance on an AI-001 Form.

Name and Title of the Responsible Official (Print or Type)

Daniel Casey, Plant Manager – Energy Supply

As a Responsible Official, I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this application are true, accurate, and complete.



Signature of Responsible Official



Date

PART C: SOURCE REQUIREMENT INFORMATION

Answer the questions below for specific requirements or programs to which the source may be subject.

C1.	Actual emissions and associated data from all emission units with applicable requirements (including those identified in the existing ROP, Permits to Install and other equipment that have not yet been incorporated into the ROP) are required to be reported in MAERS. Are there any emissions and associated data that have not been reported in MAERS for the most recent emissions reporting year? If Yes , identify the emission unit(s) that was/were not reported in MAERS on an AI-001 Form. Applicable MAERS form(s) for unreported emission units must be included with this application.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C2.	Is this source subject to the federal regulations on ozone-depleting substances? (40 CFR Part 82)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
C3.	Is this source subject to the federal Chemical Accident Prevention Provisions? (Section 112(r) of the Clean Air Act Amendments, 40 CFR Part 68) If Yes , a Risk Management Plan (RMP) and periodic updates must be submitted to the USEPA. Has an updated RMP been submitted to the USEPA?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
C4.	Has this stationary source added or modified equipment since the last ROP renewal that changes the potential to emit (PTE) for criteria pollutant (CO, NO _x , PM ₁₀ , PM _{2.5} , SO ₂ , VOC, lead) emissions? If Yes , include potential emission calculations (or the PTI and/or ROP revision application numbers, or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. If No , criteria pollutant potential emission calculations do not need to be included.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
C5.	Has this stationary source added or modified equipment since the last ROP renewal that changes the PTE for hazardous air pollutants (HAPs) regulated by Section 112 of the federal Clean Air Act? If Yes , include potential emission calculations (or the PTI and/or ROP revision application numbers or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. Fugitive emissions must be included in HAP emission calculations. If No , HAP potential emission calculations do not need to be included.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
C6.	Are any emission units subject to the Cross-State Air Pollution Rule (CSAPR)? If Yes , identify the specific emission unit(s) subject to CSAPR on an AI-001 Form.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
C7.	Are any emission units subject to the federal Acid Rain Program? If Yes , identify the specific emission unit(s) subject to the federal Acid Rain Program on an AI-001 Form. Is an Acid Rain Permit Renewal Application included with this application?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
C8.	Are any emission units identified in the existing ROP subject to compliance assurance monitoring (CAM)? If Yes , identify the specific emission unit(s) subject to CAM on an AI-001 Form. If a CAM plan has not been previously submitted to EGLE, one must be included with the ROP renewal application on an AI-001 Form. If the CAM Plan has been updated, include an updated copy. Is a CAM plan included with this application? If a CAM Plan is included, check the type of proposed monitoring included in the Plan: 1. Monitoring proposed by the source based on performance of the control device, or 2. Presumptively Acceptable Monitoring, if eligible	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> <input type="checkbox"/>
C9.	Does the source have any plans such as a malfunction abatement plan, fugitive dust plan, operation/maintenance plan, or any other monitoring plan that is referenced in an existing ROP, Permit to Install requirement, or any other applicable requirement? If Yes , then a copy must be submitted as part of the ROP renewal application.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
C10.	Are there any specific requirements that the source proposes to be identified in the ROP as non-applicable? If Yes , then a description of the requirement and justification must be submitted as part of the ROP renewal application on an AI-001 Form.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/>	Check here if an AI-001 Form is attached to provide more information for Part C. Enter AI-001 Form ID: AI-PART C	

PART D: PERMIT TO INSTALL (PTI) EXEMPT EMISSION UNIT INFORMATION

Review all emission units at the source and answer the question below.

D1. Does the source have any emission units that do not appear in the existing ROP but are required to be listed in the ROP application under R 336.1212(4) (Rule 212(4)) of the Michigan Air Pollution Control Rules? If Yes, identify the emission units in the table below. Yes No

If No, go to Part E.

Note: Emission units that are subject to process specific emission limitations or standards, even if identified in Rule 212, must be captured in either Part G or H of this application form. Identical emission units may be grouped (e.g. PTI exempt Storage Tanks).

Emission Unit ID	Emission Unit Description	Rule 212(4) Citation [e.g. Rule 212(4)(c)]	Rule 201 Exemption Rule Citation [e.g. Rule 282(2)(b)(i)]
096-014	Tank – Motorpool Propane Tank	R 336.1212(4)(d)	R 336.1284(2)(b)
096-015	Tank – Motorpool Gasoline Tank	R 336.1212(4)(d)	R 336.1284(2)(g)(ii)
096-016	Tank – Vehicle Fueling Gasoline Tank	R 336.1212(4)(d)	R 336.1284(2)(g)(ii)
096-011a	Motorpool – Four (4), 0.20 MMBtu/hr propane radiant heaters with individual vents to outdoor air	R 336.1212(4)(c)	R 336.1282(2)(b)(ii)
092-019	Stack – Heater – Reclaim Tunnel	R 336.1212(4)(c)	R 336.1282(2)(b)(ii)
092-022	Stack – Heater – Reclaim Tunnel	R 336.1212(4)(c)	R 336.1282(2)(b)(ii)
092-036	Stack – Heater – TH4	R 336.1212(4)(c)	R 336.1282(2)(b)(ii)
092-037	Stack – Heater – TH4	R 336.1212(4)(c)	R 336.1282(2)(b)(ii)
110-028a	1-2 Slurry House – 0.95 MMBtu/hr Wacker-Neuson indirect-fired heater (no vent, combustion air ducted into slurry house)	R 336.1212(4)(c)	R 336.1282(2)(b)(ii)
110-056a	3-4 Slurry House – 0.95 MMBtu/hr Wacker-Neuson indirect-fired heater (no vent, combustion air ducted into slurry house)	R 336.1212(4)(c)	R 336.1282(2)(b)(ii)
110-106	Vent – Heating Furnace – Drain Cell Bldg	R 336.1212(4)(c)	R 336.1282(2)(b)(ii)
110-129a	Vent – Heating Furnace – Gibbco Warehouse	R 336.1212(4)(c)	R 336.1282(2)(b)(ii)
110-129b	Gibbco Warehouse, 3 Propane Radiant Heaters with individual vents to outdoor air	R 336.1212(4)(c)	R 336.1282(2)(b)(ii)

Comments:

Check here if an AI-001 Form is attached to provide more information for Part D. Enter AI-001 Form ID: **AI-**

PART E: EXISTING ROP INFORMATION

Review all emission units and applicable requirements (including any source wide requirements) in the existing ROP and answer the questions below as they pertain to all emission units and all applicable requirements in the existing ROP.

<p>E1. Does the source propose to make any additions, changes or deletions to terms, conditions and underlying applicable requirements as they appear in the existing ROP? If <u>Yes</u>, identify changes and additions on Part F, Part G and/or Part H.</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>E2. For each emission unit(s) identified in the existing ROP, <u>all</u> stacks with applicable requirements are to be reported in MAERS. Are there any stacks with applicable requirements for emission unit(s) identified in the existing ROP that were <u>not</u> reported in the most recent MAERS reporting year? If <u>Yes</u>, identify the stack(s) that was/were not reported on applicable MAERS form(s).</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>E3. Have any emission units identified in the existing ROP been modified or reconstructed that required a PTI? If <u>Yes</u>, complete Part F with the appropriate information.</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>E4. Have any emission units identified in the existing ROP been dismantled? If <u>Yes</u>, identify the emission unit(s) and the dismantle date in the comment area below or on an AI-001 Form.</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>Comments: E4. EU-BLR1_MESB was dismantled on 10/26/2023. EU-FIREPUMP has been out of service and deemed irreparable as of 1/1/2022.</p>	
<p><input type="checkbox"/> Check here if an AI-001 Form is attached to provide more information for Part E. Enter AI-001 Form ID: AI-</p>	

PART F: PERMIT TO INSTALL (PTI) INFORMATION

Review all emission units and applicable requirements at the source and answer the following questions as they pertain to **all** emission units with PTIs. Any PTI(s) identified below must be attached to the application.

<p>F1. Has the source obtained any PTIs where the applicable requirements from the PTI have not been incorporated into the existing ROP? If <u>Yes</u>, complete the following table. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If <u>No</u>, go to Part G.</p>			
Permit to Install Number	Emission Units/Flexible Group ID(s)	Description (Include Process Equipment, Control Devices and Monitoring Devices)	Date Emission Unit was Installed/ Modified/ Reconstructed
8-22	EU-UNIT1, EU-UNIT2, EU-UNIT3, EU-UNIT4	Add new conditions associated with EPA's Consent Decree (Civil Action No. 2:10-cv-13101, date of entry July 22, 2022) for four electric utility steam generating boilers (Units 1 through 4) fuel by coal and other fuels.	January 27, 2022
72-21	EU-FGD_EDG1, EU-FGD_EDG2, EU-FGD_EDG3, EU-FGD_EDG4 FG-FGD_EDG FGRICEMACT	Installation of four diesel-fired emergency generators to provide the power necessary to safely shut down the existing Unit 1 through Unit 4 boiler wet flue gas desulfurization emission control systems.	September 5, 2023
114-20	EU-FlyAshStorage	Add new equipment and modify existing plant equipment for the Dry Fly Ash Conversion Project to comply with the U.S. EPA Effluent Limitation Guidelines (ELG) rule finalized on September 30, 2015.	December 18, 2022
<p>F2. Do any of the PTIs listed above change, add, or delete terms/conditions to established emission units in the existing ROP? If <u>Yes</u>, identify the emission unit(s) or flexible group(s) affected in the comments area below or on an AI-001 Form and identify all changes, additions, and deletions in a mark-up of the existing ROP. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>			
<p>F3. Do any of the PTIs listed above identify new emission units that need to be incorporated into the ROP? If <u>Yes</u>, submit the PTIs as part of the ROP renewal application on an AI-001 Form, and include the new emission unit(s) or flexible group(s) in the mark-up of the existing ROP. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>			
<p>F4. Are there any stacks with applicable requirements for emission unit(s) identified in the PTIs listed above that were <u>not</u> reported in MAERS for the most recent emissions reporting year? If <u>Yes</u>, identify the stack(s) that were not reported on the applicable MAERS form(s). <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>			
<p>F5. Are there any proposed administrative changes to any of the emission unit names, descriptions or control devices in the PTIs listed above for any emission units not already incorporated into the ROP? If <u>Yes</u>, describe the changes on an AI-001 Form. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>			
<p>Comments: F2. Established emission units with changes to terms and conditions: 8-22: EU-Unit1, EU-Unit2, EU-Unit3, EU-Unit4 114-20: EU-FlyAshStorage F3. See AI-PTI.</p>			
<p><input checked="" type="checkbox"/> Check here if an AI-001 Form is attached to provide more information for Part F. Enter AI-001 Form ID: AI-PTI</p>			

PART G: EMISSION UNITS MEETING THE CRITERIA OF RULES 281(2)(h), 285(2)(r)(iv), 287(2)(c), OR 290

Review all emission units and applicable requirements at the source and answer the following questions.

G1. Does the source have any new and/or existing emission units which do not already appear in the existing ROP and which meet the criteria of Rules 281(2)(h), 285(2)(r)(iv), 287(2)(c), or 290.

If Yes, identify the emission units in the table below. If No, go to Part H.

Yes No

Note: If several emission units were installed under the same rule above, provide a description of each and an installation/modification/reconstruction date for each.

Origin of Applicable Requirements	Emission Unit Description – <i>Provide Emission Unit ID and a description of Process Equipment, Control Devices and Monitoring Devices</i>	Date Emission Unit was Installed/Modified/Reconstructed
<input type="checkbox"/> Rule 281(2)(h) or 285(2)(r)(iv) cleaning operation		
<input type="checkbox"/> Rule 287(2)(c) surface coating line		
<input type="checkbox"/> Rule 290 process with limited emissions		

Comments:

Check here if an AI-001 Form is attached to provide more information for Part G. Enter AI-001 Form ID: **AI-**

PART H: REQUIREMENTS FOR ADDITION OR CHANGE

Complete this part of the application form for all proposed additions, changes or deletions to the existing ROP. This includes state or federal regulations that the source is subject to and that must be incorporated into the ROP or other proposed changes to the existing ROP. **Do not include additions or changes that have already been identified in Parts F or G of this application form.** If additional space is needed copy and complete an additional Part H.

Complete a separate Part H for each emission unit with proposed additions and/or changes.

H1. Are there changes that need to be incorporated into the ROP that have not been identified in Parts F and G? If <u>Yes</u> , answer the questions below.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
H2. Are there any proposed administrative changes to any of the existing emission unit names, descriptions or control devices in the ROP? If <u>Yes</u> , describe the changes in questions H8 – H16 below and in the affected Emission Unit Table(s) in the mark-up of the ROP.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
H3. Does the source propose to add a new emission unit or flexible group to the ROP not previously identified in Parts F or G? If <u>Yes</u> , identify and describe the emission unit name, process description, control device(s), monitoring device(s) and applicable requirements in questions H8 – H16 below and in a new Emission Unit Table in the mark-up of the ROP. See instructions on how to incorporate a new emission unit/flexible group into the ROP.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
H4. Does the source propose to add new state or federal regulations to the existing ROP? If <u>Yes</u> , on an AI-001 Form, identify each emission unit/flexible group that the new regulation applies to and identify <u>each</u> state or federal regulation that should be added. Also, describe the new requirements in questions H8 – H16 below and add the specific requirements to existing emission units/flexible groups in the mark-up of the ROP, create a new Emission Unit/Flexible Group Table, or add an AQD template table for the specific state or federal requirement.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
H5. Has a Consent Order/Consent Judgment (CO/CJ) been issued where the requirements were not incorporated into the existing ROP? If <u>Yes</u> , list the CO/CJ number(s) below and add or change the conditions and underlying applicable requirements in the appropriate Emission Unit/Flexible Group Tables in the mark-up of the ROP. Civil Action No. 2:10-cv-13101-BAF-RSW	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
H6. Does the source propose to add, change and/or delete source-wide requirements? If <u>Yes</u> , identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
H7. Are you proposing to streamline any requirements? If <u>Yes</u> , identify the streamlined and subsumed requirements and the EU ID, and provide a justification for streamlining the applicable requirement below.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

PART H: REQUIREMENTS FOR ADDITION OR CHANGE – (continued)

<p>H8. Does the source propose to add, change and/or delete emission limit requirements? If <u>Yes</u>, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.</p> <p>FG-FIREPUMPNEW – 40 CFR Part 60, Subpart IIII</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>H9. Does the source propose to add, change and/or delete material limit requirements? If <u>Yes</u>, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.</p> <p>FG-FIREPUMPNEW – 40 CFR Part 60, Subpart IIII</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>H10. Does the source propose to add, change and/or delete process/operational restriction requirements? If <u>Yes</u>, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.</p> <p>FG-FIREPUMPNEW – 40 CFR Part 60, Subpart IIII FG-MESBLDG – 40 CFR Part 63, Subpart DDDDD (additional requirements for EU-BLR1_MESB2023 which has continuous oxygen trim system)</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>H11. Does the source propose to add, change and/or delete design/equipment parameter requirements? If <u>Yes</u>, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.</p> <p>FG-FIREPUMPNEW – 40 CFR Part 60, Subpart IIII</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>H12. Does the source propose to add, change and/or delete testing/sampling requirements? If <u>Yes</u>, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.</p> <p>FG-FIREPUMPNEW – 40 CFR Part 60, Subpart IIII</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>H13. Does the source propose to add, change and/or delete monitoring/recordkeeping requirements? If <u>Yes</u>, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.</p> <p>FG-FIREPUMPNEW – 40 CFR Part 60, Subpart IIII FG-MESBLDG – 40 CFR Part 63, Subpart DDDDD (additional requirements for EU-BLR1_MESB2023 which has continuous oxygen trim system)</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>H14. Does the source propose to add, change and/or delete reporting requirements? If <u>Yes</u>, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.</p> <p>FG-FIREPUMPNEW – 40 CFR Part 60, Subpart IIII FG-MESBLDG – 40 CFR Part 63, Subpart DDDDD (additional requirements for EU-BLR1_MESB2023 which has continuous oxygen trim system)</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

PART H: REQUIREMENTS FOR ADDITION OR CHANGE – (continued)

H15. Does the source propose to add, change and/or delete **stack/vent restrictions**? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. Yes No

H16. Does the source propose to add, change and/or delete any **other** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. Yes No

Corrected description for EU-BLR2_MESB. It is a hot-water heating boiler, not a process heater.

Removed REF sorbent system from EU-UNIT1-4 descriptions. REF sorbent system was retired on 8/17/2022.

H17. Does the source propose to add terms and conditions for an alternative operating scenario or intra-facility trading of emissions? If Yes, identify the proposed conditions in a mark-up of the corresponding section of the ROP and provide a justification below. Yes No

Check here if an AI-001 Form is attached to provide more information for Part H. Enter AI-001 Form ID: **AI-**



RENEWABLE OPERATING PERMIT APPLICATION

AI-001: ADDITIONAL INFORMATION

This information is required by Article II, Chapter 1, part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

SRN: B2816

Section Number (if applicable): 1

1. Additional Information ID

AI-PART C

Additional Information

2. Is This Information Confidential?

Yes No

C4 & C5. PTE for Criteria Pollutants and HAPs in tons per year:

EU-FlyAshStorage: PM – 12.5, PM10 – 10.3, PM 2.5 – 8.8

FG-FGD_EDG: NOx – 23.9, CO – 13.3, SO2 – 0.4, PM10 – 0.9, PM2.5 – 0.9, VOC – 1.6, HAPs – 0.03

EU-FIREPUMP2: NOx – 2.46, CO – 0.53, SO2 – 0.00, PM – 0.17, VOC – 0.20, HAPs – 0.00

EU-BLR1_MESB2023: NOx – 3.83, CO – 0.96, SO2 – 0.04, PM – 0.38, VOC – 0.05, HAPs – 0.01

C6. Units 1, 2, 3, and 4 are subject to the Cross-State Air Pollution Rule (CSAPR).

C7. Units 1, 2, 3, and 4 are subject to the federal Acid Rain Program. Enclosed is the Acid Rain Permit Renewal Application.

C8. Units 1, 2, 3, and 4 are subject to CAM. Enclosed are the Units 1, 2, 3, and 4 CAM Plans (Lead & PM10 and HF).

C9. Enclosed are copies of the following plans:

- Cascades Room Dust Collectors Malfunction Abatement Plan
- Dumper House Dust Collector Malfunction Abatement Plan
- Transfer House (includes Crusher House) Dust Collector Malfunction Abatement Plan
- Limestone and Gypsum (includes Hydrated lime) Handling Control Equipment Malfunction Abatement Plan
- Petroleum Coke Material Handling Malfunction Abatement Plan
- Units 1, 2, 3, and 4 Control Devices Malfunction Abatement Plan and Start-up Shutdown Plan
- Units 1, 2, 3, and 4 Mercury Control Devices Malfunction Abatement Plan
- Fugitive Dust Plan

C10. EU-Unit1 SC IV.3, EU-Unit2 SC IV.3, EU-Unit3 SC IV.3, and EU-Unit 4 SC IV.3 are non-applicable. All equipment associated with the REF sorbent system (Section 3) was permanently retired from service on 8/17/22. DTE will soon submit PTI application to remove Section 3 from the ROP.



RENEWABLE OPERATING PERMIT APPLICATION

AI-001: ADDITIONAL INFORMATION

This information is required by Article II, Chapter 1, part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

SRN: B2816

Section Number (if applicable): 1

1. Additional Information ID
AI-Section1

Additional Information

2. Is This Information Confidential?

Yes No

Attached is the ROP Markup for Section 1.



RENEWABLE OPERATING PERMIT RENEWAL APPLICATION FORM

This information is required by Article II, Chapter 1, Part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Refer to instructions for additional information to complete the Renewable Operating Permit Renewal Application Form.

GENERAL INSTRUCTIONS

This application form should be submitted as part of an administratively complete application package for renewal of a Renewable Operating Permit (ROP). This application form consists of nine parts. Parts A – H must be completed for all applications and must also be completed for each section of a sectioned ROP. Answer all questions in all parts of the form unless directed otherwise. Detailed instructions for this application form can be found at <http://michigan.gov/air> (select the Permits Tab, “Renewable Operating Permits (ROP)/Title V”, then “ROP Forms & Templates”).

PART A: GENERAL INFORMATION

Enter information about the source, owner, contact person and the responsible official.

SOURCE INFORMATION

SRN B2816	SIC Code 4911	NAICS Code 221112	Existing ROP Number MI-ROP-B2816-2019	Section Number (if applicable) 2
Source Name DTE Electric Company – Monroe Peakers				
Street Address 3500 E. Front Street				
City Monroe	State MI	ZIP Code 48161	County Monroe	
Section/Town/Range (if address not available)				
Source Description Monroe Peakers consists of 5 diesel fuel-fired generator peaking units.				
<input type="checkbox"/> Check here if any of the above information is different than what appears in the existing ROP. Identify any changes on the marked-up copy of your existing ROP.				

OWNER INFORMATION

Owner Name DTE Energy	Section Number (if applicable) 2			
Mailing address (<input type="checkbox"/> check if same as source address) One Energy Plaza				
City Detroit	State MI	ZIP Code 48226	County Wayne	Country USA

Check here if any information in this ROP renewal application is confidential. Confidential information should be identified on an Additional Information (AI-001) Form.

PART A: GENERAL INFORMATION (continued)

At least one contact and responsible official must be identified. Additional contacts and responsible officials may be included if necessary.

CONTACT INFORMATION

Contact 1 Name Alexis Thomas		Title Staff Engineer - Environmental		
Company Name & Mailing address (<input type="checkbox"/> check if same as source address) One Energy Plaza, GO 405				
City Detroit	State MI	ZIP Code 48226	County Wayne	Country USA
Phone number (248) 794-9390		E-mail address Alexis.thomas@dteenergy.com		

Contact 2 Name (optional)		Title		
Company Name & Mailing address (<input type="checkbox"/> check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		

RESPONSIBLE OFFICIAL INFORMATION

Responsible Official 1 Name Biljana Pecov		Title Plant Manager – Cycling Plant		
Company Name & Mailing address (<input checked="" type="checkbox"/> check if same as source address) 38155 Cherry Hill Road				
City Westland	State MI	ZIP Code 48186	County Wayne	Country USA
Phone number (313) 235-8929		E-mail address Biljana.naumoska@dteenergy.com		

Responsible Official 2 Name (optional)		Title		
Company Name & Mailing address (<input type="checkbox"/> check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		

<input type="checkbox"/> Check here if an AI-001 Form is attached to provide more information for Part A. Enter AI-001 Form ID:

PART B: APPLICATION SUBMITTAL and CERTIFICATION by Responsible Official

Identify the items that are included as part of your administratively complete application in the checklist below. For your application to be complete, it must include information necessary to evaluate the source and to determine all applicable requirements. Answer the compliance statements as they pertain to all the applicable requirements to which the source is subject. The source's Responsible Official must sign and date this form.

Listing of ROP Application Contents. Check the box for the items included with your application.

<input checked="" type="checkbox"/> Completed ROP Renewal Application Form (and any AI-001 Forms) (required)	<input type="checkbox"/> Compliance Plan/Schedule of Compliance
<input checked="" type="checkbox"/> Mark-up copy of existing ROP using official version from the AQD website (required)	<input type="checkbox"/> Stack information
<input type="checkbox"/> Copies of all Permit(s) to Install (PTIs) that have not been incorporated into existing ROP (required)	<input type="checkbox"/> Acid Rain Permit Initial/Renewal Application
<input type="checkbox"/> Criteria Pollutant/Hazardous Air Pollutant (HAP) Potential to Emit Calculations	<input type="checkbox"/> Cross-State Air Pollution Rule (CSAPR) Information
<input type="checkbox"/> MAERS Forms (to report emissions not previously submitted)	<input type="checkbox"/> Confidential Information
<input type="checkbox"/> Copies of all Consent Order/Consent Judgments that have not been incorporated into existing ROP	<input checked="" type="checkbox"/> Paper copy of all documentation provided (required)
<input type="checkbox"/> Compliance Assurance Monitoring (CAM) Plan	<input checked="" type="checkbox"/> Electronic documents provided (optional)
<input type="checkbox"/> Other Plans (e.g., Malfunction Abatement, Fugitive Dust, Operation and Maintenance, etc.)	<input type="checkbox"/> Other, explain:

Compliance Statement

This source is in compliance with **all** of its applicable requirements, including those contained in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and other applicable requirements not currently contained in the existing ROP. Yes No

This source will continue to be in compliance with all of its applicable requirements, including those contained in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and other applicable requirements not currently contained in the existing ROP. Yes No

This source will meet in a timely manner applicable requirements that become effective during the permit term. Yes No

The method(s) used to determine compliance for each applicable requirement is/are the method(s) specified in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and all other applicable requirements not currently contained in the existing ROP.

If any of the above are checked No, identify the emission unit(s) or flexible group(s) affected and the specific condition number(s) or applicable requirement for which the source is or will be out of compliance at the time of issuance of the ROP renewal on an AI-001 Form. Provide a compliance plan and schedule of compliance on an AI-001 Form.

Name and Title of the Responsible Official (Print or Type)

Biljana Pecov, Plant Manager – Cycling Plant

As a Responsible Official, I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this application are true, accurate, and complete.


Signature of Responsible Official


Date

PART C: SOURCE REQUIREMENT INFORMATION

Answer the questions below for specific requirements or programs to which the source may be subject.

C1.	Actual emissions and associated data from all emission units with applicable requirements (including those identified in the existing ROP, Permits to Install and other equipment that have not yet been incorporated into the ROP) are required to be reported in MAERS. Are there any emissions and associated data that have not been reported in MAERS for the most recent emissions reporting year? If Yes , identify the emission unit(s) that was/were not reported in MAERS on an AI-001 Form. Applicable MAERS form(s) for unreported emission units must be included with this application.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C2.	Is this source subject to the federal regulations on ozone-depleting substances? (40 CFR Part 82)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
C3.	Is this source subject to the federal Chemical Accident Prevention Provisions? (Section 112(r) of the Clean Air Act Amendments, 40 CFR Part 68) If Yes , a Risk Management Plan (RMP) and periodic updates must be submitted to the USEPA. Has an updated RMP been submitted to the USEPA?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
C4.	Has this stationary source added or modified equipment since the last ROP renewal that changes the potential to emit (PTE) for criteria pollutant (CO, NOx, PM10, PM2.5, SO2, VOC, lead) emissions? If Yes , include potential emission calculations (or the PTI and/or ROP revision application numbers, or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. If No , criteria pollutant potential emission calculations do not need to be included.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C5.	Has this stationary source added or modified equipment since the last ROP renewal that changes the PTE for hazardous air pollutants (HAPs) regulated by Section 112 of the federal Clean Air Act? If Yes , include potential emission calculations (or the PTI and/or ROP revision application numbers or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. Fugitive emissions must be included in HAP emission calculations. If No , HAP potential emission calculations do not need to be included.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C6.	Are any emission units subject to the Cross-State Air Pollution Rule (CSAPR)? If Yes , identify the specific emission unit(s) subject to CSAPR on an AI-001 Form.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C7.	Are any emission units subject to the federal Acid Rain Program? If Yes , identify the specific emission unit(s) subject to the federal Acid Rain Program on an AI-001 Form. Is an Acid Rain Permit Renewal Application included with this application?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
C8.	Are any emission units identified in the existing ROP subject to compliance assurance monitoring (CAM)? If Yes , identify the specific emission unit(s) subject to CAM on an AI-001 Form. If a CAM plan has not been previously submitted to EGLE, one must be included with the ROP renewal application on an AI-001 Form. If the CAM Plan has been updated, include an updated copy. Is a CAM plan included with this application? If a CAM Plan is included, check the type of proposed monitoring included in the Plan: 1. Monitoring proposed by the source based on performance of the control device, or 2. Presumptively Acceptable Monitoring, if eligible	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> <input type="checkbox"/>
C9.	Does the source have any plans such as a malfunction abatement plan, fugitive dust plan, operation/maintenance plan, or any other monitoring plan that is referenced in an existing ROP, Permit to Install requirement, or any other applicable requirement? If Yes , then a copy must be submitted as part of the ROP renewal application.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C10.	Are there any specific requirements that the source proposes to be identified in the ROP as non-applicable? If Yes , then a description of the requirement and justification must be submitted as part of the ROP renewal application on an AI-001 Form.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<input type="checkbox"/>	Check here if an AI-001 Form is attached to provide more information for Part C. Enter AI-001 Form ID: AI-	

PART G: EMISSION UNITS MEETING THE CRITERIA OF RULES 281(2)(h), 285(2)(r)(iv), 287(2)(c), OR 290

Review all emission units and applicable requirements at the source and answer the following questions.

G1. Does the source have any new and/or existing emission units which do not already appear in the existing ROP and which meet the criteria of Rules 281(2)(h), 285(2)(r)(iv), 287(2)(c), or 290.
 If Yes, identify the emission units in the table below. If No, go to Part H. Yes No
Note: If several emission units were installed under the same rule above, provide a description of each and an installation/modification/reconstruction date for each.

Origin of Applicable Requirements	Emission Unit Description – <i>Provide Emission Unit ID and a description of Process Equipment, Control Devices and Monitoring Devices</i>	Date Emission Unit was Installed/Modified/Reconstructed
<input type="checkbox"/> Rule 281(2)(h) or 285(2)(r)(iv) cleaning operation		
<input type="checkbox"/> Rule 287(2)(c) surface coating line		
<input type="checkbox"/> Rule 290 process with limited emissions		

Comments:

Check here if an AI-001 Form is attached to provide more information for Part G. Enter AI-001 Form ID: **AI-**

PART H: REQUIREMENTS FOR ADDITION OR CHANGE

Complete this part of the application form for all proposed additions, changes or deletions to the existing ROP. This includes state or federal regulations that the source is subject to and that must be incorporated into the ROP or other proposed changes to the existing ROP. **Do not include additions or changes that have already been identified in Parts F or G of this application form.** If additional space is needed copy and complete an additional Part H.

Complete a separate Part H for each emission unit with proposed additions and/or changes.

H1. Are there changes that need to be incorporated into the ROP that have not been identified in Parts F and G? If <u>Yes</u> , answer the questions below.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
H2. Are there any proposed administrative changes to any of the existing emission unit names, descriptions or control devices in the ROP? If <u>Yes</u> , describe the changes in questions H8 – H16 below and in the affected Emission Unit Table(s) in the mark-up of the ROP.	<input type="checkbox"/> Yes <input type="checkbox"/> No
H3. Does the source propose to add a new emission unit or flexible group to the ROP not previously identified in Parts F or G? If <u>Yes</u> , identify and describe the emission unit name, process description, control device(s), monitoring device(s) and applicable requirements in questions H8 – H16 below and in a new Emission Unit Table in the mark-up of the ROP. See instructions on how to incorporate a new emission unit/flexible group into the ROP.	<input type="checkbox"/> Yes <input type="checkbox"/> No
H4. Does the source propose to add new state or federal regulations to the existing ROP? If <u>Yes</u> , on an AI-001 Form, identify each emission unit/flexible group that the new regulation applies to and identify <u>each</u> state or federal regulation that should be added. Also, describe the new requirements in questions H8 – H16 below and add the specific requirements to existing emission units/flexible groups in the mark-up of the ROP, create a new Emission Unit/Flexible Group Table, or add an AQD template table for the specific state or federal requirement.	<input type="checkbox"/> Yes <input type="checkbox"/> No
H5. Has a Consent Order/Consent Judgment (CO/CJ) been issued where the requirements were not incorporated into the existing ROP? If <u>Yes</u> , list the CO/CJ number(s) below and add or change the conditions and underlying applicable requirements in the appropriate Emission Unit/Flexible Group Tables in the mark-up of the ROP.	<input type="checkbox"/> Yes <input type="checkbox"/> No
H6. Does the source propose to add, change and/or delete source-wide requirements? If <u>Yes</u> , identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	<input type="checkbox"/> Yes <input type="checkbox"/> No
H7. Are you proposing to streamline any requirements? If <u>Yes</u> , identify the streamlined and subsumed requirements and the EU ID, and provide a justification for streamlining the applicable requirement below.	<input type="checkbox"/> Yes <input type="checkbox"/> No

PART H: REQUIREMENTS FOR ADDITION OR CHANGE – (continued)

H8. Does the source propose to add, change and/or delete **emission limit** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. Yes No

H9. Does the source propose to add, change and/or delete **material limit** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. Yes No

H10. Does the source propose to add, change and/or delete **process/operational restriction** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. Yes No

H11. Does the source propose to add, change and/or delete **design/equipment parameter** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. Yes No

H12. Does the source propose to add, change and/or delete **testing/sampling** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. Yes No

H13. Does the source propose to add, change and/or delete **monitoring/recordkeeping** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. Yes No

H14. Does the source propose to add, change and/or delete **reporting** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. Yes No

PART H: REQUIREMENTS FOR ADDITION OR CHANGE – (continued)

H15. Does the source propose to add, change and/or delete **stack/vent restrictions**? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. Yes No

H16. Does the source propose to add, change and/or delete any **other** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. Yes No

H17. Does the source propose to add terms and conditions for an alternative operating scenario or intra-facility trading of emissions? If Yes, identify the proposed conditions in a mark-up of the corresponding section of the ROP and provide a justification below. Yes No

Check here if an AI-001 Form is attached to provide more information for Part H. Enter AI-001 Form ID: **AI-**



RENEWABLE OPERATING PERMIT APPLICATION AI-001: ADDITIONAL INFORMATION

This information is required by Article II, Chapter 1, part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

SRN: B2816

Section Number (if applicable): 2

1. Additional Information ID
AI-Section 2

Additional Information

2. Is This Information Confidential?

Yes No

Attached is the ROP Mark-Up for Section 2. There are no proposed changes to Section 2.



RENEWABLE OPERATING PERMIT RENEWAL APPLICATION FORM

This information is required by Article II, Chapter 1, Part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Refer to instructions for additional information to complete the Renewable Operating Permit Renewal Application Form.

GENERAL INSTRUCTIONS

This application form should be submitted as part of an administratively complete application package for renewal of a Renewable Operating Permit (ROP). This application form consists of nine parts. Parts A – H must be completed for all applications and must also be completed for each section of a sectioned ROP. Answer all questions in all parts of the form unless directed otherwise. Detailed instructions for this application form can be found at <http://michigan.gov/air> (select the Permits Tab, “Renewable Operating Permits (ROP)/Title V”, then “ROP Forms & Templates”).

PART A: GENERAL INFORMATION

Enter information about the source, owner, contact person and the responsible official.

SOURCE INFORMATION

SRN B2816	SIC Code 4911	NAICS Code 221112	Existing ROP Number MI-ROP-B2816-2019	Section Number (if applicable) 3
Source Name Monroe Fuels Company, LLC				
Street Address 3500 E. Front Street				
City Monroe	State MI	ZIP Code 48161	County Monroe	
Section/Town/Range (if address not available)				
Source Description Reduced emission fuel (REF) coal and sorbent handling activity at Monroe Power Plant. Activity and equipment is in the Reduced Emissions Fuel Transfer House and Refined Coal Plant Building.				
<input type="checkbox"/> Check here if any of the above information is different than what appears in the existing ROP. Identify any changes on the marked-up copy of your existing ROP.				

OWNER INFORMATION

Owner Name Monroe Fuels Company, LLC	Section Number (if applicable) 3			
Mailing address (<input type="checkbox"/> check if same as source address) One Energy Plaza				
City Detroit	State MI	ZIP Code 48226	County Wayne	Country USA

Check here if any information in this ROP renewal application is confidential. Confidential information should be identified on an Additional Information (AI-001) Form.

PART A: GENERAL INFORMATION (continued)

At least one contact and responsible official must be identified. Additional contacts and responsible officials may be included if necessary.

CONTACT INFORMATION

Contact 1 Name Alexis Thomas		Title Staff Engineer - Environmental		
Company Name & Mailing address (<input type="checkbox"/> check if same as source address) One Energy Plaza, GO 405				
City Detroit	State MI	ZIP Code 48226	County Wayne	Country USA
Phone number (248) 794-9390		E-mail address Alexis.thomas@dteenergy.com		

Contact 2 Name (optional)		Title		
Company Name & Mailing address (<input type="checkbox"/> check if same as source address)				
City	State	ZIP Code	County	Country
Phone number	E-mail address			

RESPONSIBLE OFFICIAL INFORMATION

Responsible Official 1 Name Christopher Berkimer		Title Director - Assets		
Company Name & Mailing address (<input type="checkbox"/> check if same as source address) One Energy Plaza, 400 WCB				
City Detroit	State MI	ZIP Code 48226	County Wayne	Country USA
Phone number (734) 834-6898		E-mail address Christopher.berkimer@dteenergy.com		

Responsible Official 2 Name (optional)		Title		
Company Name & Mailing address (<input type="checkbox"/> check if same as source address)				
City	State	ZIP Code	County	Country
Phone number	E-mail address			

<input type="checkbox"/> Check here if an AI-001 Form is attached to provide more information for Part A. Enter AI-001 Form ID:

PART B: APPLICATION SUBMITTAL and CERTIFICATION by Responsible Official

Identify the items that are included as part of your administratively complete application in the checklist below. For your application to be complete, it must include information necessary to evaluate the source and to determine all applicable requirements. Answer the compliance statements as they pertain to all the applicable requirements to which the source is subject. The source's Responsible Official must sign and date this form.

Listing of ROP Application Contents. Check the box for the items included with your application.	
<input checked="" type="checkbox"/> Completed ROP Renewal Application Form (and any AI-001 Forms) (required)	<input type="checkbox"/> Compliance Plan/Schedule of Compliance
<input checked="" type="checkbox"/> Mark-up copy of existing ROP using official version from the AQD website (required)	<input type="checkbox"/> Stack information
<input type="checkbox"/> Copies of all Permit(s) to Install (PTIs) that have not been incorporated into existing ROP (required)	<input type="checkbox"/> Acid Rain Permit Initial/Renewal Application
<input type="checkbox"/> Criteria Pollutant/Hazardous Air Pollutant (HAP) Potential to Emit Calculations	<input type="checkbox"/> Cross-State Air Pollution Rule (CSAPR) Information
<input type="checkbox"/> MAERS Forms (to report emissions not previously submitted)	<input type="checkbox"/> Confidential Information
<input type="checkbox"/> Copies of all Consent Order/Consent Judgments that have not been incorporated into existing ROP	<input checked="" type="checkbox"/> Paper copy of all documentation provided (required)
<input type="checkbox"/> Compliance Assurance Monitoring (CAM) Plan	<input checked="" type="checkbox"/> Electronic documents provided (optional)
<input type="checkbox"/> Other Plans (e.g., Malfunction Abatement, Fugitive Dust, Operation and Maintenance, etc.)	<input type="checkbox"/> Other, explain:

Compliance Statement

This source is in compliance with **all** of its applicable requirements, including those contained in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and other applicable requirements not currently contained in the existing ROP. Yes No

This source will continue to be in compliance with all of its applicable requirements, including those contained in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and other applicable requirements not currently contained in the existing ROP. Yes No

This source will meet in a timely manner applicable requirements that become effective during the permit term. Yes No

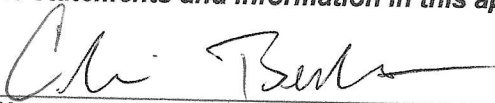
The method(s) used to determine compliance for each applicable requirement is/are the method(s) specified in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and all other applicable requirements not currently contained in the existing ROP.

If any of the above are checked No, identify the emission unit(s) or flexible group(s) affected and the specific condition number(s) or applicable requirement for which the source is or will be out of compliance at the time of issuance of the ROP renewal on an AI-001 Form. Provide a compliance plan and schedule of compliance on an AI-001 Form.

Name and Title of the Responsible Official (Print or Type)

Christopher Berkimer, Director- Assets

As a Responsible Official, I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this application are true, accurate, and complete.



Signature of Responsible Official

2-9-24

Date

PART C: SOURCE REQUIREMENT INFORMATION

Answer the questions below for specific requirements or programs to which the source may be subject.

C1.	Actual emissions and associated data from all emission units with applicable requirements (including those identified in the existing ROP, Permits to Install and other equipment that have not yet been incorporated into the ROP) are required to be reported in MAERS. Are there any emissions and associated data that have not been reported in MAERS for the most recent emissions reporting year? If Yes , identify the emission unit(s) that was/were not reported in MAERS on an AI-001 Form. Applicable MAERS form(s) for unreported emission units must be included with this application.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C2.	Is this source subject to the federal regulations on ozone-depleting substances? (40 CFR Part 82)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
C3.	Is this source subject to the federal Chemical Accident Prevention Provisions? (Section 112(r) of the Clean Air Act Amendments, 40 CFR Part 68) If Yes , a Risk Management Plan (RMP) and periodic updates must be submitted to the USEPA. Has an updated RMP been submitted to the USEPA?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
C4.	Has this stationary source added or modified equipment since the last ROP renewal that changes the potential to emit (PTE) for criteria pollutant (CO, NO _x , PM ₁₀ , PM _{2.5} , SO ₂ , VOC, lead) emissions? If Yes , include potential emission calculations (or the PTI and/or ROP revision application numbers, or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. If No , criteria pollutant potential emission calculations do not need to be included.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C5.	Has this stationary source added or modified equipment since the last ROP renewal that changes the PTE for hazardous air pollutants (HAPs) regulated by Section 112 of the federal Clean Air Act? If Yes , include potential emission calculations (or the PTI and/or ROP revision application numbers or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. Fugitive emissions must be included in HAP emission calculations. If No , HAP potential emission calculations do not need to be included.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C6.	Are any emission units subject to the Cross-State Air Pollution Rule (CSAPR)? If Yes , identify the specific emission unit(s) subject to CSAPR on an AI-001 Form.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C7.	Are any emission units subject to the federal Acid Rain Program? If Yes , identify the specific emission unit(s) subject to the federal Acid Rain Program on an AI-001 Form. Is an Acid Rain Permit Renewal Application included with this application?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
C8.	Are any emission units identified in the existing ROP subject to compliance assurance monitoring (CAM)? If Yes , identify the specific emission unit(s) subject to CAM on an AI-001 Form. If a CAM plan has not been previously submitted to EGLE, one must be included with the ROP renewal application on an AI-001 Form. If the CAM Plan has been updated, include an updated copy. Is a CAM plan included with this application? If a CAM Plan is included, check the type of proposed monitoring included in the Plan: 1. Monitoring proposed by the source based on performance of the control device, or 2. Presumptively Acceptable Monitoring, if eligible	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> <input type="checkbox"/>
C9.	Does the source have any plans such as a malfunction abatement plan, fugitive dust plan, operation/maintenance plan, or any other monitoring plan that is referenced in an existing ROP, Permit to Install requirement, or any other applicable requirement? If Yes , then a copy must be submitted as part of the ROP renewal application.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C10.	Are there any specific requirements that the source proposes to be identified in the ROP as non-applicable? If Yes , then a description of the requirement and justification must be submitted as part of the ROP renewal application on an AI-001 Form.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Check here if an AI-001 Form is attached to provide more information for Part C. Enter AI-001 Form ID: AI-	

PART D: PERMIT TO INSTALL (PTI) EXEMPT EMISSION UNIT INFORMATION

Review all emission units at the source and answer the question below.

D1. Does the source have any emission units that do not appear in the existing ROP but are required to be listed in the ROP application under R 336.1212(4) (Rule 212(4)) of the Michigan Air Pollution Control Rules? If Yes, identify the emission units in the table below. Yes No

If No, go to Part E.

Note: Emission units that are subject to process specific emission limitations or standards, even if identified in Rule 212, must be captured in either Part G or H of this application form. Identical emission units may be grouped (e.g. PTI exempt Storage Tanks).

Emission Unit ID	Emission Unit Description	Rule 212(4) Citation [e.g. Rule 212(4)(c)]	Rule 201 Exemption Rule Citation [e.g. Rule 282(2)(b)(i)]

Comments:

Check here if an AI-001 Form is attached to provide more information for Part D. Enter AI-001 Form ID: **AI-**

PART E: EXISTING ROP INFORMATION

Review all emission units and applicable requirements (including any source wide requirements) in the existing ROP and answer the questions below as they pertain to all emission units and all applicable requirements in the existing ROP.

E1. Does the source propose to make any additions, changes or deletions to terms, conditions and underlying applicable requirements as they appear in the existing ROP? If <u>Yes</u> , identify changes and additions on Part F, Part G and/or Part H.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
E2. For each emission unit(s) identified in the existing ROP, <u>all</u> stacks with applicable requirements are to be reported in MAERS. Are there any stacks with applicable requirements for emission unit(s) identified in the existing ROP that were <u>not</u> reported in the most recent MAERS reporting year? If <u>Yes</u> , identify the stack(s) that was/were not reported on applicable MAERS form(s).	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
E3. Have any emission units identified in the existing ROP been modified or reconstructed that required a PTI? If <u>Yes</u> , complete Part F with the appropriate information.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
E4. Have any emission units identified in the existing ROP been dismantled? If <u>Yes</u> , identify the emission unit(s) and the dismantle date in the comment area below or on an AI-001 Form.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Comments:

<input type="checkbox"/> Check here if an AI-001 Form is attached to provide more information for Part E. Enter AI-001 Form ID: AI-
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PART F: PERMIT TO INSTALL (PTI) INFORMATION

Review all emission units and applicable requirements at the source and answer the following questions as they pertain to **all** emission units with PTIs. Any PTI(s) identified below must be attached to the application.

F1. Has the source obtained any PTIs where the applicable requirements from the PTI have not been incorporated into the existing ROP? If Yes, complete the following table. Yes No
 If No, go to Part G.

Permit to Install Number	Emission Units/Flexible Group ID(s)	Description (Include Process Equipment, Control Devices and Monitoring Devices)	Date Emission Unit was Installed/ Modified/ Reconstructed

F2. Do any of the PTIs listed above change, add, or delete terms/conditions to **established emission units** in the existing ROP? If Yes, identify the emission unit(s) or flexible group(s) affected in the comments area below or on an AI-001 Form and identify all changes, additions, and deletions in a mark-up of the existing ROP. Yes No

F3. Do any of the PTIs listed above identify **new emission units** that need to be incorporated into the ROP? If Yes, submit the PTIs as part of the ROP renewal application on an AI-001 Form, and include the new emission unit(s) or flexible group(s) in the mark-up of the existing ROP. Yes No

F4. Are there any stacks with applicable requirements for emission unit(s) identified in the PTIs listed above that were not reported in MAERS for the most recent emissions reporting year? If Yes, identify the stack(s) that were not reported on the applicable MAERS form(s). Yes No

F5. Are there any proposed administrative changes to any of the emission unit names, descriptions or control devices in the PTIs listed above for any emission units not already incorporated into the ROP? If Yes, describe the changes on an AI-001 Form. Yes No

Comments:

Check here if an AI-001 Form is attached to provide more information for Part F. Enter AI-001 Form ID: **AI-**

PART G: EMISSION UNITS MEETING THE CRITERIA OF RULES 281(2)(h), 285(2)(r)(iv), 287(2)(c), OR 290

Review all emission units and applicable requirements at the source and answer the following questions.

G1. Does the source have any new and/or existing emission units which do not already appear in the existing ROP and which meet the criteria of Rules 281(2)(h), 285(2)(r)(iv), 287(2)(c), or 290.
 If Yes, identify the emission units in the table below. If No, go to Part H. Yes No
Note: If several emission units were installed under the same rule above, provide a description of each and an installation/modification/reconstruction date for each.

Origin of Applicable Requirements	Emission Unit Description – Provide Emission Unit ID and a description of Process Equipment, Control Devices and Monitoring Devices	Date Emission Unit was Installed/ Modified/ Reconstructed
<input type="checkbox"/> Rule 281(2)(h) or 285(2)(r)(iv) cleaning operation		
<input type="checkbox"/> Rule 287(2)(c) surface coating line		
<input type="checkbox"/> Rule 290 process with limited emissions		

Comments:

Check here if an AI-001 Form is attached to provide more information for Part G. Enter AI-001 Form ID: **AI-**

PART H: REQUIREMENTS FOR ADDITION OR CHANGE

Complete this part of the application form for all proposed additions, changes or deletions to the existing ROP. This includes state or federal regulations that the source is subject to and that must be incorporated into the ROP or other proposed changes to the existing ROP. **Do not include additions or changes that have already been identified in Parts F or G of this application form.** If additional space is needed copy and complete an additional Part H.

Complete a separate Part H for each emission unit with proposed additions and/or changes.

H1. Are there changes that need to be incorporated into the ROP that have not been identified in Parts F and G? If <u>Yes</u> , answer the questions below.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
H2. Are there any proposed administrative changes to any of the existing emission unit names, descriptions or control devices in the ROP? If <u>Yes</u> , describe the changes in questions H8 – H16 below and in the affected Emission Unit Table(s) in the mark-up of the ROP.	<input type="checkbox"/> Yes <input type="checkbox"/> No
H3. Does the source propose to add a new emission unit or flexible group to the ROP not previously identified in Parts F or G? If <u>Yes</u> , identify and describe the emission unit name, process description, control device(s), monitoring device(s) and applicable requirements in questions H8 – H16 below and in a new Emission Unit Table in the mark-up of the ROP. See instructions on how to incorporate a new emission unit/flexible group into the ROP.	<input type="checkbox"/> Yes <input type="checkbox"/> No
H4. Does the source propose to add new state or federal regulations to the existing ROP? If <u>Yes</u> , on an AI-001 Form, identify each emission unit/flexible group that the new regulation applies to and identify <u>each</u> state or federal regulation that should be added. Also, describe the new requirements in questions H8 – H16 below and add the specific requirements to existing emission units/flexible groups in the mark-up of the ROP, create a new Emission Unit/Flexible Group Table, or add an AQD template table for the specific state or federal requirement.	<input type="checkbox"/> Yes <input type="checkbox"/> No
H5. Has a Consent Order/Consent Judgment (CO/CJ) been issued where the requirements were not incorporated into the existing ROP? If <u>Yes</u> , list the CO/CJ number(s) below and add or change the conditions and underlying applicable requirements in the appropriate Emission Unit/Flexible Group Tables in the mark-up of the ROP.	<input type="checkbox"/> Yes <input type="checkbox"/> No
H6. Does the source propose to add, change and/or delete source-wide requirements? If <u>Yes</u> , identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	<input type="checkbox"/> Yes <input type="checkbox"/> No
H7. Are you proposing to streamline any requirements? If <u>Yes</u> , identify the streamlined and subsumed requirements and the EU ID, and provide a justification for streamlining the applicable requirement below.	<input type="checkbox"/> Yes <input type="checkbox"/> No

PART H: REQUIREMENTS FOR ADDITION OR CHANGE – (continued)

H8. Does the source propose to add, change and/or delete **emission limit** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. Yes No

H9. Does the source propose to add, change and/or delete **material limit** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. Yes No

H10. Does the source propose to add, change and/or delete **process/operational restriction** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. Yes No

H11. Does the source propose to add, change and/or delete **design/equipment parameter** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. Yes No

H12. Does the source propose to add, change and/or delete **testing/sampling** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. Yes No

H13. Does the source propose to add, change and/or delete **monitoring/recordkeeping** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. Yes No

H14. Does the source propose to add, change and/or delete **reporting** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. Yes No

PART H: REQUIREMENTS FOR ADDITION OR CHANGE – (continued)

H15. Does the source propose to add, change and/or delete **stack/vent restrictions**? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. Yes No

H16. Does the source propose to add, change and/or delete any **other** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. Yes No

H17. Does the source propose to add terms and conditions for an alternative operating scenario or intra-facility trading of emissions? If Yes, identify the proposed conditions in a mark-up of the corresponding section of the ROP and provide a justification below. Yes No

Check here if an AI-001 Form is attached to provide more information for Part H. Enter AI-001 Form ID: **AI-**



RENEWABLE OPERATING PERMIT APPLICATION

AI-001: ADDITIONAL INFORMATION

This information is required by Article II, Chapter 1, part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

SRN: B2816

Section Number (if applicable): 3

1. Additional Information ID
AI-Section 3

Additional Information

2. Is This Information Confidential?

Yes No

Attached is the ROP Mark-Up for Section 3. All equipment associated with Section 3 of MI-ROP-B2816-2019 was permanently retired from service on August 17, 2022. DTE Electric Company will be submitting a PTI application to remove Section 3 altogether as well as references to Reduced Emission Fuel (REF) within Section 1 of the ROP.

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

EFFECTIVE DATE: October 16, 2019

ISSUED TO

DTE Electric Company - Monroe Power Plant

State Registration Number (SRN): B2816

LOCATED AT

3500 East Front Street, Monroe, Michigan 48161

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-B2816-2019

Expiration Date: October 16, 2024

Administratively Complete ROP Renewal Application Due Between April 16, 2023
and April 16, 2024

This Renewable Operating Permit (ROP) is issued in accordance with and subject to Section 5506(3) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). Pursuant to Michigan Air Pollution Control Rule 210(1), this ROP constitutes the permittee's authority to operate the stationary source identified above in accordance with the general conditions, special conditions and attachments contained herein. Operation of the stationary source and all emission units listed in the permit are subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

SOURCE-WIDE PERMIT TO INSTALL

Permit Number: MI-PTI-B2816-2019

This Permit to Install (PTI) is issued in accordance with and subject to Section 5505(5) of Act 451. Pursuant to Michigan Air Pollution Control Rule 214a, the terms and conditions herein, identified by the underlying applicable requirement citation of Rule 201(1)(a), constitute a federally enforceable PTI. The PTI terms and conditions do not expire and remain in effect unless the criteria of Rule 201(6) are met. Operation of all emission units identified in the PTI is subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

Michigan Department of Environment, Great Lakes, and Energy

Scott Miller, Jackson District Supervisor

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ROP No: MI-ROP-B2816-2019
Expiration Date: October 16, 2024
PTI No: MI-PTI-B2816-2019

AUTHORITY AND ENFORCEABILITY

For the purpose of this permit, the **permittee** is defined as any person who owns or operates an emission unit at a stationary source for which this permit has been issued. The **department** is defined in Rule 104(d) as the Director of the Michigan Department of Environment, Great Lakes, and Energy (EGLE) or his or her designee.

The permittee shall comply with all specific details in the permit terms and conditions and the cited underlying applicable requirements. All terms and conditions in this ROP are both federally enforceable and state enforceable unless otherwise footnoted. Certain terms and conditions are applicable to most stationary sources for which an ROP has been issued. These general conditions are included in Part A of this ROP. Other terms and conditions may apply to a specific emission unit, several emission units which are represented as a flexible group, or the entire stationary source which is represented as a Source-Wide group. Special conditions are identified in Parts B, C, D and/or the appendices.

In accordance with Rule 213(2)(a), all underlying applicable requirements are identified for each ROP term or condition. All terms and conditions that are included in a PTI, are streamlined, subsumed and/or are state-only enforceable will be noted as such.

In accordance with Section 5507 of Act 451, the permittee has included in the ROP application a compliance certification, a schedule of compliance, and a compliance plan. For applicable requirements with which the source is in compliance, the source will continue to comply with these requirements. For applicable requirements with which the source is not in compliance, the source will comply with the detailed schedule of compliance requirements that are incorporated as an appendix in this ROP. Furthermore, for any applicable requirements effective after the date of issuance of this ROP, the stationary source will meet the requirements on a timely basis, unless the underlying applicable requirement requires a more detailed schedule of compliance.

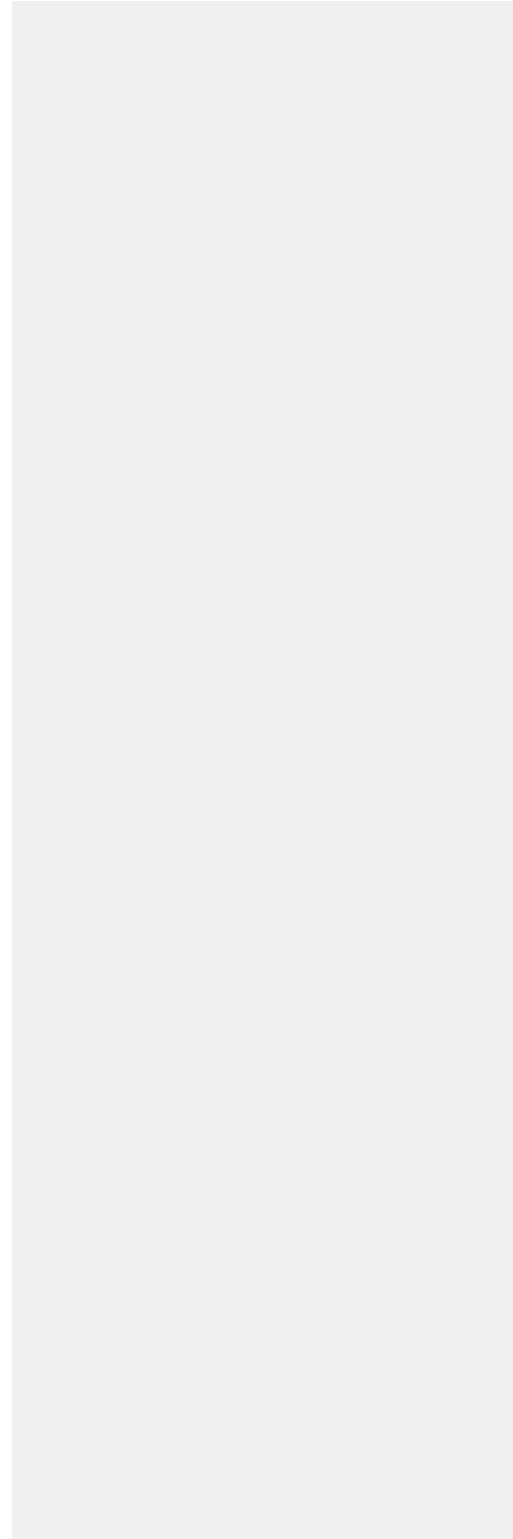
Issuance of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

This permit does not relieve the permittee from any responsibilities or obligations imposed on the permittee, at this source, under Consent Order No. AQD 26-2015 entered on September 18, 2015 between the EGLE and the permittee.

Section 1 DTE Electric Company – Monroe Power Plant

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Section 1 – DTE Electric Company – Monroe Power Plant



A. GENERAL CONDITIONS

Permit Enforceability

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R 336.1213(5))**
- Those conditions that are hereby incorporated in a state-only enforceable Source-Wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. **(R 336.1213(5)(a), R 336.1214a(5))**
- Those conditions that are hereby incorporated in a federally enforceable Source-Wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

General Provisions

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state-only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**
2. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this ROP. **(R 336.1213(1)(b))**
3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**
4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities: **(R 336.1213(1)(d))**
 - a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
 - c. Inspect, at reasonable times, any of the following:
 - i. Any stationary source.
 - ii. Any emission unit.
 - iii. Any equipment, including monitoring and air pollution control equipment.
 - iv. Any work practices or operations regulated or required under the ROP.
 - d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.
5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**
7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**
8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

Equipment & Design

9. Any 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).² **(R 336.1370)**
10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. **(R 336.1910)**

Emission Limits

11. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in subrules 2, 3, and 4 of this rule, a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of the following:"² **(R 336.1301(1))**
 - a. A 6-minute average of 20 % opacity, except for one 6-minute average per hour of not more than 27 percent opacity.
 - b. A limit specified by an applicable federal new source performance standard.

The grading of visible emissions shall be determined in accordance with Rule 303.
12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
 - a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.¹ **(R 336.1901(a))**
 - b. Unreasonable interference with the comfortable enjoyment of life and property.¹ **(R 336.1901(b))**

Testing/Sampling

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1).² **(R 336.2001)**
14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**
15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(5))**

Monitoring/Recordkeeping

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate. **(R 336.1213(3)(b))**
- The date, location, time, and method of sampling or measurements.
 - The dates the analyses of the samples were performed.
 - The company or entity that performed the analyses of the samples.
 - The analytical techniques or methods used.
 - The results of the analyses.
 - The related process operating conditions or parameters that existed at the time of sampling or measurement.
17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. **(R 336.1213(1)(e), R 336.1213(3)(b)(ii))**

Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**
19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604. **(R 336.1213(4)(c))**
20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**
21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
- For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
 - For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
 - For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following: **(R 336.1213(3)(c))**:
- Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
 - Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a Responsible Official which states that, "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete." The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.
23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**
24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**
25. 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 appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor 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 conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA.² **(R 336.1912)**

Permit Shield

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance, if either of the following provisions is satisfied. **(R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))**
- The applicable requirements are included and are specifically identified in the ROP.
 - The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.
- Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.
27. Nothing in this ROP shall alter or affect any of the following:
- The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
 - The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**
 - The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**

- d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**
28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
- a. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
 - b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
 - c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R 336.1216(1)(c)(iii))**
 - d. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
 - e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**
29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

Revisions

30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. **(R 336.1215, R 336.1216)**
31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R 336.1219(2))**
32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(10))**
33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. **(R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))**

Reopenings

34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
- a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. **(R 336.1217(2)(a)(i))**
 - b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
 - c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. **(R 336.1217(2)(a)(iii))**
 - d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(8))**

Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F.
37. If the permittee is subject to 40 CFR Part 82, and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).
39. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall comply with the requirements of 40 CFR Part 68, no later than the latest of the following dates as provided in 40 CFR 68.10(a):
- June 21, 1999,
 - Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
 - The date on which a regulated substance is first present above a threshold quantity in a process.
40. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR Part 68.
41. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c). **(40 CFR Part 68)**

Emission Trading

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of Michigan's State Implementation Plan. Such activities must comply with Rule 215 and Rule 216. **(R 336.1213(12))**

Permit to Install (PTI)

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.² **(R 336.1201(1))**
44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA.² **(R 336.1201(8), Section 5510 of Act 451)**
45. The terms and conditions of a PTI 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 the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI 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. The written request shall be sent to the appropriate AQD District Supervisor, EGLE.² **(R 336.1219)**
46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, EGLE, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.² **(R 336.1201(4))**

Footnotes:

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

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

B. SOURCE-WIDE CONDITIONS

Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.

C. EMISSION UNIT CONDITIONS

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

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, Reduced Emissions Fuel (REF) sorbent system , 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, REF sorbent system , 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, REF sorbent system , 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, REF sorbent system , 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
EU-WFGD-QP1	252 HP diesel fuel-fired engine to operate FGD quench pump and 350-gallon elevated storage tank for diesel fuel servicing the Unit 3 stack.	11-21-2006 / 08-02-2010	FG-ProjectPC1-4, FG-WFGD-QP1&2
EU-WFGD-QP2	252 HP diesel fuel-fired engine to operate FGD quench pump and 350-gallon elevated storage tank for diesel fuel servicing the Unit 4 stack.	11-21-2006 / 08-02-2010	FG-ProjectPC1-4, FG-WFGD-QP1&2
EU-WFGD-QP3	252 HP diesel fuel-fired engine to operate FGD quench pump and 350-gallon elevated storage tank for diesel fuel servicing the Unit 1 stack.	12-1-2013	FG-ProjectPC1-4, FG-WFGD-QP3&4

Commented [ADT1]: All equipment associated with EU-REFHS&BL permanently retired from service on 8/17/22. DTE will soon submit PTI application to remove from ROP.

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Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-WFGD-QP4	252 HP diesel fuel-fired engine to operate FGD quench pump and 350-gallon elevated storage tank for diesel fuel servicing the Unit 2 stack.	4-1-2014	FG-ProjectPC1-4, FG-WFGD-QP3&4
EU-CASCADES	This emission unit represents coal handling activity in the Cascades room. Coal handling activity emissions are limited by an enclosure, wet dust suppression, and baghouse dust collectors.	01-01-1968 / 11-01-1980 / 08-02-2010	FG-ProjectPC1-4
EU-TRANSFERHS	This emission unit represents coal handling activity in the Transfer House. Coal handling activity emissions are limited by an enclosure, wet dust suppression, and baghouse dust collectors.	01-01-1968 / 11-01-1980 / 08-02-2010	FG-ProjectPC1-4
EU-DUMPERHS	This emission unit represents coal handling activity in the Dumper House. Coal handling activity emissions are limited by an enclosure, wet dust suppression, and baghouse dust collectors.	01-01-1968 / 11-01-1980 / 07-12-2012	FG-ProjectPC1-4
EU-COALUNLOAD	This emission unit represents the coal unloading activities from Great Lakes ships and includes storage and pile maintenance. Coal handling activity emissions are limited by enclosures and wet dust suppression methods.	01-01-1968 / 11-01-1980 / 08-02-2010	FG-ProjectPC1-4
EU-CRUSHERHS	This emission unit represents coal handling activity in the Crusher House. Coal handling activity emissions are limited by an enclosure and baghouse dust collectors.	01-01-1968 / 1-07-2005 / 08-02-2010	FG-ProjectPC1-4
EU-PETCOKE	This emission unit represents petroleum coke handling activity, including roadway traffic and pile maintenance. Emissions are limited by partial enclosures, including a portable wind screen, and wet dust suppression.	9-5-2013	FG-ProjectPC1-4
EU-LIMESTONE	This emission unit represents limestone handling activities and includes the ship unloading process, storage and pile maintenance, and reclaims activities – including any trucking activities, and the Prep building. Limestone handling activity emissions are limited by enclosures, wet dust suppression methods, or bin vent filters.	02-01-2008 / 08-02-2010 / 12-21-2010	FG-ProjectPC1-4
EU-GYPSUMHAND	This emission unit represents gypsum handling activity in the gypsum dewatering building and the gypsum storage and loading building. Gypsum handling activity emissions are limited by a building enclosure.	02-01-2008 / 08-02-2010 / 12-21-2010	FG-ProjectPC1-4
EU-HYDRATEDLIME	Storage and handling of hydrated lime. Hydrated lime is delivered via truck and is stored in a silo.	02-01-2008 / 08-02-2010 / 12-21-2010	FG-ProjectPC1-4
EU-SOUTHAX	South Auxiliary Boiler – <u>Oil-fired, limited use boiler subject to 40 CFR Part 63 DDDDD (a.k.a. Boiler MACT)</u>	01-01-1968 / 08-02-2010 / 12-21-2010	FG-AUXBOILERS, FG-MAJOR SOURCE

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Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-NORTHAUX	North Auxiliary Boiler - <u>Oil-fired, limited use boiler subject to 40 CFR Part 63 DDDDD (a.k.a. Boiler MACT)</u>	01-01-1968 / 08-02-2010 / 12-21-2010	FG-AUXBOILERS, FG-MAJOR SOURCE
EU-PARTSCLNRS	Parts Cleaning Stations	NA	FG-PARTSCLNRS
EU-FIREPUMP	#2 Screen house, Rule 285(2)(g) exempt, 300 BHp emergency diesel engine – Cummins	NA	FG-EMERGENS
EU-FIREPUMP2	#2 screenhouse also known as 3-4 Screen house, Rule 285(2)(g) exempt, 350 BHp emergency diesel engine - Clarke	01-01-2020	FG-FIREPUMPNEW
EU-BLR1-MESB	MESB Building Rule 282(2)(b) exempt, 6.3 mmBtu/hr process heater, subject to 40 CFR Part 63 Subpart DDDDD (a.k.a. Boiler MACT)	NA	FG-MESBLDG
EU- BLR1_MESB2023	MESB Building Rule 282(2)(b) exempt, 6.123 mmBtu/hr diesel-fired boiler, subject to 40 CFR Part 63 Subpart DDDDD (a.k.a. Boiler MACT)	02-02-2024	FG_MESBLDG
EU-BLR2_-MESB	MESB Building Rule 282(2)(b) exempt, 6.3 mmBtu/hr <u>diesel-fired, hot-water heating boiler</u> process heater , subject to 40 CFR Part 63 Subpart DDDDD (a.k.a. Boiler MACT)	NA	FG-MESBLDG
EU-FGD_EDG1	A 2,328 HP (1,736 kilowatts (kW)) diesel-fueled emergency engine with a model year of 2011 or later, and a displacement of less than 30 liters/cylinder.	09-05-2023	FG-FGD_EDG, FGRICEMACT
EU-FGD_EDG2	A 2,328 HP (1,736 kilowatts (kW)) diesel-fueled emergency engine with a model year of 2011 or later, and a displacement of less than 30 liters/cylinder.	09-05-2023	FG-FGD_EDG, FGRICEMACT
EU-FGD_EDG3	A 2,328 HP (1,736 kilowatts (kW)) diesel-fueled emergency engine with a model year of 2011 or later, and a displacement of less than 30 liters/cylinder.	09-05-2023	FG-FGD_EDG, FGRICEMACT
EU-FGD_EDG4	A 2,328 HP (1,736 kilowatts (kW)) diesel-fueled emergency engine with a model year of 2011 or later, and a displacement of less than 30 liters/cylinder.	09-05-2023	FG-FGD_EDG, FGRICEMACT
EU-NSPS4iEngines	MI R336.1285(2) exempted diesel engines, model year 2008 or later, less than 25 Hp. Engines subject to 40 CFR Part 60, Subpart IIII as non-emergency stationary combustion ignition (CI) internal combustion engines (ICE) and meet 40 CFR Part 63 Subpart ZZZZ requirements by meeting the requirements of 40 CFR Part 60 Subpart IIII.	NA	FG-NSPS4I

Commented [ADT2]: EU-FIREPUMP has been out of service and is irreparable as of 1-1-2022. DTE is requesting to remove this emission unit from the permit.

Commented [ADT3]: ROP Off-permit change to add EU-FIREPUMP2 to the permit was submitted to EGLE on 2/25/2020.

Commented [ADT4]: EU-BLR1-MESB removed from site 10/26/23. ROP notification of change submitted to EGLE on 11/9/23.

Commented [ADT5]: ROP Off-permit change to add EU-BLR1-MESB2023 to the permit was submitted to EGLE on 2/9/2024.

Commented [ADT6]: EU-BLR2-MESB was previously described incorrectly. It is a hot-water heating boiler, not a process heater.

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Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-FlyAshStorage	<p>A fly ash storage facility. The facility includes the dry fly ash collection, transfer, storage, and loading equipment and unloading area of the onsite landfill. This emission unit includes the Unit 1 – 4 electrostatic precipitator hoppers, vacuum blowers and piping for pneumatic transfer, a 3000-ton storage silo, and a 4,000-ton storage silo, and a 200 ton silo. A silo-to-silo transfer system allows transfer of ash from one silo to the other silo. The silos each have dustless loading/unloading spouts for loading tanker trucks under a slight negative pressure in enclosed unloading areas below each silo. The emissions from the silos and eight conveyor exhaust systems are controlled by vent bin filters. Two ash conditioners (pug mills) for treating ash for loading ash into open trucks are in an enclosed unloading floor area below the 4,000-ton silo. The facility consists of two 75-ton surge silos (Nos. 1 and 2), a 3000-ton storage silo, a 200-ton load-out silo, and associated blowers, pressure pumps, compressors, pipe conveyor lines, and spouts. Particulate emissions from the loading of material into surge silo No. 1 are controlled by two filter receivers (FR-101 and FR-102). Particulate emissions from the transferring of material out of surge silo No. 1 are controlled by a bin vent filter (BH-101). Particulate emissions from the loading of material into surge silo No. 2 are controlled by two filter receivers (FR-201 and FR-202). Particulate emissions from the transferring of material out of surge silo No. 2 are controlled by a bin vent filter (BH-201). Particulate emissions from the storage silo will be controlled by a bin vent filter (BH-301). Particulate emissions from the loading of material into and the transfer of material out of (truck or railcar load-out) the load-out silo will be controlled by a bin vent filter (BH-401).</p>	<p>07-16-08/12-18-2022</p>	<p>NA</p>

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, ~~Reduced Emission Fuel (REF) sorbent system,~~ selective catalytic reduction (SCR), dry wire electrostatic precipitators (ESP), and wet flue gas desulfurization (FGD).

Commented [ADT7]: All equipment associated with EU-REFHS&BL permanently retired from service on 8/17/22. DTE will soon submit PTI application to remove from ROP.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity	10 percent ²	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 ²	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), <u>Civil Action No. 2:10-cv-13101 -BAF-RSW, E.D. Michigan, paragraph 24(a)</u>
3. PM10	0.024 lb/MMBtu heat input ²	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 ²	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 ²	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

Section 1 DTE Electric Company – Monroe Power Plant

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Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
6. SO ₂	815.8 pph ²	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
7. SO₂	0.100 lb/MMBtu² 4.5	30-day rolling average emission rate 2.4.5	EU-UNIT1	SC VI.3, SC VI.10	Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 9
87. NO _x	0.08 lb/MMBtu heat input ²	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)
98. NO _x	222.6 ton/month ²	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)
10. NO_x	0.090 lb/MMBtu² 4.5	30-day rolling average emission rate 2.4.5	EU-UNIT1	SC VI.3, SC VI.10	Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 9
119. CO	0.15 lb/MMBtu heat input excluding periods of start-up and shutdown ²	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)
129. CO	27,446.4 lb/day ²	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)
134. VOC	0.0034 lb/MMBtu heat input ²	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)
142. VOC	25.9 pph ²	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)

Commented [ADT8]: Condition added from PTI 8-22.

Commented [ADT9]: Condition added from PTI 8-22.

Section 1 DTE Electric Company – Monroe Power Plant

ROP No: MI-ROP-B2816-2019
 Expiration Date: October 16, 2024
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Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
153. Lead (Pb)	1.69 x 10 ⁻⁵ lb/MMBtu heat input ²	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)
164. Lead (Pb)	0.13 pph ²	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)
175. Sulfuric acid mist (H ₂ SO ₄)	0.005 lb/MMBtu heat input ²	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)
186. 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,
197. Hydrogen Fluoride (HF)	0.00023 lb/MMBtu heat input ²	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)
2048. Mercury (Hg)	0.02 lb/GW-hr gross energy output ²	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)
2149. Mercury (Hg)	143.1 lb/year ²	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)
2220. 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)

23. The permittee shall comply with the System-Wide Annual SO₂ and NO_x Tonnage Limitations specified in Appendix 11-1-A. Emissions from EU-UNIT1 shall be counted toward the system-wide total emissions.^{2,4,5} (R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 11)

24. The permittee shall comply with the SO₂ and NO_x use & surrender allowance and super-compliance allowance provisions listed in Appendix 11-1-B: Allowance Provisions.^{2,4,5} (R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 14-22)

Commented [ADT10]: Conditions added from PTI 8-22.

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. 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. ² (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.² (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. ² (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. ² (R 336.1911, R 336.1912, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))

~~4. The permittee shall continuously operate the SCR and FGD systems and each PM control device for EU-UNIT1 and use good air pollution control practices to minimize emission reductions at all times when EU-UNIT1 is in operation.^{2,4,5} (R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 10 & 23)~~

~~See Appendix 3-1-C~~

IV. DESIGN/EQUIPMENT PARAMETER(S)

- 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. ² (R 336.1205(1)(a) and (1)(b))
- 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. ² (R 336.1224, R 336.1225, R 336.1901, R 336.1910, R 336.2810, 40 CFR 52.21(j))
- ~~The permittee shall not operate EU-UNIT1 unless the REF sorbent system is 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.1.² (R 336.1225, R 336.1910)~~
- ~~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~~

Commented [ADT11]: Condition added from PTI 8-22.

Commented [ADT12]: Appendix 3-1-B added from PTI 8-22.

Commented [ADT13]: All equipment associated with EU-REFHS&BL permanently retired from service on 8/17/22. DTE will soon submit PTI application to remove from ROP.

approved malfunction abatement plan. ^{2, 3} (R 336.1201, Act 451 324.5503(b), EPA-5-2018-113(a)-MI-07 paragraph 16)

5.4. The permittee shall install and maintain a halogenated compound application system (e.g. ~~potassium iodide/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. ^{2, 3} (R 336.1201 Act 451 324.5503(b), EPA-5-2018-113(a)-MI-07 paragraph 17)

Commented [ADT14]: DTE is requesting to change to potassium iodide. Monroe Power Plant currently uses potassium iodide. The use of calcium bromide has caused patent issues.

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

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. ² (R 336.1213(3), 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 PM2.5 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 336.1213(3), R 336.2001(4))

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

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; Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 25 & 26)**
- 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. ² **(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. ² **(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. ² **(R 336.2804, R 336.2810, 40 CFR 52.21(d) and (j))**

Commented [ADT15]: EPA consent decree citation added to this condition.

10. For purposes of determining compliance with the 30-day rolling average emission rates for SO₂ and NO_x as found in SC I.7 and SC I.10, 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% CO₂) shall be applied to the emission rate for any hours where the measured CO₂ concentration is less than 5% following the procedures in 40 CFR Part 75, Appendix F, Section 3.3.4.1.^{2,4,5} (R 336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 12)

Commented [ADT16]: Condition added from PTI 8-22.

11. 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))
12. 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:
- Compliance tests and any testing required under the special conditions of this permit;
 - Monitoring data;
 - Heat input calculations required to show compliance with SC IV.1;
 - Identification, type and the amounts of all fuels combusted in EU-UNIT1 on a calendar month basis;
 - Total gigawatt-hours of energy produced on a monthly basis;
 - Records of the duration of all times EU-UNIT1 is operated under start-up or shutdown conditions as defined in SC III.2;
 - 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. ² (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))

See [Appendix Appendices 3-1-A and 3-1-B](#)

Commented [ADT17]: Appendix 3-1-B added from PTI 8-22.

VII. REPORTING

- Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
- Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
- 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.

5. 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. ² (R 336.1213(3)(c), R 336.2001(5), R 336.2156(c))

6. 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-B.^{2,4,5} (R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 48)

Commented [ADT18]: Condition added from PTI 8-22.

See Appendix 8-1-B

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 ²	579 ²	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 the acid rain permitting provisions of 40 CFR Part 72.1 to 72.94, as outlined in a complete Phase II, Acid Rain Permit issued by the AQD. Phase II, Acid Rain Permit No. MI-AR-1733-2019 is hereby incorporated into this ROP as Appendix 9-1. (R 336.1902(1)(q))
- 2. The permittee shall not allow the emission of an air pollutant to exceed the amount of any emission allowances that an affected source lawfully holds as of the allowance transfer deadline pursuant to R 336.1902(1)(q) and 40 CFR Part 72.9(c)(1)(i). (R 336.1213(10))
- 3. An affected existing EGU shall meet the requirements of Part 15 Emission Limitations and Prohibitions – Mercury. (R 336.2503(1))
- 4. The permittee shall comply with the provisions of the Cross State Air Pollution Rule NOx Annual Trading Program, as specified in 40 CFR Part 97, Subpart AAAAA, and identified in Appendix 10-1. (40 CFR Part 97, Subpart AAAAA)

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5. The permittee shall comply with the provisions of the Cross State Air Pollution Rule NOx Ozone Season Group 2 Trading Program, as specified in 40 CFR Part 97, Subpart EEEEE, and identified in Appendix 10-1. **(40 CFR Part 97, Subpart EEEEE)**
6. The permittee shall comply with the provisions of the Cross State Air Pollution Rule SO₂ Group 1 Trading Program, as specified in 40 CFR Part 97, Subpart CCCCC, and identified in Appendix 10-1. **(40 CFR Part 97, Subpart CCCCC)**

Footnotes:

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

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

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.

⁴This 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.

⁵Definitions specific to this condition may be found in Appendix 1-1-B.

Commented [ADT19]: Footnotes added from PTI 8-22.

**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, ~~REF sorbent system~~, 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 ²	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 ²	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), <u>Civil Action</u> <u>No. 2:10-cv-13101</u> <u>-BAF-RSW, E.D.</u> <u>Michigan,</u> <u>paragraph 24(a)</u>
3. PM10	0.024 lb/MMBtu heat input ²	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 ²	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 ²	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

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Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
6. SO ₂	815.8 pph ²	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
<u>7. SO₂</u>	<u>0.100 lb/MMBtu_{2.4.5}</u>	<u>30-day rolling average emission rate_{2.4.5}</u>	<u>EU-UNIT2</u>	<u>SC VI.3, SC VI.10</u>	<u>Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101- BAF-RSW, E.D. Michigan, paragraph 9</u>
87. NO _x	0.08 lb/MMBtu heat input ²	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)
98. NO _x	222.6 ton/month ²	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)
<u>10. NO_x</u>	<u>0.090 lb/MMBtu_{2.4.5}</u>	<u>30-day rolling average emission rate_{2.4.5}</u>	<u>EU-UNIT2</u>	<u>SC VI.3, SC VI.10</u>	<u>Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101- BAF-RSW, E.D. Michigan, paragraph 9</u>
119. CO	0.15 lb/MMBtu heat input excluding periods of start-up and shutdown ²	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)
129. CO	27,446.4 lb/day ²	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)
134. VOC	0.0034 lb/MMBtu heat input ²	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)
142. VOC	25.9 pph ²	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)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
153. Lead (Pb)	1.69 x 10 ⁻⁵ lb/MMBtu heat input ²	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)
164. Lead (Pb)	0.13 pph ²	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)
175. Sulfuric acid mist (H ₂ SO ₄)	0.005 lb/MMBtu heat input ²	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)
186. 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,
197. Hydrogen Fluoride (HF)	0.00023 lb/MMBtu heat input ²	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)
2048. Mercury (Hg)	0.02 lb/GW-hr gross energy output ²	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)
2149. Mercury (Hg)	144.2 lb/year ²	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)
220. 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)

23. The permittee shall comply with the System-Wide Annual SO₂ and NO_x Tonnage Limitations specified in Appendix 11-1-A. Emissions from EU-UNIT2 shall be counted toward the system-wide total emissions.^{2,4,5} (R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 11)

24. The permittee shall comply with the SO₂ and NO_x use & surrender allowance and super-compliance allowance provisions listed in Appendix 11-1-B: Allowance Provisions.^{2,4,5} (R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 14-22)

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.2.² (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-UNIT2.² (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.² (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.² (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.² (R 336.1911, R 336.1912, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))

4. The permittee shall continuously operate the SCR and FGD systems and each PM control device for EU-UNIT2 and use good air pollution control practices to minimize emission reductions at all times when EU-UNIT2 is in operation.^{2,4,5} (R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 10 & 23)

See Appendix 3-1-C

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.² (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.1.² (R 336.1224, R 336.1225, R 336.1901, R 336.1910, R 336.2810, 40 CFR 52.21(j))
- ~~3. The permittee shall not operate EU-UNIT2 unless the REF sorbent system is 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.1.² (R 336.1225, R 336.1910)~~
- ~~4.3.~~ 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. ^{2, 3} (R 336.1201, Act 451 324.5503(b), EPA-5-2018-113(a)-MI-07 paragraph 16)

5.4. 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. ^{2, 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 336.1213(3)(b)(ii))

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. ² (R 336.1213(3), 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. ² (R 336.2001, R 336.2003, R 336.2004)
3. The permittee shall verify the PM2.5 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. 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 336.1213(3), R 336.2001(4))

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

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-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:² (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); [Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 25 & 26](#))
 - 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 3-1.² (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 3-1.² (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-UNIT2 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-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.² (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.8.² (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.10.² (R 336.2804, R 336.2810, 40 CFR 52.21(d), and (j))

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9.10. For purposes of determining compliance with the 30-day rolling average emission rates for SO₂ and NO_x as found in SC I.7 and SC I.10, 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% CO₂) shall be applied to the emission rate for any hours where the measured CO₂ concentration is less than 5% following the procedures in 40 CFR Part 75, Appendix F, Section 3.3.4.1.^{2,4,5} (R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 12).

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40.11. 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))

44.12. 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.² (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))

See [Appendix Appendices 3-1-A and 3-1-B](#)

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

4. 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.
5. 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 336.1213(3)(c), R 336.2001(5), R 336.2156(c))**

6. 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-B^{2,4,5} (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-B

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 ²	579 ²	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 the acid rain permitting provisions of 40 CFR Part 72.1 to 72.94, as outlined in a complete Phase II, Acid Rain Permit issued by the AQD. Phase II, Acid Rain Permit No. MI-AR-1733-2019 is hereby incorporated into this ROP as Appendix 9-1. **(R 336.1902(1)(q))**
2. The permittee shall not allow the emission of an air pollutant to exceed the amount of any emission allowances that an affected source lawfully holds as of the allowance transfer deadline pursuant to R 336.1902(1)(q) and 40 CFR Part 72.9(c)(1)(i). **(R 336.1213(10))**

3. An affected existing EGU shall meet the requirements of Part 15 Emission Limitations and Prohibitions – Mercury. **(R 336.2503(1))**
4. The permittee shall comply with the provisions of the Cross State Air Pollution Rule NO_x Annual Trading Program, as specified in 40 CFR Part 97, Subpart AAAAA, and identified in Appendix 10-1. **(40 CFR Part 97, Subpart AAAAA)**
5. The permittee shall comply with the provisions of the Cross State Air Pollution Rule NO_x Ozone Season Group 2 Trading Program, as specified in 40 CFR Part 97, Subpart EEEEE, and identified in Appendix 10-1. **(40 CFR Part 97, Subpart EEEEE)**
6. The permittee shall comply with the provisions of the Cross State Air Pollution Rule SO₂ Group 1 Trading Program, as specified in 40 CFR Part 97, Subpart CCCCC, and identified in Appendix 10-1. **(40 CFR Part 97, Subpart CCCCC)**

Footnotes:

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

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

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.

⁴This 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.

⁵Definitions specific to this condition may be found in Appendix 1-1-B.

**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, ~~REF-sorbent-system~~, 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 ²	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 ²	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), <u>Civil Action</u> <u>No. 2:10-cv-13101</u> <u>-BAF-RSW, E.D.</u> <u>Michigan,</u> <u>paragraph 24(a)</u>
3. PM10	0.024 lb/MMBtu heat input ²	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 ²	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 ²	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

Section 1 DTE Electric Company – Monroe Power Plant

ROP No: MI-ROP-B2816-2019
 Expiration Date: October 16, 2024
 PTI No: MI-PTI-B2816-2019

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
6. SO ₂	815.8 pph ²	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
<u>7. SO₂</u>	<u>0.100 lb/MMBtu_{2.4.5}</u>	<u>30-day rolling average emission rate_{2.4.5}</u>	<u>EU-UNIT3</u>	<u>SC VI.3, SC VI.10</u>	<u>Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101- BAF-RSW, E.D. Michigan, paragraph 9</u>
<u>87. NOx</u>	0.08 lb/MMBtu heat input ²	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)
<u>98. NOx</u>	222.6 ton/month ²	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)
<u>10. NOx</u>	<u>0.090 lb/MMBtu_{2.4.5}</u>	<u>30-day rolling average emission rate_{2.4.5}</u>	<u>EU-UNIT3</u>	<u>SC VI.3, SC VI.10</u>	<u>Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101- BAF-RSW, E.D. Michigan, paragraph 9</u>
<u>119. CO</u>	0.15 lb/MMBtu heat input excluding periods of start- up and shutdown ²	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)
<u>120. CO</u>	27,446.4 lb/day ²	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)
<u>134. VOC</u>	0.0034 lb/MMBtu heat input ²	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)
<u>142. VOC</u>	25.9 pph ²	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)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
153. Lead (Pb)	1.69 x 10 ⁻⁵ lb/MMBtu heat input ²	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)
164. Lead (Pb)	0.13 pph ²	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)
175. Sulfuric acid mist (H ₂ SO ₄)	0.005 lb/MMBtu heat input ²	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)
186. 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
197. Hydrogen Fluoride (HF)	0.00023 lb/MMBtu heat input ²	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)
204. Mercury (Hg)	0.02 lb/GW-hr gross energy output ²	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)
214. Mercury (Hg)	144.2 lb/year ²	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)
220. 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)

23. The permittee shall comply with the System-Wide Annual SO₂ and NO_x Tonnage Limitations specified in Appendix 11-1-A. Emissions from EU-UNIT3 shall be counted toward the system-wide total emissions.^{2,4,5} (R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 11)

24. The permittee shall comply with the SO₂ and NO_x use & surrender allowance and super-compliance allowance provisions listed in Appendix 11-1-B: Allowance Provisions.^{2,4,5} (R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 14-22)

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.2.² (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-UNIT3.² (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-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.² (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 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.² (R 336.1912, R 336.2810, 40 CFR 52.21(j))
3. 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.² (R 336.1911, R 336.1912, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))

4. The permittee shall continuously operate the SCR and FGD systems and each PM control device for EU-UNIT3 and use good pollution control practices to minimize emission reductions at all times when EU-UNIT3 is in operation.^{2,4,5} (R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 10 & 23)

See Appendix 3-1-C

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.² (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.1.² (R 336.1224, R 336.1225, R 336.1901, R 336.1910, R 336.2810, 40 CFR 52.21(j))

~~3. The permittee shall not operate EU-UNIT3 unless the REF sorbent system is 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.1.² (R 336.1225, R 336.1910)~~

~~4.3. 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~~

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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. ^{2, 3} (R 336.1201, Act 451 324.5503(b), EPA-5-2018-113(a)-MI-07 paragraph 16)

5-4. 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. ^{2, 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 336.1213(3)(b)(ii))

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. ² (R 336.1213(3), 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. ² (R 336.2001, R 336.2003, R 336.2004)
3. The permittee shall verify the PM2.5 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. 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 336.1213(3), R 336.2001(4))

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

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: ² (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); [Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 25 & 26](#))
 - 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 3-1.² (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 3-1.² (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-UNIT3 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-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 1.5 and 1.6, respectively.² (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 1.7, and 1.8. ² (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. ² (R 336.2804, R 336.2810, 40 CFR 52.21(d), and (j))

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9-10. For purposes of determining compliance with the 30-day rolling average emission rates for SO₂ and NO_x as found in SC I.7 and SC I.10, 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% CO₂) shall be applied to the emission rate for any hours where the measured CO₂ concentration is less than 5% following the procedures in 40 CFR Part 75, Appendix F, Section 3.3.4.1.^{2,4,5} (R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 12)

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10-11. 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))

12. 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.² (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))

See [Appendix Appendices 3-1-A and 3-1-B](#)

VII. REPORTING

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- 2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
- 3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

4. 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.
5. 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 336.1213(3)(c), R 336.2001(5), R 336.2156(c))**
6. 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-B.^{2,4,5} (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-B

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 ²	579 ²	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 the acid rain permitting provisions of 40 CFR Part 72.1 to 72.94, as outlined in a complete Phase II, Acid Rain Permit issued by the AQD. Phase II, Acid Rain Permit No. MI-AR-1733-2019 is hereby incorporated into this ROP as Appendix 9-1. **(R 336.1902(1)(q))**
2. The permittee shall not allow the emission of an air pollutant to exceed the amount of any emission allowances that an affected source lawfully holds as of the allowance transfer deadline pursuant to R 336.1902(1)(q) and 40 CFR Part 72.9(c)(1)(i). **(R 336.1213(10))**
3. An affected existing EGU shall meet the requirements of Part 15 Emission Limitations and Prohibitions – Mercury. **(R 336.2503(1))**

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4. The permittee shall comply with the provisions of the Cross State Air Pollution Rule NO_x Annual Trading Program, as specified in 40 CFR Part 97, Subpart AAAAA, and identified in Appendix 10-1. **(40 CFR Part 97, Subpart AAAAA)**
5. The permittee shall comply with the provisions of the Cross State Air Pollution Rule NO_x Ozone Season Group 2 Trading Program, as specified in 40 CFR Part 97, Subpart EEEEE and identified in Appendix 10-1. **(40 CFR Part 97, Subpart EEEEE)**
6. The permittee shall comply with the provisions of the Cross State Air Pollution Rule SO₂ Group 1 Trading Program, as specified in 40 CFR Part 97, Subpart CCCCC, and identified in Appendix 10-1. **(40 CFR Part 97, Subpart CCCCC)**

Footnotes:

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

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

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.

⁴This 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.

⁵Definitions specific to this condition may be found in Appendix 1-1-B.

**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, ~~REF sorbent system~~, 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 ²	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 ²	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), <u>Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 24(a)</u>
3. PM10	0.024 lb/MMBtu heat input ²	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 ²	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 ²	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

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Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
6. SO ₂	815.8 pph ²	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
<u>7. SO₂</u>	<u>0.100 lb/MMBtu_{2.4.5}</u>	<u>30-day rolling average emission rate_{2.4.5}</u>	<u>EU-UNIT4</u>	<u>SC VI.3, SC VI.10</u>	<u>Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101- BAF-RSW, E.D. Michigan, paragraph 9</u>
87. NO _x	0.08 lb/MMBtu heat input ²	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)
98. NO _x	222.6 ton/month ²	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)
<u>10. NO_x</u>	<u>0.090 lb/MMBtu_{2.4.5}</u>	<u>30-day rolling average emission rate_{2.4.5}</u>	<u>EU-UNIT4</u>	<u>SC VI.3, SC VI.10</u>	<u>Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101- BAF-RSW, E.D. Michigan, paragraph 9</u>
119. CO	0.15 lb/MMBtu heat input excluding periods of start-up and shutdown ²	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)
129. CO	27,446.4 lb/day ²	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)
134. VOC	0.0034 lb/MMBtu heat input ²	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)
142. VOC	25.9 pph ²	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)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
153. Lead (Pb)	1.69 x 10 ⁻⁵ lb/MMBtu heat input ²	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)
164. Lead (Pb)	0.13 pph ²	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)
175. Sulfuric acid mist (H ₂ SO ₄)	0.005 lb/MMBtu heat input ²	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)
186. 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
197. Hydrogen Fluoride (HF)	0.00023 lb/MMBtu heat input ²	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)
2048. Mercury (Hg)	0.02 lb/GW-hr gross energy output ²	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)
2149. Mercury (Hg)	143.1 lb/year ²	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)
220. 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)

23. The permittee shall comply with the System-Wide Annual SO₂ and NO_x Tonnage Limitations specified in Appendix 11-1-A. Emissions from EU-UNIT4 shall be counted toward the system-wide total emissions.^{2,4,5} (R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 11)

24. The permittee shall comply with the SO₂ and NO_x use & surrender allowance and super-compliance allowance provisions listed in Appendix 11-1-B: Allowance Provisions.^{2,4,5} (R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 14-22)

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.2.² (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-UNIT4.² (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-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.² (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 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.² (R 336.1912, R 336.2810, 40 CFR 52.21(j))
3. 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.² (R 336.1911, R 336.1912, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))

4. The permittee shall continuously operate the SCR and FGD systems and each PM control device for EU-UNIT4 and use good air pollution control practices to minimize emission reductions at all times at all times when EU-UNIT4 is in operation.^{2,4,5} (R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 10 & 23)

See Appendix 3-1-C

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.² (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.1.² (R 336.1224, R 336.1225, R 336.1901, R 336.1910, R 336.2810, 40 CFR 52.21(j))
- ~~3. The permittee shall not operate EU-UNIT4 unless the REF sorbent system is 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.1.² (R 336.1225, R 336.1910)~~
- 4.3. 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.^{2, 3} (R 336.1201, Act 451 324.5503(b), EPA-5-2018-113(a)-MI-07 paragraph 16)

5.4. 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. ^{2, 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 336.1213(3)(b)(ii))

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. ² (R 336.1213(3), 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. ² (R 336.2001, R 336.2003, R 336.2004)
3. The permittee shall verify the PM2.5 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. 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 336.1213(3), R 336.2001(4))

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

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-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:² **(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); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 25 & 26)**
 - 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 3-1.² **(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 3-1.² **(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-UNIT4 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-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.² **(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.8.² **(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.10.² **(R 336.2804, R 336.2810, 40 CFR 52.21(d) and (j))**
10. For purposes of determining compliance with the 30-day rolling average emission rates for SO₂ and NO_x as found in SC I.7 and SC I.10, 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% CO₂) shall be applied to the emission rate for any hours where the measured CO₂ concentration is less than 5%

following the procedures in 40 CFR Part 75, Appendix F, Section 3.3.4.1.^{2,4,5} (R 336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 12)

40.11. 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))

44.12. 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.² (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))

See [Appendix Appendices 3-1-A and 3-1-B](#)

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
4. 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.
5. 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 336.1213(3)(c), R 336.2001(5), R 336.2156(c))**

6. 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-B.^{2,4,5} (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-B

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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 ²	579 ²	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 the acid rain permitting provisions of 40 CFR Part 72.1 to 72.94, as outlined in a complete Phase II, Acid Rain Permit issued by the AQD. Phase II, Acid Rain Permit No. MI-AR-1733-2019 is hereby incorporated into this ROP as Appendix 9-1. **(R 336.1902(1)(q))**
- 2. The permittee shall not allow the emission of an air pollutant to exceed the amount of any emission allowances that an affected source lawfully holds as of the allowance transfer deadline pursuant to R 336.1902(1)(q) and 40 CFR Part 72.9(c)(1)(i). **(R 336.1213(10))**
- 3. An affected existing EGU shall meet the requirements of Part 15 Emission Limitations and Prohibitions – Mercury. **(R 336.2503(1))**
- 4. The permittee shall comply with the provisions of the Cross State Air Pollution Rule NO_x Annual Trading Program, as specified in 40 CFR Part 97, Subpart AAAAA, and identified in Appendix 10-1. **(40 CFR Part 97, Subpart AAAAA)**
- 5. The permittee shall comply with the provisions of the Cross State Air Pollution Rule NO_x Ozone Season Group 2 Trading Program, as specified in 40 CFR Part 97, Subpart EEEEE, and identified in Appendix 10-1. **(40 CFR Part 97, Subpart EEEEE)**

Section 1 DTE Electric Company – Monroe Power Plant

ROP No: MI-ROP-B2816-2019
Expiration Date: October 16, 2024
PTI No: MI-PTI-B2816-2019

6. The permittee shall comply with the provisions of the Cross State Air Pollution Rule SO₂ Group 1 Trading Program, as specified in 40 CFR Part 97, Subpart CCCCC, and identified in Appendix 10-1. **(40 CFR Part 97, Subpart CCCCC)**

Footnotes:

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

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

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.

⁴This 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.

⁵Definitions specific to this condition may be found in Appendix 1-1-B.

**EU-CASCADES
 EMISSION UNIT CONDITIONS**

DESCRIPTION

This emission unit represents coal handling activity in the Cascades room. Coal handling activity emissions are limited by an enclosure, wet dust suppression, wet scrubbers, or baghouse dust collectors.

Flexible Group ID: FG-ProjectPC1-4

POLLUTION CONTROL EQUIPMENT

Cascade room particulate control device (SV-D1), Cascade room particulate control device (SV-D2), Cascade room particulate control device (SV-D3), Cascade room particulate control device (SV-D4), Cascade room particulate control device (SV-D5), Cascade room particulate control device (SV-D6), enclosures, water sprays, and/or dust suppressants.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity	10 percent ^{2, a}	Test protocol will specify averaging time.	Exhaust vents SV-D1, SV-D2, SV-D3	SC VI.2	R 336.1301(1)(c)
2. Opacity	5 percent ^{2, a}	Test protocol will specify averaging time.	Exhaust vents SV-D4, SV-D5, SV-D6	SC VI.2	R 336.1301(1)(c), R 336.2810, 40 CFR 52.21 (j)
3. PM	0.10 pounds per 1000 pounds of exhaust gases ^{2, b}	Test protocol will specify averaging time	Exhaust vents SV-D1, SV-D2, SV-D3, SV-D4, SV-D5, SV-D6	SC III.2, SC V.3, SC VI.2	R 336.1331(1)
4. PM	0.020 gr / dscf of exhaust gases ^{2, a}	Test protocol will specify averaging time	SV-D1, SV-D2, SV-D3	SC III.2, SC V.3, SC VI.2	R 336.1331(1)(c)
5. PM	0.004 gr / dscf of exhaust gases ^{2, a}	Test protocol will specify averaging time	SV-D4, SV-D5, SV-D6	SC III.2, SC V.3, SC VI.2	R 336.1331(1)(c), R 336.2810, 40 CFR 52.21(j)
6. PM10	5.95 pph ^{2, a}	Test protocol will specify averaging time	SV-D1, SV-D2, SV-D3	SC III.2, SC V.3, SC VI.2	R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
7. PM2.5	5.95 pph ^{2, a}	Test protocol will specify averaging time	SV-D1, SV-D2, SV-D3	SC III.2, SC V.1	R 336.2902(2)(c), 40 CFR Part 51, Appendix S
12. PM10	1.19 pph ^{2, a}	Test protocol will specify averaging time	SV-D4, SV-5	SC III.2, SC V.3, SC VI.2	R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d) and (j)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
13. PM2.5	1.19 pph ^{2, a}	Test protocol will specify averaging time	SV-D4, SV-D5	SC III.2, SC V.1	R 336.2902(2)(c), 40 CFR Part 51, Appendix S
16. PM10	1.21 pph ^{2, a}	Test protocol will specify averaging time	SV-D6	SC III.2, SC V.3, SC VI.2	R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d) and (j)
16. PM2.5	1.21 pph ^{2, a}	Test protocol will specify averaging time	SV-D6	SC III.2, SC V.1	R 336.2902(2)(c), 40 CFR Part 51 (Appendix S)

a - These emission limits apply to each dust collector after that dust collector has been upgraded.
 b - This emission limit applies to each dust collector until that dust collector has been upgraded.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-CASCADES unless a program for continuous fugitive dust control for all material handling operations is implemented, updated as necessary, and kept at the facility. If at any time the fugitive dust control program fails to address or inadequately addresses an event, the permittee shall amend the fugitive dust control program within 45 days after such an event occurs. The permittee shall also amend the fugitive dust control program within 45 days, if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the fugitive dust control program and any amendments to the fugitive dust control program to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the fugitive dust control program or amended fugitive dust control program 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.² (R 336.1371, R 336.1372, R 336.1901, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j), Act 451 Section 324.5524)
2. The permittee shall not operate EU-CASCADES unless a MAP as described in Rule 911(2), for operation of the process and emission control equipment is implemented, updated as necessary, and kept at the facility. 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.² (R 336.1331, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j))

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any portion of EU-CASCADES unless the associated enclosures, water sprays, or particulate control devices are installed, maintained and operated in a satisfactory manner. The permittee shall equip each upgraded particulate control device with broken bag leak detectors, or an alternative monitoring method, approved in writing by the AQD District Supervisor. Satisfactory manner includes operating and

maintaining each control device in accordance with an approved MAP for EU-CASCADES as required in SC III.2.² (R 336.1901, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j))

2. The permittee shall not operate EU-CASCADES unless the external conveyor hoods or enclosures 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-CASCADES as required in SC III.2.² (R 336.1901, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d) and (j))

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall verify PM2.5 emission rates from upgraded particulate control devices in EU-CASCADES or a representative emission unit by testing at the owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 51, Appendix M. 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, R 336.2902(2)(c), 40 CFR 51 (Appendix S))
2. The permittee shall verify the PM2.5 emission rates from EU-CASCADES, at a minimum, once every five years for the next ten years after the modification. (R 336.2001, R 336.2003, R 336.2004, R 336.2902(2)(c), 40 CFR 51 (Appendix S))
3. Upon request by AQD, the permittee shall verify PM and PM10 emission rates from upgraded particulate control devices in EU-CASCADES 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	40 CFR Part 51, Appendix M

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 336.1213(3), 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 336.1213(3), R 336.2001(4))

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall keep monitoring records from the upgraded particulate control device's broken bag leak detectors, or alternative monitoring measures, as approved by the AQD District Supervisor on each particulate control device of EU-CASCADES.² (R 336.1901, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j))

2. If the permittee does not install a bag leak detection system on the upgraded particulate control devices per the alternative monitoring requirements outlined in SC IV.1, the permittee shall perform and document non-certified visible emissions observations as required in SC I.1 and I.2 on a daily basis when the emission point in EU-CASCADES is operating. If during the observation there are any visible emissions detected from an emission point, a USEPA Method 9 certified visible emissions observation shall be conducted for a minimum of 15 minutes on that emission point to determine the actual opacity from that emission point. Records of the non-certified visible emissions observations, USEPA Method 9 observations that are performed, the reason for any visible emissions observed and any corrective actions taken shall be kept on file and in a format acceptable to the AQD.² **(R 336.1301(1)(c), R 336.2810, 40 CFR 52.21 (j))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by the issuing Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of EU-CASCADES.² **(R 336.1201(7)(b))**
5. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**

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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-D1	38 ²	200 ²	R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
2. SV-D2	38 ²	200 ²	R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
3. SV-D3	38 ²	200 ²	R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
4. SV-D4	38 ²	200 ²	R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
5. SV-D5	38 ²	200 ²	R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
6. SV-D6	38 ²	200 ²	R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENT(S)

NA

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).

**EU-TRANSFERHS
 EMISSION UNIT CONDITIONS**

DESCRIPTION

This emission unit represents coal handling activity in the Transfer House. Coal handling activity emissions are limited by an enclosure, wet dust suppression, and/or baghouse dust collectors.

Flexible Group ID: FG-ProjectPC1-4

POLLUTION CONTROL EQUIPMENT

Water sprays and dust suppressants are used in this area.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity	5 percent ^{2, a}	Test protocol will specify averaging time	Each individual fabric filter in EU-TRANSFERHS (vents SV-DC01/DC22, SV-DC02/DC23, SV-DC21, SV-DC15, SV-DC17, SV-DC19)	SC VI.2	R 336.1301(1)(c), R 336.2810, 40 CFR 52.21 (j)
2. PM	0.10 pounds per 1000 pounds of exhaust gases ^{2, b}	Test protocol will specify averaging time	Each individual fabric filter in EU-TRANSFERHS (vents SV-DC01/DC22, SV-DC02/DC23, SV-DC21, SV-DC15, SV-DC17)	SC III.2, SC V.3, SC VI.2	R 336.1331(1)
3. PM	0.010 gr / dscf of exhaust gases ^{2, a}	Test protocol will specify averaging time	SV-DC01/DC22, SV-DC02/DC23, SV-DC21, SV-DC15	SC III.2, SC V.3, SC VI.2	R 336.1331(1)(c)
4. PM	0.020 gr / dscf of exhaust gases ^{2, a}	Test protocol will specify averaging time	SV-DC17, SV-DC19	SC III.2, SC V.3, SC VI.2	R 336.1331(1)(c)
5. PM10	1.93 pph ^{2, a}	Test protocol will specify averaging time	SV-DC01/DC22, SV-DC02/DC23	SC III.2, SC V.3, SC VI.2	R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
6. PM2.5	1.93 pph ^{2, a}	Test protocol will specify averaging time	SV-DC01/DC22, SV-DC02/DC23	SC III.2, SC V.1	R 336.2902(2)(c), 40 CFR Part 51, Appendix S
9. PM10	1.29 pph ^{2, a}	Test protocol will specify averaging time	SV-DC21	SC III.2, SC V.3, SC VI.2	R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
10. PM2.5	1.29 pph ^{2, a}	Test protocol will specify averaging time	SV-DC21	SC III.2, SC V.1	R 336.2902(2)(c), 40 CFR Part 51, Appendix S
11. PM10	1.54 pph ^{2, a}	Test protocol will specify averaging time	SV-DC15	SC III.2, SC V.3, SC VI.2	R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
12. PM2.5	1.54 pph ^{2, a}	Test protocol will specify averaging time	SV-DC15	SC III.2, SC V.1	R 336.2902(2)(c), 40 CFR Part 51, Appendix S
13. PM10	2.40 pph ^{2, a}	Test protocol will specify averaging time	SV-DC17	SC III.2, SC V.3, SC VI.2	R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
14. PM2.5	2.40 pph ^{2, a}	Test protocol will specify averaging time	SV-DC17	SC III.2, SC V.1	R 336.2902(2)(c), 40 CFR Part 51, Appendix S
15. PM10	2.74 pph ²	Test protocol will specify averaging time	SV-DC19	SC III.2, SC V.3, SC VI.2	R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c) and (d)
16. PM2.5	2.74 pph ²	Test protocol will specify averaging time	SV-DC19	SC III.2, SC V.1	R 336.2902(2)(c), 40 CFR Part 51, Appendix S

a - These emission limits apply to each dust collector after that dust collector has been upgraded or recommissioned.

b - This emission limit applies to each dust collector until that dust collector has been upgraded or recommissioned.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate EU-TRANSFERHS unless a program for continuous fugitive dust control for all material handling operations is implemented, updated as necessary, and kept at the facility. If at any time the fugitive dust control program fails to address or inadequately addresses an event, the permittee shall amend the fugitive dust control program within 45 days after such an event occurs. The permittee shall also amend the fugitive dust control program within 45 days, if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the fugitive dust control program and any amendments to the fugitive dust control program to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the fugitive dust control program or amended fugitive dust control program 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.² (**R 336.1371, R 336.1372, R 336.1901, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j), Act 451 Section 324.5524**)
- The permittee shall not operate EU-TRANSFERHS unless a MAP as described in Rule 911(2), for operation of the process and emission control equipment is implemented, updated as necessary, and kept at the facility. 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.² (R 336.1331, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j))

3. Once the dust collectors for Transfer House 1 and Transfer House 2 have been upgraded or recommissioned, the permittee shall not operate the Transfer House 1 and Transfer House 2 portions of EU-TRANSFERHS for more than 12 hours per calendar day.² (R 336.1205(1)(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any portion of EU-TRANSFERHS unless the associated enclosures, water sprays, and/or fabric filters are installed, maintained and operated in a satisfactory manner. The permittee shall equip each upgraded or recommissioned fabric filter with broken bag leak detectors, or an alternative monitoring method, approved in writing by the AQD District Supervisor. Satisfactory manner includes operating and maintaining each control device in accordance with an approved MAP for EU-TRANSFERHS as required in SC III.2. (R 336.1901, R 336.1910, R 336.1911, R 336.2803, R 336.2804, 40 CFR 52.21 (c), and (d))
2. The permittee shall not operate EU-TRANSFERHS unless the external conveyor hoods or enclosures 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-TRANSFERHS as required in SC III.2. (R 336.1901, R 336.1910, R 336.1911, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall verify PM2.5 emission rates from upgraded or recommissioned dust collectors in EU-TRANSFERHS or a representative emission unit by testing at the owner’s expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 51, Appendix M. 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. ² (R 336.2001, R 336.2003, R 336.2004, 40 CFR 51 (Appendix S))
2. The permittee shall verify the PM2.5 emission rates from EU-TRANSFERHS, at a minimum, once every five years for the next ten years after the modification or being recommissioned. ² (R 336.2001, R 336.2003, R 336.2004, 40 CFR 51 (Appendix S))
3. Upon request by AQD, the permittee shall verify PM and PM10 emission rates from upgraded particulate control devices in EU-TRANSFERHS 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	40 CFR Part 51, Appendix M

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 336.1213(3), 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. ² (R 336.1213(3), R 336.2001(4))

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall keep monitoring records from the broken bag leak detectors, or alternative monitoring measures, as approved by the AQD District Supervisor on each upgraded fabric filter of EU-TRANSFERHS.² (R 336.1901, R 336.1910, R 336.1911, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))
2. If the permittee does not install a bag leak detection system per the alternative monitoring requirements outlined in SC IV.1, the permittee shall perform and document non-certified visible emissions observations as required in SC I.1 on a daily basis when the emission point in EU-TRANSFERHS is operating. If during the observation there are any visible emissions detected from an emission point, a USEPA Method 9 certified visible emissions observation shall be conducted for a minimum of 15 minutes to determine the actual opacity from that emission point. Records of the non-certified visible emissions observations, USEPA Method 9 observations that are performed, the reason for any visible emissions observed and any corrective actions taken shall be kept on file and in a format acceptable to the AQD.² (R 336.1301(1)(c), R 336.2810, 40 CFR 52.21 (j))
3. Once the dust collectors for Transfer House 1 and Transfer House 2 have been upgraded or recommissioned, the permittee shall keep, in a satisfactory manner, daily records of the Transfer House 1 and Transfer House 2 portions of EU-TRANSFERHS.² (R 336.1205(1)(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
4. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by the issuing Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of EU-TRANSFERHS.² (R 336.1201(7)(b))
5. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. (R 336.1213(3)(c), R 336.2001(5))

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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-DC01/DC22*	55 ²	40 ²	R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
2. SV-DC02/DC23*	55 ²	40 ²	R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
3. SV-DC21*	51 ²	16 ²	R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
4. SV-DC15*	30 ²	50 ²	R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
5. SV-DC17*	30 ²	46 ²	R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
6. SV-DC19*	30 ²	121 ²	R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**EU-DUMPERHS
 EMISSION UNIT CONDITIONS**

DESCRIPTION

This emission unit represents coal handling activity in the Dumper House. Coal handling activity emissions are limited by an enclosure, wet dust suppression, and/or baghouse dust collectors.

Flexible Group ID: FG-ProjectPC1-4

POLLUTION CONTROL EQUIPMENT

Dumper house dust collector (SV-DC24), enclosures and/or dust suppressants.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity	5 percent ²	Test protocol will specify averaging time	SV-DC24	SC VI.2	R 336.1301(1)(c)
2. PM	0.005 gr / dscf of exhaust gases ²	Test protocol will specify averaging time	SV-DC24	SC III.2, SC V.3, SC VI.2	R 336.1331(1)(c)
3. PM10	6.44 pph ²	Test protocol will specify averaging time	SV-DC24	SC III.2, SC V.3, SC VI.2	R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
4. PM2.5	6.44 pph ²	Test protocol will specify averaging time	SV-DC24	SC III.2, SC V.1	R 336.2902(2)(c), 40 CFR Part 51, Appendix S

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate EU-DUMPERHS unless a program for continuous fugitive dust control for all material handling operations is implemented, updated as necessary, and kept at the facility. If at any time the fugitive dust control program fails to address or inadequately addresses an event, the permittee shall amend the fugitive dust control program within 45 days after such an event occurs. The permittee shall also amend the fugitive dust control program within 45 days, if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the fugitive dust control program and any amendments to the fugitive dust control program to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the fugitive dust control program or amended fugitive dust control program 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.² (R 336.1371, R 336.1372, R 336.1901, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j), Act 451 Section 324.5524)
- The permittee shall not operate EU-DUMPERHS unless a MAP as described in Rule 911(2), for operation of the process and emission control equipment is implemented, updated as necessary, and kept at the facility. 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.² **(R 336.1331, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any portion of EU-DUMPERHS unless the associated enclosures, water sprays, and/or fabric filters 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-DUMPERHS as required in SC III.2. **(R 336.1901, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j))**
2. The permittee shall not operate EU-DUMPERHS unless the external conveyor hoods 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-DUMPERHS as required in SC III.2. **(R 336.1901, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall verify PM2.5 emission rates from EU-DUMPERHS or a representative emission unit by testing at the owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 51, Appendix M. 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. ² **(R 336.2001, R 336.2003, R 336.2004, 40 CFR 51 (Appendix S))**
2. The permittee shall verify the PM2.5 emission rates from EU-DUMPERHS, at a minimum, once every five years for the next ten years after the modification on July 12, 2012. ² **(R 336.2001, R 336.2003, R 336.2004, 40 CFR 51 (Appendix S))**
3. Upon request by AQD, the permittee shall verify PM and PM10 emission rates from upgraded particulate control devices in EU-DUMPERHS 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	40 CFR Part 51, Appendix M

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 336.1213(3), 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 336.1213(3), R336.2001(4))**

See Appendix 5-1

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall keep monitoring records from the broken bag leak detectors, or alternative monitoring measures, as approved by the AQD District Supervisor on each fabric filter of EU-DUMPERHS.² (R 336.1901, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j))
2. The permittee shall perform and document non-certified visible emissions observations as required in SC I.1 on a daily basis when the emission point in EU-DUMPERHS is operating. If during the observation there are any visible emissions detected from an emission point, a USEPA Method 9 certified visible emissions observation shall be conducted for a minimum of 15 minutes to determine the actual opacity from that emission point. Records of the non-certified visible emissions observations, USEPA Method 9 observations that are performed, the reason for any visible emissions observed and any corrective actions taken shall be kept on file and in a format acceptable to the AQD.² (R 336.1301(1)(c))

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
4. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. (R 336.1213(3)(c), R 336.2001(5))

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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-DC24North	48 ²	25 ²	R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
2. SV-DC24South	48 ²	25 ²	R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**EU-CRUSHERHS
 EMISSION UNIT CONDITIONS**

DESCRIPTION

This emission unit represents coal handling activity in the Crusher House. Coal handling activity emissions are limited by enclosures, wet sprays, and/or dust suppressants. The dust collectors (DC05) in this area have been decommissioned.

Flexible Group ID: FG-ProjectPC1-4

POLLUTION CONTROL EQUIPMENT

Enclosures, wet sprays, or dust suppressants

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity	5 percent ^{2, a}	Test protocol will specify averaging time	Each individual fabric filter in EU-CRUSHERHS	SC VI.2	R 336.1301(1)(c), R 336.2810, 40 CFR 52.21 (j)
2. PM	0.10 pounds per 1000 pounds of exhaust gases ^{2, b}	Test protocol will specify averaging time	EU-CRUSHERHS	SC III.2	R 336.1331(1)
2. PM	0.004 gr / dscf of exhaust gases ^{2, a}	Test protocol will specify averaging time	Each individual fabric filter in EU-CRUSHERHS	SC III.2, SC V.3	R 336.1331, R 336.2810, 40 CFR 52.21 (j)
3. PM10	0.99 pph ^{2, a}	Test protocol will specify averaging time	SV-DC05	SC III.2, SC V.3	R 336.2803, R 336.2804, 40 CFR 52.21 (c), (d) and (j)
4. PM2.5	0.99 pph ^{2, a}	Test protocol will specify averaging time	SV-DC05	SC III.2, SC V.1	R 336.2902(2)(c), 40 CFR Part 51, Appendix S

a - These emission limits apply to each dust collector after that dust collector has been recommissioned.

b - This emission limit applies until the dust collector has been recommissioned.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate EU-CRUSHERHS unless a program for continuous fugitive dust control for all material handling operations is implemented, updated as necessary, and kept at the facility. If at any time the fugitive dust control program fails to address or inadequately addresses an event, the permittee shall amend the fugitive dust control program within 45 days after such an event occurs. The permittee shall also amend the fugitive dust control program within 45 days, if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the fugitive dust control program and any amendments to the fugitive dust control program to the AQD District Supervisor for review and approval. If the AQD does not notify the

Commented [AMH20]: The equipment in table 1 talks about fabric filters. Do they still exist? Do they need to be added to this description or alternatively, does table 1 need to be updated?

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permittee within 90 days of submittal, the fugitive dust control program or amended fugitive dust control program 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.² (R 336.1371, R 336.1372, R 336.1901, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j), Act 451 Section 324.5524)

- The permittee shall not operate EU-CRUSHERHS unless a MAP as described in Rule 911(2), for operation of the process and emission control equipment is implemented, updated as necessary, and kept at the facility. 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.² (R 336.1331, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j))

IV. DESIGN/EQUIPMENT PARAMETER(S)

- The permittee shall not operate any portion of EU-CRUSHERHS unless the associated enclosures and/or fabric filters 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-CRUSHERHS as required in SC III.2.2 (R 336.1901, 336.1910, 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j))
- The permittee shall not operate EU-CRUSHERHS unless the external conveyor hoods or enclosures 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-CRUSHERHS as required in SC III.2.2 (R 336.1901, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d) and (j))

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

- Within 180 days of the dust collectors being recommissioned, the permittee shall verify the PM2.5 emission rates from EU-CRUSHERHS or a representative emission unit by testing at the owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 51, Appendix M. 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. ² (R 336.2001, R 336.2003, R 336.2004, 40 CFR 51 (Appendix S))
- The permittee shall verify the PM2.5 emission rates from EU-CRUSHERHS, at a minimum, once every five years for the next ten years after being recommissioned. ² (R 336.2001, R 336.2003, R 336.2004, 40 CFR 51 (Appendix S))
- Upon request by AQD, the permittee shall verify PM and PM10 emission rates from upgraded particulate control devices in EU-CRUSHERHS 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	40 CFR Part 51, Appendix M

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 336.1213(3), 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. ² **(R 336.1213(3), R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep monitoring records from the broken bag leak detectors, or alternative monitoring measures, as approved by the AQD District Supervisor on each fabric filter of EU-CRUSHERHS.² **(R 336.1901, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j))**
2. The permittee shall perform and document non-certified visible emissions observations as required in SC I.1 on a daily basis when the emission point in EU-CRUSHERHS is operating. If during the observation there are any visible emissions detected from an emission point, a USEPA Method 9 certified visible emissions observation shall be conducted for a minimum of 15 minutes to determine the actual opacity from that emission point. Records of the non-certified visible emissions observations, USEPA Method 9 observations that are performed, the reason for any visible emissions observed and any corrective actions taken shall be kept on file and in a format acceptable to the AQD. **(R 336.1301(1)(c), R 336.2810, 40 CFR 52.21 (j))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by the issuing Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of EU-CRUSHERHS.² **(R 336.1201(7)(b))**
5. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**

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 with an asterisk (*) indicating a non-vertical discharge:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-DC05*	30 ²	40 ²	R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**EU-COALUNLOAD
 EMISSION UNIT CONDITIONS**

DESCRIPTION

This emission unit represents the coal unloading activities from Great Lakes ships and includes storage and pile maintenance. Coal handling activity emissions are limited by an enclosures and wet dust suppression methods.

Flexible Group ID: FG-ProjectPC1-4

POLLUTION CONTROL EQUIPMENT

Coal handling activity emissions are limited by an enclosures and wet suppression methods.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity	10 percent ²	Test protocol will specify averaging time	The drop points and transfer points of EU-COALUNLOAD	SC VI.1	R 336.1301(1)(c)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-COALUNLOAD unless a program for continuous fugitive dust control for all material handling operations is implemented, updated as necessary, and kept at the facility. If at any time the fugitive dust control program fails to address or inadequately addresses an event, the permittee shall amend the fugitive dust control program within 45 days after such an event occurs. The permittee shall also amend the fugitive dust control program within 45 days if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the fugitive dust control program and any amendments to the fugitive dust control program to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the fugitive dust control program or amended fugitive dust control program 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.² (**R 336.1371, R 336.1372, R 336.1901, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j), Act 451 Section 324.5524**)
2. The permittee shall not operate EU-COALUNLOAD unless a MAP as described in Rule 911(2), for operation of the process and emission control equipment is implemented, updated as necessary, and kept at the facility. 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.² (**R 336.1331, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j)**)

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any portion of EU-COALUNLOAD unless the associated enclosures and/or water sprays 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-COALUNLOAD as required in SC III.2.² (R 336.1901, R 336.1910, R 336.1911, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))
2. The permittee shall not operate EU-COALUNLOAD unless the external conveyor hoods or enclosures 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-COALUNLOAD as required in SC III.2.² (R 336.1901, R 336.1910, R 336.1911, R 336.2803, 336.2804, 40 CFR 52.21 (c) and (d))

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall perform and document non-certified visible emissions observations as required in SC I.1 on a daily basis when EU-COALUNLOAD is operating. If during the observation there are any visible emissions detected from an emission point, a USEPA Method 9 certified visible emissions observation shall be conducted for a minimum of 15 minutes to determine the actual opacity from that emission point. Records of the non-certified visible emissions observations, USEPA Method 9 observations that are performed, the reason for any visible emissions observed and any corrective actions taken shall be kept on file and in a format acceptable to the AQD.² (R 336.1301(1)(c))

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**EU-PETCOKE
 EMISSION UNIT CONDITIONS**

DESCRIPTION

This emission unit represents petroleum coke handling activity, including roadway traffic, ship and rail unloading, and pile maintenance. Emissions are limited by partial enclosures, including a portable wind screen, dust collector, and wet dust suppression.

Flexible Group ID: FG-ProjectPC1-4

POLLUTION CONTROL EQUIPMENT

Partial enclosures, including a portable wind screen, dust collector, and dust suppressants.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity	10 percent ²	Test protocol will specify averaging time	The drop points, transfer points, and emission points of EU-PETCOKE	SC VI.1	R 336.1301(1)(c), R 336.2810, 40 CFR 52.21 (j)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate EU-PETCOKE unless a program for continuous fugitive dust control for all material handling operations is implemented, updated as necessary, and kept at the facility. If at any time the fugitive dust control program fails to address or inadequately addresses an event, the permittee shall amend the fugitive dust control program within 45 days after such an event occurs. The permittee shall also amend the fugitive dust control program within 45 days if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the fugitive dust control program and any amendments to the fugitive dust control program to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the fugitive dust control program or amended fugitive dust control program 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.² **R 336.1371, R 336.1372, R 336.1901, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j), Act 451 Section 324.5524)**
- The permittee shall not operate EU-PETCOKE unless a MAP as described in Rule 911(2), for operation of the process and emission control equipment is implemented, updated as necessary, and kept at the facility. 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.² **(R 336.1331, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j))**

3. The permittee shall not operate the wheeled traffic portion of EU-PETCOKE for more than 16 hours per calendar day.² (R 336.1205(1)(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any portion of EU-PETCOKE unless the associated partial enclosures and water sprays 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-PETCOKE as required in SC III.2.2 (R 336.1901, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j))
2. The permittee shall not operate EU-PETCOKE unless the enclosures 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-PETCOKE as required in SC III.2.2 (R 336.1901, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d) and (j))
3. The permittee shall not operate the haul truck activities associated with EU-PETCOKE unless the wheel wash system is 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-PETCOKE as required in SC III.2.2 (R 336.1901, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d) and (j))

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall perform and document non-certified visible emissions observations as required in SC I.1 on a daily basis when the emission point in EU-PETCOKE is operating. If during the observation there are any visible emissions detected from an emission point, a USEPA Method 9 certified visible emissions observation shall be conducted for a minimum of 15 minutes to determine the actual opacity from that emission point. Records of the non-certified visible emissions observations, USEPA Method 9 observations that are performed, the reason for any visible emissions observed and any corrective actions taken shall be kept on file and in a format acceptable to the AQD.² (R 336.1301(1)(c), R 336.2810, 40 CFR 52.21 (j))
2. The permittee shall keep, in a satisfactory manner, daily records of the hours of operation of the wheeled traffic portion of EU-PETCOKE.² (R 336.1205(1)(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**EU-LIMESTONE
 EMISSION UNIT CONDITIONS**

DESCRIPTION

This emission unit represents limestone and limestone slurry handling activities and includes the [limestone](#) ship unloading process, storage and pile maintenance, and reclaim activities – including any trucking activities, and the Prep building. Limestone handling activity emissions are limited by enclosures, wet dust suppression methods, or bin vent filters.

Flexible Group ID: FG-ProjectPC1-4

POLLUTION CONTROL EQUIPMENT

Three silos, each with a bin vent filter (SV-26A1, SV-26A2, and SV-26A3). Limestone handling activity emissions are limited by enclosures, wet suppression methods, or bin vent filters.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity	10 percent ²	Test protocol will specify averaging time	Any exterior drop points and transfer points of EU-LIMESTONE	SC VI.1	R 336.1301(1)(c), R 336.2810, 40 CFR 52.21 (j), 40 CFR 60.672(b)
2. Opacity	5 percent ²	Test protocol will specify averaging time	The bin vent filters in EU-LIMESTONE (SV-26A1, SV-26A2, and SV-26A3)	SC VI.1	R 336.1301(1)(c), R 336.2810, 40 CFR 52.21 (j), 40 CFR 60.672(a)(2)
3. PM	0.004 gr / dscf of exhaust gases ²	Test protocol will specify averaging time	SV-26A1, SV-26A2, SV-26A3	SC III.2, SC VI.1	R 336.1331, R 336.2810, 40 CFR 52.21 (j)
4. PM10	0.0046pph ²	Test protocol will specify averaging time	SV-26A1, SV-26A2, SV-26A3	SC III.2, SC VI.1	R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d) and (j)
5. PM2.5	0.0046 pph ²	Test protocol will specify averaging time	SV-26A1, SV-26A2, SV-26A3	SC III.2, SC VI.1	R 336.2902(2)(c), 40 CFR Part 51, Appendix S

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate EU-LIMESTONE unless a program for continuous fugitive dust control for all material handling operations is implemented, updated as necessary, and kept at the facility. If at any time the fugitive dust control program fails to address or inadequately addresses an event, the permittee shall amend the fugitive dust control program within 45 days after such an event occurs. The permittee shall also amend the fugitive dust control program within 45 days, if new equipment is installed or upon request from the AQD District

Supervisor. The permittee shall submit the fugitive dust control program and any amendments to the fugitive dust control program to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the fugitive dust control program or amended fugitive dust control program 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.² (R 336.1371, R 336.1372, R 336.1901, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j), Act 451 Section 324.5524)

2. The permittee shall not operate EU-LIMESTONE unless a MAP as described in Rule 911(2), for operation of the process and emission control equipment is implemented, updated as necessary, and kept at the facility. 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.² (R 336.1331, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j))

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any portion of EU-LIMESTONE unless the associated pollution control equipment is 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-LIMESTONE as required in SC III.2.² (R 336.1901, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j))
2. The permittee shall not operate EU-LIMESTONE unless the external conveyor hoods 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-LIMESTONE as required in SC III.2.² (R 336.1901, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d) and (j))

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall perform and document non-certified visible emissions observations as required in SC I.1 and SC I.2 on a daily basis when the emission point in EU-LIMESTONE is operating. If during the observation there are any visible emissions detected from an emission point, a USEPA Method 9 certified visible emissions observation shall be conducted for a minimum of 15 minutes to determine the actual opacity from that emission point. Records of the non-certified visible emissions observations, USEPA Method 9 observations that are performed, the reason for any visible emissions observed and any corrective actions taken shall be kept on file and in a format acceptable to the AQD.² (R 336.1301(1)(c), R 336.2810, 40 CFR 52.21 (j), 40 CFR 60.676))
2. Permittee shall maintain and operate two PM10 ambient air monitors, one at the existing east monitoring site located at the edge of the plant property at the shore of Lake Erie, and the other at the DTE Electric monitoring station which is located at the end of Dunbar Road.² (R 336.1201(3))

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Data from the two PM10 ambient air monitors shall be provided to the AQD within 30 days following the end of the month in which the data were collected. If there is any sampling data over 150 ug/m³ (24-hour value after rounding to the nearest 10 ug/m³), the facility shall include a summary of the that data, the investigation, and the corrective action taken.² **(R 336.1201(3), R 336.1213(3))**

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 with an asterisk (*) indicating a non-vertical discharge:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-26A1*	12 ²	115 ²	R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
2. SV-26A2*	12 ²	115 ²	R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
3. SV-26A3*	12 ²	115 ²	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 provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and OOO, as they apply to EU-LIMESTONE.² **(40 CFR Part 60, Subparts A and OOO)**

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).

**EU-GYPSUMHAND
 EMISSION UNIT CONDITIONS**

DESCRIPTION

This emission unit represents gypsum handling activity in the gypsum dewatering building and the gypsum storage and loading building. Gypsum handling activity emissions are limited by a building enclosure.

Flexible Group ID: FG-ProjectPC1-4

POLLUTION CONTROL EQUIPMENT

Loading operations take place in a building.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity	7 percent ²	Test protocol will specify averaging time	The gypsum storage and handling building portion of EU-GYPSUMHAND	SC VI.1	R 336.1301(1)(c), R 336.2810, 40 CFR 52.21 (j), 40 CFR 60.672(e)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate EU-GYPSUMHAND unless a program for continuous fugitive dust control for all material handling operations is implemented, updated as necessary, and kept at the facility. If at any time the fugitive dust control program fails to address or inadequately addresses an event, the permittee shall amend the fugitive dust control program within 45 days after such an event occurs. The permittee shall also amend the fugitive dust control program within 45 days, if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the fugitive dust control program and any amendments to the fugitive dust control program to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the fugitive dust control program or amended fugitive dust control program 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.² (R 336.1371, R 336.1372, R 336.1901, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j), Act 451 Section 324.5524)
- The permittee shall not operate EU-GYPSUMHAND unless a MAP as described in Rule 911(2), for operation of the process and emission control equipment is implemented, updated as necessary, and kept at the facility. 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.² (R 336.1331, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j))

3. The permittee shall not operate the haul truck activities associated with EU-GYPSUMHAND for more than 16 hours per calendar day.² (R 336.1205(1)(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU-GYPSUMHAND unless the associated enclosures 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-GYPSUMHAND as required in SC III.2.² (R 336.1901, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d) and (j))
2. The permittee shall not operate the haul truck activities associated with EU-GYPSUMHAND unless the wheel wash system is 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-GYPSUMHAND as required in SC III.2.² (R 336.1901, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d) and (j))

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall perform and document non-certified visible emissions observations as required in SC I.1 on a daily basis when EU-GYPSUMHAND is operating. If during the observation there are any visible emissions detected from an emission point, a USEPA Method 9 certified visible emissions observation shall be conducted for a minimum of 15 minutes to determine the actual opacity from that emission point. Records of the non-certified visible emissions observations, USEPA Method 9 observations that are performed, the reason for any visible emissions observed and any corrective actions taken shall be kept on file and in a format acceptable to the AQD.² (R 336.1301(1)(c), R 336.2810, 40 CFR 52.21 (j), 40 CFR 60.676)
2. The permittee shall keep, in a satisfactory manner, daily records of the hours of operation for the haul truck activities associated with EU-GYPSUMHAND.² (R 336.1205(1)(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and OOO, as they apply to EU-GYPSUMHAND. ² **(40 CFR Part 60, Subparts A and OOO)**

Footnotes:

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

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

**EU-HYDRATEDLIME
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Storage and handling of hydrated lime. Hydrated lime is delivered via truck to facility for silo storage.

Flexible Group ID: FG-ProjectPC1-4

POLLUTION CONTROL EQUIPMENT

Bin vent filters (SV-26B1 and SV-26B2) on each of the two silos, enclosures and dust suppressants.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity	10 percent ²	Test protocol will specify averaging time	Any exterior drop points and transfer points of EU-HYDRATEDLIME	SC VI.1	R 336.1301(1)(c), R 336.2810, 40 CFR 52.21 (j)
2. Opacity	5 percent ²	Test protocol will specify averaging time	The bin vent filter in EU-HYDRATEDLIME (SV-26B1 and SV-26B2)	SC VI.1	R 336.1301(1)(c), R 336.2810, 40 CFR 52.21 (j)
3. PM	0.004 gr / dscf of exhaust gases ²	Test protocol will specify averaging time	SV-26B1 and SV-26B2	SC III.2, SC VI.1	R 336.1331, R 336.2810, 40 CFR 52.21 (j)
4. PM10	0.045 pph ²	Test protocol will specify averaging time	SV-26B1 and SV-26B2	SC III.2, SC VI.1	R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d) and (j)
5. PM2.5	0.045 pph ²	Test protocol will specify averaging time	SV-26B1 and SV-26B2	SC III.2, SC VI.1	R 336.2902(2)(c), 40 CFR Part 51, Appendix S

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate EU-HYDRATEDLIME unless a program for continuous fugitive dust control for all material handling operations is implemented, updated as necessary, and kept at the facility. If at any time the fugitive dust control program fails to address or inadequately addresses an event, the permittee shall amend the fugitive dust control program within 45 days after such an event occurs. The permittee shall also amend the fugitive dust control program within 45 days, if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the fugitive dust control program and any amendments to the fugitive dust control program to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the fugitive dust control program or amended fugitive dust control program 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.² (R 336.1371, R 336.1372, R 336.1901, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j), Act 451 Section 324.5524)

2. The permittee shall not operate EU-HYDRATEDLIME unless a MAP as described in Rule 911(2), for operation of the process and emission control equipment is implemented, updated as necessary, and kept at the facility. 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.² (R 336.1331, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j))

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any portion of EU-HYDRATEDLIME unless the pollution control equipment is 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-HYDRATEDLIME as required in SC III.2.² (R 336.1901, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d), and (j))

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall perform and document non-certified visible emissions observations as required in SC I.1 and SC I.2 on a daily basis when EU-HYDRATEDLIME is operating. If during the observation there are any visible emissions detected from an emission point, a USEPA Method 9 certified visible emissions observation shall be conducted for a minimum of 15 minutes to determine the actual opacity from that emission point. Records of the non-certified visible emissions observations, USEPA Method 9 observations that are performed, the reason for any visible emissions observed and any corrective actions taken shall be kept on file and in a format acceptable to the AQD.² (R 336.1301(1)(c), R 336.2810, 40 CFR 52.21 (j))

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

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 with an asterisk (*) indicating a non-vertical discharge:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-26B1*	18 ²	89 ²	R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
2. SV-26B2*	18 ²	89 ²	R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**EU-FlyAshStorage
 EMISSION UNIT CONDITIONS**

DESCRIPTION

A fly ash storage facility. The facility includes the dry fly ash collection, transfer, storage, and loading equipment and unloading area of the onsite landfill. This emission unit includes the Unit 1 – 4 electrostatic precipitator hoppers, vacuum blowers and piping for pneumatic transfer, a 3000-ton storage silo, and a 4,000-ton storage silo, and a 200-ton silo. A silo-to-silo transfer system allows transfer of ash from one silo to the other silo. The silos each have dustless loading/unloading spouts for loading tanker trucks under a slight negative pressure in enclosed unloading areas below each silo. The emissions from the silos and eight conveyer exhaust systems are controlled by vent bin filters. There are two ash conditioners (pug mills) for treating ash prior to loading the ash into open trucks in an enclosed unloading floor area below the 4,000-ton silo, consists of two 75-ton surge silos (Nos. 1 and 2), a 3000-ton storage silo, a 200-ton load-out silo, and associated blowers, pressure pumps, compressors, pipe conveyer lines, and spouts.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Two filter receivers (Nos. FR-101 and FR-102) and bin vent filter (BH-101) on surge silo No. 1, two filter receivers (Nos. FR-201 and FR-202) and bin vent filter (BH-201) on surge silo No. 2, bin vent filter (BH-301) on the storage silo, and bin vent filter (BH-401) on the load-out silo. The emissions from the silos and eight conveyer exhaust systems are controlled by vent bin filters. The silos each with have dustless loading spouts for loading tankers under a slight negative pressure. The emissions from the conditioned fly ash truck loadout is controlled by the enclosure. Emissions from the unpaved roads are controlled in accordance with a fugitive emissions control plan.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.026 lbs. per 1000 lbs. of exhaust gases * ₂₋₃	Test protocol will specify averaging time	EU-FlyAshStorage	SC-VI.1	R 336.1331
2. PM-10	0.3 Pounds Per Hour ₂₋₄	Test protocol will specify averaging time	Each filter receiver portion of EU-FlyAshStorage	SC-VI.1	R 336.2803, R-336.2804, 40 CFR 52.21 (c) and (d)
3. PM-10	0.05 Pounds Per Hour ₂₋₅	Test protocol will specify averaging time	The surge silo No. 1 portion and the surge silo No. 2 portion of EU-FlyAshStorage	SC-VI.1	R 336.2803, R-336.2804, 40 CFR 52.21 (c) and (d)
4. PM-10	1.4 Pounds Per Hour ₂	Test protocol will specify averaging time	The storage silo portion of EU-FlyAshStorage	SC-VI.1	R 336.2803, R-336.2804, 40 CFR 52.21 (c) and (d)
5. PM-10	0.35 Pounds Per Hour ₂	Test protocol will specify averaging time	The load-out silo portion of EU-FlyAshStorage	SC-VI.1	R 336.2803, R-336.2804, 40 CFR 52.21 (c) and (d)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
16. Opacity	10% ²	6-minute average	Each of the eight exhaust stack portions of EU-FlyAshStorage	SC VI.1	R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
2. PM-10	0.11 Pounds Per Hour ^{3,4}	Hourly	Each filter exhaust of EU-FlyAshStorage	SC VI.2, SC VI.3	R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
3. PM-10	0.51 Pounds Per Hour ³	Hourly	3,000-ton Silo Bin Vent of EU-FlyAshStorage	SC VI.2, SC VI.3	R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
4. PM-10	1.03 Pounds Per Hour ³	Hourly	4,000-ton Silo Bin Vent of EU-FlyAshStorage	SC VI.2, SC VI.3	R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
5. PM-10	0.017 Pounds Per Hour ³	Hourly	Silo-to-Silo Transfer of EU-FlyAshStorage	SC VI.2, SC VI.3	R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)

²The 0.026 pounds per 1000 pounds of exhaust gas limit is a concentration limit that applies independently to each of the eight exhaust stacks associated with EU-FlyAshStorage.

⁴The 0.3 pounds per hour limit is a mass limit that applies independently to each of the four filter receivers and shall be determined from stacks SVFR-101, SVFR-102, SVFR-201, and SVBH-202.

⁵The 0.05 pounds per hour limit is a mass limit that applies independently to each of the two surge silos and shall be determined from stacks SVBH-101 and SVBH-201.

* Calculated on a dry-gas basis.

³ PM2.5 emissions are restricted by the permitted PM10 emission limits

⁴ This limit applies to each Stack/Vent FAE-U01, FAE-U02, FAE-U012, FAE-U03, FAE-U04, FAE-U034.

II. MATERIAL LIMIT(S)

NA

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Conditioned (mixed with water) Fly Ash transported to facility landfill	776,000 tpy	12-month rolling time period, as determined at the end of each calendar month	EU-FlyAshStorage	SC VI.4	R 336.1205, R 336.1225, 40 CFR 52.21 (c) and (d)

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III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate EU-FlyAshStorage unless a program for continuous fugitive emissions control for all plant roadways, the plant yard, and all material handling operations approved by the AQD District Supervisor has been implemented and is maintained.² The permittee shall update the fugitive emissions control plan within 90 days of completion of any modification to the plant roadways, the plant yard, or material handling

operations or upon request by the District Supervisor. (R 336.1225, R 336.1371, R 336.1372, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d), Act 451 324.5524)

- 2. The permittee shall not maintain any outside fly ash storage piles in conjunction with EU-FlyAshStorage.² (R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the pneumatic conveyor or storage silos of EU-FlyAshStorage unless the emissions are controlled by bin vent filters with a grain loading rating of no more than 0.005 gr/dscfare installed, maintained, and operated in a satisfactory manner. (R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))

2. The permittee shall not load out unconditioned ash in EU-FlyAshStorage unless the dustless spout and the associated bin filter for the silo being unloaded are installed, maintained, and operated in a satisfactory manner. (R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))

3. The permittee shall not load out conditioned ash in EU-FlyAshStorage unless the unload area is fully enclosed. (R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))

4. The permittee shall not load material into the surge silo No. 1 portion of EU-FlyAshStorage unless the two filter receivers (Nos. FR-101 and FR-102) are installed, maintained, and operated in a satisfactory manner.² (R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))

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2. The permittee shall not transfer material out of the surge silo No. 1 portion of EU-FlyAshStorage unless the bin vent filter (BH-101) is installed, maintained, and operated in a satisfactory manner.² (R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))

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3. The permittee shall not load material into the surge silo No. 2 portion of EU-FlyAshStorage unless the two filter receivers (Nos. FR-201 and FR-202) are both installed, maintained, and operated in a satisfactory manner.² (R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))

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4. The permittee shall not transfer material out of the surge silo No. 2 portion of EU-FlyAshStorage unless the bin vent filter (BH-201) is installed, maintained, and operated in a satisfactory manner.² (R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))

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5. The permittee shall not operate the storage silo portion of EU-FlyAshStorage unless the bin vent filter (BH-301) is installed, maintained, and operated in a satisfactory manner.² (R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))

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6. The permittee shall not operate or transfer material out of the load-out silo portion of EU-FlyAshStorage unless the bin vent filter (BH-401) is installed, maintained, and operated in a satisfactory manner.² (R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))

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V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

- 1. The permittee shall perform and document non-certified visible emissions observations from each of the eight exhaust stacks associated with EU-FlyAshStorage once per week when the emission unit is operating. If during the observation there are any visible emissions detected from an emission point, a USEPA Method 9 certified

visible emissions observation shall be conducted for a minimum of 15 minutes to determine the actual opacity from that emission point. Records of the non-certified visible emissions observations, USEPA Method 9 observations that are performed, the reason for any visible emissions observed and any corrective actions taken shall be kept on file and in a format acceptable to the AQD. **(R 336.1213(3))**

2. The permittee shall maintain the manufacturer documentation for the grain loading rating for the bin vent filter. All records shall be maintained on-site and made available to the Department upon request. (R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))
3. The permittee shall maintain the manufacturer recommendations for maintenance and replacement for the bin filters controlling emissions from the silos and the ash transfer systems in EU-FlyAshStorage. The permittee shall maintain a record of all maintenance and filter replacements performed. All records shall be maintained on-site and made available to the Department upon request. (R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))
4. The permittee shall keep, in a satisfactory manner, a record of the conditioned fly ash transported to the facility landfill on a monthly and 12-month rolling time period basis. The record shall be maintained on-site and made available to the Department upon request. (R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

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 with an asterisk (*) indicating a non-vertical discharge:

<u>Stack & Vent ID</u>	<u>Maximum Exhaust Dimensions (inches)</u>	<u>Minimum Height Above Ground (feet)</u>	<u>Underlying Applicable Requirements</u>
1. <u>SVBH-301*</u>	<u>32 x 18</u>	<u>107</u>	<u>R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)</u>
2. <u>SVBH-401*</u>	<u>NA</u>	<u>94</u>	<u>R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)</u>
3. <u>SVFAE-U01*</u>	<u>14</u>	<u>20</u>	<u>R 336.1225, 40 CFR 52.21(c) & (d)</u>
4. <u>SVFAE-U02*</u>	<u>14</u>	<u>20</u>	<u>R 336.1225, 40 CFR 52.21(c) & (d)</u>
5. <u>SVFAE-U12*</u>	<u>14</u>	<u>20</u>	<u>R 336.1225, 40 CFR 52.21(c) & (d)</u>
6. <u>SVFAE-U03*</u>	<u>14</u>	<u>20</u>	<u>R 336.1225, 40 CFR 52.21(c) & (d)</u>
7. <u>SVFAE-U04*</u>	<u>14</u>	<u>20</u>	<u>R 336.1225, 40 CFR 52.21(c) & (d)</u>
8. <u>SVFAE-U34*</u>	<u>14</u>	<u>20</u>	<u>R 336.1225, 40 CFR 52.21(c) & (d)</u>
9. <u>SVBH-302*</u>	<u>30 x 72</u>	<u>155</u>	<u>R 336.1225, 40 CFR 52.21(c) & (d)</u>
10. <u>SVBH-303*</u>	<u>5</u>	<u>33</u>	<u>R 336.1225, 40 CFR 52.21(c) & (d)</u>

*Stacks vent non-vertically

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVFR-101 ^{*,2}	NA	45	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
2. SVFR-102 ^{*,2}	NA	45	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
3. SVBH-101 ^{*,2}	NA	45	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
4. SVFR-201 ^{*,2}	NA	45	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
5. SVFR-202 ^{*,2}	NA	45	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
6. SVBH-201 ^{*,2}	NA	45	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
7. SVBH-301 ^{*,2}	NA	92	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
8. SVBH-401 ^{*,2}	NA	94	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

D. FLEXIBLE GROUP CONDITIONS

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-ProjectPC1-4	The project increased the capacity to use subbituminous coal and added petroleum coke to provide additional fuels for Units 1, 2, 3, and 4; installed four (4) wet FGD quench pumps; modifications to the fuel handling systems; the installed new material handling systems for limestone and gypsum; and installed of a new fuel handling system for petroleum coke. This resulted in a minor nonattainment source modification by use of the actual-to-projected-actual applicability test.	EU-UNIT1, EU-UNIT2, EU-UNIT3, EU-UNIT4, EU-WFGD-QP1, EU-WFGD-QP2, EU-WFGD-QP3, EU-WFGD-QP4, EU-CASCADES, EU-TRANSFERHS, EU-DUMPERHS, EU-COALUNLOAD, EU-CRUSHERHS, EU-PETCOKE, EU-LIMESTONE, EU-GYPSUMHAND, and EU-HYDRATEDLIME
FG-COALBLRCAM	Specifies CAM requirements for coal-fired boilers	EU-UNIT1, EU-UNIT2, EU-UNIT3, EU-UNIT4,
FGAUXBOILERS	Requirements for existing Boilers and Process Heaters at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart DDDDD which qualify as "limited use" units. "Limited use boilers or process heaters" as defined in 40 CFR 63.7575 burn any amount of solid, liquid, or gaseous fuels and have a federally enforceable average annual capacity factor of no more than 10 percent.	EU-NORTHAUX, EU-SOUTHAX
FG-WFGD-QP1&2	Quench Pump 1 servicing the Unit 3 stack and Quench Pump 2 servicing the Unit 4 stack	EU-WFGD-QP1, EU-WFGD-QP2
FG-WFGD-QP3&4	Quench Pump 3 servicing the Unit 1 stack and Quench Pump 4 servicing the Unit 2 stack	EU-WFGD-QP3, EU-WFGD-QP4
FG-PARTSCLNRS	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, 278a and Rule 281(2)(h) or Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.	EU-PARTSCLNRS

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-MESBLDG	Two (2) existing, 6.3 MMBtu/hr, heating boilers, One (1) 6.123 MMBtu/hr diesel-fired boiler and one (1) 6.3 MMBtu/hr, diesel-fired hot-water boiler subject to 40CFR63, Subpart DDDDD. Boilers are exempt from Michigan Rule 201 permit requirements pursuant to Rule 278 & Rule 282(2)(b)	EU-BLR1_MESB EU-BLR1_MESB2023 EU-BLR2_MESB
FG-EMERGENS	Onsite, stationary, emergency engines exempt from Rule 201 pursuant to Rule 278 and Rule 285(2)(g). Emergency engines are subject to 40 CFR 63 Subpart ZZZZ.	EU-FIREPUMP
FG-FIREPUMPNEW	Onsite, sStationary, emergency engines subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines promulgated in 40 CFR Part 60, Subpart IIII because construction of the engine was commenced after July 11, 2005.	EU-FIREPUMP2
FG-FGD EDG	40 CFR Part 60 Subpart IIII requirements for Ffour (4) 2,328 HP (1,736 kilowatts (kW)) diesel-fueled emergency 4-stroke compression ignition reciprocating internal combustion engines (CI RICE) with a model year of 2011 or later, and a displacement of less than 30 liters/cylinder. The engines will be used, as needed, to provide the power necessary to safely shut down the existing Unit 1 through Unit 4 boiler wet flue gas desulfurization (FGD) emission control systems.	EU-FGD_EDG1, EU-FGD_EDG2, EU-FGD_EDG3, EU-FGD_EDG4
FGRICEMACT	40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), located at a major source of HAP emissions, new or reconstructed emergency, compression ignition (CI) RICE greater than 500 brake hp. A RICE is new or reconstructed if the date of installation or modification is after December 19, 2002. Because the CI RICE are greater than 500 brake hp located at a major source of HAP emissions, the emission units do not fall under 63.6590(c) to meet 40 CFR Part 63 Subpart ZZZZ requirements by meeting the requirements of 40 CFR Part 60 Subpart IIII. Therefore, both ZZZZ and IIII requirements are applicable to this FG.	EU-FGD_EDG1, EU-FGD_EDG2, EU-FGD_EDG3, EU-FGD_EDG4
FGMATS	40 CFR Part 63, Subpart UUUUU (a.k.a. Mercury and Air Toxics Standards or MATS) requirements for existing coal-fired electric utility steam generating unit(s) (EGU) rated more than 25 megawatts electric (MWe) that serve(s) a generator producing electricity for sale and designed to burn coal that is not low rank virgin coal (calorific value of ≥ 8,300 Btu/pound).	EU-UNIT1, EU-UNIT2, EU-UNIT3, EU-UNIT4
FG-NSPS4I	Onsite, stationary, non-emergency engines exempt from Rule 201 pursuant to Rule 278 and Rule 285(2)(g). Engines are subject to 40 CFR Part 60, Subpart IIII and subject to 40 CFR 63 Subpart ZZZZ.	EU-NSPS4iEngines

Commented [ADT26]: EU-FIREPUMP, the only emission unit in FG-EMERGENS, has been out of service and irreparable as of 1-1-2022. DTE is requesting to remove FG-EMERGENS from the permit.

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FG-ProjectPC1-4
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

The project increased the capacity to use subbituminous coal and added petroleum coke to provide additional fuels for Units 1, 2, 3, and 4; installed four (4) wet FGD quench pumps; modifications to the fuel handling systems; the installed new material handling systems for limestone and gypsum; and installed of a new fuel handling system for petroleum coke. This resulted in a minor nonattainment source modification by use of the actual-to-projected-actual applicability test.

Emission Units: EU-UNIT1, EU-UNIT2, EU-UNIT3, EU-UNIT4, EU-WFGD-QP1, EU-WFGD-QP2, EU-WFGD-QP3, EU-WFGD-QP4, EU-CASCADES, EU-TRANSFERHS, EU-DUMPERHS, EU-COALUNLOAD, EU-CRUSHERHS, EU-PETCOKE, EU-LIMESTONE, EU-GYPSUMHAND, and EU-HYDRATEDLIME

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall calculate and keep records of PM2.5 and SO₂ emissions from EU-UNIT1, EU-UNIT2, EU-UNIT3, EU-UNIT4, EU-WFGD-QP1, EU-WFGD-QP2, EU-WFGD-QP3, and EU-WFGD-QP4 in tons per calendar year. The recordkeeping period shall begin on the first day of the month during which EU-UNIT3 and EU-UNIT4 commence operation (after the modification) and continue for consecutive calendar months. The calculations and records shall be kept in the format described in Appendix 4-1, or an alternative format acceptable to the AQD Permit Section Supervisor. The requirement to calculate and keep records shall end ten years after EU-UNIT1, EU-UNIT2, EU-UNIT3, EU-UNIT4, EU-WFGD-QP1, EU-WFGD-QP2, EU-WFGD-QP3, and EU-WFGD-QP4 complete the modification as approved by the AQD Permit Section Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.² (R 336.2902(2)(c), 40 CFR Part 51, Appendix S)
2. The permittee shall calculate and keep records of PM2.5 emissions from EU-CASCADES, EU-TRANSFERHS, EU-DUMPERHS, EU-COALUNLOAD, EU-CRUSHERHS, EU-PETCOKE, EU-LIMESTONE, EU-

Commented [ADT27]: DTE is requesting to delete this condition. EU-WFGD-QP4 has the latest modification date. This requirement expires 4-1-2024.

GYPSUMHAND, and EU-HYDRATEDLIME in tons per calendar year. The recordkeeping period shall begin on the first day of the month during which EU-CASCADES, EU-TRANSFERHS, EU-DUMPERHS, EU-COALUNLOAD, EU-CRUSHERHS, EU-PETCOKE, EU-LIMESTONE, EU-GYPSUMHAND, and EU-HYDRATEDLIME commence operation (after the modification) and continue for consecutive calendar months. The calculations and records shall be kept in the format described in Appendix 4-1, or an alternative format acceptable to the AQD Permit Section Supervisor. The requirement to calculate and keep records shall end ten years after EU-CASCADES, EU-TRANSFERHS, EU-DUMPERHS, EU-COALUNLOAD, EU-CRUSHERHS, EU-PETCOKE, EU-LIMESTONE, EU-GYPSUMHAND, and EU-HYDRATEDLIME completes the modification or installation as approved by the AQD Permit Section Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.² (R 336.2902(2)(c), 40 CFR Part 51, Appendix S)

See Appendix 4-1

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
4. The permittee shall submit records of PM_{2.5} and SO₂ emissions from FG-ProjectPC1-4 in tons per calendar year to both the AQD Permit Section Supervisor and the AQD District Supervisor within 60 days following the end of each calendar year identified in FG-ProjectPC1-4, SC VI.2 and SC VI.3. In addition, the records shall identify the following:
 - a. Exceedances of the yearly actual emission of PM_{2.5} and SO₂ above the baseline actual emissions (BAE) by a significant amount, and
 - b. Identify if the year's actual emissions differ from the pre-construction projection. The pre-construction projection is the sum of the projected actual emissions from each existing emission unit and the potential emissions from each new emission unit included in the Hybrid Applicability Test used for FG-ProjectPC1-4.

The report shall contain the name, address, and telephone number of the facility (major stationary source); the annual emissions as calculated pursuant to FG-ProjectPC1-4, SC VI.2 and SC VI.3, and any other information the owner or operator wishes to include (i.e., an explanation why emissions differ from the pre-construction projection).² (R 336.2902(2)(c), 40 CFR Part 51, Appendix S)

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**FG-COALBLRCAM
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

This flexible group consists of emission units that use a control device to achieve compliance with a federally enforceable emission limitation or standard for PM10, lead, and HF through Presumptively Acceptable Monitoring (PAM) and are subject to 40 CFR Part 64 CAM because pre-controlled emissions are greater than 100 tons.

Emission Unit: EU-UNIT1, EU-UNIT2, EU-UNIT3, EU-UNIT4

POLLUTION CONTROL EQUIPMENT

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

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

NA

See Appendix 5

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. Permittee shall utilize PM CEMS as an indicator of compliance with the PM10 and lead emission rate limits in Tables EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4. The indicator of a CAM excursion for PM10 and lead's emission rate (lbs./TBtu) shall be defined as the 24 hour rolling average updated at the end of each boiler operating hour, exceeding 0.011 lbs. PM / mmBtu, as measured by PM CEMS and recorded by the DAHS, except for monitoring system malfunctions, system repairs, and QA activities. The monitor shall be calibrated quarterly. **(40 CFR 64.6(c)(1)(i) and (ii), 40 CFR 64.6(c)(2), 40 CFR 64.7(c))**
2. Permittee shall utilize SO2 CEMS as an indicator of compliance with the SC I.17 hydrogen fluoride emission rate limits (lbs./TBtu) in Tables EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4. The indicator of a CAM excursion shall be defined as the 30-boiler operating day, rolling arithmetic average updated at the end of each boiler operating day, exceeding 0.107 lbs./mmBtu, as measured by SO2 CEMS and recorded by the DAHS,

except for monitoring system malfunctions, system repairs, and QA activities. The monitor shall be calibrated daily. **(40 CFR 64.6(c)(1)(i) and (ii), 40 CFR 64.6(c)(2), 40 CFR 64.7(c))**

3. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). **(40 CFR 64.7(d))**
4. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c))**
5. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
6. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**
- 7.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Each semiannual report of monitoring and deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. **(40 CFR 64.9(a)(2)(i))**
5. Each semiannual report of monitoring and deviations shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of 40 CFR Part 64. **(40 CFR Part 64)**
2. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the AQD and if necessary, submit a proposed modification of the ROP and CAM Plan to address the necessary monitoring changes. Such a modification may include but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. **(40 CFR 64.7(e))**

Footnotes:

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

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

**FG-AUXBOILERS
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Requirements for existing Industrial Boilers and Process Heaters at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart DDDDD which qualify as “limited use” units. “Limited use boilers or process heaters” as defined in 40 CFR 63.7575 burn any amount of solid, liquid, or gaseous fuels and have a federally enforceable average annual capacity factor of no more than 10 percent.

Emission Units: EU-NORTHAUX, EU-SOUTHUX

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	33.3 pph per boiler ²	Test protocol will specify averaging time	EU-NORTHAUX, EU-SOUTHUX	SC VI.2, SC VI.4	R 336.2804, 40 CFR 52.21(d)
2. SO2	0.33 pph per boiler ²	Test protocol will specify averaging time	EU-NORTHAUX, EU-SOUTHUX	SC VI.2, SC VI.3, SC VI.4	R 336.1401, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirement
1. % Sulfur in diesel fuel	15 ppm ²	Sampling Protocol	FG-AUXBOILERS	SC VI.3	R 336.1401, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
2. Diesel Oil	10 % annual capacity factor on oil ^{2, a, b}	Calendar Year	Each boiler: EU-NORTHAUX, EU-SOUTHUX	SC VI.4	40 CFR 63.7555(a)(3)

^a - This limit is to satisfy the federally enforceable capacity factor limit associated with the limited use designation under **40 CFR 63.7555**.

^b - Annual capacity factor means the ratio between the actual heat input to a boiler or process heater from the fuels burned during a calendar year to the potential heat input to the boiler or process heater had it been operated for 8,760 hours during a year at the maximum steady state design heat input capacity. (**40 CFR 63.7575**)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not burn any fuel in the two auxiliary boilers other than diesel oil without prior notification to and approval by the AQD.² **(R 336.1201(3))**
2. At all times, the permittee must operate and maintain any affected source (as defined in 40 CFR 63.7490, stated in SC IX.1), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**
3. Limited-use boilers and process heaters must complete a tune-up every 5 years (no more than 61 months after the previous tune-up) as specified in 40 CFR 63.7515(d) and 63.7540(a)(10). If the boiler is not operating on the required date for tune-up, the tune-up must be conducted within 30 calendar days of startup. They are not subject to the emission limits in Tables 1 and 2 or 11 through 13 to this subpart, the annual tune-up, or the energy assessment requirements in Table 3 to this subpart, or the operating limits in Table 4 to this subpart. **(40 CFR 63.7500(c), 40 CFR 63.7515(d), 40 CFR 63.7540(a)(13))**
4. The permittee shall conduct tune up of the boilers as specified in the following: **(40 CFR 63.7540(a)(10)(i through vi), 40 CFR 63.7540(a)(12))**
 - a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The permittee may perform the burner inspection any time prior to the tune up or may delay the burner inspection until the next unit shutdown but each burner must be inspected at least once every 5 years (no more than 61 months after the previous tune-up).
 - b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern.
 - c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next unit shutdown).
 - d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject.
 - e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made. Measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
 - f. Maintain on-site and submit, if requested by the Administrator, a report containing the following information:
 - i. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
 - ii. A description of any corrective actions taken as a part of the tune-up.

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLINGRecords shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPINGRecords shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

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 336.1401, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

2. The permittee shall record the monthly fuel oil usage rates in gallons.² **(R 336.1401, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d), 40 CFR 63.7525(k))**
3. The permittee shall maintain a record of the analysis of the 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.² **(R 336.1401, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**
4. The permittee shall monitor and record in a satisfactory manner, the monthly hours of operation for each auxiliary boiler in FG-AUXBOILERS. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request.² **(R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**
5. The permittee shall monitor and record, in a satisfactory manner, the actual heat input of fuel burned in each auxiliary boiler in FG-AUXBOILERS on a calendar year basis. **(40 CFR 63.7555)**
6. For each calendar year, the permittee shall calculate the annual capacity factor for each auxiliary boiler in FG-AUXBOILERS, which is the ratio between the actual heat input from fuel burned to the potential heat input to the boiler or process heater had it been operated for 8,760 hours during a year at the maximum steady state design heat input capacity. **(40 CFR 63.7555, 40 CFR 63.7575)**
7. The permittee must keep records below. **(40 CFR 63.7555(a))**
 - a. A copy of each notification and report that is submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that permittee submitted, according to the requirements in 40 CFR Part 63.10(b)(2)(xiv). **(40 CFR 63.7555(a)(1))**
 - b. Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in 40 CFR Part 63.10(b)(2)(viii). **(40 CFR 63.7555(a)(2))**
 - c. For units in the limited use subcategory, the permittee must keep a copy of the federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent and fuel use records for the days the boiler or process heater was operating. **(40 CFR 63.7555(a)(3))**
8. Records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). **(40 CFR 63.7560(a))**
9. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.7560(b))**
10. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The permittee can keep the records off site for the remaining 3 years. **(40 CFR 63.7560(c))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee must meet the notification requirements in 40 CFR 63.7545 according to the schedule in 40 CFR 63.7545 and in Subpart A of 40 CFR Part 63. **(40 CFR 63.7495(d))**
5. If the permittee has switched fuels or made a physical change to the boiler and the fuel switch or physical change resulted in the applicability of a different subcategory, the permittee must provide notice of the date upon which the permittee switched fuels or made the physical change within 30 days of the switch/change in accordance with 40 CFR 63.745(h)(1) through (3). **(40 CFR 63.7545(a), 40 CFR 63.7545(h), 40 CFR 63.9(h))**
6. The permittee must submit boiler tune-up compliance reports. The first compliance report shall cover the period January 31, 2016 through December of the year in which the compliance tune-up was completed and must be postmarked or submitted no later than March 15th of the reporting year that immediately follows the year in which the tune-up was completed. Subsequent compliance reports must be postmarked or submitted by March 15th of the year following the compliance tune-up and must cover the applicable period starting from January 1 of the year following the previous tune-up to December 31 (of the latest tune-up year). Compliance reports must be submitted using the Compliance and Emissions Data Reporting Interface (CEDRI) which is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). If the reporting form is not available in CEDRI at the time the compliance report is due, a hardcopy of the compliance report shall be submitted to the state and EPA Region 5. At the discretion of the Administrator, the permittee must submit these reports in the format specified by the Administrator. **(40 CFR 63.7550(b), 40 CFR 63.10(a)(5), 40 CFR 63.7550(h)(3))**
7. The permittee must include the following information in the compliance report per 40 CFR 63.7550(c)(1):
 - a. Company and Facility name and address. **(40 CFR 63.7550(c)(5)(i))**
 - b. Process unit information, emissions limitations, and operating parameter limitations. **(40 CFR 63.7550(c)(5)(ii))**
 - c. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.7550(c)(5)(iii))**
 - d. The total operating time during the reporting period. **(40 CFR 63.7550(c)(5)(iv))**
 - e. Include the date of the most recent tune-up for each unit subject to only the requirement to conduct a 5-year tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.5.1. Include the date of the most recent burner inspection if it was not done on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7550(c)(5)(xiv))**
 - f. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. **(40 CFR 63.7550(c)(5)(xvii))**

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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV015-003	108 ²	231 ²	R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)

IX. OTHER REQUIREMENT(S)

1. 40 CFR Part 63, Subpart DDDDD applies to existing affected sources as described in paragraph (a)(1) of 40 CFR 63.7490, as listed below. **(40 CFR 63.7490(a))**
 - a. The affected source of this subpart is the collection at a major source of all existing industrial, commercial, and institutional boilers and process heaters within a subcategory as defined in 40 CFR 63.7575. **(40 CFR 63.7490(a)(1))**
2. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters as specified in 40 CFR Part 63, Subparts A and DDDDD (Boiler MACT). **(R 336.1213(3), 40 CFR Part 63, Subparts, A and DDDDD)**

Footnotes:

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

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

**FG-WFGD-QP1&2
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Two 252 hp diesel fuel-fired FGD quench pumps and two 350-gallon elevated storage tanks for diesel fuel with Quench Pump 1 servicing the Unit 3 stack and Quench Pump 2 servicing the Unit 4 stack.

Emission Units: EU-WFGD-QP1, EU-WFGD-QP2

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity	20 percent ²	6-minute average except one 6-minute average per hour of not more than 27 percent	EU-WFGD-QP1, EU-WFGD-QP2	SC III.1	R 336.1301(1)(c), R 336.2810, 40 CFR 52.21(j)
2. PM	0.40 g/hp-hr ²	Test protocol will specify averaging time	EU-WFGD-QP1, EU-WFGD-QP2	SC III.1, 40 CFR 60.4211(c)	R 336.2810, 40 CFR 52.21(j), 40 CFR 60.4205(c)
3. PM10	0.40 g/hp-hr ²	Test protocol will specify averaging time	EU-WFGD-QP1, EU-WFGD-QP2	SC III.1	R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j)
4. PM2.5	0.40 g/hp-hr ²	Test protocol will specify averaging time	EU-WFGD-QP1, EU-WFGD-QP2	SC III.1	R 336.2902(2)(c), 40 CFR Part 51, Appendix S
5. NMHC + NOx	7.80 g/hp-hr ²	Test protocol will specify averaging time	EU-WFGD-QP1, EU-WFGD-QP2	SC III.1, 40 CFR 60.4211(c)	R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j), 40 CFR 60.4205(c)
6. CO	2.60 g/hp-hr ²	Test protocol will specify averaging time	EU-WFGD-QP1, EU-WFGD-QP2	SC III.1, 40 CFR 60.4211(c)	R 336.2804, R 336.2810, 40 CFR 52.21(d) and (j), 40 CFR 60.4205(c)

II. MATERIAL LIMIT(S)

- The permittee shall only burn diesel fuel with a maximum sulfur content of 15 ppm in FG-WFGD-QP1&2.² (R 336.1205(1)(a) and (1)(b), R 336.1401, 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 60.4207)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate and maintain FG-WFGD-QP1&2 according to the manufacturer's written instructions or procedures that are approved by the manufacturer to ensure compliance with the applicable emission standards in 40 CFR 60.4205(c).² (R 336.2810, 40 CFR 52.21(j), 40 CFR 60.4205(c), 40 CFR 60.4206, 40 CFR 60.4211)
2. The permittee shall not operate each engine in FG-WFGD-QP1&2 for more than 30 minutes per hour, nor a total of 200 hours at full load equivalent rate per 12-month rolling time period as determined at the end of each calendar month.² (R 336.2804, R 336.2810, 40 CFR 52.21(d), 40 CFR 52.21(j))
3. NSPS, Subpart IIII allows emergency engines to operate up to 100 hours per year for maintenance checks and readiness testing. The permittee may petition for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. (40 CFR 60.4211(f)(2))
4. The permittee shall not change or revise the operating instructions, procedures or settings for FG-WFGD-QP1&2 unless permitted by the manufacturer in writing.² (40 CFR 60.4211)
5. If the permittee does not install, configure, operate, and maintain EU-WFGD-QP1 and EU-WFGD-QP2 and their respective control device according to the manufacturer's emission-related written instructions, or change emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows:
 - a. Must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.
 - b. In addition, if the permittee does not install and configure the engine and control device according to the manufacturer's emission-related written instructions or change the emission-related settings in a way that is not permitted by the manufacturer, the permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FG-WFGD-QP1&2 with a non-resettable hour meter to track the number of minutes and hours the engine operates.² (R 336.2804, R 336.2810, 40 CFR 52.21(d), 40 CFR 52.21(j), 40 CFR 60.4209(a))

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall monitor and record in a satisfactory manner, the hours of operation of FG-WFGD-QP1&2. The record shall include the time and duration of operation, and the reason the engine was in operation. The permittee shall keep all records on file and make them available to the Department upon request.² (R 336.2804, R 336.2810, 40 CFR 52.21(d), 40 CFR 52.21(j), 40 CFR 60.4214(b))
2. The permittee shall keep records, in a satisfactory manner, of the fuel supplier certification and/or analysis including the sulfur content in ppm for each delivery of the diesel fuel oil.² (R 336.1401, 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))

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-WFGD-QP1	6 ²	34 ²	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
2. SV-WFGD-QP2	6 ²	34 ²	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 provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and IIII, as they apply to FG-WFGD-QP1&2.² **(40 CFR Part 60, Subparts A and IIII)**
2. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZ, for Stationary Reciprocating Internal Combustion Engines. The permittee shall meet the requirements of 40 CFR Part 63 Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart IIII.² **(40 CFR Part 63, Subparts A and ZZZZ, 40 CFR 63.6590(c)(7))**

Footnotes:

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

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

**FG-WFGD-QP3&4
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Two 252 hp diesel fuel-fired FGD quench pumps and two 350-gallon elevated storage tanks for diesel fuel with Quench Pump 3 servicing the Unit 1 stack and Quench Pump 4 servicing the Unit 2 stack.

Emission Units: EU-WFGD-QP3, EU-WFGD-QP4

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity	20 percent ²	6-minute average except one 6-minute average per hour of not more than 27 percent	EU-WFGD-QP3, EU-WFGD-QP4	SC III.1	R 336.1301(1)(c), R 336.2810, 40 CFR 52.21(j)
2. PM	0.15 g/hp-hr ²	Test protocol will specify averaging time	EU-WFGD-QP3, EU-WFGD-QP4	SC III.1, 40 CFR 60.4211(c)	R 336.2810, 40 CFR 52.21(j), 40 CFR 60.4205(c)
3. PM10	0.15 g/hp-hr ²	Test protocol will specify averaging time	EU-WFGD-QP3, EU-WFGD-QP4	SC III.1	R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j)
4. PM2.5	0.15 g/hp-hr ²	Test protocol will specify averaging time	EU-WFGD-QP3, EU-WFGD-QP4	SC III.1	R 336.2902(2)(c), 40 CFR Part 51, Appendix S
5. NMHC + NOx	3.00 g/hp-hr ²	Test protocol will specify averaging time	EU-WFGD-QP3, EU-WFGD-QP4	SC III.1, 40 CFR 60.4211(c)	R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j), 40 CFR 60.4205(c)
6. CO	2.60 g/hp-hr ²	Test protocol will specify averaging time	EU-WFGD-QP3, EU-WFGD-QP4	SC III.1, 40 CFR 60.4211(c)	R 336.2804, R 336.2810, 40 CFR 52.21(d) and (j), 40 CFR 60.4205(c)

II. MATERIAL LIMIT(S)

- The permittee shall only burn diesel fuel with a maximum sulfur content of 15 ppm in FG-WFGD-QP3&4.² (R 336.1205(1)(a) and (1)(b), R 336.1401, 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 60.4207)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate and maintain each engine in FG-WFGD-QP3&4 according to the manufacturer's written instructions or procedures that are approved by the manufacturer to ensure compliance with the applicable emission standards in 40 CFR 60.4205(c).² **(R 336.2810, 40 CFR 52.21(j), 40 CFR 60.4205(c), 40 CFR 60.4206, 40 CFR 60.4211)**
2. The permittee shall not operate each engine in FG-WFGD-QP3&4 for more than 30 minutes per hour, nor a total of 200 hours at full load equivalent rate per 12-month rolling time period as determined at the end of each calendar month.² **(R 336.2804, R 336.2810, 40 CFR 52.21(d), 40 CFR 52.21(j))**
3. NSPS, Subpart IIII allows emergency engines to operate up to 100 hours per year for maintenance checks and readiness testing. The permittee may petition for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. **(40 CFR 60.4211(f)(2))**
4. The permittee shall not change or revise the operating instructions, procedures or settings for each engine in FG-WFGD-QP3&4 unless permitted by the manufacturer in writing.² **(40 CFR 60.4211)**
5. If the permittee does not install, configure, operate, and maintain EU-WFGD-QP1 and EU-WFGD-QP2 and their respective control device according to the manufacturer's emission-related written instructions, or change emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows:
 - a. Must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.
 - b. In addition, if the permittee does not install and configure the engine and control device according to the manufacturer's emission-related written instructions or change the emission-related settings in a way that is not permitted by the manufacturer, the permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FG-WFGD-QP3&4 with a non-resettable hour meter to track the number of minutes and hours the engine operates.² **(R 336.2804, R 336.2810, 40 CFR 52.21(d), 40 CFR 52.21(j), 40 CFR 60.4209(a))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall monitor and record in a satisfactory manner, the hours of operation of each engine in FG-WFGD-QP3&4. The record shall include the time and duration of operation, and the reason the engine was in operation. The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.2804, R 336.2810, 40 CFR 52.21(d), 40 CFR 52.21(j), 40 CFR 60.4214(b))**
2. The permittee shall keep records, in a satisfactory manner, of the fuel supplier certification and/or analysis including the sulfur content in ppm for each delivery of the diesel fuel oil.² **(R 336.1401, 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))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-WFGD-QP3	6 ²	34 ²	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
2. SV-WFGD-QP4	6 ²	34 ²	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 provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and IIII, as they apply to FG-WFGD-QP3&4.² **(40 CFR Part 60, Subparts A and IIII)**
2. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZ, for Stationary Reciprocating Internal Combustion Engines. The permittee shall meet the requirements of 40 CFR Part 63 Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart IIII. ² **(40 CFR Part 63, Subparts A and ZZZZ, 40 CFR 63.6590(c)(7))**

Footnotes:

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

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

**FG-PARTSCLNRS
FLEXIBLE GROUP CONDITIONS****DESCRIPTION**

Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, 278a and Rule 281(2)(h) or Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.

Emission Unit: EU-PARTSCLNRS

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall not use cleaning solvents containing more than five percent by weight of the following halogenated compounds: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination thereof. **(R 336.1213(2))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Cleaned parts shall be drained for no less than 15 seconds or until dripping ceases. **(R 336.1611(2)(b), R 336.1707(3)(b))**
2. The permittee shall perform routine maintenance on each cold cleaner as recommended by the manufacturer. **(R 336.1213(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The cold cleaner must meet one of the following design requirements:
 - a. The air/vapor interface of the cold cleaner is no more than ten square feet. **(R 336.1281(2)(h))**
 - b. The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment. **(R 336.1285((2)r)(iv))**
2. The cold cleaner shall be equipped with a device for draining cleaned parts. **(R 336.1611(2)(b), R 336.1707(3)(b))**
3. All new and existing cold cleaners shall be equipped with a cover and the cover shall be closed whenever parts are not being handled in the cold cleaner. **(R 336.1611(2)(a), R 336.1707(3)(a))**
4. The cover of a new cold cleaner shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia or if the solvent is agitated or heated. **(R 336.1707(3)(a))**
5. If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia; or, if any solvent used in a new cold cleaner is heated above 120 degrees Fahrenheit, then the cold cleaner must comply with at least one of the following provisions:

- a. The cold cleaner must be designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7. **(R 336.1707(2)(a))**
- b. The solvent bath must be covered with water if the solvent is insoluble and has a specific gravity of more than 1.0. **(R 336.1707(2)(b))**
- c. The cold cleaner must be controlled by a carbon adsorption system, condensation system, or other method of equivalent control approved by the AQD. **(R 336.1707(2)(c))**

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. For each new cold cleaner in which the solvent is heated, the solvent temperature shall be monitored and recorded at least once each calendar week during routine operating conditions. **(R 336.1213(3))**
2. The permittee shall maintain the following information on file for each cold cleaner: **(R 336.1213(3))**
 - a. A serial number, model number, or other unique identifier for each cold cleaner.
 - b. The date the unit was installed, manufactured or that it commenced operation.
 - c. The air/vapor interface area for any unit claimed to be exempt under Rule 281(2)(h).
 - d. The applicable Rule 201 exemption.
 - e. The Reid vapor pressure of each solvent used.
 - f. If applicable, the option chosen to comply with Rule 707(2).
3. The permittee shall maintain written operating procedures for each cold cleaner. These written procedures shall be posted in an accessible, conspicuous location near each cold cleaner. **(R 336.1611(3), R 336.1707(4))**
4. As noted in Rule 611(2)(c) and Rule 707(3)(c), if applicable, an initial demonstration that the waste solvent is a safety hazard shall be made prior to storage in non-closed containers. If the waste solvent is a safety hazard and is stored in non-closed containers, verification that the waste solvent is disposed of so that not more than 20 percent, by weight, is allowed to evaporate into the atmosphere shall be made on a monthly basis. **(R 336.1213(3), R 336.1611(2)(c), R 336.1707(3)(c))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

FG-EMERGENS
FLEXIBLE GROUP CONDITIONS

Commented [ADT28]: EU-FIREPUMP, the only emission unit in FG-EMERGENS, has been out of service and irreparable as of 1-1-2022. DTE is requesting to remove FG-EMERGENS from the permit.

DESCRIPTION

Existing, emergency engines, subject to 40 CFR Part 63, Subpart ZZZZ (aka, RICE-MACT). Engines are exempt from Michigan Rule 201 permit requirements pursuant to Rule 278 and Rule 285(2)(g).

Emission Unit: EU-FIREPUMP at 1-2 Screen house

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall meet fuel limits as applicable in 40 CFR 63.6604(b). The permittee must use non-road diesel fuel per 40 CFR 80.510(b): maximum sulfur content 15ppm, minimum cetane index 40 OR aromatic content of 35v%. Any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted. ~~(40 CFR 63.6604(b), 40 CFR 80.510(b))~~

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Each emergency stationary RICE's annual operating hours are specified in 40 CFR 63.6640(f). Operating specifications include:
 - a. There is no time limit in emergency situations. ~~(40 CFR 63.6640(f)(1))~~
 - b. Operate up to 100 hours per year for maintenance and testing. The permittee may petition for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. ~~(40 CFR 63.6640(f)(2))~~
 - c. Operate up to 50 hours per year in non-emergency situations (counted towards the 100 hours per year threshold). ~~(40 CFR 63.6640(f)(3))~~
2. The permittee shall meet operating requirements specified per 40 CFR 63.6602. ~~(40 CFR 63.6602, Table 2c-Line1)~~
 - a. Change oil and filter every 500 hours of operation or annually, whichever comes first, except as allowed in SC III.3;
 - b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first and replace as necessary;
 - c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
3. The permittee may utilize an oil analysis program in order to extend the specified oil change requirement in 40 CFR 63.6602. The oil analysis program must be performed at same frequency as oil changes are required. Analysis program must test the parameters, perform follow up oil change, if specified, and keep records per 40 CFR 63.6625(i). ~~(40 CFR 63.6625(i))~~

4. ~~The permittee shall not operate FG-EMERGENS unless operation and maintenance is performed according to manufacturer's emission-related written instructions or the permittee's maintenance plan. To the extent practicable, the permittee's plan must provide for maintenance and operation of engine in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR 63.6625(e) and 63.6640(a))~~
5. ~~The permittee shall minimize time spent at idle during startup and minimize engine's startup time to a period needed for safe loading of engine, not to exceed 30 minutes. (40 CFR 63.6625(h))~~

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. ~~Emission unit shall be equipped with a non-resettable hour meter to track operating hours. (40 CFR 63.6625(f))~~

V. TESTING/SAMPLING

~~Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))~~

NA

VI. MONITORING/RECORDKEEPING

~~Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))~~

1. ~~If using oil analysis program, the permittee shall test for and record and maintain the Total Base Number, viscosity and percent water content every 500 hours or annually (whichever comes first) & maintain within acceptable limits in 40 CFR 63.6625(i). (40 CFR 63.6625(i))~~
2. ~~The permittee shall record all maintenance conducted on emission units. (40 CFR 63.6655(e))~~
3. ~~The permittee shall record the number of hours the engine operated from the non-resettable hour meter and document the hours spent for emergency, including what classified the operation as emergency and non-emergency operation. (40 CFR 63.6655(f))~~

VII. REPORTING

1. ~~Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))~~
2. ~~Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))~~
3. ~~Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(e))~~

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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE) as they apply to emission units subject to 40 CFR Part 63, Subpart ZZZZ. **(R 336.1213(3), 40 CFR Part 63, Subparts A and ZZZZ)**

Footnotes:

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

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

FG-FIREPUMPNEW
FLEXIBLE GROUP CONDITIONS

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DESCRIPTION

Diesel fuel-fired fire pump engine subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines promulgated in 40 CFR Part 60, Subpart IIII because construction of the engine was commenced after July 11, 2005.

Emission Unit: EU-FIREPUMP2 at #2 screenhouse (also known as 3-4 screenhouse)

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

<u>Pollutant</u>	<u>Limit</u>	<u>Time Period/Operating Scenario</u>	<u>Equipment</u>	<u>Monitoring/ Testing Method</u>	<u>Underlying Applicable Requirements</u>
1. <u>NOx + NMHC</u>	<u>4.0 g/kW-hr</u>	<u>Hourly^A</u>	<u>Each engine in FG-FIREPUMPNEW</u>	<u>SC V.1, SC VI.2</u>	<u>40CFR60.4202(d), Table 4 of 40 CFR 60 Subpart IIII, 40 CFR 60.4205(c)</u>
2. <u>CO</u>	<u>3.5 g/kW-hr</u>	<u>Hourly^A</u>	<u>Each engine in FG-FIREPUMPNEW</u>	<u>SC V.1, SC VI.2</u>	<u>40CFR60.4202(d), Table 4 of 40 CFR 60 Subpart IIII, 40 CFR 60.4205(c)</u>
3. <u>PM</u>	<u>0.20 g/kW-hr</u>	<u>Hourly^A</u>	<u>Each engine in FG-FIREPUMPNEW</u>	<u>SC V.1, SC VI.2</u>	<u>40CFR60.4202(d), Table 4 of 40 CFR 60 Subpart IIII, 40 CFR 60.4205(c)</u>

^A These emission limits are for certified fire pump engines; if testing becomes required to demonstrate compliance, then the tested values must be compared to the Not to Exceed (NTE) requirements determined through 40 CFR 60.4212(c).

II. MATERIAL LIMIT(S)

1. The permittee shall burn only diesel fuel in each engine of FG-FIREPUMPNEW with a maximum sulfur content of 15 ppm (0.0015 percent) by weight and a minimum Cetane index of 40 or a maximum aromatic content of 35 volume percent. (40 CFR 60.4207, 40 CFR 1090.305)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee may operate each engine in FG-FIREPUMPNEW for no more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for

maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year. (40 CFR 60.4211(f)(2))

2. The permittee may operate each engine in FG-FIREPUMPNEW up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year provided for maintenance and testing as provided in 40 CFR 60.4211(f)(2). ~~Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for the permittee to supply non-emergency power as part of a financial arrangement with another entity. (40 CFR 60.4211(f)(3))~~

Commented [ADT29]: DTE is requesting to delete this sentence from this condition. This is a pump, not a genset. It is not capable of producing electricity.

3. If the permittee purchased a certified engine, according to procedures specified in 40 CFR Part 60, Subpart IIII, for the same model year, the permittee shall meet the following requirements for each engine in FG-FIREPUMPNEW:

- a. Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions.
- b. Change only those emission-related settings that are permitted by the manufacturer, and
- c. Meet the requirements as specified in 40 CFR Part 1068, as they apply to the engine.

If the permittee does not operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine. (40 CFR 60.4211)

4. If the permittee purchased a non-certified engine or a certified engine is operating in a non-certified manner, the permittee shall keep a maintenance plan for each affected engine in FG-FIREPUMPNEW and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR 60.4211(g)(2))

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FG-FIREPUMPNEW with non-resettable hours meters to track the operating hours. (40 CFR 60.4209)

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. If any engine in FG-FIREPUMPNEW is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows:

- a. Conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after changing emission-related settings in a way that is not permitted by the manufacturer.
- b. If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4212.

No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. 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. (40 CFR 60.4211(g)(2), 40 CFR 60.4212)

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1213(3))**
2. The permittee shall keep, in a satisfactory manner, the following records for each engine in FG-FIREPUMPNEW:
 - a. For each certified engine: The permittee shall keep records of the manufacturer certification documentation.
 - b. For each uncertified engine: The permittee shall keep records of testing required in SC V.1.

The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 60.4211)**
3. The permittee shall keep, in a satisfactory manner, the following records of maintenance activity for each engine in FG-FIREPUMPNEW:
 - a. For each certified engine: The permittee shall keep records of the manufacturer's emission-related written instructions, and records demonstrating that the engine has been maintained according to those instructions, as specified in SC III.3.
 - b. For each uncertified engine: The permittee shall keep records of a maintenance plan, as required by SC III.4, and maintenance activities.

The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 60.4211)**
4. The permittee shall monitor and record, the total hours of operation for each engine in FG-FIREPUMPNEW on a monthly and 12-month rolling time period basis, and the hours of operation during emergency and non-emergency service that are recorded through the non-resettable hour meter for each engine in FG-FIREPUMPNEW, on a calendar year basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation of each engine in FG-FIREPUMPNEW, including what classified the operation as emergency and how many hours are spent for non-emergency operation. **(40 CFR 60.4211, 40 CFR 60.4214)**
5. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in FG-FIREPUMPNEW, demonstrating that the fuel meets the requirement of 40 CFR 1090.305. The certification or test data shall include the name of the oil supplier or laboratory, the sulfur content, and cetane index or aromatic content of the fuel oil. **(40 CFR 60.4207(b), 40 CFR 1090.305)**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit a notification specifying whether each engine in FG-FIREPUMPNEW will be operated in a certified or a non-certified manner to the AQD District Supervisor, in writing, within 30 days following the initial startup of the engine and within 30 days of switching the manner of operation. **(R 336.1213(3))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and IIII, as they apply to each engine in FG-FIREPUMPNEW. (40 CFR Part 60, Subparts A and IIII, 40 CFR 63.6590(c))
2. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63, Subparts A and ZZZZ, as they apply to each engine in FG-FIREPUMPNEW. (40 CFR Part 63, Subparts A and ZZZZ, 40 CFR 63.6595)

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FG-MESBLDG
FLEXIBLE GROUP CONDITIONS

Commented [ADT30]: New FG template to include conditions for new EU-BLR1_MESB2023 and existing EU-BLR2_MESB.

DESCRIPTION

Two (2), Existing, 6.3 mMBtu/hr heating boilers, subject to 40 CFR Part 63, Subpart DDDDD (aka, Industrial Boiler MACT). Boilers are exempt from Michigan Rule 201 permit requirements pursuant to Rule 278 and Rule 282(2)(b). Requirements for boiler(s) with a heat input capacity of <10 MMBTU/hr for major sources of HAP emissions per 40 CFR Part 63, Subpart DDDDD (Boiler MACT). These boilers or process heaters are designed to burn solid, liquid, or gaseous fuels. EU-BLR1_MESB2023 is a new 6.123 MMBtu/hr diesel-fired boiler and EU-BLR2_MESB is an existing 6.3 MMBtu/hr hot-water boiler.

Emission Units: EU-BLR1_MESB and EU-BLR2_MESB, at the MESB Building

<u>Equal to or less than 5 MMBTU/hr and only burns gaseous or light liquid fuels</u>	NA
<u>Greater than 5 MMBTU/hr and less than 10 MMBTU/hr that burns gaseous or light liquid fuels or any unit that is less than 10 MMBTU/hr and burns any heavy liquid or solid fuels</u>	EU-BLR1_MESB2023* EU-BLR2_MESB

* - This emission unit has a continuous oxygen trim system installed

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must complete an initial tune-up of each emission unit installed after June 4, 2010 that has a continuous oxygen trim system as specified in SC III.9 no later than 61 months after initial startup. (40 CFR 63.7510(a))
2. The permittee must, for boilers or process heaters with a heat input capacity of greater than 5 MMBTU/hr and less than 10 MMBTU/hr that are not equipped with continuous Oxygen trim system, conduct a biennial tune-up of the boiler or process heater according to 40 CFR 63.7540(a)(11) no more than 25 months after the previous tune-up. (40 CFR 63.7500(e), 40 CFR 63.7515(d), 40 CFR 63.7540(a)(11), 40 CFR Part 63, Subpart DDDDD, Table 3.2)
3. The permittee must, for boilers or process heaters that are equipped with a continuous oxygen trim system, conduct a tune-up of the burner(s) and combustion controls, as applicable, every 5 years (61 months) as specified

in 40 CFR 63.7540(a)(10)(i) through (vi). **(40 CFR 63.7540(a)(12), 40 CFR Part 63, Subpart DDDDD, Table 3.1)**

- a. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. (40 CFR 63.7515(d))
- b. The permittee may delay the burner inspection until the next scheduled or unscheduled unit shutdown, but each burner must be inspected at least once every 72 months. (40 CFR 63.7540(a)(12))
- c. The permittee shall set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up. (40 CFR 63.7540(a)(12))

~~— If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. (40 CFR 63.7540(a)(13))~~

4. The permittee must conduct a tune-ups of each boiler or process heater as specified in the following: (40 CFR 63.7540(a)(11) or (12))

- a. As applicable, inspect the burner and clean or replace any components of the burner as necessary. The permittee may perform the burner inspection any time prior to the tune-up or may delay the burner inspection until the next scheduled unit shutdown. ~~Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection.~~ At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. (40 CFR 63.7540(a)(10)(i))

- b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. (40 CFR 63.7540(a)(10)(ii))

- c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly. The permittee may delay the inspection until the next scheduled unit shutdown. ~~Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection.~~ (40 CFR 63.7540(a)(10)(iii))

- d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject. (40 CFR 63.7540(a)(10)(iv))

- e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. (40 CFR 63.7540(a)(10)(v))

- 5. If the unit is not operating on the required date for the tune-up, the tune-up must be conducted within 30 calendar days of startup. (40 CFR 63.7540(a)(13))

- 6. At all times, the permittee must operate and maintain each existing small boiler or process heater, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. (40 CFR 63.7500(a)(3))

Commented [ADT31]: DTE is requesting to delete as this is covered in SC III.5

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Commented [ADT32]: Remove this sentence from this condition. Emission units in FG-MESBLDG are used for space heating.

Commented [ADT33]: Remove this sentence from this condition. Emission units in FG-MESBLDG are used for space heating.

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IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee must keep a copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or 2 or 5 year compliance report ~~or one-time energy assessment~~, as applicable, that the permittee submitted. (40 CFR 63.7555(a)(1))
2. The permittee must keep the records in a form suitable and readily available for expeditious review. (40 CFR 63.7560(a))
3. The permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. (40 CFR 63.7560(b))
4. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee can keep the records off site for the remaining 3 years. (40 CFR 63.7560(c))

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
4. The permittee must submit boiler or process heater tune-up compliance reports to the appropriate AQD District Office and must be postmarked or submitted by March 15th of the year following the applicable 2 or 5-year period starting from January 1 of the year following the previous tune-up to December 31 (of the latest tune-up year). Compliance reports must also be submitted to EPA using the Compliance and Emissions Data Reporting Interface (CEDRI) which is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). If the reporting form is not available in CEDRI at the time the compliance report is due, a hardcopy of the compliance report shall be submitted to EPA Region 5. (40 CFR 63.7550(b), 40 CFR 63.7550(h)(3))
5. The permittee must include the following information in the compliance report. (40 CFR 63.7550(c)(1))
 - a. Company and Facility name and address. (40 CFR 63.7550(c)(5)(i))
 - b. Process unit information, emissions limitations, and operating parameter limitations. (40 CFR 63.7550(c)(5)(ii))
 - c. Date of report and beginning and ending dates of the reporting period. (40 CFR 63.7550(c)(5)(iii))
 - d. Include the date of the most recent tune-up for each unit. Include the date of the most recent burner inspection if it was not done biennially or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown. (40 CFR 63.7550(c)(5)(xiv))
 - e. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. (40 CFR 63.7550(c)(5)(xvii))

See Appendix 8-1

Commented [AMH34]: The one time energy assessment was limited to existing boilers and had to be completed before the January 31, 2016 compliance date. This no longer applies.

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subparts A and DDDDD for Industrial, Commercial, and Institutional Boilers and Process Heaters. (40 CFR Part 63, Subparts A and DDDDD)

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).

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. ~~Starting January 31, 2016, the permittee shall meet biennial tune-up requirements for FG-MESBLDG as required. Each biennial tune-up must be conducted no more than 25 months after the previous tune-up. If the unit is not operating on the required date for a tune-up, the permittee shall conduct the tune-up within 30 calendar days of start-up. (40 CFR 63.7540(a)(11), 40 CFR 63.7540(a)(13))~~
2. ~~The permittee shall conduct the one-time energy assessment for FG-MESBLDG in the timeframe no later than January 31, 2016 as required. (40 CFR Part 63, Subpart DDDDD, Table 3)~~
3. ~~The permittee must demonstrate continuous compliance with the biennial tune-up requirement by completing the following: (40 CFR 63.7540(a)(10))~~
 - a. ~~Inspect the burner, and clean or replace any components of the burner as necessary (the permittee may delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. (40 CFR 63.7540(a)(10)(i))~~
 - a. ~~Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. (40 CFR 63.7540(a)(10)(ii))~~
 - b. ~~Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). (40 CFR 63.7540(a)(10)(iii))~~
 - c. ~~Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available. (40 CFR 63.7540(a)(10)(iv))~~
 - d. ~~Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. (40 CFR 63.7540(a)(10)(v))~~

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee must submit boiler tune-up compliance reports. The first compliance report shall cover the period January 31, 2016 through December of the year in which the tune-up was completed and must be postmarked or submitted no later than March 15th of the reporting year that immediately follows the year in which the tune-up was completed. Subsequent compliance reports must be postmarked or submitted by March 15th of the year following the tune-up and must cover the applicable 2-year period starting from January 1 of the year following the previous tune-up to December 31 (of the latest tune-up year). Compliance reports must be submitted using the Compliance and Emissions Data Reporting Interface (CEDRI) which is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). If the reporting form is not available in CEDRI at the time the compliance report is due, a hardcopy of the compliance report shall be submitted to the state and EPA Region 5. **(40 CFR 63.7550(b), 40 CFR 63.10(a)(5), 40 CFR 63.7550(h)(3))**
5. Maintain on-site and submit, if requested by the AQD, the most recent periodic report containing the information as listed below. **(40 CFR 63.7540(a)(10)(vi))**
 - a. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater. **(40 CFR 63.7540(a)(10)(vi)(A))**
 - b. A description of any corrective actions taken as a part of the tune-up. **(40 CFR 63.7540(a)(10)(vi)(B))**

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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters as they apply to emission units subject to 40 CFR Part 63, Subpart DDDDD. **(40 CFR Part 63, Subparts A and DDDDD)**

Footnotes:

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

FG-FGD EDG
FLEXIBLE GROUP CONDITIONS

Commented [ADT35]: FG conditions for FGD EDGs added from PTI 72-21.

DESCRIPTION

Four (4) 2,328 HP (1,736 kilowatts (kW)) diesel-fueled emergency engines with a model year of 2011 or later, and a displacement of less than 30 liters/cylinder.

Commented [AMH36]: I think this should actually be 2007 or later. But it might not be an issue to leave as is.

Emission Unit ID: EU-FGD_EDG1, EU-FGD_EDG2, EU-FGD_EDG3, EU-FGD_EDG4

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NMHC + NOx	6.4 g/kW-hr	Hourly ^A	Each engine in FG-FGD_EDG	SC V.1 SC VI.2	40 CFR 60.4205(b), 40 CFR 60.4202(a)(2), Table 2 to Appendix I of 40 CFR 1039
2. CO	3.5 g/kW-hr	Hourly ^A	Each engine in FG-FGD_EDG	SC V.1 SC VI.2	40 CFR 60.4205(b), 40 CFR 60.4202(a)(2), Table 2 to Appendix I of 40 CFR 1039
3. PM	0.20 g/kW-hr	Hourly ^A	Each engine in FG-FGD_EDG	SC V.1 SC VI.2	40 CFR 60.4205(b), 40 CFR 60.4202(a)(2), Table 2 to Appendix I of 40 CFR 1039

g/kW-hr = grams per kilowatt-hour

^AThese emission limits are for certified engines; if testing becomes required to demonstrate compliance, then the tested values must be compared to the Not to Exceed (NTE) requirements determined through 40 CFR 60.4212(c).

II. MATERIAL LIMIT(S)

1. The permittee shall burn only diesel fuel in each engine in FG-FGD_EDG with a maximum sulfur content of 15 ppm (0.0015 percent) by weight and a minimum Cetane index of 40 or a maximum aromatic content of 35 volume percent. (R 336.1205(1)(a) and (3), 40 CFR 60.4207, 40 CFR 1090.305)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate each engine in FG-FGD_EDG for more than 500 hours per year based on a 12-month rolling time period as determined at the end of each calendar month. The 500 hours includes the hours for the purpose of necessary maintenance checks and readiness testing as described in SC III.2. (R 336.1205(1)(3), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))

2. The permittee may operate each engine in FG-FGD EDG for no more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year. (40 CFR 60.4211(f)(2))
3. The permittee may operate each engine in FG-FGD EDG up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year provided for maintenance and testing as provided in 40 CFR 60.4211(f)(2). Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for the permittee to supply non-emergency power as part of a financial arrangement with another entity. (40 CFR 60.4211(f)(3))
4. If the permittee purchased a certified engine, according to procedures specified in 40 CFR Part 60, Subpart IIII, for the same model year, the permittee shall meet the following requirements for each engine in FG-FGD EDG:
 - a. Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions.
 - b. Change only those emission-related settings that are permitted by the manufacturer, and
 - c. Meet the requirements as specified in 40 CFR 89.94 and/or 1068, as they apply to the engine.

If you do not operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine. (40 CFR 60.4211(a) & (c))
5. If the permittee purchased a non-certified engine or a certified engine operating in a non-certified manner, the permittee shall keep a maintenance plan for each engine in FG-FGD EDG and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR 60.4211(g)(3))
6. The permittee shall only conduct the necessary maintenance checks and readiness testing on one engine in FG-FGD EDG at a time. (40 CFR 52.21 (c) & (d))

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FG-FGD EDG with non-resettable hour meter to track the operating hours. (R 336.1205(1)(a) & (3), R 336.1225, 40 CFR 60.4209)
2. The maximum rated power output of each engine in FG-FGD EDG shall not exceed 2,328 HP (1,736 kW), as certified by the equipment manufacturer. (R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 60.4202, 40 CFR 60.4205, 40 CFR 89.112(a))

V. TESTING/SAMPLING

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

1. If the any engine in FG-FGD EDG is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows:
 - a) Conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

- b) If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4212.
- c) Conduct subsequent performance testing every 8,760 hours of engine operation or every 3 years thereafter, whichever comes first, to demonstrate compliance with the applicable emission standards

No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. 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. (40 CFR 60.4211(g)(3), 40 CFR 60.4212)

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 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(1)(a)&(3), R 336.1225, 40 CFR 52.21 (c) & (d), 40 CFR Part 60, Subpart IIII)
2. The permittee shall keep, in a satisfactory manner, the following records for each engine in FG-FGD EDG:
 - a. For EACH certified engine: The permittee shall keep records of the manufacturer certification documentation.
 - b. For EACH uncertified engine: The permittee shall keep records of testing required in SC V.1.

The permittee shall keep all records on file and make them available to the Department upon request. (40 CFR 60.4211)
3. The permittee shall keep, in a satisfactory manner, the following records of maintenance activity for each engine in FG-FGD EDG:
 - a. For EACH certified engine: The permittee shall keep records of the manufacturer's emission-related written instructions, and records demonstrating that the engine has been maintained according to those instructions, as specified in SC III.4.
 - b. For EACH uncertified engine: The permittee shall keep records of a maintenance plan, as required by SC III.5, and maintenance activities.

The permittee shall keep all records on file and make them available to the Department upon request. (40 CFR 60.4211)
4. The permittee shall monitor and record, the total hours of operation for each engine in FG-FGD EDG on a monthly and 12-month rolling time period basis, and the hours of operation during emergency and non-emergency service that are recorded through the non-resettable hour meter for each engine in FG-FGD EDG, on a calendar year basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation of each engine in FG-FGD EDG, including what classified the operation as emergency and how many hours are spent for non-emergency operation. (R 336.1205(1)(a) & (3), 40 CFR 60.4211, 40 CFR 60.4214)
5. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in FG-FGD EDG, demonstrating that the fuel meets the requirement of 40 CFR 1090.305. The certification or test data shall include the name of the oil supplier or laboratory, the sulfur content, and cetane index or aromatic content of the fuel oil. (R 336.1205(1)(a) & (3), 40 CFR 60.4207(b), 40 CFR 1090.305)

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of each engine of FG-FGD EDG. (R 336.1201(7)(a))

2. The permittee shall submit a notification specifying whether each engine of FG-FGD EDG will be operated in a certified or a non-certified manner to the AQD District Supervisor, in writing, within 30 days following the initial startup of the engine and within 30 days of switching the manner of operation. (40 CFR Part 60, Subpart IIII)

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:

<u>Stack & Vent ID</u>	<u>Maximum Exhaust Diameter / Dimensions (inches)</u>	<u>Minimum Height Above Ground (feet)</u>	<u>Underlying Applicable Requirements</u>
1. SV-FGD EDG1	20	30	R 336.1225, 40 CFR 52.21 (c) & (d)
2. SV-FGD EDG2	20	30	R 336.1225, 40 CFR 52.21 (c) & (d)
3. SV-FGD EDG3	20	30	R 336.1225, 40 CFR 52.21 (c) & (d)
4. SV-FGD EDG4	20	30	R 336.1225, 40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and IIII, as they apply to each engine of FG-FGD EDG. (40 CFR Part 60, Subparts A & IIII)

2. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63, Subparts A and ZZZZ, as they apply to each engine of FG-FGD EDG. (40 CFR Part 63, Subparts A & ZZZZ, 40 CFR 63.6585)

Footnotes:

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

FGRICEMACT
FLEXIBLE GROUP CONDITIONS

Commented [ADT37]: FG conditions for FGD EDG's added from PTI 72-21. DTE believes FGRICEMACT does not apply and will file a new PTI application to change the PTI requirements. Based on 63.6590(b)(1), the only SC that is applicable is SC VII.1.

DESCRIPTION

40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), located at a major source of HAP emissions, new or reconstructed emergency, compression ignition (CI) RICE greater than 500 brake hp. A RICE is new or reconstructed if the date of installation or modification is after December 19, 2002.

Emission Unit: EU-FGD_EDG1, EU-FGD_EDG2, EU-FGD_EDG3, EU-FGD_EDG4

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall burn only diesel fuel in each engine with a maximum sulfur content of 15 ppm (0.0015 percent) by weight and a minimum Cetane index of 40 or a maximum aromatic content of 35 volume percent. (40 CFR 63.6604(c), 40 CFR 1090.305)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate and maintain each engine in FGRICEMACT and after-treatment control device (if any) in a manner consistent with good air pollution control practices for minimizing emissions. (40 CFR 63.6605)

2. For each engine in FGRICEMACT, the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply. (40 CFR 63.6625(h))

3. The permittee may operate each engine in FGRICEMACT for no more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year. (40 CFR 63.6640(f)(2))

4. Each engine in FGRICEMACT may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in SC III.3. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for the permittee to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. (40 CFR 63.6640(f)(3))

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FGRICEMACT with non-resettable hour meter to track the operating hours. (R 336.1205(1)(a))

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

1. For each engine in FGRICEMACT, the permittee shall keep in a satisfactory manner, records of the maintenance conducted to demonstrate that the engine and after-treatment control device (if any) were operated and maintained according to the developed maintenance plan. The permittee shall keep all records on file and make them available to the department upon request. (R 336.1205(1)(a))
2. The permittee shall monitor and record, the total hours of operation for each engine in FGRICEMACT on a monthly basis, and the hours of operation during emergency and non-emergency service that are recorded through the non-resettable hour meter for each engine in FGRICEMACT on a calendar year basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation including what classified the operation as emergency and how many hours are spent for non-emergency operation. The permittee shall keep all records on file and make them available to the department upon request. (R 336.1205(1)(a))
3. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in FGRICEMACT, demonstrating that the fuel meets the requirement of SC II.1. The certification or test data shall include the name of the oil supplier or laboratory, the sulfur content, and cetane index or aromatic content of the fuel oil. The permittee shall keep all records on file and make them available to the department upon request. (R 336.1205(1)(a), 40 CFR 1090.305)
4. The permittee's records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). (40 CFR 63.6660(a))
5. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5-years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. (40 CFR 63.6660(b))

VII. REPORTING

1. The permittee shall submit an initial notification that includes the information in 40 CFR 63.9(b)(2)(i) through (v), and a statement that FGRICEMACT has no additional requirements and the basis of the exclusion. (40 CFR 63.6645(f))

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subparts A and ZZZZ for Stationary Reciprocating Internal Combustion Engines. (40 CFR Part 63, Subparts A and ZZZZ)

Footnotes:

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

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**FG-MATS
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

40 CFR Part 63, Subpart UUUUU (a.k.a. Mercury and Air Toxics Standards or MATS) requirements for existing coal-fired electric utility steam generating unit(s) (EGU) rated more than 25 megawatts electric (MWe) that serve(s) a generator producing electricity for sale and designed to burn coal that is not low rank virgin coal (calorific value of ≥ 8,300 Btu/pound).

Emission Units: EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4

POLLUTION CONTROL EQUIPMENT

Each unit has low-NOx burners, overfire air, **Reduced Emission Fuel (REF)-sorberent system**, SO₃ and ammonia flue gas conditioning systems, 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. Filterable PM	0.030 lb/MMBtu*	30-boiler operating day rolling arithmetic average updated at the end of each new boiler operating day	EU-UNIT1, EU-UNIT2, EU-UNIT3, EU-UNIT4	SC VI.1, SC VI.2, SC VI.3, SC VI.7	40 CFR 63.9991, 40 CFR Part 63, Subpart UUUUU, Table 2.1.a
2. SO ₂	0.20 lb/MMBtu*	30-boiler operating day rolling arithmetic average updated at the end of each new boiler operating day	EU-UNIT1, EU-UNIT2, EU-UNIT3, EU-UNIT4	SC VI.1, SC VI.2, SC VI.5, SC VI.9	40 CFR 63.9991, 40 CFR Part 63, Subpart UUUUU, Table 2.1.b
3. Mercury (Hg)	1.2 lb/TBtu*	30-boiler operating day rolling arithmetic average updated at the end of each new boiler operating day	EU-UNIT1, EU-UNIT2, EU-UNIT3, EU-UNIT4	SC VI.1, SC VI.2, SC VI.4, SC VI.6, SC VI.8	40 CFR 63.9991, 40 CFR Part 63, Subpart UUUUU, Table 2.1.c

*The emission limits apply at all times except during startup and shutdown

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall conduct a tune-up of each emission unit of FG-MATS burners and combustion controls, as applicable, at least every 36 calendar months, or each 48 calendar months if neural network combustion optimization software is employed, as specified in 40 CFR 63.10021(e). **(40 CFR 63.10000(e), 40 CFR 63.10006(i), 40 CFR 63.10021(e))**

2. For the startup of any emission unit of FG-MATS which will comply using paragraph (1) of the definition of “startup” in 40 CFR 63.10042, the permittee must use clean fuels as defined in 40 CFR 63.10042 for ignition. Once the emission units of FG-MATS convert to firing coal, residual oil, or solid oil-derived fuel, the permittee must engage all of the applicable control technologies except the SCR. The permittee must start the SCR systems appropriately to comply with relevant standards applicable during normal operation. The permittee must comply with all applicable emission limits at all times except for periods that meet the applicable definitions of startup and shutdown in 40 CFR Part 63, Subpart UUUUU. **(40 CFR 63.10042, 40 CFR Part 63, Subpart UUUUU, Table 3)**
3. During shutdown of any emission unit of FG-MATS while firing coal, residual oil, or solid oil-derived fuel, the permittee must vent emissions to the main stacks and operate all applicable control devices and continue to operate those control devices after the cessation of coal, residual oil, or solid oil-derived fuel being fed into the applicable emission units of FG-MATS and for as long as possible thereafter considering operational and safety concerns. In any case, the permittee must operate their controls when necessary to comply with other standards made applicable to the FG-MATS by a permit limit or a rule other than 40 CFR Part 63, Subpart UUUUU and that require operation of the control devices. If, in addition to the fuel used prior to initiation of shutdown, another fuel must be used to support the shutdown process, that additional fuel must be one or a combination of the clean fuels defined in 40 CFR 63.10042 and must be used to the maximum extent possible taking into account considerations such as not compromising boiler or control device integrity. **(40 CFR 63.10042, 40 CFR Part 63, Subpart UUUUU, Table 3)**
4. The emission limits and operating limits in 40 CFR Part 63, Subpart UUUUU apply at all times except during periods of startup and shutdown; however, the applicable work practice requirements, which are specified in items 3 and 4 of Table 3 of 40 CFR Part 63, Subpart UUUUU must be met during periods of startup or shutdown. **(40 CFR 63.10000(a), 40 CFR Part 63, Subpart UUUUU, Table 3)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall operate and maintain all associated air pollution control equipment and monitoring equipment necessary for compliance with 40 CFR Part 63, Subpart UUUUU in a manner consistent with safety and good air pollution control practices for minimizing emissions. **(40 CFR 63.10000(b))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. During startup, as defined by paragraph (1) of the definition of “startup” in 40 CFR 63.10042, the permittee must operate all Continuous Monitoring Systems (CMS). Startup means either the first-ever firing of fuel in a boiler for the purpose of producing electricity, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on site use). The permittee must comply with the applicable emission limits at all times except for startup and shutdown periods unless the permittee chooses to use just one set of sorbent traps to demonstrate compliance with the applicable Hg emission limit, then the permittee must comply with the applicable Hg emission limit at all times. The permittee must collect monitoring data during startup periods, as specified in 40 CFR 63.10020(a) and (b). The permittee must keep records during startup periods, as provided in 40 CFR 63.10032 and 40 CFR 63.10021(h). Any fraction of an hour in which startup occurs constitutes a full hour of startup. **(40 CFR Part 63, Subpart UUUUU, Table 3)**
2. The permittee must operate all CMS during shutdown. The permittee must also collect appropriate data, and the permittee must calculate the pollutant emission rate for each hour of shutdown for those pollutants for which a CMS is used. The permittee must collect monitoring data during shutdown periods, as specified in 40 CFR 63.10020(a). The permittee must keep records during shutdown periods, as provided in 40 CFR 63.10032 and

40 CFR 63.10021(h). Any fraction of an hour in which shutdown occurs constitutes a full hour of shutdown. **(40 CFR Part 63, Subpart UUUUU, Table 3)**

3. The permittee shall install, calibrate, maintain and operate a device to monitor and record the PM concentration of the exhaust gas from each emission unit on a continuous basis. The permittee shall install and operate the PM CEMS to meet the timelines, requirements and reporting detailed in Performance Specification 11 in 40 CFR Part 60, Appendix B and Procedure 2 in 40 CFR Part 60, Appendix F. **(40 CFR 63.10010(i), 40 CFR Part 63, Subpart UUUUU, Table 5)**
4. The permittee shall install, calibrate, maintain and operate a device to monitor and record the Hg concentration from each emission unit on a continuous basis. The permittee shall install and operate the Hg CEMS or sorbent trap monitoring system to meet the timelines, requirements and reporting detailed in Appendix A of 40 CFR Part 63, Subpart UUUUU. **(40 CFR 63.10000(c)(1)(vi))**
5. The permittee shall install, maintain, and operate devices to monitor and record the SO₂ concentration of the exhaust gas from each emission unit on a continuous basis. The permittee shall install and operate each CEMS to meet the timelines, requirements and reporting detailed in 40 CFR Part 75, Appendices A and B. **(40 CFR 63.10000(c)(1)(v))**
6. If required to convert measured pollutant concentrations to the units of the applicable mass per heat input emission limits or for routine operation of a sorbent trap monitoring system, the permittee shall install, calibrate, maintain and operate a device to monitor and record the oxygen (O₂) or carbon dioxide (CO₂) exhaust gas content, exhaust gas flow rate and/or moisture from each emission unit on a continuous basis. The monitor shall be operated in accordance with procedures outlined in 40 CFR Part 75, Appendices A and B. As an alternative to moisture monitoring, the permittee may elect to use appropriate fuel-specific default moisture values from 40 CFR 75.11(b) for coal-fired units or a default moisture value for non-coal-fired units as established via petition to the Administrator under 40 CFR 75.66. **(40 CFR 63.10010(b)-(d), 40 CFR Part 63, Subpart UUUUU, Table 5)**
7. If the permittee elects to use a PM CEMS, the permittee shall keep, in a satisfactory manner, hourly and 30-day rolling average PM emission rate records for each emission unit excluding periods of startup and shutdown. **(40 CFR 63.10010, 40 CFR 63.10021, 40 CFR 63.10032(c), 40 CFR Part 63, Subpart UUUUU, Table 7)**
8. For any emission unit not relying on the LEE provisions for Hg, the permittee shall keep, in a satisfactory manner, hourly and 30-day rolling average Hg emission rate records for each emission unit excluding periods of startup and shutdown. **(40 CFR 63.10010, 40 CFR 63.10021, 40 CFR 63.10032(c), 40 CFR Part 63, Subpart UUUUU, Table 7)**
9. The permittee shall keep, in a satisfactory manner, hourly and 30-day rolling average SO₂ emission rate records for each emission unit excluding periods of startup and shutdown. **(40 CFR 63.10010, 40 CFR 63.10021, 40 CFR 63.10032(c), 40 CFR Part 63, Subpart UUUUU, Table 7)**
10. The permittee must operate the required monitoring systems and collect data at all required intervals at all times that the affected EGU is operating, except for periods of monitoring system malfunctions or out-of-control periods (see 40 CFR 63.8(c)(7) of 40 CFR Part 63, Subpart A), and required monitoring system quality assurance or quality control activities, including, as applicable, calibration checks and required zero and span adjustments. The permittee is required to affect monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable. **(40 CFR 63.10020(b))**
11. The permittee may not use data recorded during startup or shutdown in calculations used to report emissions, except as otherwise provided in 40 CFR 63.10000(c)(1)(vi)(B) and 40 CFR 63.10005(a)(2)(iii). In addition, data recorded during monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods or required monitoring system quality assurance or control activities may not be used in calculations used to report emissions or operating levels. The permittee must use all of the quality-assured data collected during all other periods in assessing the operation of the control device and associated control system. **(40 CFR 63.10020(c))**

12. Failure to collect required data is a deviation from the monitoring requirements except for periods of monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments. **(40 CFR 63.10020(d))**
13. If the permittee uses CEMS to measure SO₂, PM, HCl, HF, or Hg emissions (or sorbent trap monitoring system), except as otherwise provided in 40 CFR 63.10020(c), the permittee must demonstrate continuous compliance by using all quality-assured hourly data recorded by the CEMS (or sorbent trap monitoring system) and other required monitoring systems to calculate the arithmetic average emissions rate in units of the standard on a continuous 30-boiler operating day rolling average basis, updated at the end of each new boiler operating day. Use Equation 8 in 40 CFR 63.10021(b) to determine the 30-boiler operating day rolling average. **(40 CFR 63.10021(a) and (b))**
14. If the permittee uses PM CPMS data to measure compliance with an operating limit in Table 4, the permittee must record the PM CPMS output data for all periods when the process is operating and PM CPMS is not out-of-control. The permittee must demonstrate continuous compliance by using all quality-assured hourly data collected by the PM CPMS for all operating data to calculate the arithmetic average emissions rate in units of the operating limit on a continuous 30-boiler operating day rolling average basis, updated at the end of each new boiler operating day. Use Equation 9 in 40 CFR 63.10021(c) to determine the 30-boiler operating day rolling average. **(40 CFR 63.10021(a) and (c))**
15. The permittee must keep the following records:
 - a. A copy of each notification and report that has been submitted to comply with 40 CFR Part 63, Subpart UUUUU, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that has been submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.10032(a)(1))**
 - b. Records of performance stack tests, fuel analyses, or other compliance demonstrations and performance evaluations, as required in 40 CFR 63.10(b)(2)(viii). **(40 CFR 63.10032(a)(2))**
 - c. For each CEMS, the permittee must keep the following records:
 - i. Records described in 40 CFR 63.10(b)(2)(vi) through (xi). **(40 CFR 63.10032(b)(1))**
 - ii. Previous (i.e., superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3). **(40 CFR 63.10032(b)(2))**
 - iii. Request for alternatives to relative accuracy test for CEMS as required in 40 CFR 63.8(f)(6)(i). **(40 CFR 63.10032(b)(3))**
 - iv. The date and time that each deviation started and stopped and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period. **(40 CFR 63.10032(b)(4))**
 - v. If the permittee continuously monitors Hg and/or HCl and/or HF emissions, the permittee must also keep the records required under Appendix A and/or Appendix B of 40 CFR Part 63, Subpart UUUUU. **(40 CFR 63.10032(a))**
 - d. For each emission unit subject to an emission limit, the permittee shall keep the monthly fuel use by each emission unit, including the type(s) of fuel and amount(s) used. **(40 CFR 63.10032(d)(1))**
 - e. Regarding startup periods or shutdown periods:
 - i. If the permittee chooses to rely on paragraph (1) of the definition of "startup" in 40 CFR 63.10042 for the emission unit(s), the permittee shall keep records of the occurrence and duration of each startup or shutdown. **(40 CFR 63.10032(f)(1))**
 - ii. The type(s) and amount(s) of fuel used during each startup or shutdown. **(40 CFR 63.10032(i))**
 - f. The occurrence and duration of each malfunction of an operation (i.e., process equipment) or the air pollution control and monitoring equipment. **(40 CFR 63.10032(g))**

- g. Actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.10000(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. **(40 CFR 63.10032(h))**
16. The permittee shall keep all records in a form suitable and readily available for expeditious review and for at least 5 years after the date of each occurrence, corrective action, report, or record. The records must be kept onsite for at least 2 years and may be kept offsite for the remaining 3 years. **(40 CFR 63.10(b)(1), 40 CFR 63.10033)**
17. The permittee shall maintain on site and submit, if requested by the Administrator, an annual report of periodic performance tune-ups containing the information required by 40 CFR 63.10021(e)(8). The reports shall be in a format acceptable to the Administrator. If requested by the AQD District Supervisor, the permittee shall also submit an annual report with the results of the performance tune-ups. **(40 CFR 63.10021(e)(8))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Semiannual reporting of the information required in 40 CFR 63.10031(c)(1) through (9), (d), and (e) as applicable. The report shall be postmarked or received by the Administrator by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. The report shall include the following:
 - a. The information required by the Continuous Monitoring Summary Report located in 40 CFR 63.10(e)(3)(vi). **(40 CFR 63.10031(c)(1))**
 - b. The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by EPA or the basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure. **(40 CFR 63.10031(c)(2))**
 - c. Indicate whether any emission unit in FG-MATS burned new types of fuel during the reporting period. If new types of fuel were burned, include the date of the performance test where that fuel was in use. **(40 CFR 63.10031(c)(3))**
 - d. Include the date of the most recent tune-up for each emission unit. The date of the tune-up is the date the tune-up provisions specified in 40 CFR 63.10021(e)(6) and (7) were completed. **(40 CFR 63.10031(c)(4))**
 - e. A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during the test, if applicable. **(40 CFR 63.10031(c)(7))**
 - f. If there are no deviations from any emission limitation (emission limit and operating limit) that applies to FG-MATS and there are no deviations from the requirements for work practice standards in Table 3 to 40 CFR Part 63, Subpart UUUUU that apply to FG-MATS, the report shall include a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emissions monitoring system, and operating parameter monitoring systems, were out-of-control as specified in 40 CFR 63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period. **(40 CFR Part 63, Subpart UUUUU, Table 8)**

- g. If there is a deviation from any emission limitation (emission limit and operating limit) or work practice standard during the reporting period, the report must contain a brief description of the deviation, the duration of the deviation, the cause of the deviation, and the information in 40 CFR 63.10031(d). If there were periods during which the CMS's, including continuous emissions monitoring systems and continuous parameter monitoring systems, were out-of-control, as specified in 40 CFR 63.8(c)(7), the report must contain the information in 40 CFR 63.10031(e). **(40 CFR 63.10031(c)(1) through (9), (d), and (e), 40 CFR 63.10031(a), 40 CFR 63.10031(c)(9), 40 CFR Part 63, Subpart UUUUU, Table 8)**
- h. If the affected source submits a compliance report pursuant to Table 8 in 40 CFR Part 63, Subpart UUUUU, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in 40 CFR Part 63, Subpart UUUUU, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report required by SC VII.2. **(40 CFR 63.10031(e))**
5. The permittee must submit any of the following applicable notifications by the dates specified within the specific citation: 40 CFR 63.7(b) and (c) Notification of performance test and Quality assurance program; 40 CFR 63.8(e) Performance evaluation of continuous monitoring systems; 40 CFR 63.8(f)(4) Request to use alternative monitoring methods; 40 CFR 63.8(f)(6) Alternative to the relative accuracy test; 40 CFR 63.9(b) Initial notifications; 40 CFR 63.9(c) Request for extension of compliance; 40 CFR 63.9(d) Notification that source is subject to special compliance requirements; 40 CFR 63.9(e) Notification of performance test, which shall be submitted at least 30 days before the performance test is scheduled to begin; 40 CFR 63.9(f) Notification of opacity and visible emission observations; 40 CFR 63.9(g) Additional notification requirements for sources with continuous monitoring systems; and 40 CFR 63.9(h) Notification of compliance status. **(40 CFR 63.10030(a))**
6. On or after July 1, 2020, within 60 days after the date of completing each performance test, the permittee must submit the performance test reports required by this subpart to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). Performance test data must be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (see <http://www.epa.gov/ttn/chief/ert/index.html>). Only data collected using those test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. At the discretion of the AQD, the permittee must also submit these reports, one to the Technical Programs Unit Supervisor and one to the AQD District Supervisor, in a format approved by the AQD. **(40 CFR 63.10031(f))**
7. On or after July 1, 2020, within 60 days after the date of completing each CEMS (SO₂, PM, HCl, HF, and Hg) performance evaluation test, as defined in 40 CFR 63.2, the permittee must submit the relative accuracy test audit (RATA) data (or, for PM CEMS, RCA and RRA data) required by this subpart to EPA's WebFIRE database by using CEDRI that is accessed through EPA's CDX (www.epa.gov/cdx). The RATA data shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (<http://www.epa.gov/ttn/chief/ert/index.html>). Only RATA data compounds listed on the ERT Web site are subject to this requirement. At the discretion of the AQD, the permittee must also submit these RATA reports to the AQD District Supervisor in a format approved by the AQD. Owners or operators shall submit calibration error testing, drift checks, and other information required in the performance evaluation as described in 40 CFR 63.2 and as required in this chapter. **(40 CFR 63.10031(f)(1))**
8. On or after July 1, 2020, for a PM CEMS, within 60 days after the reporting periods ending on March 31st, June 30th, September 30th, and December 31st, the permittee must submit quarterly reports to EPA's WebFIRE database by using the CEDRI that is accessed through EPA's CDX (www.epa.gov/cdx). The permittee must use the appropriate electronic reporting form in CEDRI or provide an alternate electronic file consistent with EPA's reporting form output format. For each reporting period, the quarterly reports must include all of the calculated 30-boiler operating day rolling average values derived from the CEMS. **(40 CFR 63.10031(f)(2))**
9. Reports for a SO₂ CEMS, a Hg CEMS or sorbent trap monitoring system, a HCl or HF CEMS, and any supporting monitors for such systems (such as a diluent or moisture monitor) shall be submitted using the ECMP Client Tool, as provided for in 40 CFR Part 63, Subpart UUUUU, Appendices A and B and 40 CFR 63.10021(f). **(40 CFR 63.10031(f)(3))**

10. On or after July 1, 2020, the permittee must submit all reports required by 40 CFR 63.10031 (c) and (d) electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). The permittee must use the appropriate electronic reporting form in CEDRI or provide an alternate electronic file consistent with EPA's reporting form output format. If requested by the AQD, the permittee must also submit these reports, to the AQD District Supervisor in a format approved by the AQD. **(40 CFR 63.10031(f)(4))**
11. Prior to July 1, 2020, all reports subject to electronic submittal in SC VII.6, VII.7, VII.8 and VII.10 shall be submitted to the EPA at the frequency specified in those paragraphs in electronic portable document format (PDF) using the ECMPs Client Tool. Each PDF version of a submitted report must include sufficient information to assess compliance and to demonstrate that the testing was done properly. The data elements listed at 40 CFR 63.10031(f)(6)(i)-(xii) must be entered into the ECMPs Client Tool at the time of submission of each PDF file. **(40 CFR 63.10031(f)(6))**
12. If requested by the Administrator, the permittee must submit the monitoring plan (or relevant portion of the plan) at least 60 days before the initial performance evaluation of a particular CMS, except where the CMS has already undergone a performance evaluation that meets the requirements of 40 CFR 63.10010 (e.g., if the CMS was previously certified under another program). **(40 CFR 63.10000(d)(3))**

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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

1. For each emission unit or emissions averaging group complying with an emission limit as specified in Table 2 of 40 CFR Part 63, Subpart UUUUU, the permittee may request to switch from a mass per heat input to a mass per gross output limit (or vice versa).
 - a. The permittee may switch from a mass per heat input to a mass per gross output limit (or vice-versa), provided that:
 - i. The permittee submits a request that identifies for each emission unit or emissions averaging group involved in the proposed switch both the current and proposed emission limit. **(40 CFR 63.10030(e)(7)(iii)(A)(1))**
 - ii. The request arrives to the Administrator at least 30 calendar days prior to the date that the switch is proposed to occur. **(40 CFR 63.10030(e)(7)(iii)(A)(2))**
 - iii. The request demonstrates through performance stack test results completed within 30 days prior to the submission, compliance for each emission unit or emissions averaging group with both the mass per heat input and mass per gross output limits. **(40 CFR 63.10030(e)(7)(iii)(A)(3))**
 - iv. The permittee revises and submits all other applicable plans, e.g., monitoring and emissions averaging, with the request. **(40 CFR 63.10030(e)(7)(iii)(A)(4))**
 - v. The permittee maintains records of all information regarding the choice of emission limits. **(40 CFR 63.10030(e)(7)(iii)(A)(5))**
 - b. The permittee may begin to use the revised emission limits starting in the next reporting period, after receipt of written acknowledgement from the Administrator of the switch. **(40 CFR 63.10030(e)(7)(iii)(B))**
 - c. From the submission of the request until start of the next reporting period after receipt of written acknowledgement from the Administrator of the switch, the permittee shall demonstrate compliance with both

the mass per heat input and mass per gross output emission limits for each pollutant for each emission unit or emissions averaging group. **(40 CFR 63.10030(e)(7)(iii)(C))**

2. The permittee may switch from paragraph (1) of the definition of “startup” in 40 CFR 63.10042 to paragraph (2) of the definition of “startup” (or vice-versa), provided that:
 - a. The permittee submits a request that identifies for each emission unit or emissions averaging group involved in the proposed switch both the current definition of “startup” relied on and the proposed definition the permittee plans to rely on. **(40 CFR 63.10030(e)(8)(iii)(A))**
 - b. The request arrives to the Administrator at least 30 calendar days prior to the date that the switch is proposed to occur. **(40 CFR 63.10030(e)(8)(iii)(B))**
 - c. The permittee revises and submits all other applicable plans, e.g., monitoring and emissions averaging, with the submission. **(40 CFR 63.10030(e)(8)(iii)(C))**
 - d. The permittee maintains records of all information regarding the choice of the definition of “startup”. **(40 CFR 63.10030(e)(8)(iii)(D))**
 - e. The permittee begins to use the revised definition of “startup” in the next reporting period after receipt of written acknowledgement from the Administrator of the switch. **(40 CFR 63.10030(e)(8)(iii)(E))**
3. If using a CMS to demonstrate continuous compliance with an emission limit or operating limit, the permittee must develop a site-specific monitoring plan and submit this site-specific monitoring plan, if requested, at least 60 days before the initial performance evaluation (where applicable) of the CMS. This requirement also applies to the permittee if the permittee petitions the Administrator for alternative monitoring parameters under 40 CFR 63.8(f). This requirement to develop and submit a site-specific monitoring plan does not apply to affected sources with existing monitoring plans that apply to CEMS and CPMS prepared under Appendix B of 40 CFR Part 60 or 40 CFR Part 75, and that meet the requirements of 40 CFR 63.10010. Using the process described in 40 CFR 63.8(f)(4), the permittee may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in this paragraph of this section and, if approved, include those in the site-specific monitoring plan. The monitoring plan must address the following provisions: **(40 CFR 63.10000(d), 40 CFR 63.10010)**
 - a. Installation of the CMS or sorbent trap monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device). See 40 CFR 63.10010(a) for further details. For PM CPMS installations, follow the procedures in 40 CFR 63.10010(h).
 - b. Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems.
 - c. Schedule for conducting initial and periodic performance evaluations.
 - d. Performance evaluation procedures and acceptance criteria (e.g., calibrations), including the quality control program in accordance with the general requirements of 40 CFR 63.8(d).
 - e. On-going operation and maintenance procedures, in accordance with the general requirements of 40 CFR 63.8(c)(1)(ii), (c)(3), and (c)(4)(ii).
 - f. Conditions that define a CMS that is out of control consistent with 40 CFR 63.8(c)(7)(i) and for responding to out of control periods consistent with 40 CFR 63.8(c)(7)(ii) and (c)(8).
 - g. On-going recordkeeping and reporting procedures, in accordance with the general requirements of 40 CFR 63.10(c), (e)(1), and (e)(2)(i), or as specifically required under 40 CFR Part 63, Subpart UUUUU.
 - h. Alternatively, the requirements are considered to be met for a particular CMS or sorbent trap monitoring system if:
 - i. The CMS or sorbent trap monitoring system is installed, certified, maintained, operated, and quality-assured either according to 40 CFR Part 75, or Appendix A or B of 40 CFR Part 63, Subpart UUUUU; and

- ii. The recordkeeping and reporting requirements of 40 CFR Part 75, or Appendix A or B of 40 CFR Part 63, Subpart UUUUU, which pertain to the CMS, are met.
- 4. If any emission unit(s) cease(s) to operate in a manner that causes the unit(s) to meet the definition of an EGU subject to 40 CFR Part 63, Subpart UUUUU, the permittee must submit the notification in 40 CFR 63.10000(i)(2) no less than 30 days prior to when the EGU will cease complying with 40 CFR Part 63, Subpart UUUUU. **(40 CFR 63.10000(i)(2), 40 CFR 63.10030(f))**
- 5. The permittee shall comply with all provisions of the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63, Subparts A and UUUUU. **(40 CFR Part 63, Subparts A and UUUUU)**

Footnotes:

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

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

Section 1 DTE Electric Company – Monroe Power Plant

ROP No: MI-ROP-B2816-2019
Expiration Date: October 16, 2024
PTI No: MI-PTI-B2816-2019

**FG-NSPS4I
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

MI R336.1285(2) exempted diesel engines, model year 2008 or later, less than 25 Hp. Engines subject to 40 CFR Part 60, Subpart IIII as non-emergency stationary combustion ignition (CI) internal combustion engines (ICE) and meet 40 CFR Part 63 Subpart ZZZZ requirements by meeting the requirements of 40 CFR Part 60 Subpart IIII.

Emission Unit: EU-NSPS4IEngines

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.40 g/KW-hr	At all times	Each unit	SC III.1	40 CFR 60.4201(a), 40 CFR 60.4204(b), 40 CFR 1039.102
2. NOx + NMHC	7.5 g/KW-hr	At all times	Each unit	SC III.1	40 CFR 60.4201(a), 40 CFR 60.4204(b), 40 CFR 1039.102
3. CO	6.6 g/KW-hr	At all times	Each unit	SC III.1	40 CFR 60.4201(a), 40 CFR 60.4204(b), 40 CFR 1039.102

II. MATERIAL LIMIT(S)

1. The permittee shall burn only diesel fuel, in each engine of FG-NSPS4I with the maximum sulfur content of 15 ppm (0.0015 percent) by weight. **(40 CFR 60.4207(b), 40 CFR 80.510(b))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall do all the following or else shall comply with the requirements of SC III.2:
 - a. Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer’s emission-related written instructions; and,
 - b. Change only those emission-related settings that are permitted by the manufacturer. **(40 CFR 60.4211(a))**
2. If permittee does not install, configure, operate, and maintain the CI internal combustion engines and control devices according to the manufacturer’s emission-related written instructions, or changes emission-related settings in a way that is not permitted by the manufacturer, the permittee shall demonstrate compliance as follows:

- a. The permittee must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and
 - b. maintain and operate the CI internal combustion engines in a manner consistent with good air pollution control practice for minimizing emissions, and
 - c. if the CI internal combustion engine and control device are not installed and configured according to the manufacturer's emission-related written instructions or changes the emission-related settings in a way that is not permitted by the manufacturer, the permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action. **(40 CFR 60.4211(g))**
3. The permittee shall operate and maintain the stationary CI ICE that achieve the emission standards as required by 40 CFR 60.4204, over the entire life of the engine. **(40 CFR 60.4206)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. If the ICE is operated in a non-certified manner, the permittee shall conduct performance tests pursuant to 40 CFR 60.4212 according to the following:
 - a. The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F.
 - b. Exhaust emissions from stationary CI internal combustion engines that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e), except as specified in 40 CFR 1039.104(d). **(40 CFR 60.4212(a) and (b))**
2. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. 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. Verification of emission rates includes the submittal of 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 336.1213(3), R336.2001(3), R 336.2001(4), R 336.2001(5))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall maintain the following information on file for each engine under FG-NSPS41: **(R 336.1213(3))**
 - a. A serial number, model number, or other unique identifier for each.
 - b. Location and brief description of process used for,
 - c. The date the unit was installed, manufactured or that it commenced operation, and date removed from site
2. The permittee shall keep, in a satisfactory manner, the following records for each engine:
 - a) For engines operated in a certified manner, the permittee shall keep engine certification documentation for each engine. **(40 CFR 60.4211(c))**
 - b) For engines operated in a non-certified manner, the permittee shall keep emissions results and records of a maintenance plan and maintenance activities for each engine. **(40 CFR 60.4211(g))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit a notification specifying any engine of FG-NSPS4I which is operated in a non-certified manner to the AQD District Supervisor, in writing, within 30 days of changing the manner of operation to non-certified. **(40 CFR Part 60.4214)**

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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

3. The permittee shall comply with all applicable provisions of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines as they apply to emission units subject to 40 CFR Part 60, Subpart IIII. **(R 336.1213(3), 40 CFR Part 60, Subparts A and IIII)**
4. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZ, for Stationary Reciprocating Internal Combustion Engines. **(40 CFR Part 63, Subparts A and ZZZZ, 40 CFR 63.6590(c)(7))**

Footnotes:

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

Section 1 DTE Electric Company – Monroe Power Plant

ROP No: MI-ROP-B2816-2019
Expiration Date: October 16, 2024
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E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii).

APPENDICES

Appendix 1-1. Abbreviations and Acronyms

The following is an alphabetical listing of abbreviations/acronyms that may be used in this permit.

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO ₂ e	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/ department	Michigan Department of Environment, Great Lakes, and Energy	°F	Degrees Fahrenheit
EU	Emission Unit	gr	Grains
FG	Flexible Group	HAP	Hazardous Air Pollutant
GACS	Gallons of Applied Coating Solids	Hg	Mercury
GC	General Condition	hr	Hour
GHGs	Greenhouse Gases	HP	Horsepower
HVLP	High Volume Low Pressure*	H ₂ S	Hydrogen Sulfide
ID	Identification	kW	Kilowatt
IRSL	Initial Risk Screening Level	lb	Pound
ITSL	Initial Threshold Screening Level	m	Meter
LAER	Lowest Achievable Emission Rate	mg	Milligram
MACT	Maximum Achievable Control Technology	mm	Millimeter
MAERS	Michigan Air Emissions Reporting System	MM	Million
MAP	Malfunction Abatement Plan	MW	Megawatts
EGLE	Michigan Department of Environment, Great Lakes, and Energy	NMOC	Non-methane Organic Compounds
MSDS	Material Safety Data Sheet	NO _x	Oxides of Nitrogen
NA	Not Applicable	ng	Nanogram
NAAQS	National Ambient Air Quality Standards	PM	Particulate Matter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM10	Particulate Matter equal to or less than 10 microns in diameter
NSPS	New Source Performance Standards	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSR	New Source Review	pph	Pounds per hour
PS	Performance Specification	ppm	Parts per million
PSD	Prevention of Significant Deterioration	ppmv	Parts per million by volume
PTE	Permanent Total Enclosure	ppmw	Parts per million by weight
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonable Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO ₂	Sulfur Dioxide
SNCR	Selective Non-Catalytic Reduction	TAC	Toxic Air Contaminant
SRN	State Registration Number	Temp	Temperature
TEQ	Toxicity Equivalence Quotient	THC	Total Hydrocarbons
USEPA/EPA	United States Environmental Protection Agency	tpy	Tons per year
VE	Visible Emissions	µg	Microgram
		µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
		yr	Year

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 pounds per square inch gauge (psig).

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

Commented [ADT38]: Appendix added from PTI 8-22.

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_x, SO₂, 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. §§ 7401-7671g, 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_x 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 the 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 of the Consent Decree (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 SO₂ 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_x 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_x 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_x" 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_x Allowance" means an authorization to emit a specified amount of NO_x 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_x 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. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 4(qq))**
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(ji))**
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_x 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. "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))
50. "SCR" or "Selective Catalytic Reduction" means an air pollution control device for reducing NO_x emissions in which ammonia ("NH₃") is added to the flue gas and then passed through layers of a catalyst material. The ammonia and NO_x in the flue gas stream react on the surface of the catalyst, forming nitrogen ("N₂") 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))
51. "SO₂" 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))
52. "SO₂ Allowance" means an authorization to emit a specified amount of SO₂ 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 "SO₂ 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))
53. "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))
54. "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))
55. "Surrender" or "Surrender of Allowances" means, for purposes of SO₂ and NO_x 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))
56. "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))
57. "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))
58. "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))
59. "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))
60. "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 2-1. Schedule of Compliance

The permittee certified in this ROP application that this stationary source is in compliance with all applicable requirements of this ROP except for the following: EU-LIMESTONE and EU-HYDRATEDLIME. As a result, the

permittee was required to submit a Schedule of Compliance as defined in Rule 119(a), pursuant to Rule 210(2) and Rule 213(4).

A Schedule of Compliance for any applicable requirements that the permittee is not in compliance with at the time of the ROP issuance is supplemental to, and shall not sanction non-compliance with, the underlying applicable requirements on which it is based.

The permittee has completed the Schedule of Compliance prior to the start of the public comment period. The permittee at this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is no longer required. (R 336.1213(4)(a), R 336.1119(a)(ii))

Appendix 3-1. Monitoring Requirements

3-1-A. The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in EU-UNIT1, EU-UNIT2, EU-UNIT3 and EU-UNIT4.

**NOx, 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
NOx/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).

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))

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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 in each calendar quarter, 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% CO₂) will be applied to the PM rate data for any hours where the measured CO₂ 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

Commented [ADT40]: Appendix added from PTI 8-22.

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.

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Appendix 4-1. Recordkeeping

The permittee shall use the following approved formats and procedures for the recordkeeping requirements referenced in FG-ProjectPC1-4. Alternative formats must be approved by the AQD District Supervisor.

Recordkeeping Provisions for a Nonattainment Source Using Actual-to-Projected-Actual Applicability Test

All information in this appendix shall be maintained pursuant to R 336.2902 and 40 CFR Part 51, Appendix S for ten years after the modification, and shall be made available to the Department upon request.

1. Project Description:

The project is to increase the capacity to use subbituminous coal and add petroleum coke to provide additional fuels for EU-UNIT1, EU-UNIT2, EU-UNIT3 and EU-UNIT4; installation of four (4) wet FGD quench pumps (EU-WFGD-QP1, EU-WFGD-QP2, EU-WFGD-QP3, and EU-WFGD-QP4); modifications to the fuel handling systems (EU-CASCADES, EU-TRANSFERHS, EU-DUMPERHS, EU-COALUNLOAD, and EU-CRUSHERHS); the installation of new material handling systems for limestone and gypsum (EU-LIMESTONE, EU-GYPSUMHAND, and EU-HYDRATEDLIME); and the installation of a new fuel handling system for petroleum coke (EU-PETCOKE).

2. Applicability Test Description:

Minor modifications are not subject to nonattainment. The actual-to-projected-actual hybrid applicability test as described in the table below was used to demonstrate that nonattainment does not apply to these modifications.

3. Emission Projections:

Emission Unit/Flexible Group ID	Pollutant	Emissions (tpy)			Reason for Exclusion
		Baseline Actual Emissions (tpy)	Projected Actual Emissions (tpy)	Excluded Emissions (tpy)	
FG-ProjectPC1-4	PM2.5	5,315	2,730	381	FG-ProjectPC1-4 was capable of accommodating emissions up to 381 tpy. There is no projected emissions increase, therefore the project is less than the significant level of 10 tpy.
FG-ProjectPC1-4	SO ₂	117,940	11,753	1,757	FG-ProjectPC1-4 was capable of accommodating emissions up to 1,757 tpy. There is no projected emissions increase, therefore the project is less than the significant level of 40 tpy.

Appendix 5-1. Testing Procedures

There are no specific testing requirement plans or procedures for this ROP. Therefore, this appendix is not applicable.

Appendix 6-1. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-B2816-2009. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No MI-PTI-B2816-2009a is being reissued as Source-Wide PTI No. MI-PTI-B2816-2019.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
NA	201100075	Correction of typographical errors.	NA
27-13A	NA	Installation of pollution control equipment on Units 1 through 4, installation of quench pumps for each stack, upgrades to coal handling equipment, installation of limestone handling, gypsum handling, and pet coke handling systems, and installation of storage silos for hydrated lime.	EU-UNIT1, EU-UNIT2, EU-UNIT3, EU-UNIT4, EU-WFGD-QP1, EU-WFGD-QP2, EU-WFGD-QP3, EU-WFGD-QP4, EU-CASCADES, EU-TRANSFERHS, EU-DUMPERHS, EU-COALUNLOAD, EU-CRUSHERHS, EU-PETCOKE, EU-LIMESTONE, EU-GYPSUMHAND, EU-HYDRATEDLIME
27-13B	NA	Limits usage of each auxiliary boiler to meet the "limited-use boiler or process boiler" to meet the definition under 40 CFR 63.7575	EU-NORTHAUX, EU-SOUTHUX, FGAUXBOILERS
27-13C	201900017*	Incorporating the conditions of EPA Consent Decree EPA-5-2018-113(a)-MI-07 for Units 1 through 4.	EU-UNIT1, EU-UNIT2, EU-UNIT3, EU-UNIT4
178-08	NA	A flyash storage and transfer facility	EU-FlyAshStorage

Appendix 7-1. Emission Calculations

There are no specific emission calculations to be used for this ROP. Therefore, this appendix is not applicable.

Appendix 8-1. Reporting

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.

B. Other Reporting

Specific reporting requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, Part B of this appendix is not applicable.

Reporting requirements per "U.S. v DTE Energy and Detroit Edison Company, Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, 2020" paragraph 48

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 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. DTE 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). The report shall include the following information:

a) All information necessary to determine compliance during the reporting period with the requirements of paragraphs 9-22 of the Consent Decree concerning emissions and monitoring and surrender of Allowances. This information includes but is not limited to

(1) spreadsheets of all 30-Day Rolling Average Emission Rates and 24-Hour Rolling Average Emission Rates for EU-UNIT1 through EU-UNIT4,

(2) a list of any notifications associated with the retrofit, refuel, or repower options as specified in Appendix 2-BR (Consent Decree paragraph 8),

(3) total System-Wide Annual NO_x and SO₂ tonnages for the calendar year, and

(4) specific calculations demonstrating the basis and specific amounts of NO_x and SO₂ Allowances to be Surrendered as specified in Appendix 11-1-B SC8;

b) All period of PM CEMS malfunction, maintenance, and/or repair as provided in paragraph 25 of the Consent Decree;

c) All information relating to super-compliant NO_x and SO₂ Allowances that DTE claims to have generated in accordance with Appendix 11-1-B of this permit (requirements of paragraph 19 of the Consent Decree), including a detailed description of the basis for such claim and the specific amount of supercompliant NO_x and SO₂ Allowances claimed at each Unit; and

d) An identification of all period when any pollution control device (FGD system, SCR system and ESPs) required by the Consent Decree was not Continuously Operated while the associated boiler was in operation, the reason(s) for the equipment not being Continuously Operated, and the basis for DTE's compliance or non-compliance with the Continuous Operation requirements of the Consent Decree.

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" paragraphs 8-22 and 48.

2. In any periodic report submitted pursuant to the Periodic Reporting requirements found in Section IX of the Consent Decree, DTE may incorporate by reference information previously submitted under their Title V permitting requirements, provided that DTE attaches the Title V Permit report (or the pertinent portions of such report) and provide a specific reference to the provisions of the Title V Permit report that are responsive to the information required in the periodic report. (R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 49)

3. If DTE violates or deviates from any provision of the Consent Decree, DTE shall submit a report of any violation or deviation from any provision of the Consent Decree within 10 business days after DTE knew or should have

known of the event. In the report, DTE shall explain the cause or causes of the violation or deviation and all measures taken or to be taken by DTE to cure the reported violation or deviation or to prevent such violations or deviations in the future. If at any time the provisions of the Consent Decree are included in Title V Permits, consistent with the requirements for such inclusion in the Consent Decree, then the deviation reports required under applicable Title V regulations shall be deemed to satisfy the Consent Decree requirement. (R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 50)

4. Each report required by the Consent Decree shall be signed by the Responsible Official as defined in Title V of the Clean Air Act for the appropriate System Unit(s), and shall contain the following certification: "This information was prepared either by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my evaluation, or the direction and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, I hereby certify under penalty of law that, to the best of my knowledge and belief, this information is true, accurate, and complete. I understand that there are significant penalties for submitting false, inaccurate, or incomplete information to the United States." (R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 51)
5. Unless otherwise provided herein, whenever notifications, submissions, or communications are required by the Consent Decree, they shall be made in both paper and electronic format to the addresses identified in paragraph 99 of the Consent Decree unless otherwise superseded. Electronic submittals shall not be the only form of notification, submission, or communication unless agreed upon by both the submitting and receiving Parties. (R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 99)
6. All paper notifications, communications, or submissions made pursuant to the Consent Decree shall be sent either by: (a) overnight mail or overnight delivery service with signature required for delivery or (b) certified or registered mail, return receipt requested. All notifications, communications, and transmissions (a) sent by overnight, certified, or registered mail shall be deemed submitted on the date they are postmarked, or (b) sent by overnight delivery service shall be deemed submitted on the date they are delivered to the delivery service. (R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 101)

Appendix 9-1. Acid Rain Permit



Michigan Department of Environment, Great Lakes, and Energy
Air Quality Division

**PHASE II ACID RAIN PERMIT
Permit No. MI-AR-1733-2019**

Permittee Monroe Power Plant
Address 3500 Front Street, Monroe, MI
SRN B2816
ORIS code 1733
Issue Date October 16, 2019
Effective: Issuance date of this facility's Renewable Operating Permit at
the facility in accordance with 40 CFR 72.73.
Expiration This permit shall expire when the facility's Renewable
Operating Permit expires, in accordance with 40 CFR 72.73.
ROP No. MI-ROP-B2816-2019

The Acid Rain Permit Contents

1. A statement of basis prepared by the Air Quality Division (AQD) containing:

References to statutory and regulatory authorities, and with comments, notes, and justification that apply to the source in general;
2. Terms and conditions including:

A table of sulfur dioxide allowances to be allocated during the term of the permit, if applicable, authorized by this permit during Phase II. Unless they are subject to sections 405(g)(2) or (3) of the Clean Air Act, new units are not allocated allowances in 40 CFR part 73 and must obtain allowances by other means (sec. 403(e) of the Clean Air Act).;

Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements; and,

Any applicable nitrogen oxides compliance plan. Unless they are coal fired utility units regulated pursuant to sections 404, 405, or 409 of the Clean Air Act, new units are not subject to the acid rain nitrogen oxides requirements [40 CFR 76.1(a)].
3. The permit application that this source submitted, as corrected by the AQD. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the application.

Section 1 DTE Electric Company – Monroe Power Plant

ROP No: MI-ROP-B2816-2019
Expiration Date: October 16, 2024
PTI No: MI-PTI-B2816-2019

Statement of Basis

Statutory and Regulatory Authorities.

In accordance with the Natural Resources and Environmental Protection Act, 1994 PA 451 and Titles IV and V of the Clean Air Act, the Michigan Department of Environment, Great Lakes, and Energy, Air Quality Division (AQD), issues this permit pursuant to the provisions of R 336.1210 to R 336.1218, and R 336.1299(d).

For further information contact:

Mr. Brian Carley
Environmental Quality Specialist
Michigan Department of Environment, Great Lakes, and Energy
Air Quality Division, Jackson District Office
State Office Building, 4th Floor
301 East Louis B. Glick Highway
Jackson, Michigan 49201-1556
Telephone: 517-416-4631
Facsimile: 517-780-7855

There are no comments, notes and/or justification that apply to the source in general for this section.

Terms and Conditions:

Phase II Sulfur Dioxide Allowance Allocation and Nitrogen Oxides Requirements for each affected unit.

		2019	2020	2021	2022	2023
Unit 1	SO ₂ allowances	23,882	23,882	23,882	23,882	23,882
	NO _x limit	<p>NO_x limit Pursuant to 40 CFR 76.11, the State of Michigan Department of Environment, Great Lakes, and Energy, Air Quality Division approves a NO_x emissions averaging plan for this unit, effective from January 1, 2019. Under the plan, this unit's NO_x emissions shall not exceed the annual average alternative contemporaneous emission limitation of 0.10 lb/mmBtu. In addition, this unit shall not have an annual heat input less than 39,094,000 mmBtu.</p> <p>Under the plan, the actual Btu-weighted annual average NO_x emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average NO_x emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7, except that for any early election units, the applicable emission limitations shall be under 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emission limitation and annual heat input limit.</p> <p>In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NO_x compliance plan and requirements covering excess emissions.</p>				

Terms and Conditions: (continued)

		2019	2020	2021	2022	2023
Unit 2	SO ₂ allowances	24,785	24,785	24,785	24,785	24,785
	NO _x limit	<p>NO_x limit Pursuant to 40 CFR 76.11, the State of Michigan Department of Environment, Great Lakes, and Energy, Air Quality Division approves a NO_x emissions averaging plan for this unit, effective from January 1, 2019. Under the plan, this unit's NO_x emissions shall not exceed the annual average alternative contemporaneous emission limitation of 0.10 lb/mmBtu. In addition, this unit shall not have an annual heat input less than 50,700,000 mmBtu.</p> <p>Under the plan, the actual Btu-weighted annual average NO_x emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average NO_x emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7, except that for any early election units, the applicable emission limitations shall be under 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emission limitation and annual heat input limit.</p> <p>In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NO_x compliance plan and requirements covering excess emissions.</p>				

Terms and Conditions: (continued)

		2019	2020	2021	2022	2023
Unit 3	SO ₂ allowances	23,200	23,200	23,200	23,200	23,200
	NO _x limit	<p>NO_x limit Pursuant to 40 CFR 76.11, the State of Michigan Department of Environment, Great Lakes, and Energy, Air Quality Division approves a NO_x emissions averaging plan for this unit, effective from January 1, 2019. Under the plan, this unit's NO_x emissions shall not exceed the annual average alternative contemporaneous emission limitation of 0.10 lb/mmBtu. In addition, this unit shall not have an annual heat input less than 54,404,000 mmBtu.</p> <p>Under the plan, the actual Btu-weighted annual average NO_x emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average NO_x emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7, except that for any early election units, the applicable emission limitations shall be under 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emission limitation and annual heat input limit.</p> <p>In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NO_x compliance plan and requirements covering excess emissions.</p>				

Terms and Conditions: (continued)

		2019	2020	2021	2022	2023
Unit 4	SO ₂ allowances	25,478	25,478	25,478	25,478	25,478
	NO _x limit	<p>NO_x limit Pursuant to 40 CFR 76.11, the State of Michigan Department of Environment, Great Lakes, and Energy, Air Quality Division approves a NO_x emissions averaging plan for this unit, effective from January 1, 2019. Under the plan, this unit's NO_x emissions shall not exceed the annual average alternative contemporaneous emission limitation of 0.10 lb/mmBtu. In addition, this unit shall not have an annual heat input less than 54,418,000 mmBtu.</p> <p>Under the plan, the actual Btu-weighted annual average NO_x emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average NO_x emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7, except that for any early election units, the applicable emission limitations shall be under 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emission limitation and annual heat input limit.</p> <p>In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NO_x compliance plan and requirements covering excess emissions.</p>				

Comments, notes and justifications regarding permit decisions, and changes made to the permit application forms during the review process: None.

Permit Application: (attached)

Acid Rain Permit Application submitted March 11, 2014
Phase II NO_x Compliance Plan submitted March 11, 2014
Phase II NO_x Averaging Plan submitted March 11, 2014; revised June 10, 2019

Facility (Source) Name (from STEP 1) **Monroe Power Plant**

Acid Rain - Page 2

Permit Requirements

STEP 3

Read the standard requirements.

- (1) The designated representative of each affected source and each affected unit at the source shall:
 - (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
 - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each affected source and each affected unit at the source shall:
 - (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
 - (ii) Have an Acid Rain Permit.

Monitoring Requirements

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements

- (1) The owners and operators of each source and each affected unit at the source shall:
 - (i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
 - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
 - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).

Facility (Source) Name (from STEP 1) Monroe Power Plant

Sulfur Dioxide Requirements, Cont'd.

STEP 3, Cont'd.

- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements

The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements

- (1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an affected source that has excess emissions in any calendar year shall:
 - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
 - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
 - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;

Facility (Source) Name (from STEP 1) Monroe Power Plant

Acid Rain - Page 4

Recordkeeping and Reporting Requirements, Cont'd.

STEP 3, Cont'd.

- (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
 - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
- (6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating

Acid Rain - Page 5

Facility (Source) Name (from STEP 1) **Monroe Power Plant**

Effect on Other Authorities, Cont'd.


STEP 3, Cont'd.

to applicable National Ambient Air Quality Standards or State Implementation Plans;
(2) Limiting the number of allowances a source can hold; *provided*, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;
(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

Certification

STEP 4
Read the certification statement, sign, and date.

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Franklin D. Warren, Vice President - Fossil Generation	
Signature 	Date 1-28-2014



United States
 Environmental Protection Agency
 Acid Rain Program

OMB No. 2060-0258
 Approval expires 11/30/2012

Phase II NO_x Compliance Plan

For more information, see instructions and refer to 40 CFR 76.9

Page **1** of **2**

This submission is: New Revised

STEP 1
 Indicate plant name, State, and CRIS code from NADB, if applicable

Plant Name MONROE POWER PLANT	State MI	ORIS Code 1733
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STEP 2

Identify each affected Group 1 and Group 2 boiler using the boiler ID# from NADB, if applicable. Indicate boiler type: "CB" for cell burner, "CY" for cyclone, "DBW" for dry bottom wall-fired, "T" for tangentially fired, "V" for vertically fired, and "WB" for wet bottom. Indicate the compliance option selected for each unit.

	ID# 1 Type CB	ID# 2 Type CB	ID# 3 Type CB	ID# 4 Type CB	ID# Type	ID# Type
(a) Standard annual average emission limitation of 0.69 lb/mmBtu (for Phase I dry bottom wall-fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Standard annual average emission limitation of 0.45 lb/mmBtu (for Phase I tangentially fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) EPA-approved early election plan under 40 CFR 76.8 through 129.107 (also indicate above emission limit specified in plan)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d) Standard annual average emission limitation of 0.46 lb/mmBtu (for Phase II dry bottom wall-fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e) Standard annual average emission limitation of 0.40 lb/mmBtu (for Phase II tangentially fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(f) Standard annual average emission limitation of 0.68 lb/mmBtu (for cell burner boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(g) Standard annual average emission limitation of 0.86 lb/mmBtu (for cyclone boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(h) Standard annual average emission limitation of 0.80 lb/mmBtu (for vertically fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(i) Standard annual average emission limitation of 0.34 lb/mmBtu (for wet bottom boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(j) NO _x Averaging Plan (include NO _x Averaging form)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(k) Common stack pursuant to 40 CFR 76.17(a)(2)(i)(A) (check the standard emission limitation box above for most stringent limitation applicable to any unit utilizing stack)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(l) Common stack pursuant to 40 CFR 76.17(a)(2)(i)(B) with NO _x Averaging (check the NO _x Averaging Plan box and include NO _x Averaging form)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

EPA Form 7610-26 (Revised 12-2009)

Plant Name (from Step 1) **MONROE POWER PLANT**

NO_x Compliance - Page 2
 Page **2** of **2**

STEP 2, cont'd.

	ID# 1 Type CB	ID# 2 Type CB	ID# 3 Type CB	ID# 4 Type CB	ID# Type	ID# Type
(m) EPA-approved common stack apportionment method pursuant to 40 CFR 76.17(a)(2)(i)(C), (a)(2)(ii)(B), or (b)(2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(n) AEL (Include Phase II AEL Demonstration Period, Final AEL Petition, or AEL Renewal form as appropriate)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(o) Petition for AEL demonstration period or final AEL under review by U.S. EPA or demonstration period ongoing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(p) Repowering extension plan approved or under review	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

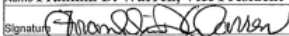
STEP 3
 Read the standard requirements and certification, enter the name of the designated representative, sign &

Standard Requirements
General. This source is subject to the standard requirements in 40 CFR 72.9 (consistent with 40 CFR 76.8(e)(1)(i)). These requirements are listed in this source's Acid Rain Permit.

Special Provisions for Early Election Units
Nitrogen Oxides. A unit that is governed by an approved early election plan shall be subject to an emissions limitation for NO_x as provided under 40 CFR 76.8(a)(2) except as provided under 40 CFR 76.8(e)(3)(ii).
Liability. The owners and operators of a unit governed by an approved early election plan shall be liable for any violation of the plan or 40 CFR 76.8 at that unit. The owners and operators shall be liable, beginning January 1, 2000, for fulfilling the obligations specified in 40 CFR Part 77.
Termination. An approved early election plan shall be in effect only until the earlier of January 1, 2008 or January 1 of the calendar year for which a termination of the plan takes effect. If the designated representative of the unit under an approved early election plan fails to demonstrate compliance with the applicable emissions limitation under 40 CFR 76.5 for any year during the period beginning January 1 of the first year the early election takes effect and ending December 31, 2007, the permitting authority will terminate the plan. The termination will take effect beginning January 1 of the year after the year for which there is a failure to demonstrate compliance, and the designated representative may not submit a new early election plan. The designated representative of the unit under an approved early election plan may terminate the plan any year prior to 2008 but may not submit a new early election plan. In order to terminate the plan, the designated representative must submit a notice under 40 CFR 72.40(d) by January 1 of the year for which the termination is to take effect. If an early election plan is terminated any year prior to 2000, the unit shall meet, beginning January 1, 2000, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 76.7. If an early election plan is terminated on or after 2000, the unit shall meet, beginning on the effective date of the termination, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 76.7.

Certification
 I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name **Franklin D. Warren, Vice President - Fossil Generation**

Signature  Date **1-28-2014**



United States Environmental Protection Agency OMB No. 2060-0258
 Acid Rain Program Approval expires 11/30/2018

Acid Rain NO_x Averaging Plan

For more information, see instructions and refer to 40CFR 76.11 Page 1

This submission is: New Revised Page 1 of 2

STEP 1

Identify the units participating in this averaging plan by plant name, State, and unit ID. In column (a), fill in each unit's applicable emission limitation from 40 CFR 76.5, 76.6, or 76.7. In column (b), assign an alternative contemporaneous annual emissions limitation (ACEL) in lb/mmBtu to each unit. In column (c), assign an annual heat input limitation in mmBtu to each unit. Continue to page 3 if necessary.

Plant Name	State	Unit ID#	(a) Emission Limitation	(b) ACEL	(c) Annual Heat Input Limit
Belle River 6034	MI	1	0.46	0.27	47,540,000
Belle River 6034	MI	2	0.46	0.27	42,597,000
MONROE 1733	MI	1	0.68	0.10	39,094,000
MONROE 1734	MI	2	0.68	0.10	50,700,000
MONROE 1735	MI	3	0.68	0.10	54,404,000
MONROE 1736	MI	4	0.68	0.10	54,418,000
River Rouge 1740	MI	3	0.46	0.54	19,201,000
ST CLAIR 1743	MI	1	0.46	0.50	11,366,000
ST CLAIR 1743	MI	2	0.46	0.50	10,469,000
ST CLAIR 1743	MI	3	0.46	0.50	11,782,000
ST CLAIR 1743	MI	6	0.40	0.25	16,877,000
ST CLAIR 1743	MI	7	0.40	0.25	30,308,000
Trenton Channel 1745	MI	9A	0.40	0.24	23,621,000

STEP 2

Use the formula to enter the Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan and the Btu-weighted annual average emission rate for the same units if they are operated in compliance with 40 CFR 76.5, 76.6, or 76.7. The former must be less than or equal to the latter.

Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan

0.22

$$\frac{\sum_{i=1}^n (R_{ui} \times HI_i)}{\sum_{i=1}^n HI_i}$$

Btu-weighted annual average emission rate for same units operated in compliance with 40 CFR 76.5, 76.6 or 76.7

0.56

$$\frac{\sum_{i=1}^n [R_{li} \times HI_i]}{\sum_{i=1}^n HI_i}$$

≤

Where,

- R_{ui} = Alternative contemporaneous annual emission limitation for unit i, in lb/mmBtu, as specified in column (b) of Step 1;
- R_{li} = Applicable emission limitation for unit i, in lb/mmBtu, as specified in column (a) of Step 1;
- HI_i = Annual heat input for unit i, in mmBtu, as specified in column (c) of Step 1;
- n = Number of units in the averaging plan

Plant Name (from Step 1) **DTE Energy Electric**

NOx Averaging - Page 2

STEP 3

Identify the first calendar year in which this plan will apply.

January 1, **2019**

STEP 4

Read the special provisions and certification, enter the name of the designated representative, and sign and date.

Special Provisions

Emission Limitations

Each affected unit in an approved averaging plan is in compliance with the Acid Rain emission limitation for NOx under the plan only if the following requirements are met:

- (i) For each unit, the unit's actual annual average emission rate for the calendar year, in lb/mmBtu, is less than or equal to its alternative contemporaneous annual emission limitation in the averaging plan, and
- (a) For each unit with an alternative contemporaneous emission limitation less stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year does not exceed the annual heat input limit in the averaging plan,
- (b) For each unit with an alternative contemporaneous emission limitation more stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year is not less than the annual heat input limit in the averaging plan, or
- (ii) If one or more of the units does not meet the requirements of (i), the designated representative shall demonstrate, in accordance with 40 CFR 76.11(d)(1)(ii)(A) and (B), that the actual Btu-weighted annual average emission rate for the units in the plan is less than or equal to the Btu-weighted annual average rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations in 40 CFR 76.5, 76.6, or 76.7.
- (iii) If there is a successful group showing of compliance under 40 CFR 76.11(d)(1)(ii)(A) and (B) for a calendar year, then all units in the averaging plan shall be deemed to be in compliance for that year with their alternative contemporaneous emission limitations and annual heat input limits under (i).

Liability

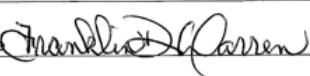
The owners and operators of a unit governed by an approved averaging plan shall be liable for any violation of the plan or this section at that unit or any other unit in the plan, including liability for fulfilling the obligations specified in part 77 of this chapter and sections 113 and 411 of the Act.

Termination

The designated representative may submit a notification to terminate an approved averaging plan, in accordance with 40 CFR 72.40(d), no later than October 1 of the calendar year for which the plan is to be terminated.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Franklin D. Warren, Designated Representative	
Signature 	Date 6-6-19

Appendix 10-1. Cross State Air Pollution Rule (CSAPR) Trading Program Title V Requirements

Description of CSAPR Monitoring Provisions

The CSAPR subject units, and the unit-specific monitoring provisions, at this source are identified in the following tables. These units are subject to the requirements for the CSAPR NO_x Annual Trading Program, CSAPR NO_x Ozone Season Group 2 Trading Program, and CSAPR SO₂ Group 1 Trading Program, which are included below as Sections I, II, and III, respectively.

Each unit will use one of the following as the monitoring methodology for each parameter as provided below and shall comply with the general monitoring, recordkeeping, reporting and other requirements in conditions 1 through 5 below and in paragraph (b) of Sections I, II, and III:

- Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR Part 75, Subpart B (for SO₂ monitoring) or 40 CFR Part 75, Subpart H (for NO_x monitoring)
- Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR Part 75, Appendix D
- Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR Part 75, Appendix E
- Low Mass Emissions excepted monitoring (LME) requirements for gas- and oil-fired units pursuant to 40 CFR 75.19
- EPA-approved alternative monitoring system requirements pursuant to 40 CFR Part 75, Subpart E

Unit ID: 1	
Parameter	Monitoring Methodology
SO ₂	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR Part 75, Subpart B
NO _x	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR Part 75, Subpart H
Heat Input	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR Part 75, Subpart B (for SO ₂ monitoring) and 40 CFR Part 75, Subpart H (for NO _x monitoring)

Unit ID: 2	
Parameter	Monitoring Methodology
SO ₂	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR Part 75, Subpart B
NO _x	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR Part 75, Subpart H
Heat Input	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR Part 75, Subpart B (for SO ₂ monitoring) and 40 CFR Part 75, Subpart H (for NO _x monitoring)

Unit ID: 3	
Parameter	Monitoring Methodology
SO ₂	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR Part 75, Subpart B
NO _x	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR Part 75, Subpart H
Heat Input	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR Part 75, Subpart B (for SO ₂ monitoring) and 40 CFR Part 75, Subpart H (for NO _x monitoring)

Unit ID: 4	
Parameter	Monitoring Methodology
SO ₂	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR Part 75, Subpart B
NO _x	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR Part 75, Subpart H

Heat Input	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR Part 75, Subpart B (for SO ₂ monitoring) and 40 CFR Part 75, Subpart H (for NO _x monitoring)
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- The above description of the monitoring used by a unit does not change, create an exemption from, or otherwise affect the monitoring, recordkeeping, and reporting requirements applicable to the unit under 40 CFR 97.430 through 97.435 (CSAPR NO_x Annual Trading Program), 97.830 through 97.835 (CSAPR NO_x Ozone Season Group 2 Trading Program), and 97.630 through 97.635 (CSAPR SO₂ Group 1 Trading Program). The monitoring, recordkeeping and reporting requirements applicable to each unit are included below in the standard conditions for the applicable CSAPR trading programs.
- Owners and operators must submit to the Administrator a monitoring plan for each unit in accordance with 40 CFR 75.53, 75.62 and 75.73, as applicable. The monitoring plan for each unit is available at the EPA's website at <http://www.epa.gov/airmarkets/emissions/monitoringplans.html>.
- Owners and operators that want to use an alternative monitoring system must submit to the Administrator a petition requesting approval of the alternative monitoring system in accordance with 40 CFR Part 75, Subpart E and 40 CFR 75.66 and 97.435 (CSAPR NO_x Annual Trading Program), 97.835 (CSAPR NO_x Ozone Season Group 2 Trading Program), and/or 97.635 (CSAPR SO₂ Group 1 Trading Program). The Administrator's response approving or disapproving any petition for an alternative monitoring system is available on the EPA's website at <http://www.epa.gov/airmarkets/emissions/petitions.html>.
- Owners and operators that want to use an alternative to any monitoring, recordkeeping, or reporting requirement under 40 CFR 97.430 through 97.434 (CSAPR NO_x Annual Trading Program), 97.830 through 97.834 (CSAPR NO_x Ozone Season Group 2 Trading Program), and/or 97.630 through 97.634 (CSAPR SO₂ Group 1 Trading Program) must submit to the Administrator a petition requesting approval of the alternative in accordance with 40 CFR 75.66 and 97.435 (CSAPR NO_x Annual Trading Program), 97.835 (CSAPR NO_x Ozone Season Group 2 Trading Program), and/or 97.635 (CSAPR SO₂ Group 1 Trading Program). The Administrator's response approving or disapproving any petition for an alternative to a monitoring, recordkeeping, or reporting requirement is available on the EPA's website at <http://www.epa.gov/airmarkets/emissions/petitions.html>.
- The descriptions of monitoring applicable to the unit included above meet the requirement of 40 CFR 97.430 through 97.434 (CSAPR NO_x Annual Trading Program), 97.830 through 97.834 (CSAPR NO_x Ozone Season Group 2 Trading Program), and 97.630 through 97.634 (CSAPR SO₂ Group 1 Trading Program), and therefore minor permit modification procedures, in accordance with 40 CFR 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B), may be used to add or change this unit's monitoring system description.

SECTION I: CSAPR NO_x Annual Trading Program requirements (40 CFR 97.406)

(a) Designated representative requirements.

The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.413 through 97.418.

(b) Emissions monitoring, reporting, and recordkeeping requirements.

- The owners and operators, and the designated representative, of each CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.430 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.431 (initial monitoring system certification and recertification procedures), 97.432 (monitoring system out-of-control periods), 97.433 (notifications concerning monitoring), 97.434 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.435 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).
- The emissions data determined in accordance with 40 CFR 97.430 through 97.435 shall be used to calculate allocations of CSAPR NO_x Annual allowances under 40 CFR 97.411(a)(2) and (b) and 97.412 and to determine compliance with the CSAPR NO_x Annual emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.430

through 97.435 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

(c) NO_x emissions requirements.

- (1) CSAPR NO_x Annual emissions limitation.
 - (i). As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall hold, in the source's compliance account, CSAPR NO_x Annual allowances available for deduction for such control period under 40 CFR 97.424(a) in an amount not less than the tons of total NO_x emissions for such control period from all CSAPR NO_x Annual units at the source.
 - (ii). If total NO_x emissions during a control period in a given year from the CSAPR NO_x Annual units at a CSAPR NO_x Annual source are in excess of the CSAPR NO_x Annual emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - (A). The owners and operators of the source and each CSAPR NO_x Annual unit at the source shall hold the CSAPR NO_x Annual allowances required for deduction under 40 CFR 97.424(d); and
 - (B). The owners and operators of the source and each CSAPR NO_x Annual unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 97, Subpart AAAAA and the Clean Air Act.
- (2) CSAPR NO_x Annual assurance provisions.
 - (i). If total NO_x emissions during a control period in a given year from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the state and Indian country within the borders of such State exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_x emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR NO_x Annual allowances available for deduction for such control period under 40 CFR 97.425(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.425(b), of multiplying— (A) The quotient of the amount by which the common designated representative's share of such NO_x emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state and Indian country within the borders of such state for such control period, by which each common designated representative's share of such NO_x emissions exceeds the respective common designated representative's assurance level; and (B) The amount by which total NO_x emissions from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the state and Indian country within the borders of such state for such control period exceed the state assurance level.
 - (ii). The owners and operators shall hold the CSAPR NO_x Annual allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
 - (iii). Total NO_x emissions from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the State and Indian country within the borders of such state during a control period in a given year exceed the state assurance level if such total NO_x emissions exceed the sum, for such control period, of the state NO_x Annual trading budget under 40 CFR 97.410(a) and the state's variability limit under 40 CFR 97.410(b).
 - (iv). It shall not be a violation of 40 CFR Part 97, Subpart AAAAA or of the Clean Air Act if total NO_x emissions from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the State and Indian country within the borders of such State during a control period exceed the state assurance level or if a common designated representative's share of total NO_x emissions from the CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the state and Indian country within the borders of such state during a control period exceeds the common designated representative's assurance level.
 - (v). To the extent the owners and operators fail to hold CSAPR NO_x Annual allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
 - (A). The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and

(B). Each CSAPR NO_x Annual allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR Part 97, Subpart AAAAA and the Clean Air Act.

(3) Compliance periods.

- (i). A CSAPR NO_x Annual unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of January 1, 2015, or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.430(b) and for each control period thereafter.
- (ii). A CSAPR NO_x Annual unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.430(b) and for each control period thereafter.

(4) Vintage of allowances held for compliance.

- (i). A CSAPR NO_x Annual allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a CSAPR NO_x Annual allowance that was allocated for such control period or a control period in a prior year.
- (ii). A CSAPR NO_x Annual allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a CSAPR NO_x Annual allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.

(5) Allowance Management System requirements. Each CSAPR NO_x Annual allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR Part 97, Subpart AAAAA.

(6) Limited authorization. A CSAPR NO_x Annual allowance is a limited authorization to emit one ton of NO_x during the control period in one year. Such authorization is limited in its use and duration as follows:

- (i). Such authorization shall only be used in accordance with the CSAPR NO_x Annual Trading Program; and
- (ii). Notwithstanding any other provision of 40 CFR Part 97, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.

(7) Property right. A CSAPR NO_x Annual allowance does not constitute a property right.

(d) Title V permit revision requirements.

- (1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR NO_x Annual allowances in accordance with 40 CFR Part 97, Subpart AAAAA.
- (2) This permit incorporates the CSAPR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.430 through 97.435, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR Part 75, Subparts B and H), an excepted monitoring system (pursuant to 40 CFR Part 75, Appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR Part 75, Subpart E). Therefore, the Description of CSAPR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.406(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).

(e) Additional recordkeeping and reporting requirements.

- (1) Unless otherwise provided, the owners and operators of each CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
 - (i). The certificate of representation under 40 CFR 97.416 for the designated representative for the source and each CSAPR NO_x Annual unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.416 changing the designated representative.
 - (ii). All emissions monitoring information, in accordance with 40 CFR Part 97, Subpart AAAAA.

- (iii). Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR NO_x Annual Trading Program.
 - (2) The designated representative of a CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall make all submissions required under the CSAPR NO_x Annual Trading Program, except as provided in 40 CFR 97.418. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR Parts 70 and 71.
- (f) Liability.**
- (1) Any provision of the CSAPR NO_x Annual Trading Program that applies to a CSAPR NO_x Annual source or the designated representative of a CSAPR NO_x Annual source shall also apply to the owners and operators of such source and of the CSAPR NO_x Annual units at the source.
 - (2) Any provision of the CSAPR NO_x Annual Trading Program that applies to a CSAPR NO_x Annual unit or the designated representative of a CSAPR NO_x Annual unit shall also apply to the owners and operators of such unit.
- (g) Effect on other authorities.**
- No provision of the CSAPR NO_x Annual Trading Program or exemption under 40 CFR 97.405 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR NO_x Annual source or CSAPR NO_x Annual unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.
- (h) Effect on units in Indian country.**
- Notwithstanding the provisions of paragraphs (a) through (g) above, paragraphs (a) through (g) shall be deemed not to impose any requirements on any source or unit, or any owner, operator, or designated representative with regard to any source or unit, in Indian country within the borders of the state.

SECTION II: CSAPR NO_x Ozone Season Group 2 Trading Program Requirements (40 CFR 97.806)

- (a) Designated representative requirements.**
- The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.813 through 97.818.
- (b) Emissions monitoring, reporting, and recordkeeping requirements.**
- (1) The owners and operators, and the designated representative, of each CSAPR NO_x Ozone Season Group 2 source and each CSAPR NO_x Ozone Season Group 2 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.830 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.831 (initial monitoring system certification and recertification procedures), 97.832 (monitoring system out-of-control periods), 97.833 (notifications concerning monitoring), 97.834 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.835 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).
 - (2) The emissions data determined in accordance with 40 CFR 97.830 through 97.835 shall be used to calculate allocations of CSAPR NO_x Ozone Season Group 2 allowances under 40 CFR 97.811(a)(2) and (b) and 97.812 and to determine compliance with the CSAPR NO_x Ozone Season Group 2 emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.830 through 97.835 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.
- (c) NO_x emissions requirements.**
- (1) CSAPR NO_x Ozone Season Group 2 emissions limitation.
 - (i). As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NO_x Ozone Season Group 2 source and each CSAPR NO_x Ozone Season Group 2 unit at the source shall hold, in the source's compliance account, CSAPR NO_x Ozone Season Group 2

allowances available for deduction for such control period under 40 CFR 97.824(a) in an amount not less than the tons of total NO_x emissions for such control period from all CSAPR NO_x Ozone Season Group 2 units at the source.

- (ii). If total NO_x emissions during a control period in a given year from the CSAPR NO_x Ozone Season Group 2 units at a CSAPR NO_x Ozone Season Group 2 source are in excess of the CSAPR NO_x Ozone Season Group 2 emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - (A). The owners and operators of the source and each CSAPR NO_x Ozone Season Group 2 unit at the source shall hold the CSAPR NO_x Ozone Season Group 2 allowances required for deduction under 40 CFR 97.824(d); and
 - (B). The owners and operators of the source and each CSAPR NO_x Ozone Season Group 2 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 97, Subpart EEEEE and the Clean Air Act.
- (2) CSAPR NO_x Ozone Season Group 2 assurance provisions.
 - (i). If total NO_x emissions during a control period in a given year from all CSAPR NO_x Ozone Season Group 2 units at CSAPR NO_x Ozone Season Group 2 sources in the state and Indian country within the borders of such state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_x emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR NO_x Ozone Season Group 2 allowances available for deduction for such control period under 40 CFR 97.825(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.825(b), of multiplying—
 - (A). The quotient of the amount by which the common designated representative's share of such NO_x emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state and Indian country within the borders of such state for such control period, by which each common designated representative's share of such NO_x emissions exceeds the respective common designated representative's assurance level; and
 - (B). The amount by which total NO_x emissions from all CSAPR NO_x Ozone Season Group 2 units at CSAPR NO_x Ozone Season Group 2 sources in the state and Indian country within the borders of such state for such control period exceed the state assurance level.
 - (ii). The owners and operators shall hold the CSAPR NO_x Ozone Season Group 2 allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
 - (iii). Total NO_x emissions from all CSAPR NO_x Ozone Season Group 2 units at CSAPR NO_x Ozone Season Group 2 sources in the state and Indian country within the borders of such state during a control period in a given year exceed the state assurance level if such total NO_x emissions exceed the sum, for such control period, of the State NO_x Ozone Season trading budget under 40 CFR 97.810(a) and the state's variability limit under 40 CFR 97.810(b).
 - (iv). It shall not be a violation of 40 CFR Part 97, Subpart EEEEE or of the Clean Air Act if total NO_x emissions from all CSAPR NO_x Ozone Season Group 2 units at CSAPR NO_x Ozone Season Group 2 sources in the state and Indian country within the borders of such state during a control period exceed the state assurance level or if a common designated representative's share of total NO_x emissions from the CSAPR NO_x Ozone Season Group 2 units at CSAPR NO_x Ozone Season Group 2 sources in the state and Indian country within the borders of such state during a control period exceeds the common designated representative's assurance level.
 - (v). To the extent the owners and operators fail to hold CSAPR NO_x Ozone Season Group 2 allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
 - (A). The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
 - (B). Each CSAPR NO_x Ozone Season Group 2 allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day

of such control period shall constitute a separate violation of 40 CFR Part 97, Subpart EEEEE and the Clean Air Act.

- (3) Compliance periods.
 - (i). A CSAPR NO_x Ozone Season Group 2 unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of May 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.830(b) and for each control period thereafter.
 - (ii). A CSAPR NO_x Ozone Season Group 2 unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of May 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.830(b) and for each control period thereafter.
 - (4) Vintage of allowances held for compliance.
 - (i). A CSAPR NO_x Ozone Season Group 2 allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a CSAPR NO_x Ozone Season Group 2 allowance that was allocated for such control period or a control period in a prior year.
 - (ii). A CSAPR NO_x Ozone Season Group 2 allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (ii) above for a control period in a given year must be a CSAPR NO_x Ozone Season Group 2 allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
 - (5) Allowance Management System requirements. Each CSAPR NO_x Ozone Season Group 2 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR Part 97, Subpart EEEEE.
 - (6) Limited authorization. A CSAPR NO_x Ozone Season Group 2 allowance is a limited authorization to emit one ton of NO_x during the control period in one year. Such authorization is limited in its use and duration as follows:
 - (i). Such authorization shall only be used in accordance with the CSAPR NO_x Ozone Season Group 2 Trading Program; and
 - (ii). Notwithstanding any other provision of 40 CFR Part 97, Subpart EEEEE, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
 - (7) Property right. A CSAPR NO_x Ozone Season Group 2 allowance does not constitute a property right.
- (d) Title V permit revision requirements.**
- (1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR NO_x Ozone Season Group 2 allowances in accordance with 40 CFR Part 97, Subpart EEEEE.
 - (2) This permit incorporates the CSAPR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.830 through 97.835, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR Part 75, Subparts B and H), an excepted monitoring system (pursuant to 40 CFR Part 75, Appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR Part 75, Subpart E). Therefore, the Description of CSAPR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.806(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).
- (e) Additional recordkeeping and reporting requirements.**
- (1) Unless otherwise provided, the owners and operators of each CSAPR NO_x Ozone Season Group 2 source and each CSAPR NO_x Ozone Season Group 2 unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
 - (i). The certificate of representation under 40 CFR 97.816 for the designated representative for the source and each CSAPR NO_x Ozone Season Group 2 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.816 changing the designated representative.
 - (ii). All emissions monitoring information, in accordance with 40 CFR Part 97, Subpart EEEEE.

- (iii). Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR NO_x Ozone Season Group 2 Trading Program.
- (2) The designated representative of a CSAPR NO_x Ozone Season Group 2 source and each CSAPR NO_x Ozone Season Group 2 unit at the source shall make all submissions required under the CSAPR NO_x Ozone Season Group 2 Trading Program, except as provided in 40 CFR 97.818. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR Parts 70 and 71.

(f) Liability.

- (1) Any provision of the CSAPR NO_x Ozone Season Group 2 Trading Program that applies to a CSAPR NO_x Ozone Season Group 2 source or the designated representative of a CSAPR NO_x Ozone Season Group 2 source shall also apply to the owners and operators of such source and of the CSAPR NO_x Ozone Season Group 2 units at the source.
- (2) Any provision of the CSAPR NO_x Ozone Season Group 2 Trading Program that applies to a CSAPR NO_x Ozone Season Group 2 unit or the designated representative of a CSAPR NO_x Ozone Season Group 2 unit shall also apply to the owners and operators of such unit.

(g) Effect on other authorities.

No provision of the CSAPR NO_x Ozone Season Group 2 Trading Program or exemption under 40 CFR 97.805 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR NO_x Ozone Season Group 2 source or CSAPR NO_x Ozone Season Group 2 unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

(h) Effect on units in Indian country.

Notwithstanding the provisions of paragraphs (a) through (g) above, paragraphs (a) through (g) shall be deemed not to impose any requirements on any source or unit, or any owner, operator, or designated representative with regard to any source or unit, in Indian country within the borders of the state.

SECTION III: CSAPR SO₂ Group 1 Trading Program requirements (40 CFR 97.606)

(a) Designated representative requirements.

The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.613 through 97.618.

(b) Emissions monitoring, reporting, and recordkeeping requirements.

- (1) The owners and operators, and the designated representative, of each CSAPR SO₂ Group 1 source and each CSAPR SO₂ Group 1 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.630 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.631 (initial monitoring system certification and recertification procedures), 97.632 (monitoring system out-of-control periods), 97.633 (notifications concerning monitoring), 97.634 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.635 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).
- (2) The emissions data determined in accordance with 40 CFR 97.630 through 97.635 shall be used to calculate allocations of CSAPR SO₂ Group 1 allowances under 40 CFR 97.611(a)(2) and (b) and 97.612 and to determine compliance with the CSAPR SO₂ Group 1 emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.630 through 97.635 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

(c) SO₂ emissions requirements.

- (1) CSAPR SO₂ Group 1 emissions limitation.

- (i). As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR SO₂ Group 1 source and each CSAPR SO₂ Group 1 unit at the source shall hold, in the source's compliance account, CSAPR SO₂ Group 1 allowances available for deduction for such control period under 40 CFR 97.624(a) in an amount not less than the tons of total SO₂ emissions for such control period from all CSAPR SO₂ Group 1 units at the source.
 - (ii). If total SO₂ emissions during a control period in a given year from the CSAPR SO₂ Group 1 units at a CSAPR SO₂ Group 1 source are in excess of the CSAPR SO₂ Group 1 emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - (A). The owners and operators of the source and each CSAPR SO₂ Group 1 unit at the source shall hold the CSAPR SO₂ Group 1 allowances required for deduction under 40 CFR 97.624(d); and
 - (B). The owners and operators of the source and each CSAPR SO₂ Group 1 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation 40 CFR Part 97, Subpart CCCCC and the Clean Air Act.
- (2) CSAPR SO₂ Group 1 assurance provisions.
- (i). If total SO₂ emissions during a control period in a given year from all CSAPR SO₂ Group 1 units at CSAPR SO₂ Group 1 sources in the state and Indian country within the borders of such state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such SO₂ emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR SO₂ Group 1 allowances available for deduction for such control period under 40 CFR 97.625(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.625(b), of multiplying—
 - (A). The quotient of the amount by which the common designated representative's share of such SO₂ emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state and Indian country within the borders of such state for such control period, by which each common designated representative's share of such SO₂ emissions exceeds the respective common designated representative's assurance level; and
 - (B). The amount by which total SO₂ emissions from all CSAPR SO₂ Group 1 units at CSAPR SO₂ Group 1 sources in the state and Indian country within the borders of such state for such control period exceed the state assurance level.
 - (ii). The owners and operators shall hold the CSAPR SO₂ Group 1 allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
 - (iii). Total SO₂ emissions from all CSAPR SO₂ Group 1 units at CSAPR SO₂ Group 1 sources in the state and Indian country within the borders of such state during a control period in a given year exceed the state assurance level if such total SO₂ emissions exceed the sum, for such control period, of the state SO₂ Group 1 trading budget under 40 CFR 97.610(a) and the state's variability limit under 40 CFR 97.610(b).
 - (iv). It shall not be a violation of 40 CFR Part 97, Subpart CCCCC or of the Clean Air Act if total SO₂ emissions from all CSAPR SO₂ Group 1 units at CSAPR SO₂ Group 1 sources in the state and Indian country within the borders of such state during a control period exceed the state assurance level or if a common designated representative's share of total SO₂ emissions from the CSAPR SO₂ Group 1 units at CSAPR SO₂ Group 1 sources in the state and Indian country within the borders of such state during a control period exceeds the common designated representative's assurance level.
 - (v). To the extent the owners and operators fail to hold CSAPR SO₂ Group 1 allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
 - (A). The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
 - (B). Each CSAPR SO₂ Group 1 allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR Part 97, Subpart CCCCC and the Clean Air Act.

- (3) Compliance periods.
- (i). A CSAPR SO₂ Group 1 unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of January 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.630(b) and for each control period thereafter.
 - (ii). A CSAPR SO₂ Group 1 unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.630(b) and for each control period thereafter.
- (4) Vintage of allowances held for compliance.
- (i). A CSAPR SO₂ Group 1 allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a CSAPR SO₂ Group 1 allowance that was allocated for such control period or a control period in a prior year.
 - (ii). A CSAPR SO₂ Group 1 allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a CSAPR SO₂ Group 1 allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
- (5) Allowance Management System requirements. Each CSAPR SO₂ Group 1 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR Part 97, Subpart CCCCC.
- (6) Limited authorization. A CSAPR SO₂ Group 1 allowance is a limited authorization to emit one ton of SO₂ during the control period in one year. Such authorization is limited in its use and duration as follows:
- (i). Such authorization shall only be used in accordance with the CSAPR SO₂ Group 1 Trading Program; and
 - (ii). Notwithstanding any other provision of 40 CFR Part 97, Subpart CCCCC, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
- (7) Property right. A CSAPR SO₂ Group 1 allowance does not constitute a property right.

(d) Title V permit revision requirements.

- (1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR SO₂ Group 1 allowances in accordance with 40 CFR Part 97, Subpart CCCCC.
- (2) This permit incorporates the CSAPR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.630 through 97.635, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR Part 75, Subparts B and H), an excepted monitoring system (pursuant to 40 CFR Part 75, Appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR Part 75, Subpart E). Therefore, the Description of CSAPR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.606(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).

(e) Additional recordkeeping and reporting requirements.

- (1) Unless otherwise provided, the owners and operators of each CSAPR SO₂ Group 1 source and each CSAPR SO₂ Group 1 unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
 - (i). The certificate of representation under 40 CFR 97.616 for the designated representative for the source and each CSAPR SO₂ Group 1 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.616 changing the designated representative.
 - (ii). All emissions monitoring information, in accordance with 40 CFR Part 97, Subpart CCCCC.
 - (iii). Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR SO₂ Group 1 Trading Program.
- (2) The designated representative of a CSAPR SO₂ Group 1 source and each CSAPR SO₂ Group 1 unit at the source shall make all submissions required under the CSAPR SO₂ Group 1 Trading Program, except as provided in 40 CFR 97.618. This requirement does not change, create an exemption from, or otherwise

affect the responsible official submission requirements under a title V operating permit program in 40 CFR Parts 70 and 71.

(f) Liability.

- (1) Any provision of the CSAPR SO₂ Group 1 Trading Program that applies to a CSAPR SO₂ Group 1 source or the designated representative of a CSAPR SO₂ Group 1 source shall also apply to the owners and operators of such source and of the CSAPR SO₂ Group 1 units at the source.
- (2) Any provision of the CSAPR SO₂ Group 1 Trading Program that applies to a CSAPR SO₂ Group 1 unit or the designated representative of a CSAPR SO₂ Group 1 unit shall also apply to the owners and operators of such unit.

(g) Effect on other authorities.

No provision of the CSAPR SO₂ Group 1 Trading Program or exemption under 40 CFR 97.605 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR SO₂ Group 1 source or CSAPR SO₂ Group 1 unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

(h) Effect on units in Indian country.

Notwithstanding the provisions of paragraphs (a) through (g) above, paragraphs (a) through (g) shall be deemed not to impose any requirements on any source or unit, or any owner, operator, or designated representative with regard to any source or unit, in Indian country within the borders of the state.

Appendix 11-1. NO_x and SO₂ Allowances and Limitations

11-1-A. System Wide NO_x and SO₂ 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_x and SO₂ Tonnage Limitations

The DTE System, collectively, shall operate so as not to exceed the following System-Wide Annual NO_x and SO₂ Tonnage Limitations:

<u>For the Calendar Year Specified Below:</u>	<u>System-Wide Annual NO_x Tonnage Limitation</u>	<u>System-Wide Annual SO₂ Tonnage Limitation:</u>
<u>2020-2022</u>	<u>23,850</u>	<u>54,400</u>
<u>2023-2030</u>	<u>15,400</u>	<u>31,800</u>
<u>2031 and later years</u>	<u>6,400</u>	<u>4,650</u>

(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_x and SO₂ emission data obtained from a CEMS in accordance with the procedures specified in 40 CFR Part 75. If a Unit is Refueled, SO₂ 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_x and SO₂ 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_x and SO₂ Allowances

1. DTE shall not use NO_x or SO₂ 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_x or SO₂ 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_x or SO₂ Allowances allocated to Units in the System. Nothing in the Consent Decree shall restrict DTE’s ability to transfer NO_x or SO₂ 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_x and SO₂ 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_x and SO₂ 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_x or SO₂ 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_x and SO₂ Allowances

5. Beginning with the year 2021 and continuing in each calendar year thereafter, DTE may sell, bank, use, trade, or transfer NO_x or SO₂ 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_x and 0.100 lb/MMBtu for SO₂
 - 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_x or SO₂ 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_x and SO₂ Allowances

6. DTE shall Surrender, or transfer to a non-profit third-party selected by DTE for Surrender, all NO_x and SO₂ 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_x or SO₂ 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;

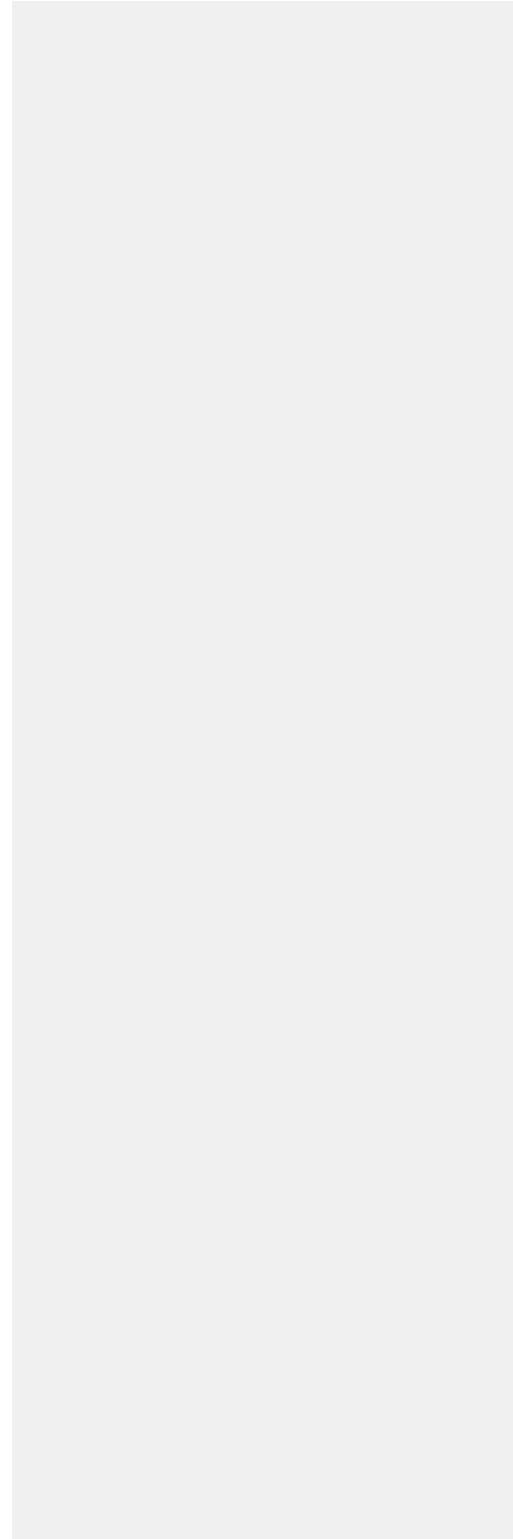
No later than the third periodic report due after the transfer of any Allowances, DTE shall include a statement that the third-party recipient(s) Surrendered the Allowances for permanent Surrender to EPA in accordance with the provisions of Appendix 11-1-B, "Method for Surrender of NO_x and SO₂ Allowances", within one year after DTE transferred the Allowances to them. DTE shall not have complied with the Allowance Surrender requirements of the NO_x and SO₂ Allowance Surrender requirements of Appendix 11-1-B, "Method for Surrender of NO_x and SO₂ 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 20, 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)

Section 2 DTE Electric Company – Monroe Peakers

ROP No: MI-ROP-B2816-2019
Expiration Date: October 16, 2024
PTI No: MI-PTI-B2816-2019

Section 2 – DTE Electric Company – Monroe Peakers



A. GENERAL CONDITIONS

Permit Enforceability

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R 336.1213(5))**
- Those conditions that are hereby incorporated in a state-only enforceable Source-Wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. **(R 336.1213(5)(a), R 336.1214a(5))**
- Those conditions that are hereby incorporated in a federally enforceable Source-Wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

General Provisions

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state-only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**
2. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this ROP. **(R 336.1213(1)(b))**
3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**
4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities: **(R 336.1213(1)(d))**
 - a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
 - c. Inspect, at reasonable times, any of the following:
 - i. Any stationary source.
 - ii. Any emission unit.
 - iii. Any equipment, including monitoring and air pollution control equipment.
 - iv. Any work practices or operations regulated or required under the ROP.
 - d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.
5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

Section 2 DTE Electric Company – Monroe Peakers

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6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**
7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**
8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

Equipment & Design

9. Any 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).² **(R 336.1370)**
10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. **(R 336.1910)**

Emission Limits

11. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in subrules 2, 3, and 4 of this rule, a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of the following:"² **(R 336.1301(1))**
 - a. A 6-minute average of 20 % opacity, except for one 6-minute average per hour of not more than 27 percent opacity.
 - b. A limit specified by an applicable federal new source performance standard.The grading of visible emissions shall be determined in accordance with Rule 303.
12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
 - a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.¹ **(R 336.1901(a))**
 - b. Unreasonable interference with the comfortable enjoyment of life and property.¹ **(R 336.1901(b))**

Testing/Sampling

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1).² **(R 336.2001)**
14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**
15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(5))**

Monitoring/Recordkeeping

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate. **(R 336.1213(3)(b))**
- The date, location, time, and method of sampling or measurements.
 - The dates the analyses of the samples were performed.
 - The company or entity that performed the analyses of the samples.
 - The analytical techniques or methods used.
 - The results of the analyses.
 - The related process operating conditions or parameters that existed at the time of sampling or measurement.
17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. **(R 336.1213(1)(e), R 336.1213(3)(b)(ii))**

Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**
19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604. **(R 336.1213(4)(c))**
20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**
21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
- For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
 - For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
 - For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following: **(R 336.1213(3)(c))**
- a. Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
 - b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a Responsible Official which states that, "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete." The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.
23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**
24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**
25. 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 appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor 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 conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA.² **(R 336.1912)**

Permit Shield

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance, if either of the following provisions is satisfied. **(R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))**
- a. The applicable requirements are included and are specifically identified in the ROP.
 - b. The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.
- Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.
27. Nothing in this ROP shall alter or affect any of the following:
- a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
 - b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**
 - c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**

- d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**
- 28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
 - a. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
 - b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
 - c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R 336.1216(1)(c)(iii))**
 - d. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
 - e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**
- 29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

Revisions

- 30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. **(R 336.1215, R 336.1216)**
- 31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R 336.1219(2))**
- 32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(10))**
- 33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. **(R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))**

Reopenings

- 34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
 - a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. **(R 336.1217(2)(a)(i))**
 - b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
 - c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. **(R 336.1217(2)(a)(iii))**
 - d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(8))**

Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F.
37. If the permittee is subject to 40 CFR Part 82, and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).
39. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall comply with the requirements of 40 CFR Part 68, no later than the latest of the following dates as provided in 40 CFR 68.10(a):
- June 21, 1999,
 - Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
 - The date on which a regulated substance is first present above a threshold quantity in a process.
40. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR Part 68.
41. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c). **(40 CFR Part 68)**

Emission Trading

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of Michigan's State Implementation Plan. Such activities must comply with Rule 215 and Rule 216. **(R 336.1213(12))**

Permit to Install (PTI)

- 43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.² **(R 336.1201(1))**
- 44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA.² **(R 336.1201(8), Section 5510 of Act 451)**
- 45. The terms and conditions of a PTI 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 the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI 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. The written request shall be sent to the appropriate AQD District Supervisor, EGLE.² **(R 336.1219)**
- 46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, EGLE, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.² **(R 336.1201(4))**

Footnotes:

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

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

B. SOURCE-WIDE CONDITIONS

Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.

C. EMISSION UNIT CONDITIONS

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

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-DIESEL11-1	Diesel Generator Peaking Unit DG 11-1 – 3,960 hp (2.75 MW), 2-cycle compression ignition internal combustion engine	10-24-1969	FG-PEAKERS
EU-DIESEL11-2	Diesel Generator Peaking Unit DG 11-2 – 3,960 hp (2.75 MW), 2-cycle compression ignition internal combustion engine	10-24-1969	FG-PEAKERS
EU-DIESEL11-3	Diesel Generator Peaking Unit DG 11-3 – 3,960 hp (2.75 MW), 2-cycle compression ignition internal combustion engine	10-24-1969	FG-PEAKERS
EU-DIESEL11-4	Diesel Generator Peaking Unit DG 11-4 – 3,960 hp (2.75 MW), 2-cycle compression ignition internal combustion engine	10-24-1969	FG-PEAKERS
EU-DIESEL11-5	Diesel Generator Peaking Unit DG 11-5 – 3,960 hp (2.75 MW), 2-cycle compression ignition internal combustion engine	10-24-1969	FG-PEAKERS

D. FLEXIBLE GROUP CONDITIONS

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-PEAKERS	Five diesel fuel-fired generator peaking units that are limited use stationary reciprocating internal combustion engines.	EU-DIESEL11-1, EU-DIESEL11-2, EU-DIESEL11-3, EU-DIESEL11-4, EU-DIESEL11-5

**FG-PEAKERS
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Five diesel fuel-fired generator peaking units that are limited use stationary reciprocating internal combustion engines.

Emission Units: EU-DIESEL11-1, EU-DIESEL11-2, EU-DIESEL11-3, EU-DIESEL11-4, EU-DIESEL11-5

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	90.2 pph per unit ²	Test protocol will specify averaging time	EU-DIESEL11-1, EU-DIESEL11-2, EU-DIESEL11-3, EU-DIESEL11-4, EU-DIESEL11-5	SC V.1, SC III.1, SC VI.2	R 336.2804, 40 CFR 52.21(d)
2. SO2	0.043 pph per unit ²	Test protocol will specify averaging time	EU-DIESEL11-1, EU-DIESEL11-2, EU-DIESEL11-3, EU-DIESEL11-4, EU-DIESEL11-5	SC VI.2, SC VI.3	R 336.1401, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)

II. MATERIAL LIMIT(S)

- The permittee shall only burn diesel fuel with a maximum sulfur content of 15 ppm in FG-PEAKERS.² (R 336.1401, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate each diesel generator in FG-PEAKERS for more than 99.9 hours per 12-month rolling time period as determined at the end of each calendar month.² (R 336.2804, 40 CFR 52.21(d), 40 CFR 63.6600(c))

IV. DESIGN/EQUIPMENT PARAMETER(S)

- The permittee shall equip and maintain each diesel generator in FG-PEAKERS with a non-resettable hour meter to track the number of minutes and hours the engine operates.² (R 336.2804, 40 CFR 52.21(d), 40 CFR 63.6600(c))

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. Upon request by the AQD, the permittee shall verify NO_x emission rates FG-PEAKERS by testing at owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, 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 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
2. 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 336.1213(3))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall record the monthly fuel usage rates in gallons.² **(R 336.1401, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**
2. The permittee shall maintain a record of the analysis of the 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.² **(R 336.1401, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**
3. The permittee shall monitor and record in a satisfactory manner, the hours of operation for each unit in FG-PEAKERS. The record shall include the time and duration of operation.² **(R 336.2804, 40 CFR 52.21(d), 40 CFR 63.6600(c))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8-2

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. SV-DIESEL11-1	32 ²	20 ²	R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
2. SV-DIESEL11-2	32 ²	20 ²	R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
3. SV-DIESEL11-3	32 ²	20 ²	R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
4. SV-DIESEL11-4	32 ²	20 ²	R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
5. SV-DIESEL11-5	32 ²	20 ²	R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZ, for Stationary Reciprocating Internal Combustion Engines.² (40 CFR 63.6595, 40 CFR Part 63, Subparts A and ZZZZ)

Footnotes:

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

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

Section 2 DTE Electric Company – Monroe Peakers

ROP No: MI-ROP-B2816-2019
Expiration Date: October 16, 2024
PTI No: MI-PTI-B2816-2019

E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii).

APPENDICES**Appendix 1-2. Abbreviations and Acronyms**

The following is an alphabetical listing of abbreviations/acronyms that may be used in this permit.

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO ₂ e	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/ department	Michigan Department of Environment, Great Lakes, and Energy	°F	Degrees Fahrenheit
EU	Emission Unit	gr	Grains
FG	Flexible Group	HAP	Hazardous Air Pollutant
GACS	Gallons of Applied Coating Solids	Hg	Mercury
GC	General Condition	hr	Hour
GHGs	Greenhouse Gases	HP	Horsepower
HVLP	High Volume Low Pressure*	H ₂ S	Hydrogen Sulfide
ID	Identification	kW	Kilowatt
IRSL	Initial Risk Screening Level	lb	Pound
ITSL	Initial Threshold Screening Level	m	Meter
LAER	Lowest Achievable Emission Rate	mg	Milligram
MACT	Maximum Achievable Control Technology	mm	Millimeter
MAERS	Michigan Air Emissions Reporting System	MM	Million
MAP	Malfunction Abatement Plan	MW	Megawatts
EGLE	Michigan Department of Environment, Great Lakes, and Energy	NMOC	Non-methane Organic Compounds
MSDS	Material Safety Data Sheet	NO _x	Oxides of Nitrogen
NA	Not Applicable	ng	Nanogram
NAAQS	National Ambient Air Quality Standards	PM	Particulate Matter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM ₁₀	Particulate Matter equal to or less than 10 microns in diameter
NSPS	New Source Performance Standards	PM _{2.5}	Particulate Matter equal to or less than 2.5 microns in diameter
NSR	New Source Review	pph	Pounds per hour
PS	Performance Specification	ppm	Parts per million
PSD	Prevention of Significant Deterioration	ppmv	Parts per million by volume
PTE	Permanent Total Enclosure	ppmw	Parts per million by weight
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonable Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO ₂	Sulfur Dioxide
SNCR	Selective Non-Catalytic Reduction	TAC	Toxic Air Contaminant
SRN	State Registration Number	Temp	Temperature
TEQ	Toxicity Equivalence Quotient	THC	Total Hydrocarbons
USEPA/EPA	United States Environmental Protection Agency	tpy	Tons per year
VE	Visible Emissions	µg	Microgram
		µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
		yr	Year

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 pounds per square inch gauge (psig).

Appendix 2-2. Schedule of Compliance

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. (R 336.1213(4)(a), R 336.1119(a)(ii))

Appendix 3-2. Monitoring Requirements

Specific monitoring requirement procedures, methods or specifications are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 4-2. Recordkeeping

Specific recordkeeping requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 5-2. Testing Procedures

There are no specific testing requirement plans or procedures for this ROP. Therefore, this appendix is not applicable.

Appendix 6-2. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-B2816-2009a. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No. MI-PTI-B2816-2009a is being reissued as Source-Wide PTI No. MI-PTI-B2816-2019.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
27-13B	NA	Five diesel fuel-fired generator peaking units.	FG-PEAKERS

Appendix 7-2. Emission Calculations

There are no specific emission calculations to be used for this ROP. Therefore, this appendix is not applicable.

Appendix 8-2. Reporting

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.

B. Other Reporting

Specific reporting requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, Part B of this appendix is not applicable.

Section 3 Monroe Fuels Company, LLC

ROP No: MI-ROP-B2816-2019
Expiration Date: October 16, 2024
PTI No: MI-PTI-B2816-2019

~~Section 3 — Monroe Fuels Company, LLC~~

Commented [ADT41]: All equipment associated with EU-REFHS&BL permanently retired from service on 8/17/22. DTE will soon submit PTI application to remove from ROP.

~~A. GENERAL CONDITIONS~~

Permit Enforceability

- ~~• All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. (R 336.1213(5))~~
- ~~• Those conditions that are hereby incorporated in a state-only enforceable Source-Wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. (R 336.1213(5)(a), R 336.1214a(5))~~
- ~~• Those conditions that are hereby incorporated in a federally enforceable Source-Wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. (R 336.1213(5)(b), R 336.1214a(3))~~

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General Provisions

- ~~1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state-only" are not enforceable by the USEPA or citizens pursuant to the CAA. (R 336.1213(1)(a))~~
- ~~2. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this ROP. (R 336.1213(1)(b))~~
- ~~3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. (R 336.1213(1)(c))~~
- ~~4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities: (R 336.1213(1)(d))~~
 - ~~a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.~~
 - ~~b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.~~
 - ~~c. Inspect, at reasonable times, any of the following:

 - ~~i. Any stationary source.~~
 - ~~ii. Any emission unit.~~
 - ~~iii. Any equipment, including monitoring and air pollution control equipment.~~
 - ~~iv. Any work practices or operations regulated or required under the ROP.~~~~
 - ~~d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.~~
- ~~5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. (R 336.1213(1)(e))~~

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~~6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. (R 336.1213(1)(f))~~

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~~7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. (R 336.1213(1)(g))~~

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~~8. This ROP does not convey any property rights or any exclusive privilege. (R 336.1213(1)(h))~~

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Equipment & Design

~~9. Any 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).² (R 336.1370)~~

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~~10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. (R 336.1910)~~

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Emission Limits

~~11. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in subrules 2, 3, and 4 of this rule, a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of the following:"² (R 336.1301(1))~~

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~~a. A 6-minute average of 20 % opacity, except for one 6-minute average per hour of not more than 27 percent opacity.~~

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~~b. A limit specified by an applicable federal new source performance standard.~~

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~~The grading of visible emissions shall be determined in accordance with Rule 303.~~

~~12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:~~

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~~a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.⁴ (R 336.1901(a))~~

~~b. Unreasonable interference with the comfortable enjoyment of life and property.⁴ (R 336.1901(b))~~

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Testing/Sampling

~~13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1).² (R 336.2001)~~

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~~14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. (R 336.2001(2), R 336.2001(3), R 336.2003(1))~~

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~~15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. (R 336.2001(5))~~

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Monitoring/Recordkeeping

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate. ~~(R 336.1213(3)(b))~~
- a. The date, location, time, and method of sampling or measurements.
 - b. The dates the analyses of the samples were performed.
 - c. The company or entity that performed the analyses of the samples.
 - d. The analytical techniques or methods used.
 - e. The results of the analyses.
 - f. The related process operating conditions or parameters that existed at the time of sampling or measurement.

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17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. ~~(R 336.1213(1)(e), R 336.1213(3)(b)(ii))~~

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Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. ~~(R 336.1213(3)(c))~~

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19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604. ~~(R 336.1213(4)(c))~~

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20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. ~~(R 336.1213(4)(c))~~

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21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. ~~(R 336.1213(3)(c))~~

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- a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
- b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
- c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

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~~22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following: (R 336.1213(3)(e))~~

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~~a. Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.~~

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~~b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a Responsible Official which states that, "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete." The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.~~

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~~23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. (R 336.1213(3)(e)(i))~~

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~~24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. (R 336.1212(6))~~

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~~25. 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 appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor 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 conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA. (R 336.1912)~~

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Permit Shield

~~26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance, if either of the following provisions is satisfied. (R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))~~

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~~a. The applicable requirements are included and are specifically identified in the ROP.~~

~~b. The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.~~

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~~Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.~~

~~27. Nothing in this ROP shall alter or affect any of the following:~~

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~~a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. (R 336.1213(6)(b)(i))~~

~~b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. (R 336.1213(6)(b)(ii))~~

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~~c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. (R 336.1213(6)(b)(iii))~~

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~~d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. (R 336.1213(6)(b)(iv))~~

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~~28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:~~

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~~a. Operational flexibility changes made pursuant to Rule 215. (R 336.1215(5))~~

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~~b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). (R 336.1216(1)(b)(iii))~~

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~~c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. (R 336.1216(1)(c)(iii))~~

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~~d. Minor Permit Modifications made pursuant to Rule 216(2). (R 336.1216(2)(f))~~

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~~e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. (R 336.1216(4)(e))~~

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~~29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. (R 336.1217(1)(c), R 336.1217(1)(a))~~

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Revisions

~~30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. (R 336.1215, R 336.1216)~~

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~~31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). (R 336.1219(2))~~

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~~32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. (R 336.1210(10))~~

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~~33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. (R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))~~

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Reopenings

~~34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:~~

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~~a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. (R 336.1217(2)(a)(i))~~

~~b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. (R 336.1217(2)(a)(ii))~~

~~c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. (R 336.1217(2)(a)(iii))~~

~~d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. (R 336.1217(2)(a)(iv))~~

Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(8))**

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Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F.

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37. If the permittee is subject to 40 CFR Part 82, and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

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Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).

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39. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall comply with the requirements of 40 CFR Part 68, no later than the latest of the following dates as provided in 40 CFR 68.10(a):

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- a. June 21, 1999;
- b. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
- c. The date on which a regulated substance is first present above a threshold quantity in a process.

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40. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR Part 68.

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41. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR Part 68)**

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Emission Trading

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of Michigan's State Implementation Plan. Such activities must comply with Rule 215 and Rule 216. **(R 336.1213(12))**

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Permit to Install (PTI)

~~43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.² (R 336.1201(1))~~

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~~44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA.² (R 336.1201(8), Section 5510 of Act 451)~~

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~~45. The terms and conditions of a PTI 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 the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI 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. The written request shall be sent to the appropriate AQD District Supervisor, EGLE.² (R 336.1219)~~

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~~46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, EGLE, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.² (R 336.1201(4))~~

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Footnotes:

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

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

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~~B. SOURCE-WIDE CONDITIONS~~

~~Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.~~

~~The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.~~

C. EMISSION UNIT CONDITIONS

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

EMISSION UNIT SUMMARY TABLE

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

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Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-REFHS&BL	This emission unit represents coal and sorbent handling activity in the Reduced Emission Fuel (REF) Transfer House and Refined Coal Plant Building including an 8,500-gallon Mersorb storage tank, a 750-ton S-Sorb solid storage silo, associated conveyors, and any trucking and unloading activities. Sorbent handling activity inside the Refined Coal Plant Building includes two pug mills, two day bins, and mixing operations. Coal and sorbent handling activity emissions are limited by enclosures, baghouse dust collectors, wet dust suppression methods, or bin vent filters.	06-13-2011	NA

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**EU-REFHS&BL
 EMISSION UNIT CONDITIONS**

DESCRIPTION

This emission unit represents coal and sorbent handling activity in the Reduced Emission Fuel (REF) Transfer House and Refined Coal Plant Building including an 8,500-gallon Mersorb storage tank, a 750-ton S-Sorb solid storage silo, associated conveyors, and any trucking and unloading activities. Sorbent handling activity inside the Refined Coal Plant Building includes two pug mills, two day bins, conveying and mixing operations. Coal and sorbent handling activity emissions are limited by enclosures, baghouse dust collectors, wet dust suppression methods, or bin vent filters.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

REF Transfer house dust collector #1 (SV-REFDC01), Refined Coal Plant Building Transfer dust collector #2 (SV-REFDC02), storage silo with a bin vent filter (SV-REFBV), enclosures and dust suppressants

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity	5 percent ²	Test protocol will specify averaging time	Each individual fabric filter and bin vent filter in EU-REFHS&BL	SC VI.1	R 336.1301(1)(c), 40 CFR 60.254(b)(1)
2. PM	0.004 gr / dscf of exhaust gases ²	Daily	Each individual fabric filter and bin vent filter in EU-REFHS&BL	SC III.2, SC VI.1	R 336.1205, R 336.1331(1)(c), 40 CFR 60.254(b)(2)
3. PM10	0.21 pph ²	Daily	Each individual fabric filter SV-REFDC01 and SV-REFDC02	SC III.2, SC VI.1	R 336.1205, R 336.2803, R 336.2804, 40 CFR 52.21 (e) and (d)
4. PM2.5	0.21 pph ²	Daily	Each individual fabric filter SV-REFDC01 and SV-REFDC02	SC III.2, SC VI.1	R 336.1205
5. PM10	0.041 pph ²	Daily	SV-REFBV	SC III.2, SC VI.1	R 336.1205, R 336.2803, R 336.2804, 40 CFR 52.21 (e) and (d)
6. PM2.5	0.041 pph ²	Daily	SV-REFBV	SC III.2, SC VI.1	R 336.1205

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II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-REFHS&BL unless a program for continuous fugitive dust control for all material handling operations is implemented, updated as necessary, and kept at the facility. If at any time the fugitive dust control program fails to address or inadequately addresses an event, the permittee shall amend the fugitive dust control program within 45 days after such an event occurs. The permittee shall also amend the fugitive dust control program within 45 days, if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the fugitive dust control program and any amendments to the fugitive dust control program to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the fugitive dust control program or amended fugitive dust control program 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.² (R 336.1371, R 336.1372, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d), Act 451 Section 324.5524)

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2. The permittee shall not operate EU-REFHS&BL unless a MAP as described in Rule 911(2), for operation of the process and emission control equipment is implemented, updated as necessary, and kept at the facility. 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.² (R 336.1331, R 336.1910, R 336.1911, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))

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IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any portion of EU-REFHS&BL unless the associated enclosures, fabric filters, and bin vent filter 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-REFHS&BL as required in SC III.2.² (R 336.1910, R 336.1911, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))

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2. The permittee shall not operate EU-REFHS&BL unless the external conveyor hoods or enclosures 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-REFHS&BL as required in SC III.2.² (R 336.1910, R 336.1911, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))

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V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

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NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall perform and document non-certified visible emissions observations as required in SC I.1.4 on a daily basis when EU-REFHS&BL is operating. If during the observation there are any visible emissions detected from an emission point, a USEPA Method 9 certified visible emissions observation shall be conducted for a minimum of 15 minutes to determine the actual opacity from that emission point. Records of the non-certified visible emissions observations, USEPA Method 9 observations that are performed, the reason for any visible emissions observed and

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~~any corrective actions taken shall be kept on file and in a format acceptable to the AQD.² (R 336.1301(1)(c), 40 CFR 60.254)~~

VII. REPORTING

- ~~1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))~~
- ~~2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))~~
- ~~3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))~~

~~See Appendix 8-3~~

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 with an asterisk (*) indicating a non-vertical discharge:~~

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-REFDC01*	14 x 20.²	53.²	R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
2. SV-REFDC02*	14 x 20.²	40.²	R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
3. SV-REFBV*	14 x 14.²	64.²	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 provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and Y, as they apply to EU-REFHS&BL.² (40 CFR Part 60, Subparts A and Y)~~

Footnotes:

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

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~~D. FLEXIBLE GROUP CONDITIONS~~

~~Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.~~

~~The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.~~

Section 3 Monroe Fuels Company, LLC

ROP No: MI-ROP-B2816-2019
Expiration Date: October 16, 2024
PTI No: MI-PTI-B2816-2019

~~E. NON-APPLICABLE REQUIREMENTS~~

~~At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii).~~

APPENDICES

Appendix 1-3. Abbreviations and Acronyms

The following is an alphabetical listing of abbreviations/acronyms that may be used in this permit.

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO ₂ e	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/ department	Michigan Department of Environment, Great Lakes, and Energy	°F	Degrees Fahrenheit
EU	Emission Unit	gr	Grains
FG	Flexible Group	HAP	Hazardous Air Pollutant
GACS	Gallons of Applied Coating Solids	Hg	Mercury
GC	General Condition	hr	Hour
GHGs	Greenhouse Gases	HP	Horsepower
HVLP	High Volume Low Pressure*	H ₂ S	Hydrogen Sulfide
ID	Identification	kW	Kilowatt
IRSL	Initial Risk Screening Level	lb	Pound
ITSL	Initial Threshold Screening Level	m	Meter
LAER	Lowest Achievable Emission Rate	mg	Milligram
MACT	Maximum Achievable Control Technology	mm	Millimeter
MAERS	Michigan Air Emissions Reporting System	MM	Million
MAP	Malfuction Abatement Plan	MW	Megawatts
EGLE	Michigan Department of Environment, Great Lakes, and Energy	NMOC	Non-methane Organic Compounds
MSDS	Material Safety Data Sheet	NO _x	Oxides of Nitrogen
NA	Not Applicable	ng	Nanogram
NAAQS	National Ambient Air Quality Standards	PM	Particulate Matter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM ₁₀	Particulate Matter equal to or less than 10 microns in diameter
NSPS	New Source Performance Standards	PM _{2.5}	Particulate Matter equal to or less than 2.5 microns in diameter
NSR	New Source Review	pph	Pounds per hour
PS	Performance Specification	ppm	Parts per million
PSD	Prevention of Significant Deterioration	ppmv	Parts per million by volume
PTE	Permanent Total Enclosure	ppmw	Parts per million by weight
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonable Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO ₂	Sulfur Dioxide
SNCR	Selective Non-Catalytic Reduction	TAC	Toxic Air Contaminant
SRN	State Registration Number	Temp	Temperature
TEQ	Toxicity Equivalence Quotient	THC	Total Hydrocarbons
USEPA/EPA	United States Environmental Protection Agency	tpy	Tons per year
VE	Visible Emissions	µg	Microgram
		µm	Micrometer or Micon
		VOC	Volatile Organic Compounds
		yr	Year

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 pounds per square inch gauge (psig).

Appendix 2-3. Schedule of Compliance

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. ~~(R 336.1213(4)(a), R 336.1119(a)(ii))~~

Appendix 3-3. Monitoring Requirements

Specific monitoring requirement procedures, methods or specifications are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 4-3. Recordkeeping

Specific recordkeeping requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 5-3. Testing Procedures

There are no specific testing requirement plans or procedures for this ROP. Therefore, this appendix is not applicable.

Appendix 6-3. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-B2816-2009a. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No. MI-PTI-B2816-2009a is being reissued as Source-Wide PTI No. MI-PTI-B2816-2019.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
27-13B	NA	REF Transfer House and Refined Coal Plant Building	EU-REFHS&BL

Appendix 7-3. Emission Calculations

There are no specific emission calculations to be used for this ROP. Therefore, this appendix is not applicable.

Appendix 8-3. Reporting

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.

B. Other Reporting

Specific reporting requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, Part B of this appendix is not applicable.

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C7. Acid Rain Permit Renewal Application
for Unit 1, Unit 2, Unit 3, & Unit 4

Facility (Source) Name (from STEP 1)

STEP 3**Permit Requirements****Read the standard requirements.**

- (1) The designated representative of each affected source and each affected unit at the source shall:
 - (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
 - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each affected source and each affected unit at the source shall:
 - (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
 - (ii) Have an Acid Rain Permit.

Monitoring Requirements

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements

- (1) The owners and operators of each source and each affected unit at the source shall:
 - (i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
 - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
 - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements

The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Facility (Source) Name (from STEP 1)

STEP 3, Cont'd.**Excess Emissions Requirements**

- (1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an affected source that has excess emissions in any calendar year shall:
 - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
 - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
 - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
 - (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
 - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
- (6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Facility (Source) Name (from STEP 1)

STEP 3, Cont'd.

Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a source can hold; provided, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;
- (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

STEP 4

Certification

Read the certification statement, sign, and date.

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name	
Signature	<i>Anderpal K. Deol</i>
Date	

C8. Units 1-4 CAM Plans (Lead & PM10 and HF)

MONROE PLANT ORDER	Subject: Units 1, 2, 3 & 4 Compliance Assurance Monitoring (CAM) Plan - Lead & PM10	Page of 1 6	Number: EV-21
	Written: K. Johnson – Environmental Engineer	Date: 2/9/24	Original Date: 05/05/2010
	Approved: D. Casey – Plant Manager	Date:	Revs: 4 05/2010, 02/2018, 02/2024

, VERIFY CURRENT VERSION IN DOCUMENTUM PRIOR TO USE – UNCONTROLLED WHEN PRINTED.

1.0 Purpose

- 1.1 The purpose of this Plant Order is to describe the responsibilities, requirements, and procedures to ensure adherence of the Compliance Assurance Monitoring (CAM) Plan conditions in the plant’s Renewable Operating Permit (ROP) and assure compliance with the lead and PM10 emission limits.

2.0 Scope

- 2.1 Compliance Assurance Monitoring (CAM) – Involves direct monitoring of control equipment operating parameters (or acceptable surrogate) to ensure compliance with applicable emission limits. CAM is intended to be an indicator process in lieu of a continuous lead and PM10 emissions monitoring system (CEMS). CAM requirements can be found in the ROP under section “FG-COALBLRCAM.”

3.0 Regulations

- 3.1 The Environmental Protection Agency (EPA) developed the CAM rule, Title 40 – Protection of Environment, Chapter I – Environmental Protection Agency, Subchapter C – Air Programs, part 64 – 64.1 to 64.10 to enhance monitoring for certain large emissions units that rely on active control devices (electrostatic precipitators and Flue Gas Desulfurization (FGD) systems) to meet emission limit requirements.
- 3.2 The CAM Rules apply to emission units with add-on equipment. Monroe Power Plant’s CAM requirements were developed for the FGD systems servicing coal-fired boilers because any of the four boilers have “potential pre-control device emissions” of lead oxide and PM10 greater than 10 tons per year.
- 3.3 The State of Michigan, Renewable Operating Permit (ROP) is issued to:
- DTE Electric Company – Monroe Power Plant
 Located at 3500 East Front Street, Monroe, Monroe County, Michigan 48161
 Permit Number: MI-ROP-2816-2019
- 3.4 The Michigan Department of Environment, Great Lakes, and Energy issued this permit in accordance with and subject to Part 5506(3) Article II, Chapter 1, Part 55 (Air Pollution Control) of P.A. 451 of 1994. Pursuant to Air Pollution Control Rule 336.1210(1), this permit constitutes the permittee’s authority to operate the major source identified above in accordance with general conditions, special conditions and attachments contained herein. Operation of the major source and all emission unit/process groups listed in the permit are subject to all applicable future or amended rules and regulations pursuant to P.A. 451 and the Clean Air Act.

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4.0 References

- 4.1 PPO No. 027 – Continuous Emission Monitoring Practices; Specifies the requirements and assigns responsibilities for the monitoring, record-keeping, and reporting of sulfur dioxide, nitrogen oxides, carbon dioxide, and carbon monoxide emissions, volumetric flow, and Opacity data from affected units, using a data acquisition and handling system, as required by Title IV of the Clean Air Act Amendments of 1990, and permit conditions.
- 4.2 Environmental Program (EP) 06 – Air Quality Management; Describes applicable air quality requirements, permitting requirements, and responsibilities for implementing programs to demonstrate compliance to air quality regulations at Energy Supply facilities. Also provide guidance for Energy Supply facilities on active and/or operational changes that may require new air permits or may impact existing air permits.
- 4.3 DTE Environmental Policy; Describes the commitment to governmental regulations and DTE Energy policies.
- 4.4 EV-15 – Units 1, 2, 3 and 4 Control Devices Malfunction Abatement Plan and Start-up Shutdown Plan; Describes the Malfunction Abatement Plan that has been prepared to meet the requirements of the Renewable Operating Permit and Permit to Install 27-13 issued by the State of Michigan for steam generator fuel burning and control equipment at the Monroe Power Plant. Prepared by DTE Electric Company in accordance Rule 911 of the Michigan Air Pollution Act (Part 55 of Michigan Act 451).

5.0 Definitions

- 5.1 Abnormal Condition – Opacity greater than 20% continuing for more than 2 hours or the 24-hour rolling PM value greater than 0.011 lb/mmBTU for more than 2 hours.
- 5.2 CEMS – Continuous Emissions Monitoring System. Equipment, required by Federal Regulations, used to sample and condition (if applicable), to analyze, and to provide a permanent record of pollutant emissions or process parameters. SO₂, PM, NO_x, CO, and CO₂ analyzers, flow monitors, and Data Acquisition Handling Systems are examples of CEMS components.
- 5.3 Exceedance – A condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard consistent with any averaging period specifically for averaging the results of monitoring.
- 5.4 Excursion – A departure from an indicator range established for monitoring under CAM.
- 5.5 Opacity – The degree to which an emission reduces the transmission of light or obscures an observer's view.
- 5.6 Particulate Matter – Any air contaminant existing as a finely divided liquid or solid as measured by standardized test methods. Particulate matter does not include uncombined water vapor.

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- 5.7 Renewable Operating Permit (ROP) – A permit that contains all air pollution emission limitations for a facility as well as any monitoring, record-keeping and reporting requirements applicable to a given source to demonstrate compliance with the emission limitations identified within the permit.
- 5.8 Reports and Records – The Data Acquisition and Handling System (DAHS) contains the official record of CEMs parameters, PM, and Hg. A quarterly report of stack emissions is issued to the Michigan Department of Great Lakes & Energy (EGLE). The reports and supporting information must be kept on file for minimum of 5 years.
- 5.9 1-Hour Block – begins at 00 minutes and ends at 59 minutes each hour. The CEM system’s DAHS clock will be the official clock

6.0 Responsibilities

- 6.1 **Plant Manager** – Responsible for the air quality control at the plant and meeting the requirements of the Renewable Operating Permit (ROP). This includes the associated monitoring, excursion detection, corrective action, documentation and reporting procedures required by the CAM Rule.
- 6.2 **Production Manager** – Responsible for compliance with the Renewable Operating Permit (ROP) and the CAM Rule including the following:
 - 6.2.1 Developing and implementing procedures required to comply with the ROP’s CAM Rule requirements, PPO No. 027 – Continuous Emission Monitoring Practices, EP-6 – Air Quality Management, and Units 1, 2, 3 and 4 Control Devices Malfunction Abatement Plan and Start-up Shutdown Plan.
 - 6.2.2 Informing operating personnel of the requirements of PPO No. 027, EP-6 and EV-15.
 - 6.2.3 Following the reporting requirements of PPO No. 027, EP-6, and EV-15.
 - 6.2.4 Maintaining plant equipment so it will not contribute to a CAM excursion.
- 6.3 **Shift Supervisor, Supervising Operator, or Delegate** – Responsible for taking the necessary action steps to comply with PPO No. 027 – *Continuous Emission Monitoring Practices*, EP-6 – *Air Quality Management*, and EV-15 – *Units 1, 2, 3 and 4 Control Devices Malfunction Abatement Plan and Start-up Shutdown Plan* and this CAM Plan.
- 6.4 **Supervising Operator or Delegate** – Required to know if an excursion has occurred during their shift and initiate corrective actions. A 12-hour average PM warning alarm will alarm on the CEM system and appropriate steps as outlined in this procedure will be taken by operations for the excursion.
- 6.5 **Environmental Engineer (EE)** – Responsible for understanding regulations and providing technical support to ensure that Plant personnel understand the requirements. They will also review all available plant data with plant staff and Environmental Management and Safety (EM&S) to determine if an excursion has occurred. They are responsible for the submission of any documentation to the agencies required by CAM. The EE is the EM&S representative at the plant.

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- 6.6 **All Employees, including Operators, Instrument Shop Personnel, and Maintenance** are responsible for performing their jobs in a manner that reduces the potential for an excursion.

7.0 Procedures

7.1 Monitoring

- 7.1.1 The Supervising Operator (SO) shall ensure the CEM computer is on. This enables the SO to receive any alarm the CEM system may detect and communicate to the SO.
- 7.1.2 The monitored indicator of ongoing lead & PM10 emission compliance will be 24-hour rolling particulate matter (PM), specifically using PM CEMS in alignment with and as monitoring, prescribed by the MATS NESHAP standard.
- 7.1.3 The MATS limits for lead and PM are 1.2 lbs/TBtu and 0.03 lbs/mmBtu, respectively. The permit limits for lead, PM, and PM10 are 16.9 lbs/TBtu, 0.011 lbs/mmBtu, and 0.024 lbs/mmBtu respectively. The MATS limit for lead, 1.2 lbs/TBtu, is more stringent than the state of Michigan based permit limit of 16.9 lbs/TBtu and thus offers additional margin for compliance to the permitted lead limit. The permit PM limit is more stringent than the MATS PM limit, so Monroe Power Plant will use the permit limit of 0.011 lbs/mmBtu as the CAM Lead and PM10 excursion value. In alignment with the permit, the averaging period will be the same as the permit's PM standard, the "24 hour rolling average updated at the end of each boiler operating hour."
- 7.1.4 The 0.011 lbs/mmBtu 24 hour rolling average value will be a CAM excursion for lead unless it can be shown that lead emissions during the excursion are under the lead emission limit, by calculating lead emission using coal combustion rates and worst-case lead concentration for the fuel blend.

7.2 Response to CEMS' 12-hour rolling PM Warning Alarm

- 7.2.1 If a CEMS' 12-hour rolling PM Warning alarm is received, then the SO will take action to place the operation of the unit and its control devices to a mode of operation that is safe for the unit and prevents emissions that would cause a CAM Excursion.
- 7.2.2 To provide a reasonable assurance of compliance with emission limitations or standards for the anticipated range of operations at a pollutant specific emissions unit, monitoring under CAM shall meet the following general criteria:
1. The DTE Electric - Monroe Power Plant shall establish an appropriate range(s) for the selected indicator(s) such that operation within the ranges provides a reasonable assurance of ongoing compliance with emission limitations or standards for the anticipated range of operations.
 2. Quality assurance and control practices are adequate to ensure the continuing validity of the data.

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3. A continuous emission monitoring system (CEMS) is required pursuant to other authority under the ACT or state or local law, DTE shall use such system to satisfy the requirements of this part.
 4. Allow for reporting excursions consistent with any period for reporting of exceedances in an underlying requirement.
- 7.2.3 To assist Operations in avoiding a CAM excursion, the CEM system has been programmed to give warning alarms and a CAM Excursion alarm. A CAM warning alarm will sound on the CEM system:
1. After any hour, the 12-hour rolling average Particulate Matter value (determined each hour the boiler operates) exceeds 0.011 lb/mmBTU as measured by CEMS and recorded by the DAHS.
- 7.3 Excursion Procedure – Response to CEMS’ 24-hour rolling PM Exceedance Alarm
- 7.3.1 A 24-hour rolling PM Exceedance alarm will sound on the CEM system after any hour, the 24 hour rolling average Particulate Matter value (determined each hour the boiler operates) exceeds 0.011 lb/mmBTU as measured by CEMS and recorded by the DAHS.
- 7.3.2 Upon detecting an excursion or CAM exceedance, the Supervising Operator shall take action to place the unit and its control devices to a mode of operation that is safe for the unit as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. These actions may include removing the unit from service.
1. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance.
 2. Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the emission limitation or standard, as applicable. Some possible actions may include:
 - a. Drop load.
 - b. Change fuel blend
 - c. Improve precipitator performance.
 - d. Increase number of absorber recirculation pumps that are in operation.
- 7.3.3 Conduct an after action review to determine if procedures followed in response to the excursion or exceedance were adequate to address the issue. Determination will be based on information available, which may include but is not limited to: monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and process.
1. If an excursion is identified, information as described in the CAM Excursion Report will be collected so that proper Electrostatic Precipitator (ESP) and Flue Gas Desulfurization (FGD) operation can be ascertained.

2. Boiler operation is more difficult to define as a number of variables affect combustion in the boiler and particulate matter emissions. If an excursion is identified, information as identified in the CAM Excursion Report will be collected so proper operation of the boilers can be ascertained.
3. **Shift Supervisor, Supervising Operator, or Delegate** – will ensure that all records, samples and data is collected and forwarded to the plant environmental office.

8.0 Recordkeeping

- 8.1 The DAHS contains the official particulate matter emissions data.
- 8.2 In case of CAM excursions, Environmental Personnel will be responsible for assembling data in the Quarterly Excess Emissions report and the ROP Semi-Annual Certification report to the state and federal agencies. The data will be supplemented by Operations and I&C personnel. The report shall include, at a minimum, the following required information, as applicable:
 - 8.2.1 Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and corrective actions taken.
 - 8.2.2 Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and a description of the actions taken to implement Corrective Action during the reporting period.

9.0 Revision History

	Revision No.	Reviewed by:	Changes
	1	B. Marietta	Revised Title to read "Compliance Assurance Monitoring Plan" rather than "Continuous Assurance Monitoring Plan."
	2	L. Lockwood	Updated document to include all four units and to revised based on use of PM CEMS.
	3	K. Johnson	Updated to include PM as an indicator for PM10 and lead.
	4	A. Thomas	Corrected spelling errors, changed EM&R to EM&S, replaced PPO 223 with EP-6

MONROE PLANT ORDER	Subject: Units 1, 2, 3, & 4 Compliance Assurance Monitoring Plan – Hydrogen Fluoride Limitation	Page 1 Of 6	Number: EV-027 Original Date: 2/13/2020 Revs: 1 02/2024
	Written: K. Johnson – Environmental Engineer	Date: 2/9/24	
	Approved: D. Casey – Plant Manager	Date:	

VERIFY CURRENT VERSION IN DOCUMENTUM PRIOR TO USE – UNCONTROLLED WHEN PRINTED.

1.0 Purpose

- 1.1 The purpose of this Plant Order is to describe the responsibilities, requirements, and procedures to ensure adherence of the Compliance Assurance Monitoring (CAM) Plan conditions in the plant’s Renewable Operating Permit (ROP) and assure compliance with the hydrogen fluoride (HF) emission limits.

2.0 Scope

- 2.1 Compliance Assurance Monitoring (CAM) – Involves direct monitoring of control equipment operating parameters (or acceptable surrogate) to ensure compliance with applicable emission limits. CAM is intended to be an indicator process in lieu of a continuous hydrogen fluoride emissions monitoring system (CEMS). CAM requirements can be found in the ROP under section “FG-COALBLRCAM.”

3.0 Regulations

- 3.1 The Environmental Protection Agency (EPA) developed the CAM rule, Title 40 – Protection of Environment, Chapter I – Environmental Protection Agency, Subchapter C – Air Programs, part 64 – 64.1 to 64.10 to enhance monitoring for certain large emission units that rely on active control devices (Flue Gas Desulfurization (FGD) systems) to meet emission limit requirements.
- 3.2 The CAM Rules apply to emission units with add-on equipment. Monroe Power Plant’s CAM requirements were developed for the FGD systems servicing coal-fired boilers because any of the four boilers have “potential pre-control device emissions” of hydrogen fluoride greater than 10 tons per year.
- 3.3 The State of Michigan, Renewable Operating Permit (ROP) is issued to:
DTE Electric Company – Monroe Power Plant
Located at 3500 East Front Street, Monroe, Monroe County, Michigan 48161
Permit Number: MI-ROP-2816-2019
- 3.4 The Michigan Department of Environment, Great Lakes, and Energy issued this permit in accordance with and subject to Part 5506(3) Article II, Chapter 1, Part 55 (Air Pollution Control) of P.A. 451 of 1994. Pursuant to Air Pollution Control Rule 336.1210(1), this permit constitutes the permittee’s authority to operate the major source identified above in accordance with general conditions, special conditions and attachments contained herein. Operation of the major source and all emission unit/process groups listed in the permit are subject to all applicable future or amended rules and regulations pursuant to P.A. 451 and the Clean Air Act.

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4.0 References

- 4.1 PPO No. 027 – Continuous Emission Monitoring Practices; Specifies the requirements and assigns responsibilities for the monitoring, record-keeping, and reporting of sulfur dioxide, nitrogen oxides, carbon dioxide, and carbon monoxide emissions, volumetric flow, and Opacity data from affected units, using a data acquisition and handling system, as required by Title IV of the Clean Air Act Amendments of 1990, and permit conditions.
- 4.2 Environmental Program (EP) 06 – Air Quality Management; Describes applicable air quality requirements, permitting requirements, and responsibilities for implementing programs to demonstrate compliance to air quality regulations at Energy Supply facilities. Also provide guidance for Energy Supply facilities on active and/or operational changes that may require new air permits or may impact existing air permits.
- 4.3 DTE Environmental Policy; Describes the commitment to governmental regulations and DTE Energy policies.
- 4.4 EV-15 – Units 1, 2, 3 and 4 Control Devices Malfunction Abatement Plan and Start-up Shutdown Plan; Describes the Malfunction Abatement Plan that has been prepared to meet the requirements of the Renewable Operating Permit issued by the State of Michigan for steam generator fuel burning and control equipment at the Monroe Power Plant. Prepared by DTE Electric Company in accordance Rule 911 of the Michigan Air Pollution Act (Part 55 of Michigan Act 451).

5.0 Definitions

- 5.1 Abnormal Condition – Opacity greater than 20% continuing for more than 2 hours or the 24-hour rolling SO₂ value greater than 0.107 lbs/mmBTU for more than 2 hours.
- 5.2 CEMS – Continuous Emissions Monitoring System. Equipment, required by Federal Regulations, used to sample and condition (if applicable), to analyze, and to provide a permanent record of pollutant emissions or process parameters. SO₂, PM, NO_x, CO, and CO₂ analyzers, flow monitors, and Data Acquisition Handling Systems are examples of CEMS components.
- 5.3 Exceedance – A condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard consistent with any averaging period specifically for averaging the results of monitoring.
- 5.4 Excursion – A departure from an indicator range established for monitoring under CAM.
- 5.5 Renewable Operating Permit (ROP) – A permit that contains all air pollution emission limitations for a facility as well as any monitoring, record-keeping and reporting requirements applicable to a given source to demonstrate compliance with the emission limitations identified within the permit.

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- 5.6 Reports and Records – The Data Acquisition and Handling System (DAHS) contains the official record of CEMs parameters, PM, and Hg. A quarterly report of stack emissions is issued to the Michigan Department of Great Lakes & Energy (EGLE). The reports and supporting information must be kept on file for minimum of 5 years.
- 5.7 1-Hour Block – begins at 00 minutes and ends at 59 minutes each hour. The CEM system's DAHS clock will be the official clock

6.0 Responsibilities

- 6.1 **Plant Manager** – Responsible for the air quality control at the plant and meeting the requirements of the Renewable Operating Permit (ROP). This includes the associated monitoring, excursion detection, corrective action, documentation and reporting procedures required by the CAM Rule.
- 6.2 **Production Manager** – Responsible for compliance with the Renewable Operating Permit (ROP) and the CAM Rule including the following:
- 6.2.1 Developing and implementing procedures required to comply with the ROP's CAM Rule requirements, PPO No. 027 – Continuous Emission Monitoring Practices, EP-6 – Air Quality Management, and Units 1, 2, 3 and 4 Control Devices Malfunction Abatement Plan and Start-up Shutdown Plan.
 - 6.2.2 Informing operating personnel of the requirements of PPO No. 027, EP-6 and EV-15.
 - 6.2.3 Following the reporting requirements of PPO No. 027, EP-6, and EV-15.
 - 6.2.4 Maintaining plant equipment so it will not contribute to a CAM excursion.
- 6.3 **Shift Supervisor, Supervising Operator, or Delegate** – Responsible for taking the necessary action steps to comply with PPO No. 027 – *Continuous Emission Monitoring Practices*, EP-6 – *Air Quality Management*, and EV-15 – *Units 1, 2, 3 and 4 Control Devices Malfunction Abatement Plan and Start-up Shutdown Plan* and this CAM Plan.
- 6.4 **Supervising Operator or Delegate** – Required to know if an excursion has occurred during their shift and initiate corrective actions. A 1-hour average SO₂ warning alarm will alarm on the CEM system and appropriate steps as outlined in this procedure will be taken by operations for the excursion.
- 6.5 **Environmental Engineer (EE)** – Responsible for understanding regulations and providing technical support to ensure that Plant personnel understand the requirements. They will also review all available plant data with plant staff and Environmental Management and Resources (EM&R) to determine if an excursion has occurred. They are responsible for the submission of any documentation to the agencies required by CAM. The EE is the EM&R representative at the plant.
- 6.6 **All Employees, including Operators, Instrument Shop Personnel, and Maintenance** are responsible for performing their jobs in a manner that reduces the potential for an excursion.

7.0 Procedures

- 7.1 Monitoring

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- 7.1.1 The Supervising Operator (SO) shall ensure the CEM computer is on. This enables the SO to receive any alarm the CEM system may detect and communicate to the SO.
- 7.1.2 The monitored indicator of ongoing hydrogen fluoride emission compliance will be sulfur dioxide (SO₂), specifically using SO₂ CEMS in alignment with and as monitoring, prescribed by the MATS NESHAP standard.
- 7.1.3 The SO₂ limit in MATS is 0.20 lbs/mmBtu, and the permit is 0.107 lbs/mmBtu. The air permit is more stringent than the MATS limit and therefore the CAM excursion value will use the permit limit, 0.107 lbs/mmBtu. In alignment with the permit, the averaging period will be the same as the permit’s SO₂ standard, the “24 hour rolling average updated at the end of each boiler operating hour.”
- 7.1.4 The 0.107 lbs/mmBtu 24 hour rolling average value will be a CAM excursion unless it can be shown that hydrogen fluoride emissions during the excursion are under the hydrogen fluoride emission limit, by calculating hydrogen fluoride emission using coal combustion rates and hydrogen fluoride concentration for the fuel blend.
- 7.2 Response to CEMS’ 1-hour rolling SO₂ Warning Alarm
 - 7.2.1 If a CEMS’ 1-hour rolling SO₂ Warning alarm is received, then the SO will take action to place the operation of the unit and its control devices to a mode of operation that is safe for the unit and prevents emissions that would cause a CAM Excursion.
 - 7.2.2 To provide a reasonable assurance of compliance with emission limitations or standards for the anticipated range of operations at a pollutant specific emissions unit, monitoring under CAM shall meet the following general criteria:
 1. The DTE Electric - Monroe Power Plant shall establish an appropriate range(s) for the selected indicator(s) such that operation within the ranges provides a reasonable assurance of ongoing compliance with emission limitations or standards for the anticipated range of operations.
 2. Quality assurance and control practices are adequate to ensure the continuing validity of the data.
 3. A continuous emission monitoring system (CEMS) is required pursuant to other authority under the ACT or state or local law, DTE shall use such system to satisfy the requirements of this part.
 4. Allow for reporting excursions consistent with any period for reporting of exceedances in an underlying requirement.
 - 7.2.3 To assist Operations in avoiding a CAM excursion, the CEM system has been programmed to give warning alarms that are synonymous with the SO₂ warning alarm that will sound on the CEM system:
 1. After any hour, the 1 hour average SO₂ value (determined each hour the boiler operates) exceeds 0.107 lbs/mmBTU as measured by CEMS and recorded by the DAHS.
- 7.3 Excursion Procedure – Response to CEMS’ 24-hour rolling SO₂ Exceedance Alarm

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- 7.3.1 A 24-hour rolling SO₂ exceedance alarm will sound on the CEM system after any hour, the 24-hour rolling average SO₂ value (determined each hour the boiler operates) exceeds 0.107 lb/mmBTU as measured by CEMS and recorded by the DAHS.
- 7.3.2 Upon detecting an excursion or CAM exceedance, the Supervising Operator shall take action to place the unit and its control devices to a mode of operation that is safe for the unit as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. These actions may include removing the unit from service.
1. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance.
 2. Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the emission limitation or standard, as applicable. Some possible actions may include:
 - a. Drop load.
 - b. Change fuel blend.
 - c. Increase limestone injection.
 - d. Increase number of absorber recirculation pumps that are in operation.
- 7.3.3 Conduct an After Action Review to determine if procedures followed in response to the excursion or exceedance were adequate to address the issue. Determination will be based on information available, which may include but is not limited to: monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and process.
1. **Shift Supervisor, Supervising Operator, or Delegate** – will ensure that all records, samples and data is collected and forwarded to the plant environmental office.

8.0 Recordkeeping

- 8.1 The DAHS contains the official SO₂ emissions data.
- 8.2 In case of CAM excursions, Environmental Personnel will be responsible for assembling data in the Quarterly Excess Emissions report and the ROP Semi-Annual Certification report to the state and federal agencies. The data will be supplemented by Operations and I&C personnel. The report shall include, at a minimum, the following required information, as applicable:
- 8.2.1 Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and corrective actions taken.

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8.2.2 Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and a description of the actions taken to implement Corrective Action during the reporting period.

9.0 Revision History

Revision No.	Reviewed by:	Changes
0	K. Johnson	New EV - to meet 40CFR Part 64, Compliance Assurance Monitoring for Hydrogen Fluoride (HF) gas emissions.
1	A. Thomas	Replace references of PPO 223 with EP-6

C9. Plans

Cascades Room Dust Collectors Malfunction Abatement Plan

Dumper House Dust Collector Malfunction Abatement Plan

Transfer House (includes Crusher House) Dust Collector Malfunction
Abatement Plan

Limestone and Gypsum (includes Hydrated Lime) Handling Control
Equipment Malfunction Abatement Plan

Petroleum Coke Material Handling Malfunction Abatement Plan

Units 1, 2, 3, and 4 Control Devices Malfunction Abatement Plan and Start-
up Shutdown Plan

Units 1, 2, 3, and 4 Mercury Control Devices Malfunction Abatement Plan

Fugitive Dust Plan

MONROE PLANT ORDER	Cascade Room Dust Collectors Malfunction Abatement Plan	Page 1 Of 6	Number: EV-16
	Written: Gerald Chilson Jr – Environmental Engineer	Date: 2/9/2024	Original Date: 07/12/2016 Rev: 6
	Approved: Daniel Casey - Plant Manager	Date:	

VERIFY CURRENT VERSION IN DOCUMENTUM PRIOR TO USE – UNCONTROLLED WHEN PRINTED

1.0 Purpose

This Malfunction Abatement Plant (MAP) has been prepared to meet the requirements of the Renewable Operating Permit for SRN B2816 issued by the State of Michigan for the Coal Handling Dust Collection system at the Monroe Power Plant associated with EU-CASCADES-S1. This permit requires Monroe Power Plant to “...**not operate the facility unless the malfunction abatement plan (MAP) for continuous fugitive dust control for all material handling operations is implemented, updated as necessary, and kept at the facility.**” This MAP has been prepared by DTE Electric Company in accordance with Rule 911 of the Michigan Air Pollution Act (Part 55 of Michigan Act 451).

2.0 Scope

This plant order applies to the following equipment located in the Cascade Room where the coal (fuel) is transferred from the coal conveyor handling system into the coal silos that feed Monroe Power Plant’s Unit 1, 2, 3 and 4 boilers. Crushed coal is loaded onto conveyor belts in the loading house. The conveyor system transports the crushed coal into the plant building through the 9th floor, north wall. The crushed coal is distributed by a series of belts into one of 28 coal silos. There are seven coal silos feeding into each unit boiler.

The Cascade Room is equipped with six wet dust collectors to maintain a safe operating environment for workers inside the Cascade Room and to minimize fire explosion hazards from accumulated dust. The dust collectors remove dust and gases that result from coal conveyor and coal transfer operations inside the Cascade Room. The Cascade Room Dust Collection System, with all six dust collectors operating, is capable of collecting air entrained with dust at a rate of 161,688 cubic feet per minute (cfm). The system accomplishes this by pulling dust-laden air from above each conveyor transfer point in the Cascade Room and from each silo. Dust laden air is drawn into the wet dust extractor fan where it is mixed with water that is discharged from the water spray nozzles. The dust, air, and water mixture passes through a knit mesh filter panel where the dust particles are separated from the airstream. The knit mesh filter panel is periodically washed by the water spray nozzles. The demister vanes collect excess water and dust that has not drained away in the knit mesh filter panel. Thus, little water is carried over from the unit ensuring only damp air is exhausted out the stack. All residual water and dust collected in the unit drains by gravity through the plant to the coal pile runoff system.

With the wet dust collectors, dust is captured via pickup hoods and conveyed through the ductwork to the pre-filter box and wet dust extractor. The volume of air traveling through the ductwork is determined by an adjustable butterfly damper located at each pickup hood. The water supply to the system is controlled by the water filter cabinet. The cabinet contains isolation valves, redundant strainers, flowmeter, pressure switch, PRV’s, solenoid valves, and pressure gages.

2.1 The Cascade Room Dust Collection System consists of the following major components:

2.1.1 Wet Dust Collectors

1. Pre-filter
2. Wet dust extractor

3. Knit mesh filter
4. Demister vanes
5. Water spray nozzles
6. Water filtering cabinet
7. Wet and dry fan impellers
8. Drains to coal pile runoff
9. Controls
10. Indicating lights
11. Annunciators

3.0 Definition

None

4.0 Responsibilities

- 4.1 The Plant Director is responsible for ensuring that Monroe Power Plant operates in compliance with all environmental and safety requirements and regulations.
- 4.2 The Environmental Engineer is responsible for monitoring environmental compliance related activities at Monroe Power Plant.
- 4.3 The Fuel Systems Manager is responsible for overseeing the operation, inspection, maintenance, and repair of all the coal handling system including coal conveyors and dust collection devices.
- 4.4 The Operations Shift Supervisor is responsible for all operations at the plant, and is management's representative during off-hours (i.e., nights and weekends) when plant management is not on site. The Shift Supervisor may be reached at 384-2235.
- 4.5 The Fuel Systems Shift Supervisor is responsible for all Fuel Systems operations, and is management's representative during off-hours (i.e., nights and weekends) when plant management is not on site. The Shift Supervisor may be reached at 384-2231.

- 4.6 The Fuel Systems Planning group is responsible for ensuring parts necessary for routine maintenance and common replacements for the system are stocked or are available on a quick turnaround basis from the vendor for more involved repairs or replacements for the systems. A complete list of system parts kept in stock is listed in the company's stock computer system. The parts list is filed by system and major component (e.g., Dust Collector 1, Rotary Valve) and contains a complete list of parts for that component including: stock number, noun/qualifier/ (e.g. gear reducer), manufacturer part number, and quantity on hand. A complete list of system parts that must be ordered from the vendor is kept on the shared drive with the spare parts list contained in Maximo.

5.0 Procedure

5.1 **Daily Inspections – Monroe Fuel Supply Equipment Operators inspect and monitor all operating dust collectors once daily (see Table 1).**

When the Cascades dust collectors are running, non-certified visual emission checks must be performed daily. If during the observation there are any visible emissions detected from an emission point, a Method 9 certified visible emissions observation shall be conducted for a minimum of 15 minutes to determine the actual opacity from that emission point. Records of the non-certified visible emissions observations, Method 9 observations that are performed, the reason for any visible emissions observed and any corrective actions taken shall be kept on file on the Fuel Supply daily shift logs. Any Method 9 observations must be submitted to the Monroe Power Plant Environmental office.

The Cascade Room dust collectors automatically monitor operating variables that may affect the performance of the system, and are equipped with equipment trip switches and/or alarms that will shut off the equipment in an orderly manner to avoid damaging the system, or alert operators of a possible malfunction. An alarm in the fuel supply control room and automatic shutdown of a dust collector is initiated whenever one of the following emergency situations occurs:

5.1.1 Wet Dust Collector Alarms

1. Motor trip
2. Water filter cabinet low water pressure
3. Water filter cabinet low water flow
4. Ductwork low air flow
5. High motor vibration

**Table 1
Daily Inspection Checklist**

Wet Dust Collector	
Action	Checklist Requirement
Inspect/Monitor all operating Dust Collectors once daily	a. Monitor water supply pressure
	b. Monitor water pressure from low and high pressure PRV's
	c. Monitor water flow rate
	d. Monitor ductwork air flow
	e. Monitor drain piping from equipment
Inspect/Monitor all operating dust collector Control Panels once daily	Check for failed or alarm conditions (see Table 2 for Control Panel Alarm Conditions)
Record results in the Fuel Supply Control Room Electronic Log.	The inspecting operator will report inspection results to the Fuel Supply Control Room for inclusion in the Fuel Supply log.
Submit any required Method 9 logs to Environmental Engineers, include all corrective actions taken and planned maintenance.	The inspecting operator and/or Fuel Supply Shift Supervisor will report inspection results that require Method 9 observations to the Environmental Engineers.

**Table 2
Control Panel (Annunciator) Alarm Conditions**

<u>Wet Dust Extractor</u>
• Motor trip
• Water filter cabinet low water pressure
• Water filter cabinet low water flow
• Ductwork low air flow
• High motor vibration

NOTE: System motors are also equipped with overload protection devices that will shut the motors down in case of overload conditions that could damage the motor.

5.2 **Maintenance Inspections** – preventative maintenance inspections and tasks are performed by Monroe Fuel Systems Operations and Maintenance as indicated in Table 3:

**Table 3
Maintenance/Operations Inspections and Tasks**

Wet Dust Extractor	
Frequency of Inspection	Task
Weekly	Clean water filter cabinet strainers
Monthly	<ul style="list-style-type: none"> a. Motor lubrication b. Wash pre-filter box c. Wash knit mesh filter d. Wash demister vanes e. Inspect impeller spray head assembly f. Inspect water spray nozzles
Every Six Months	Inspect impeller blades for wear
Annually	<ul style="list-style-type: none"> a. Inspect fan shaft seal and housing b. Inspect airflow meter c. Verify airflow and balance system

5.3 **System Shutdown/Failure**

NOTE: Emission limits are not expected to be exceeded during system shutdown, because there will be no emissions during shutdown. However, the dust collector system must be returned to service as soon as possible to maintain safe (i.e., low dust) working conditions inside the Cascade Room.

5.3.1 System Shutdown/Failure Tasks Performed by Monroe Fuel Systems Personnel

1. If a malfunction or failure occurs that cannot be corrected by an operator, then a Work Order will be issued to repair the system.
2. To reduce dust within the Cascade Room and further prevent emissions to outside air, the following additional measures may be employed as necessary:
 - a. Increased application of water spray to the dust collector hoods and Cascade Room walls, beams and floor.
 - b. Application of a surfactant based foam spray to the Cascade Room walls, beams and floor.
 - c. Increased use of wash boxes to clean conveyor belts.
 - d. Increased use of dust control surfactant on the coal before entering the Cascade Room.

3. Notify regulatory agencies during excess emissions events as required in DTE Energy Environmental Program (EP) 06 – Air Quality Management.

6.0 References

- 6.1 PPO 157 – Fuel Measuring and Sampling
- 6.2 EP-6 – Air Quality Management

7.0 Revision History

	Revision No.	Reviewed by:	Changes
	1		Updated to include Permit 93-09 requirements
	2		Formatting changes
	3		Updated to include upgraded wet dust collector information and Method 9 requirements
	4		Update to revise total cfm with new wet dust collectors and added 2 new wet dust collectors
	5	K. Gerzich	Update to revise total cfm with new wet dust collectors (DC4 & DC5), added 2 new wet dust collectors, and removed references to fabric filter dust collectors and replacement projects
	6	A. Thomas	Updated to reflect new permit number and environmental contact information, updated Sections 1 and 2

MONROE PLANT ORDER	Subject: Dumper House Dust Collector Malfunction Abatement Plan	Page 1 of 6	Number: EV-17
	Written: Gerald Chilson Jr – Environmental Engineer	Date: 2/9/2024	Original Date: 10/29/2010
	Approved: Daniel Casey – Plant Manager	Date:	Revs: 3

VERIFY CURRENT VERSION IN DOCUMENTUM PRIOR TO USE – UNCONTROLLED WHEN PRINTED

1.0 Purpose

This plant order has been prepared to meet the requirements of the Renewable Operating Permit for SRN B2816 issued by the State of Michigan for a Malfunction Abatement Plan (MAP) for the Coal Handling Fabric Filter Dust Collection system at the Monroe Power Plant associated with EU-DUMPERHS-S1. This permit requires Monroe Power Plant to “...**not operate the facility unless the malfunction abatement plan (MAP) ... has been implemented and is maintained.**” This MAP has been prepared by DTE Electric Company in accordance with Rule 911 of the Michigan Air Pollution Act (Part 55 of Michigan Act 451).

2.0 Scope

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The Dumper House is a coal receiving and conveying facility for the coal (fuel) handling system at Monroe Power Plant. Coal that is unloaded at the Dumper House travels on feeder belts to dumper conveyor C2.

The Dumper House is equipped with a baghouse dust collector (DC-24) to maintain a safe operating environment for workers inside the Dumper House and to minimize fire or explosion hazards from accumulated dust. The baghouse dust collector removes dust that results from coal dumping operations inside the Dumper House. The normal operation of DC-24 allows for a differential pressure across the dust collector of 0-10 inches of water (in.wg.). The dust collector has a trip built in which will stop operation at 8 in.wg. The Dumper House Dust Collection System is capable of collecting air entrained with dust at a rate of 150,000 cubic feet per minute (cfm). The system accomplishes this by pulling dust-laden air within the confines of the Dumper House. The Dumper House dust collector filters out the dust particles, allowing the clean air to exhaust to the atmosphere and the collected dust to be returned to the Dumper House conveyor belt. The Dumper House Dust Collection System consists of the following major components:

Subject: Dumper House Dust Collector Malfunction Abatement Plan	Page 2 of 6	No: EV-17
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- Baghouse (Filter)
- Two Exhaust Fans
- Belt Conveyor
- Filter Cleaning Blower
- Pneumatic Conveyor Blower
- Two Hoppers with Air Lock Rotary Valves
- Modicon PLC Controls
- Indicating Lights
- Instrumentation
- Annunciators
- Fire Protection System

The baghouse is a large cylindrical housing containing *vertical* bags mounted in parallel. The bags extend downward with their outlets mounted upward in a faceplate. Each bag is held in an expanded position by a steel frame. Dust-laden air is pulled by two exhaust fans into the baghouse through pick-up hoods positioned above each transfer point chute and at the end of the conveyors in the Dumper House. Air is pulled through bags in the baghouse and dust particles are collected on the exterior (dirty) side of the bags. Clean air that passes through the bags is exhausted by an outlet blower.

A jet-pulsed bag cleaning system utilizes pulsed air jets to knock accumulated dust off of the bags and into a hopper at the bottom of the dust collector. A rotary air-lock valve at the base of the hopper discharges accumulated dust to a pneumatic conveyor which discharges into a cyclone separator. Air from the separator is returned to the filter intake. The coal dust from the separator is discharged into a second hopper feeding a pin mixer which adds water to the coal dust. The pin mixer discharge is carried by a belt conveyor to the grizzly bar area above conveyor C2.

The Dumper House dust collector (DC-24) has the following emission limits:

Opacity – 5%
PM – 0.005 grains / dry standard cubic foot (gr/dscf)
PM₁₀ & PM_{2.5} – 6.44 pounds per hour (pph)

3.0 Definitions

None

Subject: Dumper House Dust Collector Malfunction Abatement Plan	Page 3 of 6	No: EV-17
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4.0 Responsibilities

- 4.1 The Plant Director is responsible for ensuring that Monroe Power Plant operates in compliance with all environmental and safety requirements and regulations.
- 4.2 The Environmental Engineer is responsible for monitoring environmental compliance related activities at Monroe Power Plant.
- 4.3 The Fuel Systems Manager is responsible for overseeing the operation, inspection, maintenance, and repair of all the coal handling system including coal conveyors and dust collection devices.
- 4.4 The Operations Shift Supervisor is responsible for all operations at the plant, and is management's representative during off-hours (i.e., nights and weekends) when plant management is not on site. The Shift Supervisor may be reached at 384-2235.
- 4.5 The Fuel Systems Shift Supervisor is responsible for all Fuel Systems operations, and is management's representative during off-hours (i.e., nights and weekends) when plant management is not on site. The Shift Supervisor may be reached at 384-2231.
- 4.6 The Fuel Systems Planning group is responsible for ordering Replacement parts (e.g. replacement bags and frames, timer, solenoids, diaphragm assemblies, rotary valves). Parts may be ordered directly from the manufacturer by calling 1-763-717-0707. Most parts can be shipped within 24 hours of ordering. A complete list of parts and catalog numbers is included in the dust collector system operating manuals.

5.0 Procedure

5.1 Daily Inspections

Air permits at the plant require daily non-certified visible emission observations on the Dumper House dust collector. These daily observations are performed by fuel supply personnel and logged in the plant's shift log system (PlantView). Should visible emissions be present, fuel supply personnel will take appropriate corrective actions and document the situation and actions taken. Should the condition be such that it cannot be addressed to eliminate visible emissions, the dust collector will be shut down for repair. This determination will be made by fuel supply personnel. A certified Method 9 visible emission reading will

be performed by a certified observer whenever visible emissions present cannot be eliminated.

Records of the non-certified visible emissions observations, Method 9 observations that are performed, the reason for any visible emissions observed and any corrective actions taken shall be kept on file on the Fuel Supply daily shift logs. Any Method 9 observations must be submitted to the Monroe Power Plant Environmental office.

In addition to the visible emission readings, fuel supply personnel inspect all dust collectors once daily when railcar dumping occurs on the operational parameters outlined in Table 1 as follows. Table 2 indicates the alarm conditions associated with the Dumper House dust collector. As shown in Table 2, there is an alarm for pressure drop across the filter. The unit alarms when this pressure reaches 8 in. wg. (inches water). When a pressure of 10 in. wg. is reached, the unit trips an additional alarm and the system shuts down immediately.

Table 1
Daily Inspection Checklist

Action	Checklist Requirement
Inspect/Monitor - all operating Dust Collectors once daily	a. Check each operating baghouse differential indicator
	b. Check for visible emissions at air outlet from each filter
	c. Check control panel for alarms or other failed conditions
	d. Check fan and motor bearings for excessive heat or vibration
Inspect/Monitor - all operating Control Panels once daily	Check for failed or alarm conditions (see Table 2 for Control Panel Alarm Conditions)
Record results in the Fuel Supply Control Room Electronic Log.	The inspecting operator will report inspection results to the Fuel Supply Control Room for inclusion in the Fuel Supply log.

Subject: Dumper House Dust Collector Malfunction Abatement Plan	Page 5 of 6	No: EV-17
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Submit any required Method 9 logs to Environmental Engineers via email, include all corrective actions taken and planned maintenance.	The inspecting operator and/or Fuel Supply Shift Supervisor will report inspection results that require Method 9 observations to the Environmental Engineers.
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Table 2
Control Panel Alarm Conditions

Control Panel Alarm	Condition Indicated
Filter Hopper HI Level	A HI level light will be indicated and the system alarm will sound if the collected dust should back up in the filter to the HI level control probe.
Filter Hopper HI-HI Level	The dust collector will shut down immediately, the HI-HI level light will be indicated, and the alarm will sound if the collected dust backs up in the filter to the HI-HI level probe.
Filter HI Differential and HI-HI Differential	This is a combination unit that measures the pressure differential across the filter. If the HI Differential (8 in. water) is reached, the HI differential light will come on and the system alarm will sound. If the HI-HI Differential (10 in. water) is reached, the HI-HI differential light will come on, the system alarm will sound, and the system will shut down immediately.
Belt Conveyor Zero Motion Speed Switch	An indicator light will come on, the alarm will sound, and the dust collector system will stop immediately if no motion of the screw conveyor is detected.
Rotary Valve Speed Switch	An indicator light will come on, the alarm will sound, and the dust collector system will stop immediately if no motion of the rotary valve is detected within.
Exhaust Fan Vibration Switch	If either fan vibration switch is activated, the correct indicator light will come on, the alarm will sound, and both fans will be shut down immediately.
Pressure Relief Vents Limit Switches	An indicator light will come on, the alarm will sound, and the dust collector system will shut down immediately if the pressure relief vent limit switches are open.
Filter Plenum Access Door Limit Switch	The "Relief Vent" indicator light will come on, the alarm will sound, and the dust collector system will shut down immediately if the access door opens.

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Low Cleaning Pressure	The low cleaning pressure alarm will be activated if low air pressure is detected within 5 seconds of operation.
Fire System Controls	The dust collector system will shut down and the fire suppression system and fire alarm will be activated if a high temperature is detected in the system.

Note: System motors are also equipped with overload protection devices that will shut the motors down in case of overload conditions that could damage the motor.

5.2 Maintenance Inspections and Tasks

The preventative maintenance items are inspected and performed by Monroe Fuel Systems as scheduled (see Table 3). Spare parts are kept on site. Although a full set of replacement parts is not available at all times, a supply of certain spare parts is kept on hand and other parts are available through established vendors.

Table 3
Maintenance Inspections and Tasks

Frequency of Inspection/Action	Action Performed
Monthly	Fan Bearing Lube/Inspection Routine
	Valve Bearing Lube/Inspection Routine
Every Six Months	Lubricate: <ul style="list-style-type: none"> a. Fan Motor b. Blower Motor c. Belt conveyor bearing
	Perform Oil Changes on: <ul style="list-style-type: none"> a. Valve gear reducer b. Cleaning blower c. System gear reducer d. Pneumatic conveying blower

Subject: Dumper House Dust Collector Malfunction Abatement Plan	Page 7 of 6	No: EV-17
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5.3 System Shutdown/Failure

Note: Emission limits are not expected to be exceeded during system shutdown, because there will be no emissions during shutdown. However, the dust collector system must be returned to service as soon as possible in order to maintain safe (i.e, low dust) working conditions inside the Dumper House.

System Shutdown/Failure Tasks Performed by Monroe Fuel System Personnel

1. If a malfunction or failure occurs that cannot be corrected by an operator, then a Work Order will be issued to repair the system.
2. To reduce dust within the Dumper House and further prevent emissions to outside air, the following additional measures may be employed as necessary:
 - a. Increased application of surfactant dust suppressant along the conveyor in the Dumper House.
 - b. Water misting of transfer points inside the Dumper House during coal transfer operations.
 - c. Ceasing coal transfer operations during hot, dry and windy weather conditions when the potential for fugitive dust emissions is highest.
3. Notify regulatory agencies during excess emissions events as required in EP-6 – Air Quality Management.

5.4 Record Retention

Maintenance records and records of emissions observations will be kept on file as required by the plant's Renewable Operating Permit and Permits-to-Install.

6.0 References

1. Environmental Program (EP) 06 – Air Quality Management
2. Rotary Dump Car System - Process System Description/Vendor Manual

Subject: Dumper House Dust Collector Malfunction Abatement Plan	Page 8 of 6	No: EV-17
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7.0 Revision History

Revision No.	Changes
1	Updated to include the requirements of Permit 93-09.
2	Revised to include current conditions, added clarity around Method 9 required visual emission checks. Changed PTI# to 27-13B
3	Updated environmental and plant contacts, replaced PPO 223 with EP-6.

MONROE PLANT ORDER	Subject: Transfer House Dust Collectors Malfunction Abatement Plan	Page 1 of 6	Number: EV-18
	Written: Gerald Chilson Jr. – Environmental Engineer	Date: 2/9/2024	Original Date: 11/19/2010
	Approved: Daniel Casey – Plant Manager	Date:	Revs: 3

VERIFY CURRENT VERSION IN DOCUMENTUM PRIOR TO USE – UNCONTROLLED WHEN PRINTED

1.0 Purpose

This plant order has been prepared to meet the requirements of the Renewable Operating Permit for SRN B2816 issued by the State of Michigan for a Malfunction Abatement Plan (MAP) for the Coal Handling Fabric Filter Dust Collection system at the Monroe Power Plant associated with EU-TRANSFERHS-S1. This permit requires Monroe Power Plant to “...***not operate the facility unless the malfunction abatement plan (MAP)has been implemented and is maintained.***” This MAP has been prepared by DTE Electric Company in accordance with Rule 911 of the Michigan Air Pollution Act (Part 55 of Michigan Act 451).

2.0 Scope

The function of the dust collection systems in the transfer houses is to minimize and control dust emissions generated by the coal handling system. In general, dust collection systems have been provided for all dust generating areas such as conveyor chutes, enclosed transfer points, surge bins, etc., with the prime objective to control and contain the generated dust within each transfer house.

Six transfer houses (TH-4 is referred to in ROP as EU-CRUSHERHS-S1) are equipped with eleven fabric filter dust collectors to maintain a safe operating environment for workers inside the transfer houses and to minimize fire explosion hazards from accumulated dust. The dust collectors remove dust that results from coal conveyor and coal transfer operations inside the transfer houses. The system accomplishes this by pulling dust-laden air from each transfer point and from surge bins. The dust collectors filter out the dust particles allowing the clean air to exhaust to atmosphere and the dust to be returned to the operating conveyor belt.

The Transfer House Dust Collection Systems consist of the following major components:

- Baghouse
- Exhaust Fan
- Air Lock Rotary Valve
- Reversing Screw Conveyors
- Controls
- Indicating Lights
- Annunciators
- Fire Protection
- Instrumentation

Each Baghouse is a large cylindrical housing containing vertical bags mounted in parallel. The bags extend downward with their outlets mounted upward in a faceplate. Each bag is held in an expanded position by a steel frame. An exhaust fan pulls dust-laden air into the baghouse through pick-up hoods positioned above each conveyor belt and surge bin. Air is pulled through bags in the baghouse and dust particles are collected on the exterior (dirty) side of the bags. An outlet blower exhausts clean air that passes through the bags. A jet-pulsed bag cleaning system utilizes pulsed air jets to knock accumulated dust off of the bags and into a hopper at the bottom of the conveyor. A rotary air-lock valve at the base of the hopper discharges accumulated dust to screw conveyors. The screw conveyors transport the dust to the operating conveyor belt. Potential emissions from coal unloading at the ship are controlled using water sprays when necessary. Ships are self-unloading and transport coal using a covered boom conveyor to a partially enclosed bin (BN01). Fuel supply operators are available when unloading starts and as necessary during the unloading process. It should be noted that most coal unloading emissions will be controlled at the transfer houses as outlined in the remainder of this document.

The plant's ROP includes limits on dust collector emissions (opacity, PM, PM₁₀ & PM_{2.5}). Each of the dust collectors associated with the Transfer House system are outlined in Table 1. The opacity limit for each dust collector is 5%. The table also includes a summary of the PM, PM₁₀ & PM_{2.5} emission limits for each dust collector included in the permits. The PM limits listed are in units of grains per dry standard cubic foot (gr/dscf) and the other limits in the table are in units of pounds per hour (pph).

Table 1
Dust Collector Emission Limits

Transfer House	Dust Collector(s)	PM Limit	PM₁₀ Limit	PM_{2.5} Limit
TH-1	DC01, DC22, DC02, DC23	0.010	1.93	1.93
TH-2	DC-15	0.010	1.54	1.54
	DC-21	0.010	1.29	1.29
TH-3	DC-04 (de-commissioned – fogger system used in area)	0.004	0.89	0.89
TH-4	DC-05	0.004	0.99	0.99
TH-9	DC-16	Not in permit		
	DC-17 (de-commissioned – dust suppressant used in area)	0.020	2.40	2.40
TH-11	DC-19	0.020	2.74	2.74

3.0 Definitions

3.1 None

4.0 Responsibilities

- 4.1 The Plant Director is responsible for ensuring that Monroe Power Plant operates in compliance with all environmental and safety requirements and regulations.
- 4.2 The Environmental Engineer is responsible for monitoring environmental compliance related activities at Monroe Power Plant.
- 4.3 The Fuel Systems Manager is responsible for overseeing the operation, inspection, maintenance, and repair of all the coal handling system including coal conveyors and dust collection devices.
- 4.4 The Operations Shift Supervisor is responsible for all operations at the plant, and is management’s representative during off-hours (i.e., nights and weekends) when plant management is not on site. The Shift Supervisor may be reached at 384-2235.
- 4.5 The Fuel Systems Shift Supervisor is responsible for all Fuel Systems operations, and is management’s representative during off-hours (i.e., nights and weekends) when plant management is not on site. The Shift Supervisor may be reached at 384-2231.
- 4.6 The Fuel Systems Planning group is responsible for ensuring parts necessary for routine maintenance and common replacements for

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the system are stocked or are available on a quick turnaround basis from the vendor for more involved repairs or replacements for the systems. A complete list of system parts kept in stock is listed in the company's stock computer system. The parts list is filed by system and major component (e.g., Dust Collector 1, Rotary Valve) and contains a complete list of parts for that component including: stock number, noun/qualifier/ (e.g. gear reducer), manufacturer part number, and quantity on hand. A complete list of system parts that must be ordered from the vendor is kept on file in the Fuel Supply planners' office.

5.0 Procedure

5.1 Daily Inspections

Air permits at the plant require daily non-certified visible emission observations on the Transfer House dust collectors. These daily observations are performed by fuel supply personnel and logged in the plant's shift log system (PlantView). Should visible emissions be present, fuel supply personnel will take appropriate corrective actions and document the situation and actions taken. Should the condition be such that it cannot be addressed to eliminate visible emissions, the dust collector will be shut down for repair. This determination will be made by fuel supply personnel. A certified Method 9 visible emission reading will be performed by a certified observer whenever visible emissions present cannot be eliminated.

Records of the non-certified visible emissions observations, Method 9 observations that are performed, the reason for any visible emissions observed and any corrective actions taken shall be kept on file on the Fuel Supply daily shift logs. Any Method 9 observations must be submitted to the Monroe Power Plant Environmental office.

The Transfer House dust collectors automatically monitor operating variables that may affect the performance of the system, and are equipped with equipment trip switches and/or alarms that will shut off the equipment in an orderly manner to avoid damaging the system and/or creating excess emissions, or alert operators of a possible malfunction. The dust collectors are designed to operate at a differential pressure of 0-10 inches of water (in.wg.) across the filter bag. An alarm in the fuel supply control room and

automatic shutdown of a dust collector is initiated whenever one of the following emergency situations occurs:

- Fire protection actuation
- Rotary vane feeder zero-speed
- Dust collector exhaust fan motor overload
- Hopper dust emergency high level
- Dust Collector high differential pressure (> 6 in wg)
- Pulse air low pressure.

Table 2

Daily Inspection Checklist

Action	Checklist Requirement
Inspect/Monitor all operating Dust Collectors once daily	a. Check for visible emissions at air outlet from each filter
	b. Check control panel for alarms or other failed conditions
Inspect Coal Unloading (ship)	Note excess emissions and corrective actions taken.
Inspect/Monitor all operating Control Panels once daily	Check for failed or alarm conditions (see Table 2 for Control Panel Alarm Conditions)
Record Results in the Fuel Supply Control Room Electronic Log	The inspecting operator will report inspection results to the Fuel Supply Control Room for inclusion in the Fuel Supply log.
Submit any required Method 9 logs to Environmental Engineers, include all corrective actions taken and planned maintenance.	The inspecting operator and/or Fuel Supply Shift Supervisor will report inspection results that require Method 9 observations to the Environmental Engineers.

Table 3

Control Panel (Annunciator) Alarm Conditions

Explosion doors open
Dust collector high differential pressure (> 6 in wg)
Rotary vane feeder trip
High hopper dust level
Dust collector high temperature
Dust collector exhaust fan trip
Low pulse air pressure

Note: System motors are also equipped with overload protection devices that will shut the motors down in case of overload conditions that could damage the motor.

5.2 Maintenance Inspections and Tasks

The preventative maintenance inspections and tasks are performed by Monroe Fuel Systems Operations as indicated in Table 4. Spare parts are kept on site. Although a full set of replacement parts is not available at all times, a supply of certain spare parts is kept on hand and other parts are available through established vendors.

Table 4
Maintenance Inspections and Tasks

Frequency of Inspection	Task
Bi-monthly	Perform the Vibration Analysis PdM Routine
Semi-annually	Lube/Inspection Routine
Annually	<ul style="list-style-type: none"> a. Check V-belt tension on all belts b. Inspect filter bags and replace if necessary c. Inspect rotary valves d. Inspect shivs and belts e. Check oil in motors and gear reducers f. Inspect fan and motor bearings for wear g. Inspect pulse air system

5.3 System Shutdown/Failure

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Note: Emission limits are not expected to be exceeded during system shutdown, because there will be no emissions during shutdown. However, the dust collector system must be returned to service as soon as possible in order to maintain safe (i.e, low dust) working conditions inside the Transfer House. In addition, systems must be safely and orderly shutdown to ensure safety of personnel and reduce environmental impacts.

System Shutdown/Failure Tasks Performed by Monroe Fuel System Personnel

1. If a malfunction or failure occurs that cannot be corrected by an operator, then a Work Order will be issued to repair the system.

2. To reduce dust within the Transfer Houses and further prevent emissions to outside air, the following additional measures may be employed as necessary:
 - a. Increased application of water spray to the dust collector hoods and Transfer House wall, beams and floor.
 - b. Application of a surfactant based foam spray to the Transfer House wall, beams and floor.
 - c. Increased use of wash boxes to clean conveyor belts.
 - d. Increased use of water spray at transfer points.

3. Notify regulatory agencies during excess emissions events as required in DTE Energy Power Plant Order No. 233.

5.4 Dust Collector Replacement Projects

Tasks Performed by Monroe Fuel Systems Personnel when operating the Transfer House conveyor belts without running dust collectors when replacing the fabric filter dust collectors with new dust collectors.

1. To reduce dust within the Transfer House and further prevent emissions to outside air, the following additional measures may be employed as necessary:

Subject:	Transfer House Dust Collectors Malfunction Abatement Plan	Page 8 of 6	No: EV-18
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- a. Increased application of water spray to the dust collector hoods and Transfer House walls, beams and floor.
 - b. Application of a surfactant based foam spray to the Transfer House walls, beams and floor.
 - c. Increased use of wash boxes to clean conveyor belts.
 - d. Increased use of dust control surfactant on the coal before entering the Transfer House.
2. Notify regulatory agencies during excess emissions events as required in DTE Energy Environmental Program (EP) 06.

5.5 Record Retention

Maintenance records and records of emissions observations will be kept on file as required by the plant's Renewable Operating Permit.

6.0 References

- 6.1 Environmental Program 06 – Air Quality Management

7.0 Revision History

Revision No.	Changes
1	Revised to include current dust collector conditions, added clarity around Method 9 required visual emission checks, changed PTI # to 27-13B
2	Revised to include updated permit number and removed references to PTI 27-13B and fixed typo in Section 5.1, updated environmental contact, replaced references to PPO 223 to EP-6

MONROE PLANT ORDER	Subject: Limestone and Gypsum Handling Control Equipment Malfunction Abatement Plan	Page 1 of 9	Number: EV-22
	Written: Gerald Chilson Jr. – Environmental Engineer	Date: 2/9/24	Original Date: 05/14/12
	Approved: Daniel Casey – Plant Manager	Date:	Revs: 3

VERIFY CURRENT VERSION ON MONROE WEBSITE PRIOR TO USE – UNCONTROLLED WHEN PRINTED

1.0 Purpose

This plant order has been prepared to meet the requirements of the Renewable Operating Permit issued by the State of Michigan for a Malfunction Abatement Plan (MAP) for the Limestone & Gypsum handling systems at the Monroe Power Plant associated with emissions units EU-LIMESTONE-S1, EU-GYPSUMHAND-S1, and EU-HYDRATEDLIME-S1.. These permits require Monroe Power Plant to “...*not operate the facility unless the malfunction abatement plan (MAP)has been implemented and is maintained.*” This MAP has been prepared by DTE Electric in accordance with Rule 911 of the Michigan Air Pollution Act (Part 55 of Michigan Act 451).

2.0 Scope

This MAP addresses the dust control equipment used in conjunction with the FGD limestone, synthetic gypsum, and hydrated lime material handling systems.

2.1 Limestone Handling

2.1.1 Description of System

1. Receiving and Storage

The limestone handling system accepts delivery of limestone from self-unloading Great Lakes bulk carrier vessels which discharge the limestone into a limestone receiving surge bin. Three volumetric belt feeders beneath the surge bin outlets feed material to the Limestone Receiving Conveyor which transports and discharges the limestone to a chute at the top of the Limestone Lowering Well. The lowering well discharges the limestone, forming the material into a conical storage pile. A surfactant based dust suppression system suppresses dust at the surge bin and receiving conveyor transfer points.

Air permits at the plant require daily non-certified visible emission observations (opacity limit – 10%) on exterior drop points and transfer points when the limestone system is operating. These daily observations are performed by FGD personnel and logged in the plant’s shift log system (PlantView). Should visible emissions be present, appropriate corrective actions will be taken and the situation

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document appropriately. Should the condition be such that it cannot be addressed to eliminate visible emissions, the equipment will be shut down for repair. This determination will be made by FGD personnel. Also, in the event of visible emissions, a certified visible emission reading will be performed by a certified observer. This will be coordinated by the plant environmental group.

2. Reclaim and Transfer

Two hydraulically operated Rotary Plow Feeders reclaim limestone in a tunnel beneath the storage pile. One of the two rotary plow feeders acts as a standby. The plow feeder feeds limestone onto Limestone Reclaim Conveyor L-2. Conveyor L-2 transports the limestone and discharges into a transfer chute in Transfer Tower 1. A surfactant based dust suppression system suppresses dust at limestone reclaim and transfer conveyor transfer points through Transfer Tower 1.

The chute in Transfer Tower 1 discharges limestone onto Limestone Transfer Conveyor L-3. Conveyor L-3 transports and discharges the limestone into a transfer chute in Transfer Tower 2. The chute in Transfer Tower 2 discharges the limestone onto Limestone Transfer Conveyor L-4. Conveyor L-4 transports the limestone and discharges it into a bifurcated chute with a motor operated Diverter Gate. A fog based dust suppression system suppresses dust in Transfer Tower 2.

Diverter Gate LDG-1 discharges limestone either directly into the center Common Limestone Day Silo or onto Limestone Reversing Conveyor L-5. The reversing Conveyor L-5 discharges into the south silo which services Units 3 and 4 or the north silo which services Units 1 and 2. A fog based dust suppression system suppresses dust at Conveyor L-4, Diverter Gate LDG-1 and Conveyor L-5 transfer points.

3. Emergency Reclaim

Wheel loaders manually reclaim limestone from the storage pile and place it in trucks. The trucks transport and dump the limestone at a location near the Reagent Preparation Building. Wheel loaders reclaim the limestone from the dump location and deliver the limestone to the Emergency Reclaim Hopper.

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2.1.2 Limestone Handling Dust Control Equipment

1. Wet and Fog Dust Suppression Systems

The Wet Dust Suppression System combines water with a concentrated wet surfactant to produce a high pressure, high volume spray capable of suppressing the high quantities of airborne dust associated with the unloading and reclaim operations. The wet surfactant reduces the surface tension of each water droplet sprayed, thereby allowing the dust particles to penetrate the droplet and fall back into the main material stream. An equipment enclosure, complete with all the required water and chemical control piping, houses all of the necessary equipment. All solution piping is routed from the equipment enclosure to spray manifolds for treatment of limestone during conveying operations.

The Fog Dust Suppression System combines water with compressed air to produce a heavy mist capable of suppressing the high quantities of airborne dust associated with transfer silo operations. The fog permeates the dust causing droplets that fall back into the main material stream. An equipment panel, complete with all the required water and compressed air control piping, contains all of the equipment necessary. All fog piping is routed from the equipment panel to spray manifolds for treatment of limestone during conveying operations.

Four (4) Dust Suppression Systems are provided to control fugitive dust at the conveyor transfer and loading points, they are listed as follows:

a. Limestone Ship/Vessel Unloader Dust Suppression System

The Unloader Dust Suppression System supplies wet dust suppression for both the Unload Hopper and the Feeders below. The Unload Hopper has four spray manifolds mounted in the best position to suppress dust. Each feeder has three manifolds. Two are located to spray the front and back sides of the limestone as it falls from the head of the feeder belt. The third is located at the impact point of the limestone on the conveyor.

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b. Limestone Rotary Plow Reclaim Dust Suppression System

The Reclaim Dust Suppression System supplies wet dust suppression for both Rotary Plow Feeders. Each Rotary Plow Feeder has four spray manifolds. Two are mounted in the feeder walls. The other two are mounted at each of the conveyor transfer points.

c. Limestone Transfer Tower #2 Fog Dust Suppression System

The Transfer Tower Fog Dust Suppression System supplies fog dust suppression for the transfer tower conveyor. Four fog spray points are located at the head of the L-3 Conveyor and four more are located at the impact point of Conveyor L-4.

d. Limestone Silo Area Fog Dust Suppression System

The Silo Fog Dust Suppression System supplies fog dust suppression for the belts feeding to the silos. Four fog spray points are located at the head of Conveyor L-4. Four more are located at the impact points of each of the Unit #1/2 Reversing Belt and the Unit #3/4 Reversing Belt.

Safe, effective and economical application of the dust suppressant is automatically controlled using a variety of signals. The signals are a mix of conveyor running signals and a material-on belt sensor. Each signal either becomes an input to the plant's DCS or is pre-existing in the DCS network, which then controls outputs as necessary to correctly operate the system.

The Wet and Fog Systems are designed to run in "AUTO" mode at all times. The DCS system incorporates all the permissive/status signals as required, controlling the spray points properly.

2. Limestone Silo Bin Vents – The limestone bin vents are located at the top of the limestone storage silo. The bin vents are monitored on a daily basis for visible emissions. The bin vents protect against excess pressure in the limestone system. The air permit at the plant requires daily non-certified visible emission observations on the exterior drop points and transfer points and bin

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vent filter (SV-26A). These daily observations are performed by FGD personnel and logged in the plant's shift log system (PlantView). Should visible emissions be present, appropriate corrective actions will be taken and the situation documented appropriately. In the event that the condition cannot be addressed to eliminate visible emissions, the equipment will be shut down for repair. This determination will be made by FGD personnel. A certified visible emission reading will be performed by a certified observer when visible emissions are present and cannot be eliminated. This will be coordinated by the plant environmental group.

The exterior drop points and transfer points has the following emission limit:

Opacity – 10%

The bin vent filters have the following emissions limits:

Opacity – 5%

PM – 0.004 grains/dry standard cubic foot (gr/dscf)

PM₁₀ & PM_{2.5} – 0.0046 pounds per hour (pph)

2.2 Gypsum Handling

The purpose of the gypsum handling system is to receive, transport, and store gypsum prior to loading into trucks for export. There is approximately 7-8% moisture content in the gypsum and therefore there are no suppression systems in place. However, measures are taken to prevent track out and fugitive dust from the operation. The gypsum handling system consists of the following components:

2.2.1 Three (3) diverter gate/bifurcated chute work assemblies (located in the gypsum Dewatering Building)

2.2.2 Two (2) gypsum collection conveyors (located in the Gypsum Dewatering Buildings)

2.2.3 Two (2) gypsum transfer conveyors

2.2.4 Two (2) diverter gate/bifurcated chute work assemblies at the off-specification gypsum storage enclosure

2.2.5 Two (2) gypsum storage stack-out conveyors

2.2.6 Two (2) telescoping chutes associated with the gypsum storage structure

2.2.7 One (1) gypsum storage structure

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Two (2) gypsum conveyor trains are used to transport the gypsum to the gypsum storage structure. Dewatered gypsum is discharged from the vacuum filters in the gypsum dewatering building through diverter gate/bifurcated chute work assemblies to either of two (2) gypsum collection conveyors. The operational collection conveyor discharges the gypsum to a dedicated gypsum transfer conveyor that conveys the gypsum to the gypsum storage area. A diverter gate/bifurcated chute arrangement allows the segregation and delivery of wallboard quality and off-specification gypsum into the gypsum storage structure. A wheel wash is used to wash truck tires as gypsum trucks leave the site, except during freezing conditions. The wheel wash & other water sprays in this area will not be utilized under freezing conditions as determined by fuel supply personnel. Other measures will be taken to ensure compliance with fugitive dust regulations. Generating dust is unlikely at the gypsum handling facilities, as most operations are enclosed, additional measures will be taken to control any dust that is generated that could reach ambient air.

The gypsum storage and handling is monitored on a daily basis for visible emissions. The air permit requires daily non-certified visible emission observations inside the storage and loading building. These daily observations are performed by FGD personnel and logged in the plant's shift log system (PlantView). Should visible emissions be present, appropriate corrective actions will be taken and the situation document appropriately. In the event that the condition cannot be addressed to eliminate visible emissions, the equipment will be shut down for repair. This determination will be made by FGD personnel. A certified visible emission reading will be performed by a certified observer when visible emissions are present and cannot be eliminated. This will be coordinated by the plant environmental group.

The gypsum handling inside the storage and loading building has the following emission limit:

Opacity – 7%

2.3 Hydrated Lime Handling

2.3.1 Description of System

The purpose of the hydrated lime system is to receive, store, make-up, and recirculate a hydrated lime slurry solution for Wastewater Treatment. There are two silos that each include bin filters (SV-26B1 and SV-26B2). Each silo has a dry portion and a wet portion. The dry bin portion of the silo system includes a hydrated lime storage bin complete with redundant level transmitters for monitoring the silo level and a high silo level switch for controlling the addition of water and hydrated lime during the slurry makeup sequence.

A vibrating bin activator located at the bottom of the silo operates intermittently during the hydrated lime slurry makeup sequence to ensure a consistent flow of dry hydrated lime to the hydrated lime feeder. The hydrated lime feeder operates when the Hydrated Lime Slurry Tank reaches a low level and is stopped at a high level in the tank. The feeder operates simultaneously with the addition of Filtered Service Water (FSW) to ensure a consistent lime slurry solution is prepared. Air-actuated slide gates on each end of the volumetric feeders open and close during and after the lime makeup process to reduce moisture absorption inside the dry silo.

2.3.2 Hydrated Lime Bin Vent Filters

The bin vent filters are located at the top of each hydrated lime silo. They collect the hydrated lime dust cloud that is generated during the filling of the silo from the delivery truck. A differential pressure transmitter monitors the dust collector filter bag condition and alarms at a high differential pressure during the truck fill operation.

The bin vents are monitored on a daily basis for visible emissions. The air permit at the plant requires daily non-certified visible emission observations on the exterior drop points and transfer points and bin vent filters (SV-26B1 and SV-26B2). These daily observations are performed by FGD personnel and logged in the plant's shift log system (PlantView). Should visible emissions be present, appropriate corrective actions will be taken and the situation documented appropriately. In the event that the condition cannot be addressed to eliminate visible emissions, the equipment will be shut down for repair. This determination will be made by FGD personnel. A certified visible emission reading will be performed by a certified observer when visible emissions are present and cannot be eliminated. This will be coordinated by the plant environmental group.

The exterior drop points and transfer points has the following emission limit:

Opacity – 10%

The bin vent filters have the following emissions limits:

Opacity – 5%

PM – 0.004 grains/dry standard cubic foot (gr/dscf)

PM₁₀ & PM_{2.5} – 0.045 pounds per hour (pph)

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3.0 Definitions

3.1 None

4.0 Requirements

- 4.1 The Plant Manager is responsible for ensuring that Monroe Power Plant operates in compliance with all environmental and safety requirements.
- 4.2 The Environmental Engineer is responsible for monitoring environmental compliance related activities at Monroe Power Plant.
- 4.3 The FGD Manager is responsible for overseeing the operation, inspection, maintenance, and repair of all the limestone and gypsum handling systems including conveyors and dust suppression/collection devices.
- 4.4 The Operations Shift Supervisor is responsible for all operations at the plant, and is management's representative during off-hours (i.e. nights and weekends) when plant management is not on site. The Shift Supervisor may be reached at 384-2235.
- 4.5 The Fuel Systems Shift Supervisor is responsible for all Fuel Systems operations, and is management's representative during off-hours (i.e. nights and weekends) when plant management is not on site. The Shift Supervisor may be reached at 384-2231.
- 4.6 The FGD Planning group is responsible for ensuring parts necessary for routine maintenance and common replacements for the system are stocked or are available on a quick turnaround basis from the vendor for more involved repairs or replacements for the systems. A complete list of system parts kept in stock is listed in the company's stock computer system. The parts list is filed by system and major component (e.g. Dust Collector 1, Rotary Valve) and contains a complete list of parts for that component including: stock number, noun/qualifier/ (e.g. gear reducer), manufacturer part number, and quantity on hand. A complete list of system parts that must be ordered from the vendor is kept on file in the FGD planners' office.

Critical phone numbers are as follows:

Plant Manager	(734) 384-2207
FGD Manager	(734) 384-2370
FGD Control Room	(734) 384-2570

5.0 Procedure

5.1 Maintenance Inspections – preventative maintenance inspections and tasks are performed by Monroe Fuel Systems Operations as indicated in Tables 1-3. Spare parts are kept on site. Although a full set of replacement parts is not available at all times, a supply of certain spare parts is kept on hand and other parts are available through established vendors.

Table 1

Limestone Storage Silo Dust Filter

Frequency of Inspection	Task
Weekly	Inspect timer and control setting.
Every Three Months	Inspect condition of filter bags (install new bags as needed).
Every Six Months	<ul style="list-style-type: none"> a. Inspect blow pipes and orifices, housing welds and dampers. b. Perform periodic calibration check.
Annually	<ul style="list-style-type: none"> a. Inspect fan and fan pillow block for proper lubrication. b. Inspect inlet and outlet ductwork, bin or hopper level indicators. c. Inspect diaphragm and solenoid valves. d. Inspect hopper and inlet baffles. e. Inspect tube-sheet, tube-sheet welds and seals.

Table 2

Limestone Receiving Surge Bin - Dust Suppression Water Supply Booster Pump

Frequency of Inspection	Task
Daily	<ul style="list-style-type: none"> a. Monitor and trend pump performance indicators, establish action levels and trend results. b. Check lube oil level and add oil as necessary. c. Perform visual inspection of pump seal. d. Verify proper operation, observe condition and document abnormalities.
Quarterly	Acquire lube oil sample and route sample for testing.
Annually	<ul style="list-style-type: none"> a. Lubricate greased coupling. b. Perform component performance test of pump over full range of operation, establish baseline and action levels, and trend results.
Every 21 Months	Inspect bearings and lubricate if necessary
Annually	Motor – Perform full spectrum lube oil analysis and establish action levels and trend results.

Table 3

Limestone Receiving Surge Bin –
Volumetric Belt Feeder FED's 4-6 Dust Suppression Spray Valves

Frequency of Inspection	Task
Annually	Inspection valve for damage, perform stroke test and verify nozzle spray pattern.

5.2 System Shutdown/Failure

Note: Emission limits are not expected to be exceeded during system shutdown, because there will be no emissions during shutdown.

5.2.1 System Shutdown/Failure Tasks performed by Monroe Fuel Systems Personnel

1. If a malfunction or failure occurs that cannot be corrected by an operator, then a DTE Electric Work Order will be issued to repair the system.

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2. Notify regulatory agencies during excess emissions events as required in Environmental Program (EP) 06 – Air Quality Management.
3. Additional control measures (use of water portable water sprays, fogging systems, etc.) will be used to control dust in the event of an unexpected shutdown of the air pollution control equipment while handling limestone.

5.3 Record Retention

Maintenance records and records of emissions observations will be kept on file as required by the plant's Renewable Operating Permit.

6.0 References

6.1 FSD # MONPP-FSD-0002

6.2 FSD # MONPP-FSD-0008

6.3 JIT M-53-10

7.0 Revision History

Revision No.	Changes
0	Original Document
1	Added doc control footer. PTI # changed (A to B)
2	Changed the permit limits to reflect the PTI limits for SV-26A
3	Updated to reflect permit number and accurate environmental contact, updated limestone and gypsum sections, added hydrated lime handling section, updated phone numbers, replaced PPO 223 with EP-6.

MONROE PLANT ORDER	Petroleum Coke Material Handling Malfunction Abatement Plan	Page 1 of 3	Number: EV-24
	Written: Gerald Chilson Jr – Environmental Engineer	Date: 2/9/2024	Original Date: 3/19/2014
	Approved: Daniel Casey – Plant Manager	Date:	Revs: 2

VERIFY CURRENT VERSION IN DOCUMENTUM PRIOR TO USE – UNCONTROLLED WHEN PRINTED

1.0 PURPOSE

This Malfunction Abatement Plan (MAP) has been prepared to meet the requirements of the Renewable Operating Permit for SRN B2816 issued by the State of Michigan for petroleum coke (Pet Coke) material handling at the Monroe Power Plant. This permit requires Monroe Power Plant to implement and maintain all process and emission control equipment as specified in a MAP approved by EGLE – Air Quality Division. This Malfunction Abatement Plan has been prepared by DTE Electric Company accordance with Rule 911 of the Michigan Air Pollution Act (Part 55 of Michigan Act 451).

2.0 SCOPE

The Pet Coke handling facility consists of a material storage pile, reclaim feeder, and a transfer conveyor. Pet Coke is reclaimed from a truck dump pile and the stock pile created from an overhead tripper. A reclaim feeder will automatically feed the Pet Coke to PCCV1 belt conveyor. The conveyor is then integrated into the existing CV-C4 conveyor. The PCCV1 conveyor shall not run unless a minimum of 600 TPH is being transported on CVC4. A double roll crusher is installed to size the pet coke to the appropriate size. A cross-belt permanent magnet and metal detector is installed to eliminate tramp metal from the pet coke. A belt scale is installed on conveyor PCCV1, which sends product delivery rate (100 to 330 TPH) back to the ControlLogix PLC. The belt scale reading and frequency/speed for the reclaim feeder VFD shall be indicated at the main control room, as well as locally. A Dust Collection system PCDC1 is installed to pick up fugitive dust from the transfer of PCFE1 to PCCV1 and from the crusher at Transfer Tower TT-1. The Rotary Airlock will return dust to the conveying stream during normal operation of the conveyors.

The Pet Coke handling facility has the following emissions limits:

Opacity – 10% at drop and transfer points

3.0 DEFINITIONS

None

4.0 RESPONSIBILITIES

- 4.1 The Plant Director is responsible for ensuring that Monroe Power Plant operates in compliance with all environmental and safety requirements and regulations.
- 4.2 The Environmental Engineer is responsible for monitoring environmental compliance related activities at Monroe Power Plant.

- 4.3 The Fuel Systems Manager is responsible for overseeing the operation, inspection, maintenance, and repair of all the coal handling system.
- 4.4 The Fuel Systems Shift Supervisor is responsible for all Fuel Systems operations, and is management's representative during off-hours (i.e. nights and weekends) when the plant management is not on site.
- 4.5 The Fuel Systems Planning group is responsible for ordering replacement parts and managing the leasing of the temporary equipment.

Critical phone numbers are as follows:

Fuel Supply Manager	(734) 384-2370
Fuel Supply Shift Supervisor	(734) 384-2231
Environmental Engineer(s)	(734) 384-2559

5.0 PROCEDURES AND CORRECTIVE ACTIONS

5.1 Inspections and Maintenance

5.1.1 The Pet Coke handling system will be monitored daily by non-certified visible emission observations. Records of emissions will be maintained in the Daily Shift Log in PlantView. Per the site's Fugitive Dust Control Plan (MONPP EV-20), water will be applied when necessary via water cannons. If a water cannon failure occurs, a portable water cannon will be brought into service in its place and necessary repairs will be made.

5.1.2 When the Pet Coke system is operational, conveyors and transfer chute will be inspected prior to and during each Pet Coke fueling operation to detect any operational upsets or damage to the partial enclosures that can cause excess emissions. Pet Coke Operator will inspect the partial enclosures on the conveyor transfer points, transfer chute enclosure, conveyor belt and belt path for spill over. Any significant spill over will be collected and returned to the pile or feed hopper.

5.2 Replacement Parts

Monroe Power Plant stocks parts necessary for routine maintenance and common replacements for these systems. Any repairs or replacement of parts for the temporary conveyor system or feeder will be performed by maintenance using replacement parts from stock.

5.3 System Shutdown/Failure

Most malfunctions of the control equipment will not result in emissions exceedances. However, the systems must be repaired and returned to service as soon as possible in order to maintain maximum emission control.

5.3.1 System Shutdown/failure Tasks Performed by Monroe Fuel System Personnel

1. If a malfunction or failure occurs that cannot be corrected by the Pet Coke operator, then a Work Order will be issued to repair the system.
2. To prevent emissions during repair, the following additional actions can be taken:
 - a. Use of portable, temporary water supplies and/or dust suppressant applications
 - b. Installation of canvas or other wind deterrents while partial enclosures are repaired
3. Notify regulatory agencies during excess emissions events as required in Environmental Program (EP) 06 – Air Quality Management.

5.4 Record Retention

All records of maintenance, operation, and emissions observations will be kept on file as required by the plant's Air Permits.

6.0 REFERENCES

Procedures for notification of regulatory agencies during a malfunction or excess emissions event are described in Environmental Program 06 – Air Quality Management.

Noted by:

Approved by:

7.0 REVISION HISTORY

Revision No.	Changes
0	New EV- 24
1	Revised to incorporate the Permanent Pet Coke System.
2	Updated Environmental contact, updated section 5.2, removed references to PPO 23 and replaced with EP-6

MONROE PLANT ORDER	Units 1, 2, 3 and 4 Control Devices Malfunction Abatement Plan and Start-up Shutdown Plan	Page 1 of 8	Number: EV-15
	Written: <i>Elise Ciak</i> Elise Ciak – Environmental Engineer	Date: 5/4/23	Original Date: 04/12/04
	Approved: <i>D. Casey</i> D. Casey – Plant Manager	Date: 5/4/23	Rev: 12 5/1/2023

VERIFY CURRENT VERSION IN DOCUMENTUM PRIOR TO USE – UNCONTROLLED WHEN PRINTED

1.0 Purpose

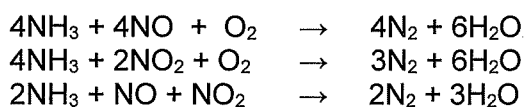
This Malfunction Abatement Plan (MAP) has been prepared to meet the requirements of the air permits issued by the State of Michigan for steam generator fuel burning and control equipment (Units 1, 2, 3 & 4) at the Monroe Power Plant. These permits require Monroe Power Plant to “**...implement and maintain a malfunction abatement/preventative maintenance program approval by the AQD.**” This Malfunction Abatement Plan and Start-up/Shutdown Plan has been prepared by DTE Electric Company in accordance with Rule 911 of the Michigan Air Pollution Act (Part 55 of Michigan Act 451).

2.0 Scope

Unit 1 consists of a Babcock and Wilcox super-critical boiler and a General Electric turbine and is rated at approximately 817 MW (gross). Unit 2 consists of a Babcock and Wilcox super-critical boiler and a Siemens-Westinghouse turbine and is rated at approximately 823 MW (gross). Unit 3 consists of a Babcock and Wilcox super-critical boiler and a Siemens-Westinghouse turbine and is rated at approximately 823 MW (gross). Unit 4 consists of a Babcock and Wilcox super-critical boiler and a General Electric turbine and is rated at approximately 817 MW (gross). Each boiler typically burns coal at full load at a rate of about 350 tons/hour. Fuel oil is sometimes used to supplement coal during start-up, boiler upset, over fire and emission reduction situations. Each unit is equipped with emission control equipment including a selective catalytic reduction system [SCR], an electrostatic precipitator [ESP] and a wet flue gas desulfurization system [FGD].

Monroe Units 1, 2, 3, and 4 typically utilize coal treated with halogenated compounds to aid in compliance with mercury emission limits and regulations. The halogenated compound is applied to all coal burned in each unit. Each of the Monroe boilers also uses low NO_x burners to lower NO_x emissions from the boiler. The Monroe Units are pulverized coal-fired boilers which employ cell burners. Cell burners were originally designed to combine two circular burners into close-coupled, vertically stacked assembly that operates as a single unit. Cell burners achieve very high combustion efficiencies, but also produce relatively high levels of NO_x. Each boiler has 14 cell burners with 2 burners per cell on the front wall and 14 cell burners on the back wall for a total of 28 cell burners per boiler. To reduce NO_x emissions, DTE Electric Company replaced the cell burners with “first generation” low NO_x cell burners (LNCB) in the mid-1990’s. In the LNCB systems, all of the coal is supplied to one burner with a portion of the secondary combustion air. The remaining combustion air is supplied to the second burner. The LNCB arrangement stages combustion and reduces NO_x emissions on these units from about 1.1 lb/mmBTU to about 0.6 lb/mmBTU.

Monroe Units 1, 2, 3 and 4 also use Selective Catalytic Reduction (SCR) as a post combustion NO_x control system that can substantially reduce NO_x emissions from coal-fired utility boilers. SCR systems consist of an ammonia (NH₃) injection system and a catalytic reactor. Urea is decomposed in an external heat exchanger to form ammonia for use in an SCR. The ammonia injection grid is located upstream of the catalyst. Ammonia reacts with NO_x and O₂ in the presence of the catalyst to form molecular nitrogen (N₂) and water according to the following general equations:



This process is called “selective” because ammonia reacts preferentially with NO_x in the flue gas in the presence of a catalyst. A catalyst is used to enhance NO_x reduction and ammonia utilization. The most common catalyst for utility boiler applications is a vanadium-based material that is installed in multiple layers in the catalytic reactor.

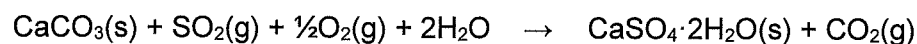
Secondary reactions also occur in the presence of the SCR catalyst, including the oxidation of SO₂ to SO₃ and the oxidation of elemental mercury. The oxidation of elemental mercury to oxidized mercury in the SCR improves mercury control in both wet and dry Flue Gas Desulfurization (FGD) systems. SCR operating temperatures are very specific to reduce unwanted chemical reactions, like the formation of SO₃, and encourage NO_x reduction and the oxidation of mercury. The system is designed for approximately 90% reduction in nitrogen oxides emissions.

The precipitators for each unit are located outside of the main building, east of the units. The precipitator chamber consists of a metal shell containing vertical plates composed of many thin sheets of metal separated from each other by 9 or 10 inches. The shell and plates of the chamber are connected to a support structure that provides a ground potential. Suspended between the plates are discharge electrodes with insulator bushings. The discharge electrodes are negatively charged (up to 70,000 volt DC) by a high voltage silicon rectifier transformer set. The precipitators allow the ash in the flue gas to be negatively charged by the electrodes and adhere to the positively grounded plates. Magnetic impulse rappers are periodically energized to “rap” the plates and dislodge the ash. The ash falls into hoppers located below the precipitators. The controls for the Units 1, 2, 3 and 4 precipitators are located in the control cabinets inside the building, at the east wall on the third-floor level.

Monroe Units 1, 2, 3 and 4 use wet limestone with forced oxidation (LSFO) in their FGD to control SO₂ emissions. The wet limestone system forms a scrubber product composed mostly of calcium sulfite (CaSO₃). The LSFO process further oxidizes calcium sulfite to calcium sulfate dihydrate (gypsum, or CaSO₄·2H₂O). The gypsum content of the scrubber sludge is typically 95% on a dry basis and can be dewatered and used in wall board or placed in the landfill.

In the Monroe Units 1, 2, 3 and 4 exhaust, the flue gas exits the electrostatic precipitator at approximately 300 °F and enters a spray tower where an alkaline slurry consisting of limestone (calcium carbonate), calcium sulfite (CaSO₃), and calcium sulfate (CaSO₄) is contacted with the flue gas. Through a series of reactions, SO₂ in the flue gas reacts with calcium carbonate in the limestone to form CaSO₃. The flue gas exits the absorption tower through a series of chevron mist eliminators to remove entrained moisture droplets. The calcium sulfite remains in the slurry which drains into a recirculation tank located at the bottom of the spray tower. By injecting air into the slurry using fans or blowers, the calcium sulfite is oxidized to CaSO₄·2H₂O. A portion of the slurry in the recirculation tank is pumped back into the spray tower, and a portion is removed. The removed slurry is dewatered and stockpiled for transport offsite as mentioned above.

The overall FGD reaction is:



The FGD systems at Monroe typically achieve at least 90% control of SO₂, but higher performance is expected on higher sulfur fuels when they are burned at Monroe.

3.0 Preventative Maintenance Program

3.1 Responsible Personnel

The Plant Director is responsible for ensuring that Monroe Power Plant operates in compliance with all environmental and safety requirements and regulations. The Plant Director delegates day to day responsibilities for power plant operations and maintenance to the Plant Manager.

The Plant Manager along with the Performance Manager and Production Manager are responsible for overseeing the inspection, maintenance, and repair of all pollution control devices. The Shift Supervisor is responsible for the day-to-day operations of the precipitators at the plant, and is management's representative during off-hours (i.e. nights and weekends) when the plant management is not on site. The Environmental Engineer is responsible for advising the operators on response to environmental regulations.

Critical phone numbers are as follows:

Plant Director	(734) 384-2201
Plant Manager	(734) 384-2203
Shift Supervisor	(734) 384-2235
Environmental Engineer	(734) 384-2259

3.2 Continuous Monitoring

- 3.2.1 Monitor Stack CO and NOx as indicators of Low NOx Burner performance as well as SCR performance (limits 0.15 lb/mmBTU CO (30-day rolling avg), 0.08 lb/mmBTU NOx (12-month rolling avg), and (0.09 lb/mmBTU NOx (30-day rolling avg)).
- 3.2.2 Monitor SO2 emissions as indicators of FGD performance (Limit 0.107 lb/mmBTU (24-hr rolling avg)).
- 3.2.3 Monitor PM emissions via PM CEMS as indicators of FGD performance (Limit 0.011 lb/mmBTU (24-hr rolling avg)).
- 3.2.4 Monitor duct opacity as a leading indicator of poor ESP performance that could impact the SCR or FGD systems.
- 3.2.5 Monitor the alarm panel in the control room for an indication of failed or troubled conditions.
- 3.2.6 Review daily report on gypsum chemistry (issued every business day of operation) as a leading indicator of poor FGD system performance.
- 3.2.6 Monitor absorber pH as indicators of FGD performance. (An acidic value could indicate poor limestone injection rates.)
- 3.2.7 Monitor absorber ORP (oxidation reduction potential) as indicators of FGD performance. (High or fluctuating values could indicate poor FGD performance.)
- 3.2.8 Monitor slurry control valves left in manual (fixed flow rate). Alarm will sound if SO2 outlet becomes elevated (above 0.080 lb/mmBTU) while the slurry control valves are in manual. This indicates that the fixed flow rate is not effectively limiting SO2 outlet.

3.3 Inspections

Operations personnel inspect all the air pollution control systems daily and monitor their performance using the continuous emissions monitoring system (CEMS) as well as the plant digital control system (DCS). The following preventative maintenance items are inspected as scheduled:

Daily Inspection Checklist

System	Checklist Requirement	Responsible Department
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Low NO _x Burners	Perform Furnace Convection Pass Inspection per JIT B-01-018 to visually verify furnace condition/good combustion performance	Power Plant Operations (PPO)
Precipitators	Visually inspect control cabinets for power, voltage, amperages, cooling fan operation and alarms. Observe all ground switch enclosures. Observe insulator, bushings and ground strap position through port.	Power Plant Operations (PPO)
	Inspect precipitator housing, looking for door leakage or air-in leakage.	Power Plant Operations (PPO)
	Visually inspect rectifier transformer housing (for oil leakage).	Power Plant Operations (PPO)
	Inspect hopper fluidizing blowers.	Power Plant Operations (PPO)
	Check ash transport system.	Power Plant Operations (PPO)
I/C Systems	Visually inspect instrumentation.	Instrument Shop (Maintenance)
System	Process Information (PI) Monitored Parameter	Responsible Department
SCR System	U2A Round Sheet (includes tank levels and pressures, circ.pump temperatures and pressures, alarm control panel and ammonia discharge header temperature and pressure)	Power Plant Operations (PPO)
FGD System	Absorber #1, #2, #3 and #4 Round Sheet (includes pH, recycle pump condition and discharge, reagent feed and oxidizing air information)	FGD Plant (Unit Operator)
	Reagent Prep Round Sheet (includes motor, conveyor and pump information)	FGD Plant (Environmental Journeyman)
	Gypsum Dewatering Round Sheet (includes tank levels, pump and motor information)	FGD Plant (Environmental Journeyman)

PI information is continuously monitored and associated with alarms. Operations does check the information once per day to make sure the system is operating properly, creating work orders to correct any issues identified.

Periodic Inspection/Task Checklist

ANNUAL

- Ammonia grid testing. (SCR – completed by Engineering)

Forced Outage Activities (completed if time allows)

- Clear broken electrodes. (ESP – completed by Maintenance)
- Grease air blowers. (ESP– completed by Maintenance)
- Visually inspect ash hoppers for plugging, inspect hopper doors, laterals and fluidizing stones. (Operators)
- Inspect and clean breakers. (ESP – completed by Maintenance)
- Inspect duct probes for plugging (ESP – completed by Engineering).
- Perform mist eliminator spray functional test for plugged/broken nozzles and headers (FGD – completed by Engineering)
- Inspect and clean mist eliminator trays for plugging (FGD – completed by Engineering)
- Inspect and clean base of stack and stack drains – (FGD – completed by Engineering)

Planned Outage Activities (completed if time allows)

- Clean and inspect corona shields and support insulation. (ESP – completed by Engineering)
- Replace cracked insulators and corroded shields. (ESP – completed by Maintenance)
- Perform explosive cleaning, grit clean or water wash. (ESP – completed by Maintenance)

- Inspect power feeds, rappers, anti-sway insulators, corona shields, precipitator duct work, perforated plates, collector plates, wire racks, supports and other internals for soundness, making repairs as necessary. (ESP – completed by Engineering)
- Inspect burners for wear and damage to the burner components. Replace burner parts and assemblies as necessary. (LNB – completed by Maintenance)
- Complete Absorber Tank inspection, making repairs as necessary. (FGD – completed by EMJs)
- Inspect mist eliminators for plugging. (FGD – completed by EMJs)
- Perform mist eliminator spray functional test for plugged/broken nozzles and headers (FGD – completed by Engineering)
- Inspect and clean mist eliminator trays for plugging (FGD – completed by Engineering)
- Inspect and clean base of stack and stack drains – (FGD – completed by Engineering)
- Inspect Absorber Recirculation system for damaged pumps, plugged headers and nozzles. Repair or replace as necessary (FGD – completed by EMJs)
- Inspect nozzles and headers, making repairs or replacements as necessary. (SCR – completed by EMJs)
- Inspect and clean LPA screens and or back-passes. Repair as necessary. (SCR – completed by Maintenance)
- Institute a catalyst management program that includes repair and replacement based on a schedule and periodic testing. Testing will be compared to specifications designed to ensure proper operation. (SCR – completed by Engineering)
- Inspect screens, inlet duct mixers, rectifier and catalyst for ash build-up. (SCR – completed by Maintenance)

Replacement Parts

DTE Electric Company stocks parts necessary for routine maintenance and common replacements for these systems. If necessary, parts for more involved repairs or replacements for the systems are available on a quick turnaround basis from the vendor.

MONITORING REQUIREMENTS:

All emission limits are programmed into the CEMS DAHS system and are monitored continuously by plant operations. Alarms must be acknowledged, and a reason code and corrective action must be determined and recorded. The best guide as to whether the emissions controls are operating properly is a review of the emissions. With few exceptions, emission controls cannot be bypassed, though in some cases, continued controlled operation of the boiler will result in lower emissions than an immediate shutdown if emissions are above limits. In addition, troubleshooting excess emissions is much easier while the unit is in operation. In a case where excess emissions are recorded, a root cause and preventive action will be identified (if possible) and this document will be updated.

PM emissions are monitored via PM CEMS. Per the plant's air permit, should the PM CEMS be out of control based on the results of quality assurance tests these alternative monitoring measures shall be taken:

- A certified or non-certified visible emissions (VE) reader shall take VE readings during routine operating conditions by taking 6-minute VE readings at a minimum of once per calendar day the boiler is operating.
- If the VE are observed, 6-minute VE readings using Method 22 shall be performed once every 30 minutes until emissions are no longer visible or until emissions have been observed for more than two hours.
- If visible emissions have been observed for more than two hours, a certified VE reader shall determine the opacity using Federal Reference Test Method 9. A certified reader may be available on site. If a certified reader is not available on site, one will be brought in from the Environmental Management & Safety stack testing group.

CATALYST MANAGEMENT:

SCR catalyst management is covered by the plant's *Catalyst Management Plan*. Catalyst "events" (e.g. replacement) are planned for periodic or mid-cycle maintenance outages. Outages need to be of sufficient duration in order to perform catalyst replacement & these types of outages are planned for extended periods which allow for this work.

FGD ABSORBER RECIRCULATING SYSTEM:

FGD Absorber Recirculating (AR) system performance is monitored using PI server data. Parameters that are monitored include AR pump discharge pressure, motor amps, SO₂ removal efficiency and pressure differential across the mist eliminator. If events of deviation from expected system operation occur, the issues are identified and preventative measures taken to minimize impacts on system performance.

CORRECTIVE ACTION PROCEDURES:

Most malfunctions of the control equipment will not result in emissions exceedances. However, the systems must be returned to service as soon as possible in order to maintain maximum emission control. If a malfunction or failure occurs that cannot be corrected by an operator, then a Work Order will be issued to repair the system.

In the event of emission exceedances not attributable to pollution control equipment failure(s) (e.g. boiler upset or turbine trip) operating personnel will follow Standing Operating Orders available in the Unit Control Rooms to reduce emissions to a non-exceedance level. The most commonly used appropriate measures are summarized below.

- Increase the boiler gas exit temperature. This corrective measure is most effective during start-up conditions.
- Reduce boiler load.
- Reduce boiler air flow by adjusting the forced draft fans.
- Adjust fuel blend. This measure may take several hours to impact the emissions and would only be implemented in event of a long-term malfunction.
- Initiate four AR pump operation of FGD per Standing Order B- 56: High FGD Stack SO₂ Output - Immediate Operator Response
- Blow down FGD to purge chlorides. This will reset the chemistry of absorber tower.

Procedures for notification of regulatory agencies during a malfunction or excess emissions event are described in Power Plant Order (PPO) 223.

4.0 START-UP/SHUTDOWN EMISSIONS

Monroe Units 1, 2, 3 and 4 have start-up and shutdown procedures to ensure proper, safe operation of the equipment and to minimize emissions. These procedures are located on the Monroe intranet site and include the following Job Instructional Training aids: Unit 1, 2, 3, & 4 SCR Ammonia Injection System Inspection; SCR System Start-up and Shut-down and Unit Trip Recovery; Boiler Start-up Check Off Sheet, General Procedure; Units 1 through 4, Boiler Prestart Up Inspection, and Absorber Start-up Checklist. Operating Instructions include: Initial Start-up and Loading Units 1 and 4 with SCR in Gas Path, Initial Start-up and Loading Units 2 and 3 with SCR in Gas Path; Shutdown Operations – Controlled Routine Unit Shutdown for Outage; SCR Operation During NO_x Analyzer Failure, Guidelines to Evaluate Opacity Monitor Accuracy and Response to all Plant CEMS Alarms, and Units 1, 2, 3 and 4 Emissions Limits. While individual procedures may change, Monroe is committed to having start-up and shutdown procedures and to make them available during an air quality inspection. These procedures

will be updated as necessary to address operating circumstances that will be regularly encountered at the plant or after equipment changes.

All of the sampling measures undertaken are aimed at assessing the health and effectiveness of the catalyst in the SCR. Some issues can be dealt with at the plant such as performing tuning on the SCR or attempting to clear some of the pluggage. Should the effectiveness of the catalyst be to such a point that it is no longer producing the expected NO_x reduction, the catalyst will be replaced at the next opportunity. This testing is analyzed by subject-matter experts to assess the catalyst effectiveness against the forecast. Catalyst changes are made based on the forecast and adjusted as necessary using the effectiveness assessments and performance analysis.

5.0 REVISION HISTORY

Revision No.	Reviewed by:	Changes
0		New EV- incorporated from OI-170-05.
1		Incorporates changes from Permit 93-09A, included provision for alternate stack testing.
2	B. Marietta	Updated to better reflect current practices and PTI 93-09B
3	B. Marietta	Included additional information on catalyst management & effectiveness assessment.
4	B. Marietta	Catalyst management removed, catalyst management plan developed as a separate document.
5	K. Johnson	Added REF, added Unit 1 FGD System, added reference to PTI 27-13 (replaced 93-09B)
6	K. Johnson	Added Unit 2 FGD references, added FGD Absorber Recirculating System section and specific corrective actions
7	B. Marietta	Added information related to PM CEMS monitoring and actions to take in the event of failed QA testing.
8	E. Starbuck	Added information related to Absorber pH and ORP as methods of monitoring SO ₂ emissions.
9	A. Kosch	Removed references to SO ₃ system as SO ₃ tanks are being removed. SO ₃ is not required for emission control.
10	A. Thomas	Updated critical phone numbers, added NSR Settlement NO _x 30-day rolling avg, added additional maintenance procedures to the forced outage and planned outage activities, replaced Smart Signal Sentinel with PI server data as a means to monitor FGD Absorber Recirculating System, and replaced Environmental Management and Resources with Environmental Management and Safety.
11	A. Thomas	Added information about the slurry control valve alarm.
12	E. Ciak	Removal of REF system and updated personnel

MONROE PLANT ORDER	Units 1, 2, 3 and 4 Mercury Control Devices Malfunction Abatement Plan	Page 1 of 5	Number: EV-026
	Written: <i>E. Ciak</i> E. Ciak – Environmental Engineer	Date: 5/4/23	Original Date:
	Approved: <i>D. Casey</i> D. Casey – Plant Manager	Date: 5/4/23	Rev: 1 5/1/2023

VERIFY CURRENT VERSION IN DOCUMENTUM PRIOR TO USE – UNCONTROLLED WHEN PRINTED

1.0 PURPOSE

This Malfunction Abatement Plan (MAP) has been prepared to meet the requirements of EPA Administrative Consent Order (ACO), EPA-5-2018-113(a) and the ROP. The ACO and ROP require Monroe Power Plant to “...**operating and maintaining the process monitors in accordance with an approved malfunction abatement plan and operating the halogenated compound 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.**” This Malfunction Abatement Plan has been prepared by DTE Electric Company in accordance with Rule 336.1201, Act 451 324.5503(b), EPA-5-2018-113(a)-MI-07 paragraph 16 and 17.

2.0 DESCRIPTION OF SYSTEM

2.1 Ohio Lumex 915J Mercury Process Monitors

Monroe Units 1, 2, 3 and 4 are equipped with Ohio Lumex 915J Mercury Process Monitors. The Ohio Lumex Mercury Process Monitor 915J is designed for the continuous emissions measurement of the mass concentration of Total and Elemental mercury in process (stack) gases. The 915J Mercury Process Monitors are located within each unit's stack.

Stack gas is withdrawn from the stack via heated dilution probe. The probe is attached to a pipe flange. The vacuum in the probe is created by a bypass eductor (attached to the heated filter block) with a motive air pressure set from 10-20 PSI. The bypass flow in the probe is from 0.5 - 5 LPM and it is discharged back into the stack after passing through a 2-micron filter which is heated from 180°C – 220°C. A small portion of filtered bypass flow is withdrawn by a sample dilution eductor and pulled through a critical orifice which is sized to give a dilution ratio between 30:1 and 200:1. The dilution motive air is filtered, dried and scrubbed of all mercury. The sample dilution eductor works at 50-70 PSI pressure and creates a vacuum from 15-23 inches of mercury downstream from the critical orifice. The diluted sample gas enters a converter where all mercury species are thermally (750°C) reduced to elemental mercury allowing the analyzer (which analyses only elemental mercury) to measure the Total Mercury concentration in the gas. Using a three-way valve (V5) the system can bypass the thermal converter and scrub all oxidized species of mercury from the gas allowing the analyzer to detect the Elemental Mercury concentration in the gas. Thus, mercury speciation is possible by alternating the speciating valve (controlled by software). The analyzer uses a multipath optical cell, which is kept at a temperature above the dew point of the measured gas. In this cell, which has an optical path length of ±10 meters, a spectrometer determines the mercury concentration by Zeeman atomic absorption spectrometry using high frequency modulated polarized light (ZAAS-HFM). This eliminates all interferences related to SO₂, NO_x, etc.

The 915J Mercury Process Monitors operate in Total Mercury mode. Once per day a complete auto-calibration is run on the system and automatic corrections are made for drift.

2.2 Halogenated Compound Application System

2.2.1 The Potassium Iodide Distribution System applies Potassium Iodide to the coal flow into the coal mill feeder between the coal mill silo and the coal mill. The system is designed to distribute the chemical agent directly to the coal prior to the milling process for Mercury treatment. All solution piping is routed from the equipment pump skid to spray manifolds for treatment of coal during conveying operations on coal mill feeders.

2.3 Acumet 4150 Injection to Absorbers

2.3.1 Acumet 4150 is a metal precipitant that is injected in the absorber to promote the precipitation of mercury sulfide (HgS) which helps suppress mercury reemission. FGD Standing Order F-08 provides actions to be taken when the Ohio Lumex 915J Mercury Process Monitors instantaneous reading reaches 1.0 lbs/TBtu. These actions involve a verification process prior to initiation of injecting Acumet 4150 into the absorbers to decrease mercury emissions.

3.0 PREVENTATIVE MAINTENANCE PROGRAM

3.1 Responsible Personnel

The Plant Director is responsible for ensuring that Monroe Power Plant operates in compliance with all environmental and safety requirements and regulations. The Plant Director delegates day to day responsibilities for power plant operations and maintenance to the Plant Manager. The Plant Manager along with the Performance Manager and Production Manager are responsible for overseeing the inspection, maintenance, and repair of all pollution control devices. The Shift Supervisor is responsible for day-to-day operation and is management's representative during off-hours (i.e. nights and weekends) when the plant management is not on site. The Environmental Engineer is responsible for advising the operators on response to environmental regulations.

Critical phone numbers are as follows:

Plant Director	(734) 384-2201
Plant Manager	(734) 384-2207
Shift Supervisor	(734) 384-2235
Environmental Engineer	(734) 384-2259

3.2 Inspections/Maintenance

3.2.1 Operations and I&C monitor instantaneous mercury readings through DCS and PI on a daily basis. The instantaneous readings are used to calculate the hourly, 24-hour, and 30-day averages.

Periodic Inspection/Task Checklist

Revised 10/04/2016



915-J Mercury Process Monitor Maintenance Schedule

	Probe & Umbilical Line	Head	Console	Enclosure
3-8 Weeks		For Inlet Locations Only: Replace scrubber cartridge (frequency of replacement depends on flue gas conditions) MT-057, MT-057R		
Quarterly	Replace or clean probe insert MT-047, MT-047S	Check for proper heating of all components	Check for proper heating	Check for proper heating & cooling
	Check probe and umbilical line for proper heating	Replace total scrubber (may be bi-annually depending on flue gas conditions) MT-001		Inspect and clean air conditioner filter (rinse with soapy water and vacuum excess water before reinstalling)
		Replace elemental scrubber (may be bi-annually depending on flue gas conditions) MT-002		Inspect and clean air conditioner condensate management system (pan, drain nipple, tubing)
		Clean and sonicate titanium filter MT-010		Clean air conditioner cabinet
		Clean filter housing & lid assembly MT-035, MT-009		
		Inspect Viton O-rings in filter lid assembly MT-004		
		Inspect Teflon lines and replace if discolored or damaged. If any line from speciation valve is discolored, clean valve. MT-030		
Semi-Annually	Clean probe (if not using disposable inserts) MT-009		Replace pre-analyzer scrubber MT-005	Replace air conditioner filter MT-059
				Replace air system filter elements MT-041 (x2)
Annually		Inspect Viton gaskets & replace if needed (in dilution block & bypass block) MT-024, MT-025	Inspect air/sample lines - replace if discolored	Inspect air dryers: check cycle timer, desiccant towers, solenoid valves, purge mufflers, and filters
		Inspect Teflon lines and replace if discolored or damaged. If any line from speciation valve is discolored, clean valve. MT-030	Replace zero mercury filter MT-003	Replace air system filter elements MT-014, MT-015
		Inspect Viton gasket between probe and head MT-016	Replace pre-analyzer particulate filter MT-037	
Biennially	Flush heated sample line (if needed) MT-028		Inspect and perform routine maintenance to spectrometer (must be done at Ohio Lumex facility)	Replace air dryer solenoid valves MT-013
			Inspect and re-certify Hg calibration cell (replace if needed). Replace pre-calibration cell Hg filter. (must be done at Ohio Lumex facility or by Ohio Lumex technician)	
			Replace mercury lamp (must be done at Ohio Lumex facility)	
Every 5 Years				Replace or repack air dryer desiccant towers MT-012
				Replace air dryer check ball, check spring, and o-rings MT-013

Note: This is a generic maintenance schedule. Actual required maintenance may vary based on the site-specific flue gas conditions.

Subject: Units 1, 2, 3 and 4 Mercury Control Devices Malfunction Abatement Plan	Page 4 of 5	Number: EV-026
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3.2.2 The Potassium Iodide Distribution System is maintained on an as needed basis. Repairs are initiated based on performance of this system by Plant Operations.

3.3 Replacement Parts

DTE Electric Company stocks parts necessary for routine maintenance and common replacements for these systems. If necessary, parts for more involved repairs or replacements for the systems are available on a quick turnaround basis from the vendor.

4.0 MONITORING REQUIREMENTS:

Monroe operating personnel continuously monitor the Ohio Lumex 915J Mercury Process Monitors instantaneous mercury readings on the DCS system. Alarms are in place to notify Operations of elevated mercury readings. Alarms reoccur every 5 minutes. In a case where excess emission is recorded, a root cause and preventive action will be identified (if possible).

5.0 CORRECTIVE ACTION PROCEDURES:

Most malfunctions of the mercury process monitor, the Halogenated Compound application system(s) (Potassium Iodide Distribution System and to be installed system) or the Acumet 4150 application system will not result in emissions exceedances; however, the systems must be returned to service as soon as possible in order to properly monitor real-time mercury and maintain maximum emission control. If a malfunction or failure occurs that cannot be corrected by an operator, then a Work Order will be issued to repair the system.

5.1 If elevated Mercury levels are identified (i.e., 1 hour Ohio Lumex 915J Mercury Process Monitors instantaneous mercury reading averages 1.0 lb/TBtu) on any of the units, Operations shall follow appropriate steps per standing order, F-08, to reduce emissions to a non-exceedance level. The most commonly used appropriate measures are summarized below.

5.1.1 I&C to inspect process monitor probes

5.1.2 Ensure Potassium Iodide Distribution System is operational and injecting at the appropriate rate. If the system isn't functional, an emergency repair work order will be initiated.

5.1.3 Initiate injection of Acumet 4150 per Standing Order F-08: All Units: Mercury (Hg) Operating Limit.

5.1.4 Initiate chloride purge. This will reset the chemistry of absorber tower.

5.1.5 Verify process monitor readings against sorbent trap data.

5.1.6 Instruct Plant Operations to increase Potassium Iodide injection.

5.1.7 Contact merchants to request a higher sulfur blend if unit is burning 100% LSW.

5.1.8 Reduce boiler load if elevated mercury levels continue.

- 5.2 If a malfunction or failure occurs with the Potassium Iodide Distribution System that cannot be corrected by an operator, then a DTE Electric Co. service request must be entered into the work management system MAXIMO. Then an operating and maintenance work order will be issued to repair the system.
- 5.3 Procedures for notification of regulatory agencies during a malfunction or excess emissions event are described in Power Plant Order (PPO) 223.

6.0 REVISION HISTORY

Revision No.	Reviewed by:	Changes
0		New EV- incorporated from ACO, EPA-5-2018-113(a) and PTI 27-13C.
1	E. Ciak	Removed the reference to REF. Replaced the Backup Mersorb system with the Potassium Iodide and updated personnel

MONROE PLANT ORDER	Subject: Control of Fugitive Dust Plan	Page 1 of 6	Number: EV-20
	Written: E. Ciak – Environmental Engineer <i>E. Ciak</i>	Date: 5/4/23	Original Date: 08/13/07
	Approved: D. Casey - Plant Manager <i>D. Casey</i>	Date: 5/4/23	Rev: 9 5/1/2023

VERIFY CURRENT VERSION ON MONROE WEBSITE PRIOR TO USE – UNCONTROLLED WHEN PRINTED

1.0 Purpose

The purpose of this order is to specify the requirements and to assign responsibility for fugitive dust control and reporting procedures at Monroe Power Plant. Per the ROP, the following emission units are required to implement a program for continuous fugitive dust control for material handling operations: coal handling activity in the Cascades room, coal handling activity in the Transfer Houses, coal handling activity in the Dumper House, coal handling activity in the Crusher House, coal unloading activities from Great Lakes ships and includes storage and pile maintenance, petroleum coke handling activity, limestone and limestone slurry handling activities, gypsum handling activity, storage and handling of hydrated lime, and fly ash storage facility.

2.0 Scope

This order applies to all potential sources of fugitive dust, including roads and lots, open areas, storage piles, construction, demolition, material handling operations, including vessel unloading, and rail and vehicle traffic at the site.

3.0 Definitions

Fugitive Dust – Particulate matter which is generated from indoor processes, activities, or operations, and which is emitted in the outer air through building openings and general exhaust ventilation, except stacks. The term also means particulate matter which is emitted into the outer air from outdoor processes, activities, or operations due to forces of the wind or humans' activities.

Uncontrolled Fugitive Dust – Emissions that would occur prior to the application of any emission control devices or measures.

4.0 Requirements

Section 5524 of MI Public Act 451, as amended, requires that fugitive dust be controlled so that any fugitive dust source regulated under this section shall not cause or allow the emission of fugitive dust from any road, lot, or storage pile, including any material handling activity at a storage pile, that has an opacity greater than 5%, or from any other fugitive dust source that has an opacity greater than 20%. Opacity is determined by Observation Method 9(d), as performed by a Qualified Observer. The rule, further, requires that each facility significantly reduce uncontrolled fugitive dust emissions by application of reasonably available control technology.

Subject: Control of Fugitive Dust Plan	Page 2 of 6	No: EV-20
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5.0 Responsibilities

- 5.1 The Plant Manager is responsible for environmental compliance at the site including air quality control.
- 5.2 The Fuel Systems Manager is responsible for implementing the fugitive dust control and reporting procedures that apply to the coal, petroleum coke (PetCoke), other bulk materials piles outside and open to the weather, and unpaved areas in the portions of the plant under Fuel Systems' control at the Monroe Power Plant and the Monroe On-site Ash Disposal Facility. In addition, Fuel Systems is responsible for providing water wagons for the remainder of the plant upon request, including the dry fly ash operation at Warehouse F. Fuel Systems is also responsible for maintaining dust control on paved roads & parking lots.
- 5.3 The Fuel Systems Manager is responsible for implementing the fugitive dust control and reporting procedures that apply to Dry Fly Ash handling areas, sweeping of paved roads, and the sweeping of on-site facility paved roads as well as use of a dust suppression solution on unpaved roads.
- 5.4 The Flue Gas Desulfurization (FGD) Supervising Operator is responsible for monitoring the operation of the wheel wash water circulating system. This includes monitoring and responding to system alarms. The FGD SO is also responsible for implementing the fugitive dust control and reporting procedures that apply to the limestone and other bulk materials piles outside and open to the weather, transfer points for gypsum handling and hydrated lime, and unpaved areas in the portions of the plant under FGD's control, as specified in this order.

6.0 Control Procedures

All control measures in this section shall be applied at least at the stated frequencies, application rates, and dilution ratios, where appropriate except when freezing conditions exist or as otherwise specified. All controls employed will be logged in an online database.

- 6.1 Paved Travel Surfaces
 - 6.1.1 The speed limit on all paved travel surfaces shall be posted and enforced at 15 mph, or less as posted.
 - 6.1.2 All paved roads and parking lots shall be water-flushed, vacuum-swept, or wet broom swept at monthly intervals, at a minimum, when freezing is not of concern. During winter months, calcium chloride may be used to control fugitive dust. Water-flushing will be accomplished by using wash down hoses with nozzles set to high-volume droplet spray or the plant's water wagon using copious amounts of water. Additional control measures shall be taken as necessary to control fugitive dust emissions.
- 6.2 Unpaved Travel Surfaces
 - 6.2.1 The speed limit on all unpaved travel surfaces shall be posted, and enforced, at 15 mph, or less as posted.

- 6.2.2 All unpaved roads shall be sprayed with suppressants as needed. Unpaved roads are typically treated with *Dustabate* dust suppressant solution.
- 6.2.3 Unpaved lots shall be sprayed with suppressants at a rate and intensity equivalent to unpaved roads.
- 6.2.4 Additional control measures shall be taken as necessary to control fugitive dust emissions. Water sprays are to be used on unpaved surfaces as needed between dust suppressant applications.

6.3 Exposed Areas and Storage Piles

This will apply to all storage piles and other material piles as they are developed, as well as unpaved and paved surfaces surrounding these areas.

6.3.1 The following shall be utilized:

1. All storage piles (inactive piles) shall be configured and sealed with dust suppressant as necessary to minimize fugitive dust emissions.
2. To maintain a surface-moisture content on coal piles, they shall be watered daily by use of the plant's water spray system and/or the plant's water wagon when freezing conditions are not present, AND expected rainfall for the day is less than 0.01 inch. The spray system includes 16 water cannons. This system is designed to deliver 600 gpm at 200 psi. Each cannon will be operated for no less than two minutes per day. This will result in an average daily equivalent of rainfall on the coal piles which level agrees with EPA's consultants' recommended level of rainfall necessary to preclude fugitive emissions.
3. If operator observation indicates a potential for generation of dust, water trucks will be utilized outside the winter months on the storage piles as practical to control fugitive dust.
4. All mobile equipment exhaust shall be directed upward, to preclude creation of fugitive dust by blowing exhaust gas into or across dust-containing materials (e.g., coal, PetCoke, limestone, fly ash, etc.)
5. All excessive spillage around the perimeter of transfer houses will be removed within 48 hours.
6. The On-site fly ash basin filled areas and other open areas will be controlled by vegetation. On-site driving surfaces will be sprayed with dust suppressant as described in 6.2.3, above.
7. The dry fly ash handling facility shall also be treated with water and a dust suppressant solution as described in 6.2.3, above. If any fugitive dust is identified from dry fly ash handling processes, then either a Method 9 will be performed, or the equipment will be shut down.
8. The CCR Transfer pad will utilize dust bosses when freezing conditions do not exist.

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6.3.2 Additional control measures shall be taken as necessary to control fugitive dust emissions.

6.4 Materials Handling

6.4.1 Belt surfactant sprays (including *BeneTech BT-668* & *FoamKleen*) and other water spray systems will be utilized to minimize material exposure to wind during loading operations. This includes coal, limestone & gypsum handling operations. Coordinated use of spray and surfactant systems allows portions of the systems to be removed from service for maintenance activities. Some of the systems may be unavailable during winter months while weather conditions could result in freezing temperatures.

6.4.2 Vessel unloading is to an enclosed receiving hopper. Unloading shall be performed in a manner to control the production of fugitive dust. Controls may include abeyance of unloading during periods of high winds, as determined by observation of dust production in excess of limits defined in Section 4.0 (above), during unloading.

6.4.3 Tire washing for Gypsum transport and PetCoke delivery trucks will be used as necessary to control dust, except during periods of freezing weather and equipment maintenance.

6.4.4 Hydrated Lime is delivered via truck and offloaded via pneumatic line while FGD personnel are in attendance in order to identify visible emissions immediately if they were to occur during offloading.

6.4.5 All vehicles transporting bulk loads off site shall comply with Section 324.5524(3)(d) of the MI Natural Resources & Environmental Protection Act which requires covers over solid loads that may generate dust and that leaks of liquid be prevented.

6.4.6 Rail unloading is via an enclosed rotary dumper serviced by a dust collector (DC-24). During DC-24 operation, daily VE's are required per the DC-24 MAP, if VE's are identified then a certified Method 9 will be performed, corrective actions taken, and EU shut down if VE's cannot be eliminated.

6.4.7 All coal conveyors are within a building or gallery, except CV-C4, R-2, and PC-FE1, which are situated so close to the ground that enclosing is not possible. Dust from coal is controlled by dust suppressant. Conveyor enclosure requirements do not apply to CV-C4 as EU-TRANSFERHS-S1 consists of coal handling activity taking place in the existing Transfer House per ROP-B2816-2019.

6.4.8 All fly ash that is stored on site will be transported wet via pipeline for disposal at the "On-Site" basin until the end of 2023, or dry through fully sealed pneumatic tubes to Warehouse F.

6.4.9 The Dry Fly Ash process is serviced by various dust control devices (dust collectors, bin vent filters, etc.) as outline in PTI 114-20. Dust control in the roadways, surfaces, and storage piles is the responsibility of Fuel Systems. Visible

Emission observations are conducted once a week during operation as outlined in permit to install 114-20.

6.5 Construction Activities

- 6.5.1 Roads and vehicle staging, turning and loading areas that are formed of compacted granular material (e.g., ash, sand, limestone, etc.) shall be observed daily by Project Managers, or their delegate, in light of expected traffic load, weather conditions and road surface.
- 6.5.2 Project Managers, or their delegate, shall request dust suppressant measures from Fuel Systems, as appropriate, consistent with 6.2 and 6.3 above.
- 6.5.4 Concrete generated from demolition work may be kept on site for reuse. Concrete may be crushed to different sizes for various applications. This process may be performed by a vendor with a portable concrete crushing operation. Should an outside party be brought on site to perform such a task, the party must have a valid air permit for the operation performed. The vendor and all associated subcontractors, if applicable, must follow all provisions of that air permit as well as all air permits for Monroe Power Plant and this plan. Dust must be controlled using methods including, but not limited to water sprays & enclosures.

6.6 Reporting Procedures

- 6.6.1 Documentation logs of all activities specified under Sec. 6, Control Procedures of this Order shall be readily accessible at the Plant for a period of five (5) years.
- 6.6.2 The documentation shall be entered onto a Daily Shift Log in an online database by Fuel Systems or Plant Operations.
- 6.6.3 An entry will be made in the Daily Shift Log in an online database for each control activity specified in Sec. 6, Control Procedures. Any additional control measures taken on a given day will also be documented.

8.0 Revision History

Revision No.	Reviewed by:	Changes
		Original Document
0		Revised to update controls
1		Updated to include electronic log
2		Updated to include new permit requirements
3		Updated to include stack demo requirements (6.5.3)
4		Updated 6.4.7 & 6.4.9 to include requirements of new air permits (Permit-to-Install 93-09A). Updated 6.5.3 to include activities related to upcoming demolition of the old 3-4 stack.

	5		Updated 6.4.7 & 6.4.9 to include requirements of new air permits (Permit-to-Install 93-09A). Updated 6.5.3 to include activities related to upcoming demolition of the old 3-4 stack.
	6	B. Marietta	Updated 6.4.7 & 6.4.9 to include requirements of new air permits (Permit-to-Install 93-09A). Updated 6.5.3 to include activities related to upcoming demolition of the old 3-4 stack.
	7	K. Johnson	Added references to PetCoke storage piles throughout; updated responsibilities to include FGD SO; updated PTI numbers; added PetCoke storage pile handling to 6.3.1 bullet 4 and flyash handling facility to 6.3.1 bullet 8; updated suppressants used in 6.4.1; added 6.4.7 regarding PetCoke material handling systems; added PetCoke MAP.
	8	K. Johnson	Removed references to PTI's, Removed Petcoke MAP as it's included in EV-024, Included more detail around the REF and Hydrated lime material handling control.
	9	E. Ciak	Removed REF references, added Dry Fly Ash storage area requirements per PTI 114-20.



RENEWABLE OPERATING PERMIT APPLICATION AI-001: ADDITIONAL INFORMATION

This information is required by Article II, Chapter 1, Part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

SRN: B2816

Section Number (if applicable): 1

1. Additional Information ID

AI-PTI

Additional Information

2. Is This Information Confidential?

Yes No

F3. Attached are PTIs 8-22, 114-20, and 72-21 that need to be incorporated into the ROP. PTI 72-21 includes new emission units that need to be added to the ROP.

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

January 27, 2022

**PERMIT TO INSTALL
8-22**

ISSUED TO
DTE Electric – 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: July 20, 2021	
DATE PERMIT TO INSTALL APPROVED: January 27, 2022	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
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 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 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-UNIT1	Boiler Unit No. 1 - Coal-fired boiler nominally rated 817 MW (gross) with low-NO _x burners, Reduced Emissions Fuel (REF) sorbent system, 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-NO _x burners, REF sorbent system, 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-NO _x burners, REF sorbent system, 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-NO _x burners, REF sorbent system, 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-NO_x burners, overfire air, Reduced Emission Fuel (REF) sorbent system, 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 ²	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 ²	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) Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF- RSW, E.D. Michigan, paragraph 24(a)
3. PM10	0.024 lb/MMBtu heat input ²	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 ²	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 ²	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 ²	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. SO ₂	0.100 lb/MMBtu ^{2,4,5}	30-day rolling average emission rate ^{2,4,5}	EU-UNIT1	SC VI.3, SC VI.10	Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF- RSW, E.D. Michigan, paragraph 9
8. NO _x	0.08 lb/MMBtu heat input ²	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)
9. NO _x	222.6 ton/month ²	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)
10. NO _x	0.090 lb/MMBtu ^{2,4,5}	30-day rolling average emission rate ^{2,4,5}	EU-UNIT1	SC VI.3, SC VI.10	Act 451, Section 324.5503(b); Civil Action No. 2:10-cv- 13101-BAF-RSW, E.D. Michigan, paragraph 9
11. CO	0.15 lb/MMBtu heat input excluding periods of start- up and shutdown ²	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)
12. CO	27,446.4 lb/day ²	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)
13. VOC	0.0034 lb/MMBtu heat input ²	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)
14. VOC	25.9 pph ²	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)
15. Lead (Pb)	1.69 x 10 ⁻⁵ lb/MMBtu heat input ²	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)
16. Lead (Pb)	0.13 pph ²	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)
17. Sulfuric acid mist (H ₂ SO ₄)	0.005 lb/MMBtu heat input ²	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)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
18. 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
19. Hydrogen Fluoride (HF)	0.00023 lb/MMBtu heat input ²	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)
20. Mercury (Hg)	0.02 lb/GW-hr gross energy output ²	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.11	R 336.1224, R 336.1228, R 336.1229(2)(b), R 336.2503(2)
21. Mercury (Hg)	143.1 lb/year ²	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.11	R 336.1224, R 336.1228, R 336.1229(2)(b), R 336.2503(2)
22. 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)

23. The permittee shall comply with the System-Wide Annual SO₂ and NO_x Tonnage Limitations specified in Appendix 11-1-A. Emissions from EU-UNIT1 shall be counted toward the system-wide total emissions.^{2,4,5} **(R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 11)**

24. The permittee shall comply with the SO₂ and NO_x use & surrender allowance and super-compliance allowance provisions listed in Appendix 11-1-B: Allowance Provisions.^{2,4,5} **(R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 14-22)**

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. 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-UNIT1. ² **(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-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.² (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 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.² (R 336.1912, R 336.2810, 40 CFR 52.21(j))
3. 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.² (R 336.1911, R 336.1912, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))
4. The permittee shall continuously operate the SCR and FGD systems and each PM control device for EU-UNIT1 and use good air pollution control practices to minimize emission reductions at all times when EU-UNIT1 is in operation.^{2,4,5} (R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 10 & 23)

See Appendix 3-1-C

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.² (R 336.1205(1)(a) and (1)(b))
2. The permittee shall not operate EU-UNIT1 unless the low- NO_x 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.1.² (R 336.1224, R 336.1225, R 336.1901, R 336.1910, R 336.2810, 40 CFR 52.21(j))
3. The permittee shall not operate EU-UNIT1 unless the REF sorbent system is 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.1.² (R 336.1225, R 336.1910)
4. 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.^{2,3} (R 336.1201, Act 451 324.5503(b), EPA-5-2018-113(a)-MI-07 paragraph 16)
5. 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.^{2,3} (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. ² (R 336.1205(1)(a), 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 PM2.5 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 336.1205, 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 Appendices 3-1-A and 3-1-B. The permittee shall also meet the following requirements:² (40 CFR 52.21(j), R 336.1201, R 336.1205, R 336.1301, R 336.1303, R 336.1331, R 336.1901, R 336.1911, R 336.2810, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 25 & 26)
 - 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-A.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-A.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-A.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. ² **(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. ² **(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. ² **(R 336.2804, R 336.2810, 40 CFR 52.21(d) and (j))**
10. For purposes of determining compliance with the 30-day rolling average emission rates for SO₂ and NO_x as found in SC I.7 and SC I.10, 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% CO₂) shall be applied to the emission rate for any hours where the measured CO₂ concentration is less than 5% following the procedures in 40 CFR Part 75, Appendix F, Section 3.3.4.1.^{2,4,5} **(R 336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 12)**
11. 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))**

12. 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:
- Compliance tests and any testing required under the special conditions of this permit;
 - Monitoring data;
 - Heat input calculations required to show compliance with SC IV.1;
 - Identification, type and the amounts of all fuels combusted in EU-UNIT1 on a calendar month basis;
 - Total gigawatt-hours of energy produced on a monthly basis;
 - Records of the duration of all times EU-UNIT1 is operated under start-up or shutdown conditions as defined in SC III.2;
 - 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. ² (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))

See Appendices 3-1-A and 3-1-B

VII. REPORTING

- 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 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.
 - 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.
 - A report of the total operating time of the boiler during the reporting period.
 - A report of any periods that the CEMS/CERMS, and if applicable PEMS, exceed the instrument range.
 - If no exceedances or CEMS/CERMS, and if applicable PEMS, downtime occurred during the reporting period, the permittee shall report that fact.
- 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. ² (R 336.2001(5), R 336.2156(c))
- 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-B.^{2,4,5} (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-B

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. SV016-001	336 ²	579 ²	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENT(S)

1. 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).

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

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.

⁴This 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.

⁵Definitions specific to this condition may be found in Appendix 1-1-B.

**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-NO_x burners, overfire air, REF sorbent system, 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 ²	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 ²	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), Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 24(a)
3. PM10	0.024 lb/MMBtu heat input ²	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 ²	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 ²	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

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
6. SO ₂	815.8 pph ²	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
7. SO ₂	0.100 lb/MMBtu ^{2,4,5}	30-day rolling average emission rate ^{2,4,5}	EU-UNIT2	SC VI.3, SC VI.10	Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101- BAF-RSW, E.D. Michigan, paragraph 9
8. NO _x	0.08 lb/MMBtu heat input ²	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)
9. NO _x	222.6 ton/month ²	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)
10. NO _x	0.090 lb/MMBtu ^{2,4,5}	30-day rolling average emission rate ^{2,4,5}	EU-UNIT2	SC VI.3, SC VI.10	Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101- BAF-RSW, E.D. Michigan, paragraph 9
11. CO	0.15 lb/MMBtu heat input excluding periods of start- up and shutdown ²	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)
12. CO	27,446.4 lb/day ²	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)
13. VOC	0.0034 lb/MMBtu heat input ²	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)
14. VOC	25.9 pph ²	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)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
15. Lead (Pb)	1.69 x 10 ⁻⁵ lb/MMBtu heat input ²	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)
16. Lead (Pb)	0.13 pph ²	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)
17. Sulfuric acid mist (H ₂ SO ₄)	0.005 lb/MMBtu heat input ²	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)
18. 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
19. Hydrogen Fluoride (HF)	0.00023 lb/MMBtu heat input ²	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)
20. Mercury (Hg)	0.02 lb/GW-hr gross energy output ²	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.11	R 336.1224, R 336.1228, R 336.1229(2)(b), R 336.2503(2)
21. Mercury (Hg)	144.2 lb/year ²	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.11	R 336.1224, R 336.1228, R 336.1229(2)(b), R 336.2503(2)
22. 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)

23. The permittee shall comply with the System-Wide Annual SO₂ and NO_x Tonnage Limitations specified in Appendix 11-1-A. Emissions from EU-UNIT2 shall be counted toward the system-wide total emissions.^{2,4,5} **(R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 11)**

24. The permittee shall comply with the SO₂ and NO_x use & surrender allowance and super-compliance allowance provisions listed in Appendix 11-1-B: Allowance Provisions.^{2,4,5} **(R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 14-22)**

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.2.² **(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-UNIT2.² **(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.² **(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.² **(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.² **(R 336.1911, R 336.1912, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))**
4. The permittee shall continuously operate the SCR and FGD systems and each PM control device for EU-UNIT2 and use good air pollution control practices to minimize emission reductions at all times when EU-UNIT2 is in operation.^{2,4,5} **(R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 10 & 23)**

See Appendix 3-1-C

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.² **(R 336.1205(1)(a) and (1)(b))**
2. The permittee shall not operate EU-UNIT2 unless the low-NO_x 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.1.² **(R 336.1224, R 336.1225, R 336.1901, R 336.1910, R 336.2810, 40 CFR 52.21(j))**
3. The permittee shall not operate EU-UNIT2 unless the REF sorbent system is 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.1.² **(R 336.1225, R 336.1910)**
4. 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. ^{2,3} **(R 336.1201, Act 451 324.5503(b), EPA-5-2018-113(a)-MI-07 paragraph 16)**

5. 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. ^{2,3} **(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. ² **(R 336.1205(1)(a), 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. ² **(R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall verify the PM2.5 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. 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 336.1205, 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 Appendices 3-1-A and 3-1-B. The permittee shall also meet the following requirements:² **(40 CFR 52.21(j), R 336.1201, R 336.1205, R 336.1301, R 336.1303, R 336.1331, R 336.1901, R 336.1911, R 336.2810, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 25 & 26)**
 - 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-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-A.² **(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-A.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-UNIT2 on a continuous basis. The monitor shall be operated in accordance with procedures outlined in Appendix 3-1-A.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-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.² **(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.8.² **(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.10.² **(R 336.2804, R 336.2810, 40 CFR 52.21(d), and (j))**
10. For purposes of determining compliance with the 30-day rolling average emission rates for SO₂ and NO_x as found in SC I.7 and SC I.10, 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% CO₂) shall be applied to the emission rate for any hours where the measured CO₂ concentration is less than 5% following the procedures in 40 CFR Part 75, Appendix F, Section 3.3.4.1.^{2,4,5} **(R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 12)**

11. 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))**
12. 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.² **(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))**

See Appendices 3-1-A and 3-1-B

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.

- 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))**
- 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-B.^{2,4,5} **(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)

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. SV016-002	336 ²	579 ²	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENT(S)

- 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.

⁴ 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.

⁵ Definitions specific to this condition may be found in Appendix 1-1-B.

**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-NO_x burners, overfire air, REF sorbent system, 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 ²	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 ²	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), Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 24(a)
3. PM10	0.024 lb/MMBtu heat input ²	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 ²	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 ²	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

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
6. SO ₂	815.8 pph ²	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
7. SO ₂	0.100 lb/MMBtu ^{2,4,5}	30-day rolling average emission rate ^{2,4,5}	EU-UNIT3	SC VI.3, SC VI.10	Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101- BAF-RSW, E.D. Michigan, paragraph 9
8. NO _x	0.08 lb/MMBtu heat input ²	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)
9. NO _x	222.6 ton/month ²	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)
10. NO _x	0.090 lb/MMBtu ^{2,4,5}	30-day rolling average emission rate ^{2,4,5}	EU-UNIT3	SC VI.3, SC VI.10	Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101- BAF-RSW, E.D. Michigan, paragraph 9
11. CO	0.15 lb/MMBtu heat input excluding periods of start- up and shutdown ²	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)
12. CO	27,446.4 lb/day ²	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)
13. VOC	0.0034 lb/MMBtu heat input ²	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)
14. VOC	25.9 pph ²	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)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
15. Lead (Pb)	1.69 x 10 ⁻⁵ lb/MMBtu heat input ²	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)
16. Lead (Pb)	0.13 pph ²	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)
17. Sulfuric acid mist (H ₂ SO ₄)	0.005 lb/MMBtu heat input ²	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)
18. 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
19. Hydrogen Fluoride (HF)	0.00023 lb/MMBtu heat input ²	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)
20. Mercury (Hg)	0.02 lb/GW-hr gross energy output ²	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.11	R 336.1224 R 336.1228 R 336.1229(2)(b) R 336.2503(2)
21. Mercury (Hg)	144.2 lb/year ²	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.11	R 336.1224 R 336.1228 R 336.1229(2)(b) R 336.2503(2)
22. 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)

23. The permittee shall comply with the System-Wide Annual SO₂ and NO_x Tonnage Limitations specified in Appendix 11-1-A. Emissions from EU-UNIT3 shall be counted toward the system-wide total emissions.^{2,4,5} **(R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 11)**

24. The permittee shall comply with the SO₂ and NO_x use & surrender allowance and super-compliance allowance provisions listed in Appendix 11-1-B: Allowance Provisions.^{2,4,5} **(R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 14-22)**

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.2.² **(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-UNIT3.² **(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-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.² **(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 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.² **(R 336.1912, R 336.2810, 40 CFR 52.21(j))**
3. 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.² **(R 336.1911, R 336.1912, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))**
4. The permittee shall continuously operate the SCR and FGD systems and each PM control device for EU-UNIT3 and use good pollution control practices to minimize emission reductions at all times when EU-UNIT3 is in operation.^{2,4,5} **(R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 10 & 23)**

See Appendix 3-1-C

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.² **(R 336.1205(1)(a) and (1)(b))**
2. The permittee shall not operate EU-UNIT3 unless the low- NO_x 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.1.² **(R 336.1224, R 336.1225, R 336.1901, R 336.1910, R 336.2810, 40 CFR 52.21(j))**
3. The permittee shall not operate EU-UNIT3 unless the REF sorbent system is 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.1.² **(R 336.1225, R 336.1910)**
4. 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. ^{2,3} **(R 336.1201, Act 451 324.5503(b), EPA-5-2018-113(a)-MI-07 paragraph 16)**

5. 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. ^{2,3} **(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. ² **(R 336.1205(1)(a), 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. ² **(R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall verify the PM2.5 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. 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 336.1205, 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 Appendices 3-1-A and 3-1-B. The permittee shall also meet the following requirements: ² **(40 CFR 52.21(j), R 336.1201, R 336.1205, R 336.1301, R 336.1303, R 336.1331, R 336.1901, R 336.1911, R 336.2810, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 25 & 26)**
 - 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-A.² **(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-A.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-UNIT3 on a continuous basis. The monitor shall be operated in accordance with procedures outlined in Appendix 3-1-A.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-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.² **(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. ² **(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. ² **(R 336.2804, R 336.2810, 40 CFR 52.21(d), and (j))**

10. For purposes of determining compliance with the 30-day rolling average emission rates for SO₂ and NO_x as found in SC I.7 and SC I.10, 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% CO₂) shall be applied to the emission rate for any hours where the measured CO₂ concentration is less than 5% following the procedures in 40 CFR Part 75, Appendix F, Section 3.3.4.1.^{2,4,5} **(R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 12)**
11. 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))**
12. 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.² **(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))**

See Appendices 3-1-A and 3-1-B

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))**
- 3. 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-B.^{2,4,5} **(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)

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 ²	579 ²	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENT(S)

- 1. 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.
⁴ 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.
⁵ Definitions specific to this condition may be found in Appendix 1-1-B.

**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-NO_x burners, overfire air, REF sorbent system, 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 ²	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 ²	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) , Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 24(a)
3. PM10	0.024 lb/MMBtu heat input ²	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 ²	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 ²	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

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
6. SO ₂	815.8 pph ²	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
7. SO ₂	0.100 lb/MMBtu ^{2,4,5}	30-day rolling average emission rate ^{2,4,5}	EU-UNIT4	SC VI.3, SC VI.10	Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 9
8. NO _x	0.08 lb/MMBtu heat input ²	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)
9. NO _x	222.6 ton/month ²	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)
10. NO _x	0.090 lb/MMBtu ^{2,4,5}	30-day rolling average emission rate ^{2,4,5}	EU-UNIT4	SC VI.3, SC VI.10	Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 9
11. CO	0.15 lb/MMBtu heat input excluding periods of start-up and shutdown ²	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)
12. CO	27,446.4 lb/day ²	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)
13. VOC	0.0034 lb/MMBtu heat input ²	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)
14. VOC	25.9 pph ²	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)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
15. Lead (Pb)	1.69 x 10 ⁻⁵ lb/MMBtu heat input ²	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)
16. Lead (Pb)	0.13 pph ²	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)
17. Sulfuric acid mist (H ₂ SO ₄)	0.005 lb/MMBtu heat input ²	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)
18. 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
19. Hydrogen Fluoride (HF)	0.00023 lb/MMBtu heat input ²	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)
20. Mercury (Hg)	0.02 lb/GW-hr gross energy output ²	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)
21. Mercury (Hg)	143.1 lb/year ²	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)
22. 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)

23. The permittee shall comply with the System-Wide Annual SO₂ and NO_x Tonnage Limitations specified in Appendix 11-1-A. Emissions from EU-UNIT4 shall be counted toward the system-wide total emissions.^{2,4,5} **(R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 11)**

24. The permittee shall comply with the SO₂ and NO_x use & surrender allowance and super-compliance allowance provisions listed in Appendix 11-1-B: Allowance Provisions.^{2,4,5} **(R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 14-22)**

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.2.² **(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-UNIT4.² **(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-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.² **(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 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.² **(R 336.1912, R 336.2810, 40 CFR 52.21(j))**
3. 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.² **(R 336.1911, R 336.1912, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d), and (j))**
4. The permittee shall continuously operate the SCR and FGD systems and each PM control device for EU-UNIT4 and use good air pollution control practices to minimize emission reductions at all times at all times when EU-UNIT4 is in operation.^{2,4,5} **(R336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 10 & 23)**

See Appendix 3-1-C

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.² **(R 336.1205(1)(a) and (1)(b))**
2. The permittee shall not operate EU-UNIT4 unless the low-NO_x 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.1.² **(R 336.1224, R 336.1225, R 336.1901, R 336.1910, R 336.2810, 40 CFR 52.21(j))**
3. The permittee shall not operate EU-UNIT4 unless the REF sorbent system is 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.1.² **(R 336.1225, R 336.1910)**
4. 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. ^{2,3} **(R 336.1201, Act 451 324.5503(b), EPA-5-2018-113(a)-MI-07 paragraph 16)**

5. 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. ^{2,3} **(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. ² **(R 336.1205(1)(a), 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. ² **(R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall verify the PM2.5 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. 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 336.1205, 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 Appendices 3-1-A and 3-1-B. The permittee shall also meet the following requirements:² **(40 CFR 52.21(j), R 336.1201, R 336.1205, R 336.1301, R 336.1303, R 336.1331, R 336.1901, R 336.1911, R 336.2810, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraphs 25 & 26)**
 - 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-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-A.² **(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-A.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-UNIT4 on a continuous basis. The monitor shall be operated in accordance with procedures outlined in Appendix 3-1-A.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-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.² **(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.8.² **(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.10.² **(R 336.2804, R 336.2810, 40 CFR 52.21(d) and (j))**

10. For purposes of determining compliance with the 30-day rolling average emission rates for SO₂ and NO_x as found in SC I.7 and SC I.10, 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% CO₂) shall be applied to the emission rate for any hours where the measured CO₂ concentration is less than 5% following the procedures in 40 CFR Part 75, Appendix F, Section 3.3.4.1.^{2,4,5} **(R 336.1201, Act 451, Section 324.5503(b); Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 12)**
11. 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))**
12. 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.² **(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))**

See Appendices 3-1-A and 3-1-B

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.

- 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))**

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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV016-004	336 ²	579 ²	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENT(S)

- 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.

⁴ 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.

⁵ 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_x, SO₂, 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_x 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 the 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 of the Consent Decree (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 SO₂ 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_x 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_x 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_x" 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_x Allowance" means an authorization to emit a specified amount of NO_x 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_x 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. 2:10-cv-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_x 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. "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))**
50. "SCR" or "Selective Catalytic Reduction" means an air pollution control device for reducing NO_x emissions in which ammonia ("NH₃") is added to the flue gas and then passed through layers of a catalyst material. The ammonia and NO_x in the flue gas stream react on the surface of the catalyst, forming nitrogen ("N₂") 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))**
51. "SO₂" 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))**
52. "SO₂ Allowance" means an authorization to emit a specified amount of SO₂ 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 "SO₂ 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))**
53. "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))**
54. "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))**
55. "Surrender" or "Surrender of Allowances" means, for purposes of SO₂ and NO_x 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))**
56. "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))**
57. "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))**
58. "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))**
59. "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))**
60. "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 3-1. Monitoring Requirements

3-1-A. The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in EU-UNIT1, EU-UNIT2, EU-UNIT3 and EU-UNIT4.

**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).

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 in each calendar quarter, 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 purposed of correlating the PM CEMS under the Consent Decree. Diluent capping (i.e.: 5% CO₂) will be applied to the PM rate data for any hours where the measured CO₂ 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.

8-1-B. Other Reporting

Reporting requirements per "U.S. v DTE Energy and Detroit Edison Company, Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, 2020" paragraph 48

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 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. DTE 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). The report shall include the following information:

- a) All information necessary to determine compliance during the reporting period with the requirements of paragraphs 9-22 of the Consent Decree concerning emissions and monitoring and surrender of Allowances. This information includes but is not limited to
 - (1) spreadsheets of all 30-Day Rolling Average Emission Rates and 24-Hour Rolling Average Emission Rates for EU-UNIT1 through EU-UNIT4,
 - (2) a list of any notifications associated with the retrofit, refuel, or repower options as specified in Appendix 2-BR (Consent Decree paragraph 8),
 - (3) total System-Wide Annual NO_x and SO₂ tonnages for the calendar year, and
 - (4) specific calculations demonstrating the basis and specific amounts of NO_x and SO₂ Allowances to be Surrendered as specified in Appendix 11-1-B SC8;
- b) All period of PM CEMS malfunction, maintenance, and/or repair as provided in paragraph 25 of the Consent Decree;
- c) All information relating to super-compliant NO_x and SO₂ Allowances that DTE claims to have generated in accordance with Appendix 11-1-B of this permit (requirements of paragraph 19 of the Consent Decree), including a detailed description of the basis for such claim and the specific amount of supercompliant NO_x and SO₂ Allowances claimed at each Unit; and
- d) An identification of all period when any pollution control device (FGD system, SCR system and ESPs) required by the Consent Decree was not Continuously Operated while the associated boiler was in operation, the reason(s) for the equipment not being Continuously Operated, and the basis for DTE's compliance or non-compliance with the Continuous Operation requirements of the Consent Decree.

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" paragraphs 8-22 and 48.

2. In any periodic report submitted pursuant to the Periodic Reporting requirements found in Section IX of the Consent Decree, DTE may incorporate by reference information previously submitted under their Title V permitting requirements, provided that DTE attaches the Title V Permit report (or the pertinent portions of such

report) and provide a specific reference to the provisions of the Title V Permit report that are responsive to the information required in the periodic report. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 49)**

3. If DTE violates or deviates from any provision of the Consent Decree, DTE shall submit a report of any violation or deviation from any provision of the Consent Decree within 10 business days after DTE knew or should have known of the event. In the report, DTE shall explain the cause or causes of the violation or deviation and all measures taken or to be taken by DTE to cure the reported violation or deviation or to prevent such violations or deviations in the future. If at any time the provisions of the Consent Decree are included in Title V Permits, consistent with the requirements for such inclusion in the Consent Decree, then the deviation reports required under applicable Title V regulations shall be deemed to satisfy the Consent Decree requirement. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 50)**
4. Each report required by the Consent Decree shall be signed by the Responsible Official as defined in Title V of the Clean Air Act for the appropriate System Unit(s), and shall contain the following certification: *"This information was prepared either by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my evaluation, or the direction and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, I hereby certify under penalty of law that, to the best of my knowledge and belief, this information is true, accurate, and complete, I understand that there are significant penalties for submitting false, inaccurate, or incomplete information to the United States."* **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 51)**
5. Unless otherwise provided herein, whenever notifications, submissions, or communications are required by the Consent Decree, they shall be made in both paper and electronic format to the addresses identified in paragraph 99 of the Consent Decree unless otherwise superseded. Electronic submittals shall not be the only form of notification, submission, or communication unless agreed upon by both the submitting and receiving Parties. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 99)**
6. All paper notifications, communications, or submissions made pursuant to the Consent Decree shall be sent either by: (a) overnight mail or overnight delivery service with signature required for delivery or (b) certified or registered mail, return receipt requested. All notifications, communications, and transmissions (a) sent by overnight, certified, or registered mail shall be deemed submitted on the date they are postmarked, or (b) sent by overnight delivery service shall be deemed submitted on the date they are delivered to the delivery service. **(R 336.1201, Act 451, Section 324.5503(b); 2020 Civil Action No. 2:10-cv-13101-BAF-RSW, E.D. Michigan, paragraph 101)**

Appendix 11-1. NO_x and SO₂ Allowances and Limitations

11-1-A. System Wide NO_x and SO₂ 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_x and SO₂ Tonnage Limitations

The DTE System, collectively, shall operate so as not to exceed the following System-Wide Annual NO_x and SO₂ Tonnage Limitations:

For the Calendar Year Specified Below:	System-Wide Annual NO _x Tonnage Limitation	System-Wide Annual SO ₂ 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_x and SO₂ emission data obtained from a CEMS in accordance with the procedures specified in 40 CFR Part 75. If a Unit is Refueled, SO₂ 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_x and SO₂ 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_x and SO₂ Allowances

1. DTE shall not use NO_x or SO₂ 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_x or SO₂ 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_x or SO₂ Allowances allocated to Units in the System. Nothing in the Consent Decree shall restrict DTE's ability to transfer NO_x or SO₂ 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_x and SO₂ 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_x and SO₂ 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_x or SO₂ 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_x and SO₂ Allowances

5. Beginning with the year 2021 and continuing in each calendar year thereafter, DTE may sell, bank, use, trade, or transfer NO_x or SO₂ 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_x and 0.100 lb/MMBtu for SO₂
 - 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_x or SO₂ 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_x and SO₂ Allowances

6. DTE shall Surrender, or transfer to a non-profit third-party selected by DTE for Surrender, all NO_x and SO₂ 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_x or SO₂ 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;

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_x and SO₂ Allowances", within one year after DTE transferred the Allowances to them. DTE shall not have complied with the Allowance Surrender requirements of the NO_x and SO₂ Allowance Surrender requirements of Appendix 11-1-B, "Method for Surrender of NO_x and SO₂ 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 20, 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)**

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

FEBRUARY 26, 2021

PERMIT TO INSTALL
114-20

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: December 4, 2020	
DATE PERMIT TO INSTALL APPROVED: February 26, 2021	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
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 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 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-FlyAshStorage	<p>Prior to the modifications to the dry fly ash system as permitted in PTI 113-20, the dry fly ash collection, transfer, storage, and loading equipment and unloading area of the onsite landfill. A fly ash storage facility. The facility consists of two 75-ton surge silos (Nos. 1 and 2), a 3000-ton storage silo, a 200-ton load-out silo, and associated blowers, pressure pumps, compressors, pipe conveyor lines, and spouts. Particulate emissions from the loading of material into surge silo No. 1 are controlled by two filter receivers (FR-101 and FR-102). Particulate emissions from the transferring of material out of surge silo No. 1 are controlled by a bin vent filter (BH-101). Particulate emissions from the loading of material into surge silo No. 2 are controlled by two filter receivers (FR-201 and FR-202). Particulate emissions from the transferring of material out of surge silo No. 2 are controlled by a bin vent filter (BH-201). Particulate emissions from the storage silo will be controlled by a bin vent filter (BH-301). Particulate emissions from the loading of material into and the transfer of material out of (truck or railcar load-out) the load-out silo will be controlled by a bin vent filter (BH-401).</p> <p>After the modifications to the dry fly ash system as permitted in PTI 113-20, EU-FlyAshStorage includes the dry fly ash collection, transfer, storage, and loading equipment and unloading area of the onsite landfill. This emission unit includes the Unit 1 – 4 electrostatic precipitator hoppers, vacuum blowers and piping for pneumatic transfer, a 3000-ton storage silo, and a 4,000-ton storage silo, and a 200 ton silo. A silo-to-silo transfer system allows transfer of ash from one silo to the other silo. The silos each have dustless loading/unloading spouts for loading tanker trucks under a slight negative pressure in enclosed unloading areas below each silo. The emissions from the silos and eight conveyer exhaust systems are controlled by vent bin filters. Two ash conditioners (pug mills) for treating ash for loading ash into open trucks are in an enclosed unloading floor area below the 4,000-ton silo.</p>	TBD	NA

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-FlyAshStorage
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Prior to the modifications to the dry fly ash system as permitted in PTI 113-20, the dry fly ash collection, transfer, storage, and loading equipment and unloading area of the onsite landfill. A fly ash storage facility. The facility consists of two 75-ton surge silos (Nos. 1 and 2), a 3000-ton storage silo, a 200-ton load-out silo, and associated blowers, pressure pumps, compressors, pipe conveyor lines, and spouts. Particulate emissions from the loading of material into surge silo No. 1 are controlled by two filter receivers (FR-101 and FR-102). Particulate emissions from the transferring of material out of surge silo No. 1 are controlled by a bin vent filter (BH-101). Particulate emissions from the loading of material into surge silo No. 2 are controlled by two filter receivers (FR-201 and FR-202). Particulate emissions from the transferring of material out of surge silo No. 2 are controlled by a bin vent filter (BH-201). Particulate emissions from the storage silo will be controlled by a bin vent filter (BH-301). Particulate emissions from the loading of material into and the transfer of material out of (truck or railcar load-out) the load-out silo will be controlled by a bin vent filter (BH-401).

After the modifications to the dry fly ash system as permitted in PTI 113-20, EU-FlyAshStorage includes the dry fly ash collection, transfer, storage, and loading equipment and unloading area of the onsite landfill. This emission unit includes the Unit 1 – 4 electrostatic precipitator hoppers, vacuum blowers and piping for pneumatic transfer, a 3000-ton storage silo, and a 4,000-ton storage silo, and a 200 ton silo. A silo-to-silo transfer system allows transfer of ash from one silo to the other silo. The silos each have dustless loading/unloading spouts for loading tanker trucks under a slight negative pressure in enclosed unloading areas below each silo. The emissions from the silos and eight conveyer exhaust systems are controlled by vent bin filters. There are two ash conditioners (pug mills) for treating ash prior to loading the ash into open trucks in an enclosed unloading floor area below the 4,000-ton silo.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

The emissions from the silos and eight conveyer exhaust systems are controlled by vent bin filters. The silos each with have dustless loading spouts for loading tankers under a slight negative pressure. The emissions from the conditioned fly ash truck loadout is controlled by the enclosure. Emissions from the unpaved roads are controlled in accordance with a fugitive emissions control plan.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. PM	0.026 lbs. per 1000 lbs. of exhaust gases calculated on a dry gas basis ^{3,7}	Hourly	EU-FlyAshStorage	SC VI.1	R 336.1331
2. PM-10	0.3 Pounds Per Hour ^{4,7}	Hourly	Each filter receiver portion of EU-FlyAshStorage	SC VI.1	R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
3. PM-10	0.05 Pounds Per Hour ^{5,7}	Hourly	The surge silo No. 1 portion and the surge silo No. 2 portion of EU-FlyAshStorage	SC VI.1	R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
4. PM-10	1.4 Pounds Per Hour ⁷	Hourly	The storage silo portion of EU-FlyAshStorage	SC VI.1	R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
5. PM-10	0.35 Pounds Per Hour ⁷	Hourly	The load-out silo portion of EU-FlyAshStorage	SC VI.1	R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
6. Opacity	10%	6-minute average	Each exhaust stack portion of EU-FlyAshStorage	SC VI.1	R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
7. PM-10	0.11 Pounds Per Hour ^{6,8,9}	Hourly	Each filter exhaust of EU-FlyAshStorage	SC VI.2, SC VI.3	R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
8. PM-10	0.51 Pounds Per Hour ^{6,8}	Hourly	3,000-ton Silo Bin Vent of EU-FlyAshStorage	SC VI.2, SC VI.3	R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
9. PM-10	1.03 Pounds Per Hour ^{6,8}	Hourly	4,000-ton Silo Bin Vent of EU-FlyAshStorage	SC VI.2, SC VI.3	R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
10. PM-10	0.017 Pounds Per Hour ^{6,8}	Hourly	Silo-to-Silo Transfer of EU-FlyAshStorage	SC VI.2, SC VI.3	R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)

³ The 0.026 pounds per 1000 pounds of exhaust gas limit is a concentration limit that applies independently to each of the eight exhaust stacks associated with EU-FlyAshStorage.

⁴ The 0.3 pounds per hour limit is a mass limit that applies independently to each of the four filter receivers and shall be determined from stacks SVFR-101, SVFR-102, SVFR-201, and SVBH-202.

⁵ The 0.05 pounds per hour limit is a mass limit that applies independently to each of the two surge silos and shall be determined from stacks SVBH-101 and SVBH-201.

⁶ Condition applies after the modifications to the dry fly ash system as permitted in PTI 113-20

⁷ Condition applies until the modifications to the dry fly ash system as permitted in PTI 113-20

⁸ PM2.5 emissions are restricted by the permitted PM10 emission limits

⁹ This limit applies to each Stack/Vent FAE-U01, FAE-U02, FAE-U012, FAE-U03, FAE-U04, FAE-U034.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Conditioned (mixed with water) Fly Ash transported to facility landfill ⁶	776,000 tpy	12-month rolling time period, as determined at the end of each calendar month	EU-FlyAshStorage	SC VI.4	R 336.1205, R 336.1225, 40 CFR 52.21 (c) and (d)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-FlyAshStorage unless a program for continuous fugitive emissions control for all plant roadways, the plant yard, and all material handling operations approved by the AQD District Supervisor has been implemented and is maintained. The fugitive emissions control plan will include the use of a dust suppressant for unpaved roads. The permittee shall update the fugitive emissions control plan within 90 days of completion of any modification to the plant roadways, the plant yard, or material handling operations or upon request by the District Supervisor. **(R 336.1225, R 336.1371, R 336.1372, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d), Act 451 324.5524)**
2. The permittee shall not maintain any outside fly ash storage piles in conjunction with EU-FlyAshStorage. **(R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not load material into the surge silo No. 1 portion of EU-FlyAshStorage unless the two filter receivers (Nos. FR-101 and FR-102) are installed, maintained, and operated in a satisfactory manner.⁷ **(R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**
2. The permittee shall not transfer material out of the surge silo No. 1 portion of EU-FlyAshStorage unless the bin vent filter (BH-101) is installed, maintained, and operated in a satisfactory manner.⁷ **(R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**
3. The permittee shall not load material into the surge silo No. 2 portion of EU-FlyAshStorage unless the two filter receivers (Nos. FR-201 and FR-202) are both installed, maintained, and operated in a satisfactory manner.⁷ **(R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**
4. The permittee shall not transfer material out of the surge silo No. 2 portion of EU-FlyAshStorage unless the bin vent filter (BH-201) is installed, maintained, and operated in a satisfactory manner.⁷ **(R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**
5. The permittee shall not operate the storage silo portion of EU-FlyAshStorage unless the bin vent filter (BH-301) is installed, maintained, and operated in a satisfactory manner.⁷ **(R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**
6. The permittee shall not operate or transfer material out of the load-out silo portion of EU-FlyAshStorage unless the bin vent filter (BH-401) is installed, maintained, and operated in a satisfactory manner.⁷ **(R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**
7. The permittee shall not operate the pneumatic conveyor or storage silos of EU-FlyAshStorage unless the emissions are controlled by bin vent filters with a grain loading rating of no more than 0.005 gr/dscfare installed, maintained, and operated in a satisfactory manner.⁶ **(R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**
8. The permittee shall not load out unconditioned ash in EU-FlyAshStorage unless the dustless spout and the associated bin filter for the silo being unloaded are installed, maintained, and operated in a satisfactory manner.⁶ **(R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**
9. The permittee shall not load out conditioned ash in EU-FlyAshStorage unless the unload area is fully enclosed.⁶ **(R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall perform and document non-certified visible emissions observations from exhaust stacks associated with EU-FlyAshStorage once per week when the emission unit is operating. If during the observation there are any visible emissions detected from an emission point, a USEPA Method 9 certified visible emissions observation shall be conducted for a minimum of 15 minutes to determine the actual opacity from that emission point. Records of the non-certified visible emissions observations, USEPA Method 9 observations that are performed, the reason for any visible emissions observed and any corrective actions taken shall be kept on file and in a format acceptable to the AQD. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))**
2. The permittee shall maintain the manufacturer documentation for the grain loading rating for the bin vent filter. All records shall be maintained on-site and made available to the Department upon request.⁶ **(R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**
3. The permittee shall maintain the manufacturer recommendations for maintenance and replacement for the bin filters controlling emissions from the silos and the ash transfer systems in EU-FlyAshStorage. The permittee shall maintain a record of all maintenance and filter replacements performed. All records shall be maintained on-site and made available to the Department upon request.⁶ **(R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**
4. The permittee shall keep, in a satisfactory manner, a record of the conditioned fly ash transported to the facility landfill on a monthly and 12-month rolling time period basis. The record shall be maintained on-site and made available to the Department upon request.⁶ **(R 336.1225, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

VII. REPORTING

1. Within 30 days after completion of the modification to the dry fly ash system as authorized by the issuing Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the activity. Completion of the modification is considered to occur not later than commencement of trial operation of the modified system. **(R 336.1201(7)(b), R 336.1205, R 336.1225, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) and (d))**

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 with an asterisk (*) indicating a non-vertical discharge:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVFR-101 ^{7,*}	8	45	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
2. SVFR-102 ^{7,*}	8	45	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
3. SVBH-101 ^{7,*}	6	45	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
4. SVFR-201 ^{7,*}	8	45	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
5. SVFR-202 ^{7,*}	8	45	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
6. SVBH-201 ^{7,*}	6	45	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
7. SVBH-301 ^{6,7,*}	32 x 18	107	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
8. SVBH-401 ^{6,7,*}	NA	94	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
9. SVFAE-U01 ^{6,*}	14	20	R 336.1225, 40 CFR 52.21(c) & (d)
10. SVFAE-U02 ^{6,*}	14	20	R 336.1225, 40 CFR 52.21(c) & (d)
11. SVFAE-U12 ^{6,*}	14	20	R 336.1225, 40 CFR 52.21(c) & (d)
12. SVFAE-U03 ^{6,*}	14	20	R 336.1225, 40 CFR 52.21(c) & (d)
13. SVFAE-U04 ^{6,*}	14	20	R 336.1225, 40 CFR 52.21(c) & (d)
14. SVFAE-U34 ^{6,*}	14	20	R 336.1225, 40 CFR 52.21(c) & (d)
15. SVBH-302 ^{6,*}	30 x 72	155	R 336.1225, 40 CFR 52.21(c) & (d)
16. SVBH-303 ^{6,*}	5	33	R 336.1225, 40 CFR 52.21(c) & (d)
*Stacks vent non-vertically			

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

⁶ - Condition applies after the modifications to the dry fly ash system as permitted in PTI 113-20

⁷ - Condition applies until the modifications to the dry fly ash system as permitted in PTI 113-20

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

September 30, 2021

**PERMIT TO INSTALL
72-21**

**ISSUED TO
DTE Electric Company**

**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: September 15, 2021	
DATE PERMIT TO INSTALL APPROVED: September 30, 2021	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	Michigan Department of Environmental Quality
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
MDEQ	Michigan Department of Environmental Quality
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 _{2e}	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 Environmental Quality, 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 Environmental Quality. **(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-FGD_EDG1	A 2,328 HP (1,736 kilowatts (kW)) diesel-fueled emergency engine with a model year of 2011 or later, and a displacement of less than 30 liters/cylinder.	TBD	FG-FGD_EDG, FGRICEMACT
EU-FGD_EDG2	A 2,328 HP (1,736 kilowatts (kW)) diesel-fueled emergency engine with a model year of 2011 or later, and a displacement of less than 30 liters/cylinder.	TBD	FG-FGD_EDG, FGRICEMACT
EU-FGD_EDG3	A 2,328 HP (1,736 kilowatts (kW)) diesel-fueled emergency engine with a model year of 2011 or later, and a displacement of less than 30 liters/cylinder.	TBD	FG-FGD_EDG, FGRICEMACT
EU-FGD_EDG4	A 2,328 HP (1,736 kilowatts (kW)) diesel-fueled emergency engine with a model year of 2011 or later, and a displacement of less than 30 liters/cylinder.	TBD	FG-FGD_EDG, FGRICEMACT

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.

FLEXIBLE GROUP SPECIAL CONDITIONS

FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-FGD_EDG	Four (4) 2,328 HP (1,736 kilowatts (kW)) diesel-fueled emergency 4-stroke compression ignition reciprocating internal combustion engines (CI RICE) with a model year of 2011 or later, and a displacement of less than 30 liters/cylinder. The engines will be used, as needed, to provide the power necessary to safely shut down the existing Unit 1 through Unit 4 boiler wet flue gas desulfurization (FGD) emission control systems.	EU-FGD_EDG1, EU-FGD_EDG2, EU-FGD_EDG3, EU-FGD_EDG4
FGRICEMACT	40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), located at a major source of HAP emissions, new or reconstructed emergency, compression ignition (CI) RICE greater than 500 brake hp. A RICE is new or reconstructed if the date of installation or modification is after December 19, 2002. Because the CI RICE are greater than 500 brake hp located at a major source of HAP emissions, the emission units do not fall under 63.6590(c) to meet 40 CFR Part 63 Subpart ZZZZ requirements by meeting the requirements of 40 CFR Part 60 Subpart IIII. Therefore, both ZZZZ and IIII requirements are applicable to this FG.	EU-FGD_EDG1, EU-FGD_EDG2, EU-FGD_EDG3, EU-FGD_EDG4

**FG-FGD_EDG
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Four (4) 2,328 HP (1,736 kilowatts (kW)) diesel-fueled emergency engine with a model year of 2011 or later, and a displacement of less than 30 liters/cylinder.

Emission Unit ID: EU-FGD_EDG1, EU-FGD_EDG2, EU-FGD_EDG3, EU-FGD_EDG4

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NMHC + NOx	6.4 g/kW-hr	Hourly ^A	Each engine in FG-FGD_EDG	SC V.1 SC VI.2	40 CFR 60.4205(b), 40 CFR 60.4202(a)(2), Table 2 to Appendix I of 40 CFR 1039
2. CO	3.5 g/kW-hr	Hourly ^A	Each engine in FG-FGD_EDG	SC V.1 SC VI.2	40 CFR 60.4205(b), 40 CFR 60.4202(a)(2), Table 2 to Appendix I of 40 CFR 1039
3. PM	0.20 g/kW-hr	Hourly ^A	Each engine in FG-FGD_EDG	SC V.1 SC VI.2	40 CFR 60.4205(b), 40 CFR 60.4202(a)(2), Table 2 to Appendix I of 40 CFR 1039

g/kW-hr = grams per kilowatt-hour

^AThese emission limits are for certified engines; if testing becomes required to demonstrate compliance, then the tested values must be compared to the Not to Exceed (NTE) requirements determined through 40 CFR 60.4212(c).

II. MATERIAL LIMIT(S)

1. The permittee shall burn only diesel fuel in each engine in FG-FGD_EDG with a maximum sulfur content of 15 ppm (0.0015 percent) by weight and a minimum Cetane index of 40 or a maximum aromatic content of 35 volume percent. **(R 336.1205(1)(a) and (3), 40 CFR 60.4207, 40 CFR 1090.305)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate each engine in FG-FGD_EDG for more than 500 hours per year based on a 12-month rolling time period as determined at the end of each calendar month. The 500 hours includes the hours for the purpose of necessary maintenance checks and readiness testing as described in SC III.2. **(R 336.1205(1)(3), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**

2. The permittee may operate each engine in FG-FGD_EDG for no more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year. **(40 CFR 60.4211(f)(2))**
3. The permittee may operate each engine in FG-FGD_EDG up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year provided for maintenance and testing as provided in 40 CFR 60.4211(f)(2). Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for the permittee to supply non-emergency power as part of a financial arrangement with another entity. **(40 CFR 60.4211(f)(3))**
4. If the permittee purchased a certified engine, according to procedures specified in 40 CFR Part 60, Subpart IIII, for the same model year, the permittee shall meet the following requirements for each engine in FG-FGD_EDG:
 - a. Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions,
 - b. Change only those emission-related settings that are permitted by the manufacturer, and
 - c. Meet the requirements as specified in 40 CFR 89, 94 and/or 1068, as they apply to the engine.If you do not operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine. **(40 CFR 60.4211(a) & (c))**
5. If the permittee purchased a non-certified engine or a certified engine operating in a non-certified manner, the permittee shall keep a maintenance plan for each engine in FG-FGD_EDG and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 60.4211(g)(3))**
6. The permittee shall only conduct the necessary maintenance checks and readiness testing on one engine in FG-FGD_EDG at a time. **(40 CFR 52.21 (c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FG-FGD_EDG with non-resettable hour meter to track the operating hours. **(R 336.1205(1)(a) & (3), R 336.1225, 40 CFR 60.4209)**
2. The maximum rated power output of each engine in FG-FGD_EDG shall not exceed 2,328 HP (1,736 kW), as certified by the equipment manufacturer. **(R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 60.4202, 40 CFR 60.4205, 40 CFR 89.112(a))**

V. TESTING/SAMPLING

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

1. If the any engine in FG-FGD_EDG is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows:
 - a) Conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

- b) If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4212.
- c) Conduct subsequent performance testing every 8,760 hours of engine operation or every 3 years thereafter, whichever comes first, to demonstrate compliance with the applicable emission standards

No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. 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. **(40 CFR 60.4211(g)(3), 40 CFR 60.4212)**

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 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(1)(a)&(3), R 336.1225, 40 CFR 52.21 (c) & (d), 40 CFR Part 60, Subpart IIII)**
2. The permittee shall keep, in a satisfactory manner, the following records for each engine in FG-FGD_EDG:
 - a. For EACH certified engine: The permittee shall keep records of the manufacturer certification documentation.
 - b. For EACH uncertified engine: The permittee shall keep records of testing required in SC V.1.The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 60.4211)**
3. The permittee shall keep, in a satisfactory manner, the following records of maintenance activity for each engine in FG-FGD_EDG:
 - a. For EACH certified engine: The permittee shall keep records of the manufacturer's emission-related written instructions, and records demonstrating that the engine has been maintained according to those instructions, as specified in SC III.4.
 - b. For EACH uncertified engine: The permittee shall keep records of a maintenance plan, as required by SC III.5, and maintenance activities.The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 60.4211)**
4. The permittee shall monitor and record, the total hours of operation for each engine in FG-FGD_EDG on a monthly and 12-month rolling time period basis, and the hours of operation during emergency and non-emergency service that are recorded through the non-resettable hour meter for each engine in FG-FGD_EDG, on a calendar year basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation of each engine in FG-FGD_EDG, including what classified the operation as emergency and how many hours are spent for non-emergency operation. **(R 336.1205(1)(a) & (3), 40 CFR 60.4211, 40 CFR 60.4214)**
5. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in FG-FGD_EDG, demonstrating that the fuel meets the requirement of 40 CFR 1090.305. The certification or test data shall include the name of the oil supplier or laboratory, the sulfur content, and cetane index or aromatic content of the fuel oil. **(R 336.1205(1)(a) & (3), 40 CFR 60.4207(b), 40 CFR 1090.305)**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of each engine of FG-FGD_EDG. **(R 336.1201(7)(a))**

- The permittee shall submit a notification specifying whether each engine of FG-FGD_EDG will be operated in a certified or a non-certified manner to the AQD District Supervisor, in writing, within 30 days following the initial startup of the engine and within 30 days of switching the manner of operation. **(40 CFR Part 60, Subpart IIII)**

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. SV-FGD_EDG1	20	30	R 336.1225, 40 CFR 52.21 (c) & (d)
2. SV-FGD_EDG2	20	30	R 336.1225, 40 CFR 52.21 (c) & (d)
3. SV-FGD_EDG3	20	30	R 336.1225, 40 CFR 52.21 (c) & (d)
4. SV-FGD_EDG4	20	30	R 336.1225, 40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENT(S)

- The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and IIII, as they apply to each engine of FG-FGD_EDG. **(40 CFR Part 60, Subparts A & IIII)**
- The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63, Subparts A and ZZZZ, as they apply to each engine of FG-FGD_EDG. **(40 CFR Part 63, Subparts A & ZZZZ, 40 CFR 63.6585)**

Footnotes:

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

**FGRICEMACT
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), located at a major source of HAP emissions, new or reconstructed emergency, compression ignition (CI) RICE greater than 500 brake hp. A RICE is new or reconstructed if the date of installation or modification is after December 19, 2002.

Emission Unit: EU-FGD_EDG1, EU-FGD_EDG2, EU-FGD_EDG3, EU-FGD_EDG4

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall burn only diesel fuel in each engine with a maximum sulfur content of 15 ppm (0.0015 percent) by weight and a minimum Cetane index of 40 or a maximum aromatic content of 35 volume percent. **(40 CFR 63.6604(c), 40 CFR 1090.305)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate and maintain each engine in FGRICEMACT and after-treatment control device (if any) in a manner consistent with good air pollution control practices for minimizing emissions. **(40 CFR 63.6605)**
2. For each engine in FGRICEMACT, the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply. **(40 CFR 63.6625(h))**
3. The permittee may operate each engine in FGRICEMACT for no more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year. **(40 CFR 63.6640(f)(2))**
4. Each engine in FGRICEMACT may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in SC III.3. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for the permittee to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **(40 CFR 63.6640(f)(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FGRICEMACT with non-resettable hour meter to track the operating hours. **(R 336.1205(1)(a))**

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

1. For each engine in FGRICEMACT, the permittee shall keep in a satisfactory manner, records of the maintenance conducted to demonstrate that the engine and after-treatment control device (if any) were operated and maintained according to the developed maintenance plan. The permittee shall keep all records on file and make them available to the department upon request. **(R 336.1205(1)(a))**
2. The permittee shall monitor and record, the total hours of operation for each engine in FGRICEMACT on a monthly basis, and the hours of operation during emergency and non-emergency service that are recorded through the non-resettable hour meter for each engine in FGRICEMACT on a calendar year basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation including what classified the operation as emergency and how many hours are spent for non-emergency operation. The permittee shall keep all records on file and make them available to the department upon request. **(R 336.1205(1)(a))**
3. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in FGRICEMACT, demonstrating that the fuel meets the requirement of SC II.1. The certification or test data shall include the name of the oil supplier or laboratory, the sulfur content, and cetane index or aromatic content of the fuel oil. The permittee shall keep all records on file and make them available to the department upon request. **(R 336.1205(1)(a), 40 CFR 1090.305)**
4. The permittee's records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). **(40 CFR 63.6660(a))**
5. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5-years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.6660(b))**

VII. REPORTING

1. The permittee shall submit an initial notification that includes the information in 40 CFR 63.9(b)(2)(i) through (v), and a statement that FGRICEMACT has no additional requirements and the basis of the exclusion. **(40 CFR 63.6645(f))**

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subparts A and ZZZZ for Stationary Reciprocating Internal Combustion Engines. **(40 CFR Part 63, Subparts A and ZZZZ)**

Footnotes:

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

**UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN**

UNITED STATES OF AMERICA,

Plaintiff,

and

SIERRA CLUB,

Intervenor-Plaintiff,

v.

DTE ENERGY COMPANY AND
DETROIT EDISON COMPANY,

Defendants.

Civil Action No.
2:10-cv-13101

Judge Bernard A. Friedman

Magistrate Judge R. Steven
Whalen

CONSENT DECREE

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APPENDIX A -- ENVIRONMENTAL MITIGATION PROJECT

A. Plaintiff, the United States of America (“United States”), on behalf of the United States Environmental Protection Agency (“EPA”), filed a complaint in this action on August 5, 2010. The Court granted Plaintiff-Intervenor Sierra Club’s motion to intervene on November 23, 2010. The United States and Sierra Club (collectively “Plaintiffs”) later amended their complaints, and the Court granted leave to file the amended complaints (“Complaints”) on April 9, 2014. The Complaints allege violations of the Clean Air Act (“CAA” or “the Act”) against DTE Energy and Detroit Edison Company (“Defendants”).

B. The Complaints sought injunctive relief and civil penalties pursuant to Sections 113(b) and 167 of the Act 42, U.S.C. §§ 7413(b) and 7477, alleging that Defendants violated: (a) the Prevention of Significant Deterioration (“PSD”) provisions of the Act, 42 U.S.C. §§ 7470-7492; (b) the nonattainment New Source Review (“Nonattainment NSR”) provisions of the Act, 42 U.S.C. §§ 7501-7515; (c) applicable federal PSD and Nonattainment NSR regulations; and (d) the State Implementation Plan adopted by the State of Michigan and approved by EPA pursuant to Section 110 of the Act, 42 U.S.C. § 7410 (“Michigan SIP”). The Complaints allege that, *inter alia*, Defendants made major modifications to major emitting facilities, and failed to obtain the necessary permits and install and operate the controls necessary under the Act to reduce sulfur dioxide (“SO₂”) and/or oxides of nitrogen (“NO_x”), at certain electricity generating stations located in Michigan, and that such emissions damage human health and the environment.

C. Statement of the United States: The Complaints alleged major modifications at several of Defendants’ units, including a major modification at Monroe Unit 2 in 2010. While the Consent Decree resolves that claim and releases Defendants from any liability for it, none of

the relief in this Consent Decree is attributable to the United States' Monroe Unit 2 2010 claim. It is the position of the United States that this is an appropriate exercise of its prosecutorial discretion in light of the specific circumstances of this case. In 2017, EPA issued a policy memorandum noting that the 2013 and 2017 appellate decisions in this case "have created uncertainty regarding the applicability of NSR permitting requirements in circumstances where the owner or operator of an existing major stationary source projects that proposed construction will not cause an increase in actual emissions that triggers NSR requirements" and concluding that it would therefore no longer pursue cases factually similar to the 2010 Monroe Unit 2 claim. *See* EPA Administrator, *Memorandum Regarding New Source Review Preconstruction Permitting Requirements* (Dec. 7, 2017). The Department in its independent judgment as a matter of prosecutorial discretion, has decided to apply EPA's rationale to the 2010 Monroe Unit 2 claim as well as take to heart the litigation history, which may implicate cases such as *General Elec. Co. v. EPA*, 53 F.3d 1324 (D.C. Circ. 1995). The specific circumstances described above are not raised by the other claims in the Complaints.

D. Defendants opted to retire St. Clair Unit 1 and have permanently ceased operation of that unit as of March 31, 2019.

E. Defendants do not admit any liability to Plaintiffs arising out of the transactions or occurrences alleged in the Complaints.

F. The Parties recognize, and the Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith and will avoid further litigation among the Parties and that this Consent Decree is fair, reasonable, and in the public interest.

NOW, THEREFORE, with the consent of the Parties, it is hereby ORDERED, ADJUDGED, AND DECREED as follows:

I. JURISDICTION AND VENUE

1. This Court has jurisdiction over this action, the subject matter herein, and the Parties consenting hereto, pursuant to 28 U.S.C. §§ 1331, 1345, 1355, and 1367, and pursuant to Sections 113, 167, and 304 of the Act, 42 U.S.C. §§ 7413, 7477, and 7604. Venue is proper in this District pursuant to Sections 113(b) and 304(c) of the Act, 42 U.S.C. §§ 7413(b) and 7604(c), and 28 U.S.C. §§ 1391(b) and (c). For purposes of this Decree, or any action to enforce this Decree, Defendants consent to (i) the Court's jurisdiction over this Decree and any such action and over Defendants and (ii) venue in in this judicial district. Except as expressly provided for herein, this Consent Decree shall not create any rights in or obligations of any party other than the Parties to this Consent Decree. Except as provided in Section XXIII (Public Comment) of this Consent Decree, the Parties consent to entry of this Consent Decree without further notice. Notwithstanding the foregoing, should this Consent Decree not be entered by this Court, then the waivers and consents set forth in this Section I (Jurisdiction and Venue) shall be null and void and of no effect.

II. APPLICABILITY

2. Upon entry, the provisions of this Consent Decree shall apply to and be binding upon the United States, Sierra Club, and Defendants and their respective successors, assigns, or other entities or persons otherwise bound by law.

3. Defendants shall provide a copy of this Consent Decree to all vendors, suppliers, consultants, contractors, agents, and other entities retained to perform any of the work required by this Consent Decree. Notwithstanding any retention of contractors, subcontractors, or agents to perform any work required under this Consent Decree, Defendants shall ensure that all work they are required to undertake is performed in accordance with the requirements of this Consent Decree. In any action to enforce this Consent Decree, except as expressly provided herein (*e.g.*, Section XII (Force Majeure)), Defendants shall not assert as a defense the failure of their officers, directors, employees, servants, agents, or contractors to take actions necessary to comply with this Consent Decree.

III. DEFINITIONS

4. Every term expressly defined by this Section shall have the meaning given that term herein. Every other term used in this 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 this Consent Decree what such term means under the Act or those regulations.

a. A “30-Day Rolling Average Emission Rate” for a Unit shall be expressed as lbs/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 be calculated for each new

Operating Day. Each 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.

b. A “24-Hour Rolling Average Emission Rate” for a Unit shall be expressed as lbs/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.

c. “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.

d. “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.

e. “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.

f. “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.

g. “CEMS” or “Continuous Emission Monitoring System,” means, for obligations involving the monitoring of NO_x, SO₂, and PM emissions under this 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.

h. “Clean Air Act,” “CAA,” or “Act” means the federal Clean Air Act, 42 U.S.C. §§ 7401-7671q, and its implementing regulations.

i. “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.

j. “Consent Decree” means this Consent Decree, including Appendix A, which is hereto incorporated into this Consent Decree.

k. “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 this Consent Decree (including, but not limited to, SCR, FGD, ESP, Baghouse, or Low NO_x Combustion System), it shall be operated at all times such Unit is in operation (except as otherwise provided by Section XII (Force Majeure)), 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.

l. “Date of Entry” means the date this 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.

m. “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.

n. “Day” means calendar day unless otherwise specified in this Consent Decree.

o. “Defendants” or “DTE” mean DTE Energy and Detroit Edison Company.

p. “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.

q. “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 this Consent Decree.

r. “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).

s. “EPA” means the United States Environmental Protection Agency.

t. “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 SO₂ emissions.

u. “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.

v. “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.

w. “KW” means Kilowatt or one thousand watts net.

x. “lb/mmBTU” means pounds of a pollutant per million British thermal units of heat input.

y. “Low NO_x 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_x during combustion of fuel in the boiler.

z. “Malfunction” means any sudden, infrequent, and not 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.

aa. “MW” means a megawatt or one million watts.

bb. “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.

cc. “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. Consistent with the preamble to this agreement, all relief granted herein with respect to Monroe Unit 2 is not attributable to the United States’ 2010 claim relating to Monroe Unit 2.

dd. “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.

ee. “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.

ff. “NO_x” means oxides of nitrogen.

gg. “NO_x Allowance” means an authorization to emit a specified amount of NO_x 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_x 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 this Consent Decree.

hh. “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.

ii. “Operating Day” or “Operating Days” means any calendar day(s) during which a Unit fires any fuel.

jj. “Operating Hour” or “Operating Hours” means any clock hour during which a Unit fires any fuel.

kk. “Operational or Ownership Interest” means part or all of DTE’s legal or equitable operational or ownership interest in any operating, non-Retired Unit. The Parties recognize that under this definition, Section XVII (Sales or Transfers of Operational or Ownership Interests) of this Consent Decree does not apply to salvage, scrap, or demolition of a Retired Unit.

ll. “Over-Fire Air” or “OFA” means an in-furnace staged combustion control to reduce NO_x emissions.

mm. “Parties” means the United States of America, the Sierra Club, and Defendants. “Party” means one of the named “Parties.”

nn. “PM” means total filterable particulate matter.

oo. “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.

pp. “PM Control Device” means any device, including an ESP or Baghouse, which reduces emissions of PM.

qq. “PM Emission Rate” means the number of pounds of PM emitted per million BTU of heat input (lb/mmBTU).

rr. “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.

ss. “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.

tt. “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 applies for, and obtains, all required permits, including, if applicable, a PSD or Nonattainment NSR permit.

uu. “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.

vv. “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 such 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.

ww. “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:

- NO_x: 0.080 lb/mmBTU
- SO₂: 0.060 lb/mmBTU

xx. “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.

yy. “SCR” or “Selective Catalytic Reduction” means an air pollution control device for reducing NO_x emissions in which ammonia (“NH₃”) is added to the flue gas and then

passed through layers of a catalyst material. The ammonia and NO_x in the flue gas stream react on the surface of the catalyst, forming nitrogen (“N₂”) and water vapor.

zz. “SO₂” means sulfur dioxide.

aaa. “SO₂ Allowance” means an authorization to emit a specified amount of SO₂ 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 “SO₂ 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 this Consent Decree.

bbb. “State” means the State of Michigan.

ccc. “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.

ddd. “Surrender” or “Surrender of Allowances” means, for purposes of SO₂ or NO_x 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 this Consent Decree.

eee. “System” means the Belle River, Monroe, River Rouge, St. Clair, and Trenton Channel facilities as defined herein.

fff. “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.

ggg. “Title V Permit” means the permit required of major sources pursuant to Subchapter V of the Act, 42 U.S.C. §§ 7661-7661e.

hhh. “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.

iii. “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.

IV. COMPLIANCE REQUIREMENTS

A. Unit NO_x and SO₂ Requirements

7. Retrofit/Refuel/Repower Deadlines. By no later than the specific dates set forth below, Defendants shall Retrofit, Refuel, or Repower the following Units:

Unit Name	Compliance Deadline (For Each Individual Unit)
Belle River Units 1-2	December 31, 2030
River Rouge Unit 3	December 31, 2022

St. Clair Units 2-3 and 6-7 and Trenton Channel Unit 9	December 31, 2022
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Notwithstanding the deadlines in the chart in this Paragraph, if the Midcontinent Independent System Operator (“MISO”) designates Trenton Channel 9 as a System Support Resource in order to address reliability issues in the area, the compliance deadline for Trenton Channel 9 shall be December 31, 2023. In addition, if MISO notifies DTE in writing that DTE is constrained from injecting and delivering the full generation output of the Blue Water Energy Center to the grid, and this would cause DTE to be short of meeting its Planning Reserve Margin Requirement or cause grid reliability problems, the compliance deadline for St Clair Units 2-3 and 6-7 and Trenton Channel 9 shall be December 31, 2023.

8. Notification. For each Unit listed above, Defendants shall notify Plaintiffs in writing which option they elect to use for that unit. This notice shall be made at least 365 days before the compliance deadline listed above or within 30 Days of the Effective Date, whichever is later.

9. Emissions Rates. Commencing no later than 60 Operating Days after the Effective Date, and continuing until the Unit is Retrofit, Refueled, or Repowered, Defendants shall achieve and maintain the following 30-Day Rolling Average Emission Rates for NO_x and SO₂ at each Unit individually:

Unit Name	NO _x 30-Day Rolling Average Emission Rate (For Each Individual Unit)	SO ₂ 30-Day Rolling Average Emission Rate (For Each Individual Unit)
Belle River Units 1-2	0.290	0.680
Monroe Units 1-4	0.090	0.100

River Rouge Unit 3	0.400	0.700
St. Clair Unit 2	0.470	1.000
St. Clair Unit 3	0.470	1.000
St. Clair Unit 6	0.350	1.200
St. Clair Unit 7	0.250	1.200
Trenton Channel Unit 9	0.200	1.000

10. Commencing on the Effective Date, Defendants shall Continuously Operate the following pollution controls and any additional controls installed to comply with Paragraph 7:

Unit Name	NO_x Pollution Controls	SO₂ Pollution Controls
Belle River Units 1-2	Low NO _x Combustion System (including Overfire Air)	
Monroe Units 1-4	SCR	FGD
River Rouge Unit 3	Low NO _x Combustion System (including Overfire Air)	
St. Clair Units 2-3	Low NO _x Combustion System (including Overfire Air)	
St. Clair Units 6-7	Low NO _x Combustion System (including Overfire Air)	
Trenton Channel Unit 9	Low NO _x Combustion System (including Overfire Air)	

B. System NO_x and SO₂ Requirements

11. For each calendar year as specified below, Defendants' System shall not exceed the corresponding System-Wide Annual Tonnage Limitation for NO_x and SO₂ specified below:

Calendar Year	System-Wide Annual Tonnage Limitation for NO _x	System-Wide Annual Tonnage Limitation for SO ₂
2020-2022	23,850	54,400
2023-2030	15,400	31,800
2031 and later years	6,400	4,650

C. Monitoring of NO_x and SO₂ Emissions

12. In determining a 30-Day Rolling Average Emission Rate for NO_x or SO₂, Defendants shall use emission data obtained from a CEMS in accordance with the procedures of 40 C.F.R. Part 75, except that emissions data need not be bias adjusted and the missing data substitution procedures of 40 C.F.R. Part 75 shall not apply to such determinations. Diluent capping (*i.e.*, 5% CO₂) will be applied to the emission rate for any hours where the measured CO₂ concentration is less than 5% following the procedures in 40 C.F.R. Part 75, Appendix F, Section 3.3.4.1.

13. For purposes of determining compliance with any System-Wide Annual Tonnage Limitation, Defendants shall use NO_x and SO₂ emission data obtained from a CEMS in accordance with the procedures specified in 40 C.F.R. Part 75. If a Unit is Refueled, SO₂ emissions shall be calculated using methods set forth in EPA document AP-42 or by use of a stack test emission factor.

D. Use and Surrender of NO_x and SO₂ Allowances

14. Except as may be necessary to comply with Section XI (Stipulated Penalties), Defendants shall not use NO_x or SO₂ Allowances to comply with any requirement of this Consent Decree, including by claiming compliance with any emission limitation required by this Consent Decree by using, tendering, or otherwise applying NO_x or SO₂ Allowances to offset any excess emissions.

15. Except as provided in this Consent Decree, Defendants shall not sell, bank, trade, or transfer their interest in any NO_x or SO₂ Allowances allocated to Units in the System. Nothing in this Consent Decree shall restrict Defendants' ability to transfer NO_x or SO₂ Allowances among their own facility or general accounts.

16. Beginning in the first full calendar year after the Effective Date, and continuing each calendar year thereafter, Defendants shall Surrender all NO_x and SO₂ Allowances allocated to the Units in the System for that calendar year that Defendants do not need to meet federal and/or state CAA regulatory requirements for the System Units. However, NO_x and SO₂ Allowances allocated to the System may be used by Defendants to meet their own federal and/or state CAA regulatory requirements for such Units.

17. Nothing in this Consent Decree shall prevent Defendants from purchasing or otherwise obtaining NO_x or SO₂ Allowances from another source for purposes of complying with federal and/or state CAA regulatory requirements to the extent otherwise allowed by law.

18. The requirements of this Consent Decree pertaining to Defendants' use and Surrender of NO_x and SO₂ Allowances are permanent and are not subject to any termination provision of this Consent Decree.

E. Super-Compliant NO_x and SO₂ Allowances

19. Notwithstanding Subsection IV.D, in each calendar year beginning with the first full calendar year after the Effective Date, and continuing thereafter, Defendants may sell, bank, use, trade, or transfer NO_x or SO₂ Allowances allocated to the Units in the System that are made available in that calendar year solely as a result of:

- a. achievement and maintenance of an Emission Rate below an applicable 30-Day Rolling Average Emission Rate; or
- b. compliance with Paragraph 7 before the deadline set forth in Paragraph 7 provided that Defendants are also in compliance for that calendar year with all emission limitations for NO_x or SO₂ set forth in this Consent Decree. Defendants shall timely report the generation of such Super-Compliant Allowances in accordance with Section IX (Periodic Reporting) of this Consent Decree.

F. Method for Surrender of NO_x and SO₂ Allowances

20. Defendants shall Surrender, or transfer to a non-profit third-party selected by Defendants for Surrender, all NO_x and SO₂ Allowances required to be Surrendered pursuant to Subsection IV.D by June 30 of the immediately following calendar year. Such Surrender need not include the specific Allowances that were allocated to System Units, so long as Defendants Surrender Allowances that are from the same year or an earlier year and that are equal to the number required to be Surrendered under this Consent Decree.

21. If any NO_x or SO₂ Allowances required to be Surrendered under this Consent Decree are transferred directly to a non-profit third-party, Defendants shall include a description of such transfer in the next report submitted to EPA pursuant to Section IX (Periodic Reporting)

of this 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. No later than the third periodic report due after the transfer of any Allowances, Defendants shall include a statement that the third-party recipient(s) Surrendered the Allowances for permanent Surrender to EPA in accordance with the provisions of the next Paragraph within one year after Defendants transferred the Allowances to them. Defendants shall not have complied with the Allowance Surrender requirements of this Paragraph until all third-party recipient(s) have actually Surrendered the transferred Allowances to EPA.

22. For all Allowances required to be Surrendered, Defendants or the third party recipient(s) (as the case may be) shall, with respect to the Allowances that Defendants are 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, Defendants shall ensure that the transfer of their Allowances are 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.

G. PM Emissions Reductions and Controls

1. Optimization of ESPs and Baghouses

23. By no later than 60 Operating Days from the Effective Date, and continuing thereafter, Defendants shall Continuously Operate each PM Control Device on each Unit in the System and use good air pollution control practices to maximize PM emission reductions at all times each Unit is in operation. Defendants shall:

a. 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 cycle time, cycle frequency, rapper-vibrator intensity, and number of strikes per cleaning event; and

b. 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.

2. PM Emissions Rates

24. Commencing no later than 60 Operating Days after the Effective Date, Defendants shall achieve and maintain the following PM Emissions Rates:

a. Monroe Units 1 through 4: Defendants shall achieve and maintain a 24-Hour Rolling Average Emission Rate for PM of no greater than 0.011 lb/mmBTU for each Unit.

Each 24-Hour Rolling Average Emission Rate shall include all emissions that occur during all periods of operation, including startup, shutdown, and Malfunction.

b. Belle River Units 1 and 2: Defendants shall achieve and maintain a 24-Hour Rolling Average Emission Rate for PM of no greater than 0.030 lb/mmBTU for each Unit for all periods of operation, including shutdown and Malfunction, other than periods of Startup, as defined at 40 C.F.R. § 63.10042. In calculating each 24-Hour Rolling Average Emission Rate for PM, any hour that includes periods of Startup, as defined at 40 C.F.R. § 63.10042, shall not be considered an Operating Hour for purposes of that calculation. During periods of Startup, Defendants shall comply with the work practice standards at Table 3 of 40 C.F.R. Subpart UUUUU for the applicable PM pollution control devices.

c. River Rouge Unit 3, St. Clair Units 2, 3, 6, and 7, and Trenton Channel 9: Defendants shall achieve and maintain a 30-Day Rolling Average Emission Rate for PM of no greater than 0.030 lb/mmBTU for each Unit.

3. PM CEMS

25. In determining the PM Emissions Rates, Defendants 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. Defendants shall maintain, in an electronic database, the hourly average emission values of all PM CEMS in

lb/mmBTU. Except for periods of monitor Malfunction, maintenance, or repair, Defendants shall operate the PM CEMS at all times when the Unit it serves is operating.

26. In maintaining and operating the PM CEMS required under this Consent Decree, Defendants 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, Defendants must conduct such audits no less frequently than once every 12 operating quarters¹, 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 Defendants install, certify, operate, and maintain a PM CEMS, Defendants 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 this Consent Decree. Diluent capping (*i.e.*, 5% CO₂) will be applied to the PM rate data for any hours where the measured CO₂ concentration is less than 5% following the procedures in 40 C.F.R. Part 75, Appendix F, Section 3.3.4.1. Defendants 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 Paragraph.

¹ An “operating quarter,” for the purpose of this Paragraph, is any calendar quarter during which a boiler operates 168 hours or more.

V. PROHIBITION ON NETTING CREDITS OR OFFSETS

27. Emission reductions that result from actions to be taken by Defendants after the Date of Entry to comply with the requirements of this Consent Decree shall not be considered as a creditable contemporaneous emission decrease for the purpose of obtaining a Netting credit or offset under the CAA's Nonattainment NSR and PSD programs, and shall not be used in any way to determine whether or not a project would result in either a "significant emissions increase" or a "significant net emissions increase" under the Nonattainment NSR and PSD programs.

28. The limitations on the generation and use of Netting credits and offsets set forth in the previous Paragraph do not apply to emission reductions achieved by a particular System Unit that are greater than those required under this Consent Decree for that particular System Unit. For purposes of this Paragraph, emission reductions from a System Unit are greater than those required under this Consent Decree if they result from such Unit's compliance with federally-enforceable emission limits that are more stringent than those limits imposed on the Unit under this Consent Decree and under applicable provisions of the CAA or the Michigan SIP.

29. Nothing in this Consent Decree is intended to preclude the emission reductions generated under this Consent Decree from being considered by the applicable state regulatory agency or EPA for the purpose of attainment demonstrations submitted pursuant to § 110 of the Act, 42 U.S.C. § 7410, or in determining impacts on National Ambient Air Quality Standards, PSD increment, or air quality related values, including visibility, in a Class I area.

VI. ENVIRONMENTAL MITIGATION PROJECT

30. Defendants shall implement the Environmental Mitigation Project (“Project”) described in Appendix A to this Consent Decree in compliance with the approved plans and schedules for the Project and other terms of this Consent Decree.

31. Defendants shall maintain, and present to Plaintiffs upon request, documents to substantiate the completion of the Project described in Appendix A, and shall provide these documents to Plaintiffs within 30 Days following such request.

32. All plans and reports prepared by Defendants pursuant to the requirements of this Section of the Consent Decree and required to be submitted to Plaintiffs shall be publicly available from Defendants without charge in paper or electronic format.

33. With respect to the Project, Defendants certify the truth and accuracy of each of the following:

a. That, as of the date of executing this Decree, Defendants are not required to perform or develop the Project by any federal, state, or local law or regulation and are not required to perform or develop the Project by agreement, grant, or as injunctive relief awarded in any other action in any forum;

b. That, as of the date of executing this Decree, the Project is not a Project that Defendants were planning or intending to construct, perform, or implement other than in settlement of the claims resolved in this Decree;

c. That Defendants have not received and will not receive credit for the Project in any other enforcement action; and

d. That Defendants shall neither generate nor use any pollutant reductions from the Project as netting reductions, pollutant offsets, or to apply for, obtain, trade, or sell any pollutant reduction credits.

34. Defendants shall use good faith efforts to secure as much environmental benefit as possible for the Project, consistent with the applicable requirements and limits of this Consent Decree.

35. Defendants shall comply with the reporting requirements described in Appendix A.

36. In connection with any communication to the public or to shareholders regarding Defendants' actions or expenditures relating in any way to the Environmental Mitigation Project in this Consent Decree, Defendants shall include prominently in the communication the information that the actions and expenditures were required by this Consent Decree.

37. Beginning with the first Periodic Report under this Consent Decree, and continuing until completion of each Project, Defendants shall provide Plaintiffs with updates concerning the progress of the Project.

38. Within 60 Days following the completion of the Project required under this Consent Decree (including any applicable periods of demonstration or testing), Defendants shall submit to Plaintiffs a report that documents the date that the Project was completed, Defendants' results of implementing the Project, including the emission reductions or other environmental benefits achieved, and the Project Dollars expended by Defendants in implementing the Project.

VII. CIVIL PENALTY

39. Within 30 Days of the Effective Date, Defendants shall pay to the United States a civil penalty in the amount of \$1,800,000.

40. Defendants shall pay the civil penalty by Fedwire Electronic Funds Transfer (“EFT”) to the United States Department of Justice account, in accordance with written instructions provided to Defendants by the Financial Litigation Unit (“FLU”) of the U.S. Attorney’s Office for the Eastern District of Michigan. The costs of such EFT shall be Defendants’ responsibility. The payment instructions provided by the FLU will include a Consolidated Debt Collection System (“CDCS”) number, which Defendants shall use to identify all payments required to be made in accordance with this Consent Decree. The FLU will provide the payment instructions to:

Peter Rynearson
DTE Electric Controller
1 Energy Plaza, 950WCB
Detroit, MI 48226

on behalf of Defendants. Defendants may change the individual to receive payment instructions on their behalf by providing written notice of such change to the United States and EPA in accordance with Section XVI (Notices). At the time of payment, Defendants shall send notice that payment has been made to (i) EPA via email at cinwd_acctsreceivable@epa.gov or via regular mail at EPA Cincinnati Finance Office, 26 W. Martin Luther King Drive, Cincinnati, Ohio 45268; (ii) the United States via email or regular mail in accordance with Section XVI; and (iii) EPA in accordance with Section XVI. Such notice shall state that the payment is for the

civil penalty owed pursuant to the Consent Decree in *United States v. DTE Energy Co.* and shall reference the civil action number, CDCS Number, and DOJ case number 90-5-2-1-09949.

41. Failure to timely pay the civil penalty shall subject Defendants to interest accruing from the date payment is due until the date payment is made at the rate prescribed by 28 U.S.C. § 1961, and shall render Defendants liable for all charges, costs, fees, and penalties established by law for the benefit of a creditor or of the United States in securing payment.

42. Defendant shall not deduct any penalties paid under this Decree pursuant to this Section or Section XI (Stipulated Penalties) in calculating its federal income tax.

VIII. RESOLUTION OF CIVIL CLAIMS

A. Claims of the United States

43. Claims of the United States Based on Modifications Occurring Before the Date of Lodging of this Consent Decree. Entry of this Consent Decree shall resolve all civil claims of the United States against Defendants that arose from any modifications commenced at any System Unit prior to the Date of Lodging of this Consent Decree, including but not limited to those modifications alleged in the Complaints filed in this civil action and the NOV's issued by EPA to DTE on July 24, 2009, June 4, 2010, and March 13, 2013, under any or all of: (a) Part C or D of Subchapter I of the CAA, 42 U.S.C. §§ 7470-7492, 7501-7515, and the implementing PSD and Nonattainment NSR provisions of the Michigan SIP; (b) Section 111 of the CAA, 42 U.S.C. § 7411, and 40 C.F.R. § 60.14; and (c) Title V of the CAA, 42 U.S.C. §§ 7661-7661f, but only to the extent that such Title V claims are based on Defendants' failure to obtain an operating permit that reflects applicable requirements imposed under Part C or D of Subchapter I

of the CAA. For each of the Units addressed in Paragraph 7, the United States agrees that Defendants' Paragraph 7 obligations with respect to a particular Unit would be satisfied if Defendants Retrofit, Refuel, or Repower that Unit by the date set forth in Paragraph 7. In the event that Defendants Retire a Unit by the date set forth in Paragraph 7 for that Unit, Defendants shall have no further obligations under this Consent Decree with respect to that unit.

44. Claims of the United States Based on Modifications after the Date of Lodging of this Consent Decree. Except as provided in Subsection VIII.B below, entry of this Consent Decree also shall resolve all civil claims of the United States that arise from a modification commenced before December 31, 2030, for pollutants regulated under Parts C or D of Subchapter I of the Act and under regulations promulgated thereunder as of the Date of Lodging where:

a. such modification is commenced at any System Unit after the Date of Lodging of this Consent Decree, or

b. such modification is one this Consent Decree expressly directs DTE to undertake.

The term "modification" as used in this Paragraph shall have the meaning that term is given under the CAA and under the regulations in effect as of the Date of Lodging of this Consent Decree. The claims resolved by this Paragraph shall not include claims based upon Greenhouse Gases and sulfuric acid mist.

45. Reopener. The resolution of the United States' civil claims against DTE, as provided by this Subsection VIII.A (Claims of the United States), is subject to the provisions of Subsection VIII.B (Pursuit of Civil Claims Otherwise Resolved by Subsection VIII.A).

B. Pursuit of Civil Claims Otherwise Resolved by Subsection VIII.A

46. Bases for Pursuing Resolved Claims for the DTE System. If DTE violates a System-Wide Annual NO_x Tonnage Limitation or System-Wide Annual SO₂ Tonnage Limitation; or fails by more than 90 Days to Refuel, Repower, or Retrofit any Unit as required by this Consent Decree; or fails by more than 90 Days to install, upgrade, or commence Continuous Operation of any emission control device or achieve any Emission Rate or limitation required pursuant to this Consent Decree, then the United States may pursue any claim at any DTE System Unit that is otherwise resolved under Subsection VIII.A (Claims of the United States), where the modification(s) on which such claim is based was commenced: (1) after the Date of Lodging of this Consent Decree, and (2) within the five years preceding the violation or failure specified in this Paragraph.

47. Additional Bases for Pursuing Resolved Claims for Modifications at an Improved Unit. The United States may also pursue claims arising from a modification (or collection of modifications) at a System Unit that have otherwise been resolved under Subsection VIII.A (Claims of the United States), if the modification (or collection of modifications) at the System Unit on which such claim is based (a) was commenced after the Date of Lodging, and (b) individually (or collectively) increased the maximum hourly emission rate of that Unit for NO_x or SO₂ (as measured by 40 C.F.R. § 60.14(b) and (h)) by more than 10%.

IX. PERIODIC REPORTING

48. After entry of this Consent Decree, Defendants shall submit to Plaintiffs a periodic report, within 60 Days after the end of each half of the calendar year (January through June and July through December). The report shall include the following information:

a. all information necessary to determine compliance during the reporting period with the requirements of Section IV concerning emissions and monitoring and surrender of Allowances. Such information includes but it not limited to (1) spreadsheets of all 30-Day Rolling Average Emission Rates and 24-Hour Rolling Average Emission Rates for all Units, (2) a list of any notifications in accordance with Paragraph 8, (3) total System-Wide Annual NO_x and SO₂ tonnages for the calendar year, and (4) specific calculations demonstrating the basis and specific amounts of NO_x and SO₂ Allowances to be Surrendered;

b. all periods of monitor Malfunction, maintenance, and/or repair as provided in Paragraph 25;

c. all information relating to super-compliant NO_x and SO₂ Allowances that Defendants claim to have generated in accordance with Subsection IV.E (Super-Compliant NO_x and SO₂ Allowances) through compliance beyond the requirements of this Consent Decree, including a detailed description of the basis for such claim and the specific amount of super-compliant NO_x and SO₂ Allowances claimed at each Unit;

d. all information indicating that the installation or upgrade and commencement of operation of a new or upgraded pollution control device may be delayed, including the nature and cause of the delay, and any steps taken by Defendants to mitigate such delay;

e. all affirmative defenses asserted pursuant to Paragraph 64 during the period covered by the progress report;

f. an identification of all periods when any pollution control device required by this Consent Decree was not Continuously Operated, the reason(s) for the equipment not being Continuously Operated, and the basis for Defendants' compliance or non-compliance with the Continuous Operation requirements of this Consent Decree; and

g. a summary of Defendants' actions implemented and expenditures (cumulative and in the current reporting period) made pursuant to implementation of the Environmental Mitigation Project required pursuant to Section VI.

49. In any periodic report submitted pursuant to this Section, Defendants may incorporate by reference information previously submitted under their Title V permitting requirements, provided that Defendants attach the Title V Permit report (or the pertinent portions of such report) and provide a specific reference to the provisions of the Title V Permit report that are responsive to the information required in the periodic report.

50. In addition to the reports required pursuant to this Section

a. If Defendants violate or deviate from any provision of this Consent Decree, Defendants shall submit to Plaintiffs a report of any violation or deviation from any provision of this Consent Decree within 10 business days after Defendants knew or should have known of the event. In the report, Defendants shall explain the cause or causes of the violation or deviation and all measures taken or to be taken by Defendants to cure the reported violation or deviation or to prevent such violations or deviations in the future. If at any time the provisions of this Consent Decree are included in Title V Permits, consistent with the requirements for such

inclusion in this Consent Decree, then the deviation reports required under applicable Title V regulations shall be deemed to satisfy all the requirements of this Paragraph.

b. If Defendants receive a notice from MISO as described in Paragraph 7, Defendants shall submit a copy of the MISO document along with a description of how it affects the Paragraph 7 compliance deadlines within 60 days of Defendants' receipt of the MISO document.

51. Each report required by this Consent Decree shall be signed by the Responsible Official as defined in Title V of the Clean Air Act for the appropriate System Unit(s), and shall contain the following certification:

This information was prepared either by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my evaluation, or the direction and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, I hereby certify under penalty of law that, to the best of my knowledge and belief, this information is true, accurate, and complete. I understand that there are significant penalties for submitting false, inaccurate, or incomplete information to the United States.

X. REVIEW AND APPROVAL OF SUBMITTALS

52. Defendants shall submit each plan, report, or other submission required by this Consent Decree to Plaintiffs whenever and in the manner such a document is required to be submitted for review or approval pursuant to this Consent Decree. EPA (after consultation with Sierra Club) may approve the submission or decline to approve it and provide written comments explaining the bases for declining such approval as soon as reasonably practicable. Within 60 Days of receiving written comments from EPA, Defendants shall either: (a) revise the submission consistent with the written comments and provide the revised submission to EPA; or

(b) submit the matter for dispute resolution, including the period of informal negotiations, under Section XIII (Dispute Resolution) of this Consent Decree.

53. Upon receipt of EPA’s final approval of the submission, or upon completion of the submission pursuant to dispute resolution, Defendants shall implement the approved submission in accordance with the schedule specified therein or another EPA-approved schedule.

XI. STIPULATED PENALTIES

54. For any failure by Defendants to comply with the terms of this Consent Decree, and subject to the provisions of Sections XII (Force Majeure) and XIII (Dispute Resolution) and the other Paragraphs in this Section of the Consent Decree, Defendants shall pay, within 30 Days after receipt of written demand by the United States, the following stipulated penalties:

Consent Decree Violation	Stipulated Penalty
a. Failure to pay the civil penalty as specified in Section VII (Civil Penalty) of this Consent Decree	\$10,000 per Day
b. Failure to comply with any applicable 30-Day Rolling Average Emission Rate for NO _x or SO ₂	<p>\$2,500 per Day per violation where the violation is less than 5% in excess of the lb/mmBTU limits</p> <p>\$5,000 per Day per violation where the violation is equal to or greater than 5% but less than 10% in excess of the lb/mmBTU limits</p> <p>\$10,000 per Day per violation where the violation is equal to or greater than 10% in excess of the lb/mmBTU limits</p>

c. Failure to comply with any applicable System-Wide Annual Tonnage Limitations established by this Consent Decree	(1) \$5,000 per ton for first 100 tons, \$10,000 per ton for each additional ton above 100 tons, plus (2) Surrender of Allowances in an amount equal to two times the number of tons emitted that exceeded the System-Wide Annual Tonnage Limitation
e. Failure to comply with any applicable 24-Hour Rolling Average Emission Rate or 30-Day Rolling Average Emission Rate for PM ²	<p>\$2,500 per Day per violation where the violation is less than 5% in excess of the lb/mmBTU limits</p> <p>\$5,000 per Day per violation where the violation is equal to or greater than 5% but less than 10% in excess of the lb/mmBTU limits</p> <p>\$10,000 per Day per violation where the violation is equal to or greater than 10% in excess of the lb/mmBTU limits</p>
f. Failure to install, commence Continuous Operation, or Continuously Operate a NO _x , SO ₂ , or PM control device as required under this Consent Decree	\$10,000 per Day per violation during the first 30 Days; \$37,500 per Day per violation thereafter
g. Failure to Retrofit, Refuel, or Repower as required under this Consent Decree	\$10,000 per Day per violation during the first 30 Days; \$37,500 per Day per violation thereafter
h. Failure to conduct a stack test for PM as required by Subsection IV.G of this Consent Decree	\$5,000 per Day per violation
i. Failure to apply for any permit required by Section XIV (Permits)	\$1,000 per Day per violation

² Violations of the Monroe 24-Hour Rolling Average Emission Rate for PM are also subject to stipulated penalties under a separate administrative consent order (No. AQD No. 26-2015) between Defendants and the State of Michigan. In the event of any violation of that Emissions Rate, the United States will consult with the State of Michigan before making a stipulated penalty demand, and the United States and Michigan will agree to split the applicable stipulated penalty such that the total stipulated penalties paid for the violation do not exceed the amounts set forth here.

j. Failure to timely submit or implement, as approved, the reports, plans, studies, analyses, protocols, or other submittals required by this Consent Decree	\$750 per Day per violation during the first 10 Days; \$1,000 per Day per violation thereafter
k. Failure to Surrender SO ₂ Allowances as required under this Consent Decree	\$37,500 per Day. In addition, \$1,000 per SO ₂ Allowance not Surrendered
l. Failure to Surrender NO _x Allowances as required under this Consent Decree	\$37,500 per Day. In addition, \$1,000 per NO _x Allowance not Surrendered
m. Using, selling, banking, trading, or transferring NO _x Allowances or SO ₂ Allowances except as permitted under this Consent Decree	At the option of Defendants either the Surrender of Allowances in an amount equal to four times the number of Allowances used, sold, banked, traded, or transferred in violation of this Consent Decree, or the payment of \$2,500 per ton for an amount of tons equal to four times the number of Allowances used, sold, banked, traded, or transferred in violation of this Consent Decree
n. Failure to demonstrate the third-party Surrender of a NO _x or SO ₂ Allowance in accordance with Paragraphs 21	\$1,000 per Day per violation
o. Failure to optimize ESPs (or Baghouses) as required by Paragraph 23	\$1,000 per Day per violation
p. Failure to undertake and complete as described in Appendix A the Environmental Mitigation Project in compliance with Section VI (Environmental Mitigation Project) of this Consent Decree	\$1,000 per Day per violation during the first 30 Days; \$5,000 per Day per violation thereafter
q. Any other violation of this Consent Decree	\$1,000 per Day per violation

55. Violations of any limit based on a 30-Day Rolling Average Emission Rate constitutes 30 Days of violation, provided, however, that where such a violation (for the same pollutant and from the same Unit) recurs within periods less than 30 Days, Defendants shall not

be obligated to pay a daily stipulated penalty for any Day of the recurrence for which a stipulated penalty has already been paid.

56. All stipulated penalties shall begin to accrue on the Day after the performance is due or on the Day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the violation ceases, whichever is applicable. Nothing in this Consent Decree shall prevent the simultaneous accrual of separate stipulated penalties for separate violations of this Consent Decree.

57. For purposes of the stipulated penalty for failure to make any Allowance Surrender required pursuant to Paragraph 54, Defendants shall make the required Surrender of any Allowances by June 30 of the immediately following calendar year.

58. All stipulated penalties shall be paid within 30 Days of receipt of written demand to Defendants from the United States, and Defendants shall continue to make such payments every 30 Days thereafter until the violation(s) no longer continues, unless Defendants elect within 20 Days of receipt of written demand to dispute the imposition or accrual of stipulated penalties in accordance with the provisions in Section XII (Dispute Resolution) of this Consent Decree.

59. Stipulated penalties shall continue to accrue as provided in accordance with Paragraph 56 during any dispute, with interest on accrued stipulated penalties payable and calculated at the rate established by the Secretary of the Treasury, pursuant to 28 U.S.C. § 1961, but need not be paid until the following:

a. If the dispute is resolved by agreement, or by a decision of the United States pursuant to Section XII (Dispute Resolution) of this Consent Decree that is not appealed

to the Court, accrued stipulated penalties agreed or determined to be owing, together with accrued interest, shall be paid within 30 Days of the effective date of the agreement or of the receipt of the United States' decision;

b. If the dispute is appealed to the Court and the United States prevails in whole or in part, Defendants shall, within 30 Days of receipt of the Court's decision or order, pay all accrued stipulated penalties determined by the Court to be owing, together with interest accrued on such penalties determined by the Court to be owing, except as provided in Subparagraph c, below;

c. If the Court's decision is appealed by either Party, Defendants shall, within 15 Days of receipt of the final appellate court decision, pay all accrued stipulated penalties determined to be owed, together with interest accrued on such stipulated penalties determined to be owed by the appellate court.

60. Notwithstanding any other provision of this Consent Decree, the accrued stipulated penalties agreed to by the United States and Defendants, or determined by the United States through Dispute Resolution to be owed, may be less than the stipulated penalty amounts set forth in Paragraph 54.

61. All monetary stipulated penalties shall be paid in the manner set forth in Section VII (Civil Penalty) of this Consent Decree and all Allowance Surrender stipulated penalties shall comply with the Allowance Surrender procedures of Paragraphs 20-22.

62. Should Defendants fail to pay stipulated penalties in compliance with the terms of this Consent Decree, the United States shall be entitled to collect interest on such penalties, as provided for in 28 U.S.C. § 1961.

63. The stipulated penalties provided for in this Consent Decree shall be in addition to any other rights, remedies, or sanctions available to Plaintiffs by reason of Defendants' failure to comply with any requirement of this Consent Decree or applicable law, except that for any violation of the Act for which this Consent Decree provides for payment of a stipulated penalty, Defendants shall be allowed a credit for stipulated penalties paid against any statutory penalties also imposed for such violation.

64. Affirmative Defense as to Stipulated Penalties for Excess Emissions Occurring During Malfunctions. If any of the Units in the System exceed an applicable 24-Hour or 30-Day Rolling Average Emission Rate set forth in this Consent Decree due to Malfunction, Defendants, bearing the burden of proof by a preponderance of the evidence, have an affirmative defense to a claim for stipulated penalties under this Consent Decree if Defendants have complied with the reporting requirements of Paragraphs 65-67 and demonstrate all of the following:

- a. the excess emissions were caused by a sudden, unavoidable breakdown of technology, beyond the control of Defendants;
- b. the excess emissions (1) did not stem from any activity or event that could have been foreseen and avoided, or planned for, and (2) could not have been avoided by better operation and maintenance practices;
- c. to the maximum extent practicable, the air pollution control equipment and processes were maintained and operated in a manner consistent with good practice for minimizing emissions;
- d. repairs were made in an expeditious fashion when Defendants knew or should have known that an applicable 24-Hour or 30-Day Rolling Average Emission Rate was

being or would be exceeded. Off-shift labor and overtime must have been utilized, to the extent practicable, to ensure that such repairs were made as expeditiously as practicable;

e. the amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions;

f. all possible steps were taken to minimize the impact of the excess emissions on ambient air quality;

g. all emission monitoring systems were kept in operation if at all possible;

h. Defendants' actions in response to the excess emissions were documented by validated, contemporaneous operating logs, or other relevant evidence;

i. the excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

j. Defendants properly and promptly notified EPA as required by this Consent Decree.

65. To assert an affirmative defense for exceedance of an applicable 24-Hour Rolling Emission Rate due to Malfunction under Paragraph 64, Defendants shall submit all data demonstrating the actual emissions for any 24-hour period during which the excess emissions from the Malfunction occurs. To assert an affirmative defense for exceedance of an applicable 30-Day Rolling Emission Rate due to Malfunction under Paragraph 64, Defendants shall submit all data demonstrating the actual emissions for the Day the Malfunction occurs and the 29-Unit Operating Day period following the Day the Malfunction occurs. Defendants may, if they elect, submit emissions data for the same 24-Hour or 30-Unit Operating Day period, as applicable, but that excludes the excess emissions.

66. For an affirmative defense under Paragraph 64, Defendants, bearing the burden of proof by a preponderance of the evidence, shall demonstrate, through submission of the data and information under the reporting provisions of this Section, that all reasonable and practicable measures within Defendants' control were implemented to prevent the occurrence of the excess emissions.

67. Defendants shall provide notice to Plaintiffs in writing of Defendants' intent to assert an affirmative defense for Malfunction under Paragraph 64 in Defendants' semi-annual progress reports as required by Paragraph 48. This notice shall be submitted pursuant to the provisions of Section XVI (Notices). The notice shall contain:

- a. The identity of each stack or other emission point where the excess emissions occurred;
- b. The magnitude of the excess emissions expressed in lb/mmBTU and the operating data and calculations used in determining the magnitude of the excess emissions;
- c. The time and duration or expected duration of the excess emissions;
- d. The identity of the equipment causing the excess emissions;
- e. The nature and suspected cause of the excess emissions;
- f. The steps taken, if the excess emissions were the result of a Malfunction, to remedy the Malfunction and the steps taken or planned to prevent the recurrence of the Malfunction;
- g. The steps that were or are being taken to limit the excess emissions; and
- h. If applicable, a list of the steps taken to comply with permit conditions governing Unit operation during periods of Malfunction.

68. A Malfunction shall not constitute a Force Majeure Event unless the Malfunction also meets the definition of a Force Majeure Event, as provided in Section XII (Force Majeure).

69. The affirmative defense provided herein is only an affirmative defense to stipulated penalties for violations of this Consent Decree, and not a defense to any civil or administrative action for injunctive relief.

XII. FORCE MAJEURE

70. For purposes of this Consent Decree, a “Force Majeure Event” shall mean an event that has been or will be caused by circumstances beyond the control of Defendants, their contractors, or any entity controlled by Defendants that delays or prevents the performance of any obligation under this Consent Decree or otherwise causes a violation of any provision of this Consent Decree despite Defendants’ best efforts to fulfill the obligation. “Best efforts to fulfill the obligation” include using best efforts to anticipate any potential Force Majeure Event and to address the effects of any such event (a) as it is occurring and (b) after it has occurred, such that the delay and/or violation are minimized to the greatest extent possible and the emissions during such event are minimized to the greatest extent possible.

71. Notice of Force Majeure Events. If any event occurs or has occurred that may delay or prevent compliance with or otherwise cause a violation of any obligation under this Consent Decree, as to which Defendants intend to assert a claim of Force Majeure, then Defendants shall notify Plaintiffs in writing as soon as practicable, but in no event later than 21 days following the date Defendants first knew, or by the exercise of due diligence should have known, that the event caused or may cause such delay or violation. In this notice, Defendants shall reference this Paragraph of this Consent Decree and describe the anticipated length of time

that the delay or violation may persist, the cause or causes of the Force Majeure Event, all measures taken or to be taken by Defendants to prevent or minimize the delay or violation, the schedule by which Defendants propose to implement those measures, and Defendants' rationale for attributing the failure, delay, or violation to a Force Majeure Event. A copy of this Notice shall be sent electronically, as soon as practicable, to Plaintiffs. Defendants shall adopt all reasonable measures to avoid or minimize such failures, delays, or violations. Defendants shall be deemed to know of any circumstance which they, their contractors, or any entity controlled by them, knew or should have known.

72. Failure to Give Notice. If Defendants fail to comply with the notice requirements of this Section, the United States (after consultation with Sierra Club) may void Defendants' claim for Force Majeure as to the specific event for which Defendants have failed to comply with such notice requirement.

73. United States' Response. The United States shall notify Defendants in writing regarding Defendants' claim of Force Majeure as soon as reasonably practicable. If the United States (after consultation with Sierra Club) agrees that a delay in performance has been or will be caused by a Force Majeure Event, the Parties shall stipulate to an extension of deadline(s) for performance of the affected compliance requirement(s) by a period equal to the delay actually caused by the event, or as otherwise agreed to by the United States (after consultation with the Sierra Club) and Defendants, in which case the delay at issue shall be deemed not to be a violation of the affected requirement(s) of this Consent Decree. In such circumstances, an appropriate modification shall be made pursuant to Section XX (Modification) of this Consent Decree.

74. Disagreement. If the United States (after consultation with the Sierra Club) does not agree with Defendants' claim of Force Majeure, or if the United States (after consultation with the Sierra Club) and Defendants cannot agree on the length of the delay actually caused by the Force Majeure Event, the matter shall be resolved in accordance with Section XIII (Dispute Resolution) of this Consent Decree.

75. Burden of Proof. In any dispute regarding Force Majeure, Defendants shall bear the burden of proving that any delay in performance, or any other violation of any requirement of this Consent Decree, was caused by or will be caused by a Force Majeure Event. Defendants shall also bear the burden of proving that Defendants gave the notice required by this Section and the anticipated duration and extent of any failure, delay, or violation(s) attributable to a Force Majeure Event. An extension of one compliance date may, but will not necessarily, result in an extension of a subsequent compliance date.

76. Events Excluded. Unanticipated or increased costs or expenses associated with the performance of Defendants' obligations under this Consent Decree shall not constitute a Force Majeure Event.

77. Potential Force Majeure Events. The Parties agree that, depending upon the circumstances related to an event and Defendants' response to such circumstances, the kinds of events listed below are among those that could qualify as Force Majeure Events within the meaning of this Section: construction, labor, or equipment delays; Malfunction of a Unit or emission control device; unanticipated coal supply or pollution control reagent delivery interruptions; acts of God; acts of war or terrorism; and orders by a government official, government agency, other regulatory authority, or a regional transmission organization (e.g., the

Midcontinent Independent System Operator, Inc.), acting under and authorized by applicable law or tariff as accepted by the Federal Energy Regulatory Commission, that directs Defendants to supply electricity to avoid loss of customer load or unserved customer load or as necessary to preserve the reliability of the bulk power system. Depending upon the circumstances and Defendants' response to such circumstances, failure of a permitting authority to issue a necessary permit in a timely fashion may constitute a Force Majeure Event where the failure of the permitting authority to act is beyond the control of Defendants and Defendants have taken all steps available to it to obtain the necessary permit, including, but not limited to: submitting a complete permit application; responding to requests for additional information by the permitting authority in a timely fashion; and accepting lawful permit terms and conditions after expeditiously exhausting any legal rights to appeal terms and conditions imposed by the permitting authority.

78. Extended Schedule. As part of the resolution of any matter submitted to this Court under Section XIII (Dispute Resolution) of this Consent Decree regarding a claim of Force Majeure, the United States and Defendants by agreement, or this Court by order, may in appropriate circumstances extend or modify the schedule for completion of work and/or obligations under this Consent Decree to account for the delay in the work and/or obligations that occurred as a result of any delay agreed to by the United States or approved by the Court. Defendants shall be liable for stipulated penalties pursuant to Section XI (Stipulated Penalties) for their failure thereafter to complete the work and/or obligations in accordance with the extended or modified schedule (provided that Defendants shall not be precluded from asserting

that a further Force Majeure Event has caused or may cause a delay in complying with the extended or modified schedule).

XIII. DISPUTE RESOLUTION

79. The dispute resolution procedure provided by this Section shall be available to resolve all disputes arising under this Consent Decree, provided that the Party invoking such procedure has first made a good faith attempt to resolve the matter with the other Parties. The provisions of this Section shall be the sole and exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree.

80. The dispute resolution procedure required herein shall be invoked by one Party giving written notice to the other Parties advising of a dispute pursuant to this Section. The notice shall describe the nature of the dispute and shall state the noticing Party's position with regard to such dispute. The Party receiving such a notice shall acknowledge receipt of the notice, and the Parties in dispute shall expeditiously schedule a meeting to discuss the dispute informally not later than 14 Days following receipt of such notice.

81. Disputes submitted to dispute resolution under this Section shall, in the first instance, be the subject of informal negotiations between the Parties. Such period of informal negotiations shall not extend beyond 30 Days from the date of the first meeting between the Parties' representatives unless they agree in writing to shorten or extend this period.

82. If the Parties are unable to reach agreement during the informal negotiation period, the United States shall provide Defendants and Sierra Club with a written summary of its position regarding the dispute. The written position provided by the United States shall be considered binding unless, within 45 Days thereafter, Defendants seek judicial resolution of the

dispute by filing a petition with this Court. Any Party opposing such petition may submit a response to the petition within 45 Days of filing.

83. The time periods set out in this Section may be shortened or lengthened upon motion to the Court of one of the Parties to the dispute, explaining the Party's basis for seeking such a scheduling modification.

84. This Court shall not draw any inferences nor establish any presumptions adverse to any Party as a result of invocation of this Section or the Parties' inability to reach agreement.

85. As part of the resolution of any dispute under this Section, in appropriate circumstances the Parties may agree, or this Court may order, an extension or modification of the schedule for the completion of the activities required under this Consent Decree to account for the delay that occurred as a result of dispute resolution. Defendants shall be liable for stipulated penalties pursuant to Section XI (Stipulated Penalties) for their failure thereafter to complete the work in accordance with the extended or modified schedule, provided that Defendants shall not be precluded from asserting that a Force Majeure Event has caused or may cause a delay in complying with the extended or modified schedule.

86. The Court shall decide all disputes pursuant to applicable principles of law for resolving such disputes. In their filings with the Court under Paragraph 82, the Parties shall state their respective positions as to the applicable standard of law for resolving the particular dispute.

XIV. PERMITS

87. Unless expressly stated otherwise in this Consent Decree, in any instance where otherwise applicable law or this Consent Decree requires Defendants to secure a permit to authorize construction or operation of any device, including all preconstruction, construction, and operating permits required under State law, Defendants shall make such application in a timely manner. EPA will use best efforts to review expeditiously, to the extent applicable, all permit applications submitted by Defendants to meet the requirements of this Consent Decree.

88. Notwithstanding the previous Paragraph, nothing in this Consent Decree shall be construed to require Defendants to apply for, amend, or obtain a PSD or Nonattainment NSR permit or permit modification for any physical change in, or any change in the method of operation of, any System Unit that would give rise to claims resolved by Section VIII (Resolution of Claims) of this Consent Decree.

89. When permits are required, Defendants shall complete and submit applications for such permits to the applicable State or local agency to allow sufficient time for all legally required processing and review of the permit request, including requests for additional information by the applicable State or local agency. Any failure by Defendants to submit a timely permit application for a System Unit, as required by permitting requirements under state, local, and/or federal regulations, shall bar any use of Section XII (Force Majeure) of this Consent Decree where a Force Majeure claim is based on permitting delays.

90. Notwithstanding the reference to the Title V Permits for the System Units in this Consent Decree, the enforcement of such permits shall be in accordance with their own terms and the CAA and its implementing regulations. Such Title V Permits shall not be enforceable

under this Consent Decree, although any term or limit established by or under this Consent Decree shall be enforceable under this Consent Decree regardless of whether such term has or will become part of a Title V Permit, subject to the terms of Section XXIV (Termination) of this Consent Decree.

91. Within 180 Days after the Date of Entry of this Consent Decree, Defendants shall amend any applicable Title V Permit application(s), or apply for amendments of their Title V Permits, to include a schedule for all Unit-specific, plant-specific, and System-specific performance, operational, maintenance, and control technology requirements established by this Consent Decree: (a) all applicable definitions from Section III and (b) all Compliance Requirements contained in Section IV.

92. Within one year from the Date of Entry of this Consent Decree, Defendants shall apply to permanently include the requirements and limitations enumerated in the previous Paragraph into a federally enforceable non-Title V permit or request a site-specific revision to the Michigan SIP to include such requirements and limitations.

93. Defendants shall provide Plaintiffs with a copy of each application for a federally enforceable permit or Michigan SIP amendment, as well as a copy of any permit proposed as a result of such application, to allow for timely participation in any public comment opportunity.

94. Prior to termination of this Consent Decree, Defendants shall obtain enforceable provisions in their Title V Permits that incorporate all applicable Unit-specific, plant-specific, and System-specific performance, operational, maintenance, and control technology requirements (including the requirement to operate PM CEMS) enumerated in Paragraph 91. For

avoidance of doubt, the provisions of this Consent Decree in Section XII (Force Majeure) and Paragraph 64 (Affirmative Defenses to Certain Stipulated Penalties) are applicable to compliance with this Consent Decree only and shall not be incorporated into any permits or approvals obtained in compliance with this Consent Decree.

XV. INFORMATION COLLECTION AND RETENTION

95. Any authorized representative of the United States, including its attorneys, contractors, and consultants, upon presentation of credentials, shall have a right of entry upon the premises of a Unit at any reasonable time for the purpose of:

- a. monitoring the progress of activities required under this Consent Decree;
- b. verifying any data or information submitted to Plaintiffs in accordance with the terms of this Consent Decree;
- c. obtaining samples and, upon request, splits of any samples taken by Defendants or their representatives, contractors, or consultants; and
- d. assessing Defendants' compliance with this Consent Decree.

96. Defendants shall retain, and instruct their contractors and agents to preserve, all non-identical copies of all records and documents (including records and documents in electronic form) in their or their contractors' or agents' possession or control, and that directly relate to Defendants' performance of their obligations under this Consent Decree until five years after the termination of the Consent Decree. This record retention requirement shall apply regardless of any corporate document retention policy to the contrary.

97. All information and documents submitted by Defendants pursuant to this Consent Decree shall be subject to any requests under applicable law providing public disclosure of documents unless (a) the information and documents are subject to legal privileges or protection or (b) Defendants claim and substantiate in accordance with 40 C.F.R. Part 2 that the information and documents contain confidential business information.

98. Nothing in this Consent Decree shall limit the authority of EPA to conduct tests and inspections at Defendants' facilities under Section 114 of the Act, 42 U.S.C. § 7414, or any other applicable federal laws, regulations, or permits.

XVI. NOTICES

99. Unless otherwise provided herein, whenever notifications, submissions, or communications are required by this Consent Decree, they shall be made in both paper and electronic format to the following addresses. Electronic submittals shall not be the only form of notification, submission, or communication unless agreed upon by both the submitting and receiving Parties.

As to the United States of America:

To one of the addresses below and to U.S. EPA

By email: eescdcopy.enrd@usdoj.gov
Re: DJ # 90-5-2-1-09949

By mail: Chief, Environmental Enforcement Section
Environment and Natural Resources Division

U.S. Department of Justice
P.O. Box 7611, Ben Franklin Station
Washington, DC 20044-7611
Re: DJ # 90-5-2-1-09949

By commercial delivery service:

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
150 M St. NE
Room 2.900
Washington, DC 20002
Re: DJ # 90-5-2-1-09949

As to U.S. EPA:

To one of the Headquarters addresses and both Region 5 addresses

EPA Headquarters

By mail: Director
Air Enforcement Division
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency Mail Code 2242A
1200 Pennsylvania Avenue, NW
Washington, DC 20460

By commercial delivery service:

Air Enforcement Division
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency
Ariel Rios South Building, Room 1119
1200 Pennsylvania Avenue, NW
Washington, DC 20004

EPA Region 5

Compliance Tracker
Air Enforcement and Compliance Assurance Branch
U.S. Environmental Protection Agency - Region 5
77 West Jackson Blvd. ECA-18J
Chicago, Illinois 60604-3590

AND by email: r5ardreporting@epa.gov

As to the Sierra Club:

Shannon Fisk
Earthjustice
1617 John F. Kennedy Blvd. Suite 1130
Philadelphia, PA 19103
sfisk@earthjustice.org

As to DTE:

DTE Energy Company
Office of the General Counsel
One Energy Plaza
Detroit, MI 48226

Attn: DTE Electric General Counsel

With copy to:

DTE Energy Company
Environmental Management & Resources
One Energy Plaza 2455 WCB
Detroit, MI 48226

Attn: Vice President

100. Any Party may, by written notice to the other Parties, change its designated notice recipient or notice address provided above, including requiring notices be submitted electronically in lieu of by mail or commercial delivery service.

101. All paper notifications, communications, or submissions made pursuant to this Section shall be sent either by: (a) overnight mail or overnight delivery service with signature required for delivery or (b) certified or registered mail, return receipt requested. All notifications, communications, and transmissions (a) sent by overnight, certified, or registered mail shall be deemed submitted on the date they are postmarked, or (b) sent by overnight delivery service shall be deemed submitted on the date they are delivered to the delivery service.

XVII. SALES OR TRANSFERS OF OPERATIONAL OR OWNERSHIP INTERESTS

102. At least 60 Days prior to any transfer of ownership or operation of any System Unit, Defendants shall provide a copy of this Consent Decree to the proposed transferee and shall simultaneously provide written notice of the prospective transfer to the United States and Sierra Club. No transfer of ownership or operation of a System Unit, whether in compliance with the procedures of this Paragraph or otherwise, shall relieve Defendants of their obligation to ensure that the terms of the Consent Decree are implemented, unless and until:

- a. the transferee agrees, in writing, to undertake the obligations required by this Consent Decree with respect to that System Unit(s);
- b. the United States and Sierra Club consent, in writing, to relieve Defendants of their Consent Decree obligations applicable to such System Unit(s); and
- c. the transferee becomes a party to this Consent Decree with respect to the System Unit(s), pursuant to Section XX (Modification).

103. Any attempt to transfer ownership or operation of any of the System Units or any portion thereof, without complying with Paragraph 102 above constitutes a violation of this Consent Decree.

XVIII. EFFECTIVE DATE

104. The effective date of this Consent Decree shall be the Date of Entry.

XIX. RETENTION OF JURISDICTION

105. The Court shall retain jurisdiction of this case after entry of this Consent Decree to enforce compliance with the terms and conditions of this Consent Decree and to take any action necessary or appropriate for the interpretation, construction, execution, or modification of the Consent Decree, or for adjudication of disputes. During the term of this Consent Decree, any Party to this Consent Decree may apply to the Court for any relief necessary to construe or effectuate this Consent Decree.

XX. MODIFICATION

106. The terms of this Consent Decree may be modified only by a subsequent written agreement signed by the Parties. Where the modification constitutes a material change to any term of this Consent Decree, it shall be effective only upon approval by the Court.

XXI. GENERAL PROVISIONS

107. When this Consent Decree specifies that Defendants shall achieve and maintain a 30-Day Rolling Average Emission Rate, the Parties expressly recognize that compliance with such 30-Day Rolling Average Emission Rate shall commence immediately upon the date specified and that compliance as of such specified date (e.g., December 30) shall be determined based on data from that date and the 29 prior Unit Operating Days (e.g., December 1-30).

108. This Consent Decree is not a permit. Compliance with the terms of this Consent Decree does not guarantee compliance with all applicable federal, state, or local laws or regulations. The emission rates set forth herein do not relieve Defendants from any obligation to

comply with other state and federal requirements under the CAA, including Defendants' obligation to satisfy any State modeling requirements set forth in the Michigan SIP.

109. This Consent Decree does not apply to any claim(s) of alleged criminal liability.

110. In any subsequent administrative or judicial action initiated by the United States or Sierra Club for injunctive relief or civil penalties relating to a System Unit, as covered by this Consent Decree, Defendants shall not assert any defense or claim based upon principles of waiver, res judicata, collateral estoppel, issue preclusion, claim preclusion, or claim splitting, or any other defense based upon the contention that the claims raised by the United States or Sierra Club in the subsequent proceeding were brought, or should have been brought, in the instant case; provided, however, that nothing in this Paragraph is intended to affect the validity of Section VIII (Resolution of Claims).

111. Nothing in this Consent Decree shall relieve Defendants of their obligation to comply with all applicable federal, state, and local laws and regulations, including, but not limited to, the Clean Water Act and the National Pollutant Discharge Elimination System (NPDES) implementing regulations, National Ambient Air Quality Standards, the National Emission Standards for Hazardous Air Pollutants From Coal and Oil-Fired Electric Utility Steam Generating Units (Utility MACT or MATS), Standards of Performance for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial-Institutional, and Small Industrial Commercial-Institutional Steam Generating Units (Utility NSPS). Nothing in this Consent Decree should be construed to provide any relief from the emission limits or deadlines specified in such regulations, including, but not limited to, deadlines for the installation of pollution controls required by any such regulations.

112. Subject to the provisions in Section VIII (Resolution of Claims), Section XIII (Dispute Resolution), and Section XI (Stipulated Penalties) nothing contained in this Consent Decree shall be construed to prevent or limit the rights of Plaintiffs to obtain penalties or injunctive relief under the Act or other federal, state, or local statutes, regulations, or permits.

113. Each limit and/or other requirement established by or under this Consent Decree is a separate, independent requirement.

114. Performance standards, emissions limits, and other quantitative standards set by or under this Consent Decree must be met to the number of significant digits in which the standard or limit is expressed. For example, an Emission Rate of 0.100 is not met if the actual Emission Rate is 0.101. Defendants shall round the fourth significant digit to the nearest third significant digit, or the third significant digit to the nearest second significant digit, depending upon whether the limit is expressed to three or two significant digits. For example, if an actual Emission Rate is 0.1004, that shall be reported as 0.100, and shall be in compliance with an Emission Rate of 0.100, and if an actual Emission Rate is 0.1005 that shall be reported as 0.101, and shall not be in compliance with an Emission Rate of 0.100. Defendants shall report data to the number of significant digits in which the standard or limit is expressed.

115. This Consent Decree does not limit, enlarge, or affect the rights of any Party to this Consent Decree as against any third parties.

116. The Parties shall bear their own costs of this action, including attorneys' fees.

XXII. SIGNATORIES AND SERVICE

117. Each undersigned representative of Defendants and Sierra Club certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind to this document the Party he or she represents. The Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice, identified on the United States' signature page below, is fully authorized to enter into the terms and conditions of this Consent Decree and to legally bind the United States to this document.

118. This Consent Decree may be signed in counterparts, and such counterpart signature pages shall be given full force and effect.

119. Unless otherwise ordered by the Court, Plaintiffs agree that Defendants are not required to file any answer or other pleading responsive to the amended complaints in this matter until and unless the Court expressly declines to enter this Consent Decree, in which case Defendants shall have no less than 30 Days after receiving notice of such express declination to file an answer or other pleading in response to the Complaints.

XXIII. PUBLIC COMMENT/AGENCY REVIEW

120. The Parties agree and acknowledge that final approval by the United States and entry of this Consent Decree is subject to the procedures of 28 C.F.R. § 50.7, which provides for notice of the lodging of this Consent Decree in the Federal Register, an opportunity for public comment, and the right of the United States to withdraw or withhold consent if the comments disclose facts or considerations which indicate that this Consent Decree is inappropriate, improper, or inadequate. Defendants and Sierra Club shall not oppose entry of this Consent

Decree by this Court or challenge any provision of this Consent Decree unless the United States has notified Defendants and Sierra Club, in writing, that the United States no longer supports entry of this Consent Decree.

121. In addition to this agreement, DTE and Intervenor-Plaintiff the Sierra Club intend to submit a separate proposed agreement between DTE and Sierra Club. This proposed agreement, if entered, would resolve all of Sierra Club's claims (potential and actual) and would provide relief to Sierra Club and its members beyond what the United States was is willing to agree to. The United States therefore reserves the right to object to any the motion for entry of this separate agreement and notes that it believes the separate agreement requires entry by the Court. If the Court does not enter rejects the separate agreement, all parties to this Consent Decree—including the United States—agree to join a stipulation to dismiss with prejudice Sierra Club's Amended Complaint. If the Court approves the separate agreement or finds it does not have to enter and approve the separate agreement for the separate agreement to take effect, the United States reserves its rights to object and/or appeal.

XXIV. TERMINATION

122. Once Defendants have:
- a. completed the requirements of Sections IV (Compliance Requirements) and VI (Environmental Mitigation Projects);
 - b. maintained continuous compliance with this Consent Decree, including continuous operation of all pollution controls required by this Consent Decree, for a period of 24 months, and have successfully completed all actions necessary to Refuel, Repower, or Retrofit

any Unit required or elected to be Refueled, Repower, or Retrofit, as required by this Consent Decree;

c. paid the civil penalty and any accrued stipulated penalties as required by this Consent Decree;

d. either included the requirements and limitations enumerated in this Consent Decree into a federally enforceable permit or obtained a site-specific amendment to the Michigan SIP for each plant in the System, as required by Section XIV (Permits) of this Consent Decree such that the requirements and limitations enumerated in this Consent Decree, including all Unit-specific, plant-specific, and System-specific performance, operational, maintenance, and control technology requirements established by this Consent Decree become and remain “applicable requirements” as that term is defined in 40 C.F.R. Part 70.2; and

e. certified that the date of Defendants’ Request for Termination is later than December 31, 2030, Defendants may serve upon Plaintiffs a Request for Termination of this Consent Decree as a whole, stating that Defendants have satisfied all the requirements of this Paragraph, together with all necessary supporting documentation.

123. Following receipt by Plaintiffs of Defendants’ Request for Termination, the Parties shall confer informally concerning the Request and any disagreement that the Parties may have as to whether Defendants have satisfactorily complied with the requirements for termination of this Consent Decree. If the United States, after consultation with Sierra Club, agrees that the Decree may be terminated, the Parties shall submit, for the Court’s approval, a joint stipulation terminating the Decree.

124. If the United States, after consultation with Sierra Club, does not agree that the Decree may be terminated, Defendants may invoke Dispute Resolution under Section XIII of this Decree. However, Defendants shall not seek Dispute Resolution of any dispute regarding termination until 60 days after service of their Request for Termination or receipt of an adverse decision from Plaintiffs, whichever is earlier.

XXV. 26 U.S.C. SECTION 162(f)(2)(A)(ii) IDENTIFICATION

125. For purposes of the identification requirement of Section 162(f)(2)(A)(ii) of the Internal Revenue Code, 26 U.S.C. § 162(f)(2)(A)(ii), performance of:

- Section II (Applicability), Paragraph 3;
- Section IV (Compliance Requirements), Paragraphs 7-26;
- Section VI (Environmental Mitigation Project), Paragraphs 30-38 and related Appendix A;
- Section IX (Periodic Reporting), Paragraphs 48, 50, and 51;
- Section X (Review and Approval of Submittals), 52 (except with respect to dispute resolution) and 53;
- Section XIV (Permits), Paragraphs 87-89 and 91-94; and
- Section XV (Information Collection and Retention), Paragraphs 95 and 96,

is restitution or required to come into compliance with law.

XXVI. FINAL JUDGMENT

126. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment between the Parties.

Dated: July 22, 2020
Detroit, Michigan

s/Bernard A. Friedman
Bernard A. Friedman
Senior United States District Judge

United States, et al. v. DTE Energy Co., et al., Consent Decree Signature Page

FOR THE UNITED STATES

July 8, 2020

Date

JEFFREY BOSSERT CLARK
Assistant Attorney General
Environment and Natural Resources
Division
United States Department of Justice

s/Thomas A. Benson

THOMAS A. BENSON
KRISTIN M. FURRIE
Environmental Enforcement Section
Environment and Natural Resources
Division
P.O. Box 7611
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MATTHEW J. SCHNEIDER
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Eastern District of Michigan

PETER CAPLAN
Civil Division Chief
United States Attorney's Office
Eastern District of Michigan
211 W. Fort Street, Suite 2001
Detroit, MI 48226


United States, et al. v. DTE Energy Co., et al., Consent Decree Signature Page

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Date

SUSAN BODINE Digitally signed by SUSAN BODINE
Date: 2020.05.13 11:59:01 -04'00'

SUSAN PARKER BODINE
Assistant Administrator
Office of Enforcement and
Compliance Assurance
U.S. Environmental Protection Agency



SABRINA ARGENTIERI
Attorney-Advisor
U.S. Environmental Protection Agency
1200 Pennsylvania Ave, N.W. (2242A)
Washington, DC 20460

United States, et al. v. DTE Energy Co., et al., Consent Decree Signature Page

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Date

T. Leverett Nelson

Digitally signed by T. Leverett
Nelson
Date: 2020.05.07 14:10:38 -05'00'

T. LEVERETT NELSON
Regional Counsel
U.S. Environmental Protection Agency
Region V



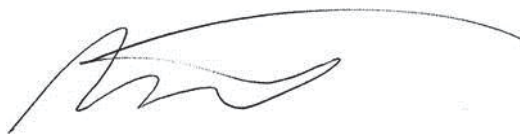
SUSAN PROUT
Assistant Regional Counsel
U.S. Environmental Protection Agency
Region V

United States, et al. v. DTE Energy Co., et al., Consent Decree Signature Page

FOR SIERRA CLUB

By its Counsel:

5/11/20
Date


A handwritten signature in black ink, appearing to read 'Shannon Fisk', written over a horizontal line.

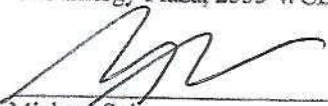
SHANNON FISK
Managing Attorney
Earthjustice
1617 John F. Kennedy Blvd. Suite 1130
Philadelphia, PA 19103

United States, et al. v. DTE Energy Co., et al., Consent Decree Signature Page

FOR DTE ENERGY CO. AND DETROIT EDISON CO.

May 5, 2020
Date


Randall L. Rutkofske
Vice President & Deputy General Counsel DTE Energy
General Counsel DTE Electric Company
One Energy Plaza, 2335 WCB, Detroit MI 48226


Michael Solo
Office of the General Counsel
DTE Energy
313-235-9512

APPENDIX A

ENVIRONMENTAL MITIGATION PROJECT

1. Defendants shall comply with the requirements of this Appendix and Section VI (Environmental Mitigation Project) of the Consent Decree to implement and secure the benefits of each project described in this Appendix.

2. Defendants shall propose and implement a plan to replace school buses and/or municipal transit buses, as described below. The project shall facilitate the replacement of existing public buses with new, more energy-efficient buses. Defendants shall maximize the environmental benefits of the project and shall seek and prioritize bus replacements with the greatest potential emissions reductions and those located in non-attainment and/or environmental justice areas, consistent with the applicable requirements of the Consent Decree and this Appendix. Defendants shall spend no less than \$5.5 million in Project Dollars on the Bus Replacement Project.

3. Within 180 days of the Effective Date, Defendants shall submit a plan to EPA for review and approval, in consultation with Sierra Club, for the implementation of the Bus Replacement Project. Upon approval of the plan by EPA, Defendants shall implement the plan. The plan shall include:

- a. A plan for implementing the project;
- b. A summary-level budget for the project;
- c. A timeline for the project, with project spending to be completed within six years of the Effective Date;

d. A description of the anticipated environmental benefits of the project, including an estimate of the emission reductions expected to be realized, and the methodology and any calculations used in the derivation of such expected benefits; and

e. The anticipated Project Dollars associated with each bus replacement.

4. Reporting. As part of the periodic reports required by Section IX (Periodic Reporting) of the Consent Decree, Defendants shall provide an update on the Bus Replacement Project. These reports shall continue until the conclusion of the Bus Replacement Project. The update shall address the steps taken by Defendants during the reporting period related to the Bus Replacement Project, including the vehicles replaced, the fueling infrastructure installed, the Project Dollars proposed to be credited for and actual cost of each vehicle and/or fueling infrastructure, and an updated schedule for integration of vehicles and related infrastructure into the fleets addressed by the Bus Replacement Project.

A. School Bus Replacements

5. To the extent Defendants' Bus Replacement Project addresses school buses, Defendants shall follow the requirements of this Subsection A.

6. Defendants shall facilitate the replacement of public school buses (Eligible School Buses) with new buses (New School Buses), including any necessary fueling infrastructure, thereby reducing emissions of NO_x and particulate matter. Defendants shall ensure that the replaced Eligible School Buses are fully scrapped and permanently removed from service.

7. To be eligible to participate in the Bus Replacement Project, the public school district must be located in the service area of Defendants' System and own the Eligible School Bus(es) that will be replaced as part of this Project with the following exceptions:

a. Public school districts may apply with state-owned buses as long as they receive an authorized letter from the state agency that owns the buses allowing the school district to acquire New School Bus(es) and scrap the Eligible School Bus(es);

b. Third-party school bus contractors who own Eligible School Bus(es) serving public school districts are eligible to participate in the program, however third-party school bus contractors who lease the proposed bus(es) to be replaced are only eligible if the remaining lease on the vehicle equals or exceeds three years; and

c. Buses owned by Federal agencies are not eligible.

8. An Eligible School Bus is a bus that meets all of the following criteria:

a. Is primarily used for the purpose of transporting 10 or more pre-primary, primary, or secondary school students to schools or homes;

b. Is rated Class 3-8, as defined by the Department of Transportation's vehicle service classifications;

c. Has a Gross Vehicle Weight Rating (GVWR) of at least 10,001 pounds;

d. Has accumulated at least 10,000 miles transporting students over the most recent 12 months, or has been in use for at least three days per week transporting students during the current school year;

e. Is operated within Wayne County;

f. Has a diesel-powered engine with a model year of 1996-2009; and

g. Is able to start, move in all directions, and have all operational parts.

9. For a replacement to be considered eligible, the New School Bus must

a. Be model year 2019 or later;

b. Operate in the same manner and over similar routes as the original school bus;

c. Meet all applicable engine standards, certifications, and/or verifications and shall be retained and operated for its useful life; and

d. Meet Federal safety standards and required warranties.

10. For the school bus replacement to be considered eligible, the school district must provide to Defendants, and Defendants must retain and provide to the Plaintiffs in Defendants' periodic report, documentation that each diesel bus that is being replaced is scrapped or rendered permanently disabled within 90 days of being replaced. More specifically:

a. The preferred scrapping method is cutting a three-inch by three-inch hole in the engine block (the part of the engine containing the cylinders).

c. A signed certificate of destruction and digital photos of the engine tag (showing serial number, engine family number, and engine model year), the destroyed engine block, and cut frame rails or other cut structural components, or other evidence of destruction, as applicable, shall be provided.

d. Equipment and vehicle components that are not part of the engine or chassis may be salvaged from the unit being replaced (e.g. plow blades, shovels, seats, tires, etc.).

B. Transit Bus Replacements

11. To the extent Defendants' Bus Replacement Project addresses transit buses, Defendants shall follow the requirements of this Subsection B.

12. Defendants shall replace transit buses (Eligible Transit Buses) with new buses (New Transit Buses), including any necessary fueling infrastructure, thereby reducing emissions

of NO_x and particulate matter. Defendants shall ensure that the replaced Eligible Transit Buses are fully scrapped and permanently removed from service.

13. To be eligible to participate in the Transit Bus Replacement Project, the participant must own the Eligible Transit Bus(es) that will be replaced as part of this Project.

14. An Eligible Transit Bus is a bus that meets all of the following criteria:

- a. Is primarily used for public transportation for people in the transit bus district;
- b. Is rated Class 3-8, as defined by the Department of Transportation's vehicle service classifications;
- c. Has a Gross Vehicle Weight Rating (GVWR) of at least 10,001 pounds;
- d. Has accumulated at least 10,000 miles transporting people over the most recent 12 months;
- e. Is operated within Wayne County;
- f. Has a diesel-powered engine with a model year of 1996-2009 or older; and
- g. Is able to start, move in all directions, and have all operational parts.

15. For a replacement to be considered eligible, the New Transit Bus must:

- a. Be model year 2019 or later;
 - b. Operate in the same manner and over similar routes as the original bus;
- and
- c. Meet all applicable engine standards, certifications, and/or verifications and shall be retained and operated for its useful life; and
 - d. Meet Federal safety standards and required warranties.

16. For the transit bus replacement to be considered eligible, the transit district must provide to Defendants, and Defendants must retain and provide to the Plaintiffs in Defendants' annual report, documentation that each diesel bus that is being replaced is scrapped or rendered permanently disabled within 90 days of being replaced, as described further in Paragraph 10 of this Appendix.