

From: [Alexis D Thomas](#)
To: [EGLE-ROP](#)
Cc: [Zhu, Joyce \(EGLE\)](#); [Leffert, Kaitlyn \(EGLE\)](#); [Mark R Chesney](#); [Zachary M Josefiak](#); [Biljana Pecov](#); [Rahn V Ledesma](#); [Marie P Reid](#); [Ignatius A Fadanelli](#); [Barry J Marietta](#)
Subject: B6145 - ROP Renewal Application
Date: Tuesday, August 23, 2022 10:04:01 AM
Attachments: [B6145_ROP_MARK-UP.docx](#)
[B6145 - ROP Renewal Application, DTE Electric - Greenwood Energy Center.pdf](#)

CAUTION: This is an External email. Please send suspicious emails to abuse@michigan.gov

Good morning,

Please see the attached electronic PDF of DTE Electric Company's ROP Renewal application and a Word version of the ROP Mark-Up for Greenwood Energy Center. The hard copy will be mailed out today to Joyce Zhu.

Please let me know you have any questions.

Thank you,

Alexis Thomas

Staff Engineer - Environmental

DTE Energy – EM&S Emissions Quality

Cell: 248.794.9390



August 23, 2022

Ms. Joyce Zhu
Warren District Office Supervisor
EGLE AQD
27700 Donald Court
Warren, MI 48092-2793

Subject: SRN #B6145 ROP Renewal Application for MI-ROP-B6145-2018
DTE Electric Company – Greenwood Energy Center

Dear Ms. Zhu,

Enclosed is the ROP Renewal Application for DTE Electric Company's ROP No: MI-ROP-B6145-2018 (SRN #B6145) for Greenwood Energy Center and Combustion Turbine Generators located at 7000 Kilgore Road in Avoca, Michigan 48006 in St. Clair County. This application includes the required forms and attachments, which are detailed below under the listed enclosures.

This submittal is considered timely, as it is before the November 17, 2022 ROP renewal application due date, at least six (6) months prior to permit expiration on May 17, 2023. 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-B6145-2018 ROP Renewal Application comprised of:

1. ROP Renewal Application Form Section 1 (EQP 6000)
2. ROP Renewal Application Form Section 2 (EQP 6000)
3. AI-001 for the ROP Mark-up (AI-ROP MARK-UP) & the MI-ROP-B6145-2018 ROP Mark-up
4. AI-001 for Part C (AI-PART C) and supporting documentation

Cc: Ms. Joyce Zhu, EGLE AQD, Warren District Supervisor
via email at zhuj@michigan.gov



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

Ms. Kaitlyn Leffert, EGLE AQD, Warren District Environmental Quality
Analyst, via email at leffertk@michigan.gov

Mark Chesney, DTE, Energy Supply, Plant Manager – Greenwood Energy
Center via email at mark.chesney@dteenergy.com

Zachary Josefiak, DTE, Energy Supply, Environmental Engineer – Greenwood
Energy Center via email at zachary.josefiak@dteenergy.com

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

Rahn Ledesma, DTE, Energy Supply, Maintenance Manager – Peakers
via email at Rahn.Ledesma@dteenergy.com

Marie Reid, DTE, EM&S, Environmental Engineer – Peakers
via email at marie.reid@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\GRNEC\1. Application Yr2022



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 B6145	SIC Code 4911	NAICS Code 221112	Existing ROP Number MI-ROP-B6145-2018	Section Number (if applicable) 1
Source Name DTE Electric Company - Greenwood Energy Center				
Street Address 7000 Kilgore Road				
City Avoca	State MI	ZIP Code 48006	County St. Clair	
Section/Town/Range (if address not available)				
Source Description Electric generating Facility which operates at 785-Megawatt gross output boiler-electric generator fueled by No.2 oil, No. 6 oil, spec used oil and/or natural gas. Facility also contains a limited use auxiliary boiler burning fuel oil, an auxiliary boiler burning natural gas, and three natural gas fired combustion turbine electric generators each rated at 82.4 Megawatts.				
<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) Ignatius A. Fadanelli		Title Principal 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 (313) 235-6384		E-mail address Ignatius.Fadanelli@dteenergy.com		

RESPONSIBLE OFFICIAL INFORMATION

Responsible Official 1 Name Mark Chesney		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 (810) 324-3228		E-mail address Mark.chesney@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 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 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 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)

Mark Chesney, 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

8/18/22

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 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 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 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 type="checkbox"/> Yes <input checked="" 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)]

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? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If <u>Yes</u>, identify changes and additions on Part F, Part G and/or Part H.</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). <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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If <u>Yes</u>, complete Part F with the appropriate information.</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. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>Comments:</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.

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 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 type="checkbox"/> Yes <input checked="" 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.	<input type="checkbox"/> Yes <input checked="" 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)

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

Changes were made in the ROP Mark-Up to the Emission Unit Summary Table, updating the EU-GDF description to specify that it is an underground storage tank.

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 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.

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PART A: GENERAL INFORMATION

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

SOURCE INFORMATION

SRN B6145	SIC Code 4911	NAICS Code 221112	Existing ROP Number MI-ROP-B6145-2018	Section Number (if applicable) 2
Source Name DTE Electric Company - Greenwood Peakers				
Street Address 7000 Kilgore Road				
City Avoca	State MI	ZIP Code 48006	County St. Clair	
Section/Town/Range (if address not available)				
Source Description Electric generating Facility which operates a 785-Megawatt gross output boiler-electric generator fueled by No.2 oil, No. 6 oil, spec used oil and/or natural gas. Facility also contains a limited use auxiliary boiler burning fuel oil, an auxiliary boiler burning natural gas, and three natural gas fired combustion turbine electric generators each rated at 82.4 Megawatts.				
<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) Ignatius A. Fadanelli		Title Principal 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 (313) 235-6384		E-mail address Ignatius.Fadanelli@dteenergy.com		

RESPONSIBLE OFFICIAL INFORMATION

Responsible Official 1 Name Biljana Pecov		Title Plant Manager – Energy Supply		
Company Name & Mailing address (<input 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 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 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 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)

Biljana Pecov, 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

 8/18/2022
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 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 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 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 type="checkbox"/> Yes <input checked="" 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 <small>[e.g. Rule 212(4)(c)]</small>	Rule 201 Exemption Rule Citation <small>[e.g. Rule 282(2)(b)(i)]</small>

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 type="checkbox"/> Yes <input checked="" 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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>Comments:</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.

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 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 type="checkbox"/> Yes <input checked="" 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.	<input type="checkbox"/> Yes <input checked="" 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)

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

Changes were made in the ROP Mark-Up to the Flexible Group Summary Table, updating the FG-CTGs description for consistency across DTE permits.

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: B6145

Section Number (if applicable):

1. Additional Information ID

AI-ROP MARK- UP

Additional Information

2. Is This Information Confidential?

Yes No

Enclosed is the ROP Mark-up of MI-ROP-B6145-2018.

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

EFFECTIVE DATE: May 17, 2018

ISSUED TO

DTE Electric Company – Greenwood Energy Center

State Registration Number (SRN): B6145

LOCATED AT

7000 Kilgore Road, Avoca, Michigan 48006-2525

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-B6145-2018

Expiration Date: May 17, 2023

Administratively Complete ROP Renewal Application
Due Between November 17, 2021 and November 17, 2022

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-B6145-2018

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 Environmental Quality

Joyce Zhu, Southeast Michigan District Supervisor

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ROP No: MI-ROP-B6145-2018
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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 Environmental Quality (MDEQ) 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.

Section 1 – Main Boiler

ROP No: MI-ROP-B6145-2018
Expiration Date: May 17, 2023
PTI No: MI-PTI-B6145-2018

SECTION 1 – MAIN BOILER

Section 1 – Main Boiler

ROP No: MI-ROP-B6145-2018
Expiration Date: May 17, 2023
PTI No: MI-PTI-B6145-2018

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 1 – Main Boiler

ROP No: MI-ROP-B6145-2018
Expiration Date: May 17, 2023
PTI No: MI-PTI-B6145-2018

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% 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))**

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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))**
- 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.

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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)(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))**

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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))**
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)(ii), 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))**

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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))**

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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))**
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, MDEQ.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, MDEQ, 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).

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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.

There are no Source-Wide Conditions applicable to Section 1.

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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
EUBOILER1	Greenwood Energy Center Unit 1 boiler, nominally rated at 785 MW gross output; fueled by No. 2 fuel oil, No. 6 fuel oil, specification used oil, or a combination thereof (hereinafter termed "oil fuels"), and/or natural gas. Flue gas injection is used for NOx control. (PTI No. 129-13)	05-01-72 / 09-11-97	NA
EUEASTAUXBOILER	East auxiliary boiler nominally rated at 181.4 MMBtu per hour heat input, equipped with a continuous oxygen trim system and fired only with pipeline quality natural gas. Maximum steam output is 150,000 pounds per hour. This emission unit is subject to the Major Source Existing Gas 1 Fuel Subcategory per 40 CFR Part 63, Subpart DDDDD. (PTI No. 129-13)	05-01-72 / 09-11-97	NA
EUWESTAUXBOILER	West auxiliary boiler nominally rated at 173 MMBtu per hour heat input fired with No. 2, No. 6 oil or blends thereof (hereinafter termed "oil fuels"). This emission unit is a limited-use boiler (10% capacity factor) as defined in 40 CFR 63.7575. (PTI No. 129-13)	05-01-72 / 09-11-97	NA
EUCOLDCLEANER	Any new cold cleaner exempt from NSR permitting.	NA	FGCOLDCLEANERS
EU-GDF	A new (placed into operation on or after July 1, 1979) gasoline <u>underground</u> storage tank of 2,500--gallon capacity (9.46 cubic meters) at a gasoline dispensing facility (GDF). This emission unit is exempt from the requirements of Rule 336.1201 pursuant to R 336.1278 and per R 336.1284(2)(g)(ii).	Original installation in late 1970s. Underground storage tank replaced 09-09-92	NA

Commented [ADT1]: DTE requests to add this EU description change to specify that is tank is located underground.

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Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUEMGFIREPUMP	Emergency fire pump engine exempt from R 336.1201 per R 336.1285(2)(g) for internal combustion engines that have less than 10,000,000 Btu/hour maximum heat input. This engine is subject to 40 CFR Part 60 Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. This engine was manufactured on April 14, 2016. This engine is a turbo-charged, air-cooled, 4-cycle, and in-line 6-cylinder diesel compression ignition engine with 8.9-liter total cylinder displacement. Maximum heat input of 1.98 MMBtu/hr. The engine nameplate rates the engine output at 260 HP at 1760 RPM. In accordance with 40 CFR 60.4200, the construction commenced on April 18, 2016.	08-03-16	NA
EURULE290	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201; pursuant to Rules 278, 278a and 290.	NA	FGRULE290

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**EUBOILER1
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Greenwood Energy Center Unit 1 boiler, nominally rated at 785 MW gross output; fueled by No. 2 fuel oil, No. 6 fuel oil, specification used oil, or a combination thereof (hereinafter termed "oil fuels"), and/or natural gas. Flue gas injection is used for NOx control. (PTI No. 129-13)

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Flue gas injection system

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Sulfur dioxide (SO ₂)	0.80 lb. per million Btu heat input ² See Note a.	3-hour average	EUBOILER1	SC VI.1 See Notes c & d	40 CFR Part 60, Subparts A and D, 60.43(a)(1)
	5760 lbs. per hour ²	3-hour average	EUBOILER1	SC VI.1 See Notes c & d	40 CFR Part 60, Subparts A and D, 60.43(a)(1), R 336.1201(3)
2. Particulate matter (PM)	0.072 lb. per million Btu heat input ²	1-hour average*	EUBOILER1	SC V.2 SC VI.1	40 CFR Part 60, Subpart D, 60.42(a)(1)
	518.4 lbs. per hour ²	1-hour average*	EUBOILER1	SC V.2 SC VI.1	40 CFR Part 60, Subpart D, 60.42(a)(1), R 336.1201(3)
	0.10 lb. per 1,000 lbs. of exhaust gases on a wet basis, corrected to 50% excess air ²	1-hour average*	EUBOILER1	SC V.2 SC VI.1	R 336.1331 R 336.1201(3)
3. Nitrogen oxides (NOx) <i>(When firing oil fuels only)</i>	0.30 lb. per million Btu heat input ²	3-hour average	EUBOILER1	SC VI.1 See Notes c & d	40 CFR Part 60, Subpart A, 60.8 and Subpart D, 60.44 (a)(2)
	2,160 lbs. / hour ²	3-hour average	EUBOILER1	SC VI.1 See Notes c & d	40 CFR Part 60, Subpart A, 60.8 and Subpart D, 60.44 (a)(2), R 336.1201(3)
<i>(When firing natural gas only)</i>	0.20 lb. per million Btu heat input ²	3-hour average	EUBOILER1	SC VI.1 See Notes c & d	40 CFR Part 60, Subpart A, 60.8 and Subpart D, 60.44 (a)(1)

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Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
	1,494 lbs. / hour ²	3-hour average	EUBOILER1	SC VI.1 See Notes c & d	40 CFR Part 60, Subpart A, 60.8 and Subpart D, 60.44 (a)(1), R 336.1201(3)
<i>(When co-firing oil fuels and natural gas)</i>	Prorated between 0.20 and 0.30 lb. per million Btu See Note b.	3-hour average	EUBOILER1	SC VI.1 See Notes c & d	40 CFR Part 60, Subpart A, 60.8 and Subpart D 60.44 (b)
4. Opacity	20% per 6- minute period except for one 6-minute period per hour of not more than 27%	6-minute average	EUBOILER1	SC VI.1 Method 9	40 CFR Part 60, Subpart D, 60.42(a)(2) R 336.1301(1)(b)

Note a: This is equivalent to using oil fuels with 0.78% sulfur content and a heat value of 19,390 Btu's per pound. Compliance with this limit shall be considered compliance with the limit of R 336.1401, which has been subsumed under this streamlined requirement.² (R 336.1213)
 Note b: Based on the ratio of the total heat input provided by the natural gas and the total heat input provided by the oil that is being combusted as a mixture in the boiler.
 Note c: Compliance with SO₂/NO_x emission rate limits shall be based upon any three-hour average determined in accordance with the performance test established by 40 CFR 60.8.
 Note d: The emission rate limits do not apply during periods of startup, shutdown, or malfunction per 40 CFR 60.8(c).
 * *The 1-hour average value shall be determined by the average of three test runs per the test method requirements.*

II. MATERIAL LIMIT(S)

- The permittee shall burn only No. 2 fuel oil, No. 6 fuel oil, specification used oil, or natural gas or blends of these fuels in EUBOILER1.² (R 336.1201(3))

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Total halogens in specification used oil	≤ 4,000 ppm ^{2*} (by weight)	Each batch received	EUBOILER1	SC V.3	R 336.1201(3), 40 CFR 279.11
2. Total lead (Pb) in specification used oil	≤ 100 ppm ²	Each batch received	EUBOILER1	SC V.3	R 336.1201(3), 40 CFR 279.11
3. Total cadmium (Cd) in specification used oil	≤ 2 ppm ²	Each batch received	EUBOILER1	SC V.3	R 336.1201(3), 40 CFR 279.11
4. Total chromium (Cr) in specification used oil	≤ 10 ppm ²	Each batch received	EUBOILER1	SC V.3	R 336.1201(3), 40 CFR 279.11

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Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
5. Total arsenic (As) in specification used oil	≤ 5 ppm ²	Each batch received	EUBOILER1	SC V.3	R 336.1201(3), 40 CFR 279.11
6. Flashpoint of specification used oil	≥ 100 °F ² (closed cup)	Each batch received	EUBOILER1	SC V.3	R 336.1201(3), 40 CFR 279.11
7. Polychlorinated biphenyls (PCB) in specification used oil	< 2 ppm ²	Each batch received	EUBOILER1	SC V.3	R 336.1201(3), 40 CFR 761.20(e)

* If total halogens are >1,000 ppm, an analysis shall be conducted to ensure that no halogenated compound listed in Appendix VIII of 40 CFR, Part 261 is present in concentrations greater than 100 ppm.²

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not receive, unload, or store, any specification used oil which is not accompanied by the vendor's certification and analytical data. Analytical data must show compliance with the limits set forth in Section II prior to unloading and/or storing the specification used oil.² **(R 336.1201(3))**
2. The permittee shall not operate EUBOILER1 unless all of the requirements of 40 CFR 52.21, the federal Prevention of Significant Deterioration rules and regulations, are being met. This permit is issued pursuant to the determination that the equipment covered by this permit can comply with all of the requirements under these rules and regulations.² **(R 336.1201(3))**
3. The permittee shall not operate EUBOILER1 unless the flue gas injection system is installed, maintained, and operated in a manner satisfactory to the District Supervisor.² **(R 336.1910)**

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. The permittee shall analyze and record the sulfur content of the oil fuel.² **(R 336.1201(3))**

See Appendix 3-1.1, Fuel Oil Sulfur Monitoring

2. Every third year, or more frequently upon AQD request, the permittee shall verify PM emission rates from EUBOILER1 by testing at owner's expense, in accordance with Department requirements. The permittee shall test the particulate matter emission rate using Reference Method 5, results reported on a wet basis, corrected to 50% excess air. Alternate methods may be used, subject to AQD approval. 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. 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.² **(R 336.1201(3), R 336.2001(3), R 336.2001(4), R 336.2001(5))**
3. The permittee shall not operate EUBOILER1 unless the approved facility Quality Control Program for Burning Specification Used Oil is implemented and maintained.² **(R 336.1201(3))**

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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 install, calibrate, maintain and operate continuous emission monitoring systems for sulfur dioxide, nitrogen oxides, and carbon dioxide, and a continuous opacity monitoring system of the exhaust gases in accordance with the Emission and Fuel Monitoring section of 40 CFR Part 60, Subpart D.² (40 CFR Part 60, Subpart D)

See Appendices 3-1.2, 3-1.3, and 3-1.4

2. The permittee shall maintain the following records on a monthly basis:² (R 336.1213(3))
 - a. Heating value of oil fuels, as fired, expressed in Btu per pound
 - b. Heat input to EUBOILER1 from natural gas, expressed in MMBtu per hour
 - c. Heat input to EUBOILER1 from oil fuels, expressed in MMBtu per hour
 - d. Sulfur content of oil fuels, expressed as a percentage by weight
 - e. Total operating hours
 - f. Quantity of used oil burned
3. The permittee shall not operate EUBOILER1 unless the monitoring and recordkeeping provisions of the approved facility Quality Control Program for Burning Specification Used Oil are implemented and maintained.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. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD within 60 days following last date of test. (R 336.1213(3)(c), R 336.2001(5))
5. Permittee shall submit quarterly Excess Emission and Monitoring System Performance reports of operating information within 30 calendar days following the end of the quarter in which the data were collected. Compliance with this requirement shall be considered compliance with the reporting requirement specified in 40 CFR Part 60 Subpart D.² (R 336.2170, 40CFR60, Subpart D)
6. The permittee shall report sulfur dioxide, nitrogen oxide and carbon dioxide emission, volumetric flow, and opacity data in accordance with 40 CFR, Part 75 (Continuous Emission Monitoring).² (R 336.1201(3))
7. For the continuous monitoring system for the measurement of opacity, the permittee shall submit to the District Supervisor and Compliance Support Unit Supervisor, Air Quality Division and to the Chief of the Air Compliance Branch, U.S. Environmental Protection Agency, within 30 days of the end of the calendar quarter, a written report for each calendar quarter which shall include all of the following information.² (Title I (Air Pollution Prevention and Control), Clean Air Act, Section 114(a); R 336.2170(1)(a), (b), and (c))
 - a. Excess emissions, corrective action taken and the nature and cause of excess emissions, if known, as follows: For opacity measurements, the report shall consist of the magnitude, in actual percent opacity, of all six-minute averages of opacity more than the applicable opacity standard for each hour of operation (all allowable exceptions are to be deducted prior to determining the excess averages of opacity). Average values shall be obtained by integration over the averaging period of by arithmetically averaging a minimum of 24 equally spaced, instantaneous opacity measurements per six minutes.

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- b. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of repairs or adjustments made.
 - c. If the monitoring system has not been inoperative, repaired, or adjusted, and if no excess emissions occurred, a statement attesting to this fact.
8. The permittee shall submit to the Chief of the Air Compliance Branch, U.S. Environmental Protection Agency and the District Supervisor of the Air Quality Division, within 30 days of the end of the calendar quarter, a written report for each calendar quarter which shall include sulfur dioxide monthly emission rate averages.² **(Title I (Air Pollution Prevention and Control) of the Clean Air Act, Section 114(a); (R 336.1201(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
1. SV001	279 ²	496 ²	R 336.1201(3)

IX. OTHER REQUIREMENT(S)

- 1. The permittee shall comply with the acid rain permitting provisions of 40 CFR 72.1 to 40 CFR 72.94 as outlined in a complete Phase II Acid Rain Permit issued by the AQD. Phase II Acid Rain Permit No. MI-AR-6035-201~~X~~ is hereby incorporated into this ROP as Appendix 9-1. **(R 336.1299(2)(a))**
- 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 336.1299(d) and 40 CFR 72.9(c)(1)(i). **(R 336.1213(10))**
- 3. The permittee shall comply with the applicable provisions 40 CFR Part 60 Subparts A and D. **(R 336.1213(3))**
- 4. As would apply to any other condition in this permit, nothing in this permit shall preclude the use, including exclusive use of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.² **(40 CFR 60.11(g))**
- 5. The permittee shall comply with the provisions of the Transport 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)**
- 6. The permittee shall comply with the provisions of the Transport Rule NOx Ozone Trading Program, as specified in 40 CFR, Part 97 Subpart BBBBB, and identified in Appendix 10-1. **(40 CFR Part 97, Subpart BBBBB)**
- 7. The permittee shall comply with the provisions of the Transport 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).

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**EUEASTAUXBOILER
 EMISSION UNIT CONDITIONS**

DESCRIPTION

East auxiliary boiler nominally rated at 181.4 MMBtu per hour heat input, equipped with a continuous oxygen trim system and fired only with pipeline quality natural gas. Maximum steam output is 150,000 pounds per hour. This emission unit is subject to the Major Source Existing Gas 1 Fuel Subcategory per 40 CFR Part 63, Subpart DDDDD. (PTI No. 129-13)

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Nitrogen oxides (NOx)	0.90 lb. per million Btu heat input ²	Average of three 1-hour runs per test protocol.	EUEASTAUXBOILER	SC V.1	R 336.1201(3)
2. Nitrogen oxides (NOx)	202.5 lbs. per hour ²	Average of three 1-hour runs per test protocol.	EUEASTAUXBOILER	SC V.1	R 336.1201(3)
3. VE	20% opacity ²	Average per six-minute period except for one six-minute period per hour of not more than 27% opacity	EUEASTAUXBOILER	SC VI.1, EPA Reference Method 9	R 336.1201(3) R 336.1301(1)

II. MATERIAL LIMIT(S)

1. The permittee shall burn only pipeline quality natural gas in EUEASTAUXBOILER.² (R 336.1201(3), 40 CFR 63.7499(I))

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. At all times, the permittee must operate and maintain EUEASTAUXBOILER, 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))
2. The permittee must complete five year tune-ups on EUEASTAUXBOILER following the procedures stated in SC IX: (40 CFR 63.7540(a)(12))
 - a. Conduct the tune-up within 30 calendar days of startup, if the unit is not operating on the required date for a tune-up. (40 CFR 63.7540(a)(13))
 - b. The burner inspection specified in SC IX.2(a) may be delayed until the next scheduled or unscheduled unit shutdown, but must be completed at least once every 72 months. (40 CFR 63.7540(a)(12))

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- c. Each five-year tune-up must be conducted no more than 61 months after the previous tune-up except as described in SC III.2.a. **(40 CFR 63.7515(d))**
3. The oxygen level setting on the oxygen trim system for EUEASTAUXBOILER must be set no lower than the oxygen concentration measured during the most recent tune-up. **(40 CFR 63.7540(a)(12))**
4. The permittee may request approval from the Administrator to use an alternative to the tune up work practice standard described in SC III. **(40 CFR 63.7500(b))**
5. If the permittee switches fuel or makes a physical change to the boiler resulting in the applicability of a different subcategory after the initial compliance date, compliance must be demonstrated within 60 days of the effective date of the switch, unless a compliance demonstration for this subcategory has been conducted within the previous 12 months. **(40 CFR 63.7510(k))**
6. The permittee must complete the one-time energy assessment specified in Table 3 to 40 CFR Part 63 Subpart DDDDD no later than January 31, 2016. **(40 CFR 63.7510(e))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, calibrate, maintain and operate in a manner satisfactory to the District Supervisor, a device to monitor and record the natural gas usage in EUEASTAUXBOILER on a continuous basis.² **(R 336.1201(3))**

V. TESTING/SAMPLING

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

1. Upon request from the AQD District Supervisor, the permittee shall verify the NOx emission rates from EUEASTAUXBOILER, by testing at owner's expense, in accordance with Department requirements. Testing of NOx emission rates shall be performed using EPA Method 7E or 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. Not less than 7 days before the test is conducted, permittee shall notify the AQD Technical Programs Unit and District Supervisor in writing of the time and place of the performance test. 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. **(R336.1213(3)), R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall verify the presence of visible emissions by taking six-minute visible emission readings for EUEASTAUXBOILER pursuant to the schedule outlined in Appendix 3.5-1. The VE reader shall take each visible emission reading during routine operating conditions. Multiple stacks may be observed simultaneously. If visible emissions are present, the procedures outlined in Appendix 3.5-1 shall be implemented and the permittee shall maintain a written record of the corrective actions taken. The permittee may monitor visible emissions for EUEASTAUXBOILER from SV001-025 in a manner satisfactory to the District Supervisor.² **(R 336.1201(3), R 336.1301, R 336.1303)**
2. The permittee shall keep, in a manner satisfactory to the District Supervisor, records of all visible emission readings for EUEASTAUXBOILER. At a minimum, records shall include the date, time, name of observer/reader, whether the reader is certified, and status of visible emissions. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1201(3), R 336.1301, R 336.1303)**
3. The permittee shall maintain the following records on a monthly basis: **(R 336.1201(3))**
 - a. Hours of operation of EUEASTAUXBOILER.²

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- b. Total volume of natural gas consumed in EUEASTAUXBOILER.²
 - c. Heat input EUEASTAUXBOILER expressed in MMBtu.²
- 4. The permittee must keep a copy of each notification and report that the permittee submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or compliance report that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.7555(a)(1))**
 - 5. 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 two 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 three years. **(40 CFR 63.7560(a), (b), and (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. 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. The notification must identify:
 - a. The name of the owner or operator of the affected source, as defined in 40 CFR 63.7490, the location of the source, the boiler(s) that have switched fuels, were physically changed, and the date of the notice.
 - b. The currently applicable subcategory under this subpart.
 - c. The date upon which the fuel switch or physical change occurred. **(40 CFR 63.7545(h))**
- 5. 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 15 of the reporting year that immediately follows the year in which the tune-up was completed. Each subsequent compliance report must be postmarked or submitted no later than March 15th of the year following the tune-up and must cover the period starting from January 1 of the year following the previous tune-up to December 31 of the year of the latest tune-up. 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. The permittee shall begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. **(40 CFR 63.7550(b), 40 CFR 63.10(a)(5), 40 CFR 63.7550(h)(3))**
- 6. The permittee must include the following information in the boiler tune-up compliance report. **(40 CFR 63.7550(c), 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 date of the most recent tune-up for each unit subject to only the requirement to conduct a five-year tune-up according to 40 CFR 63.7540(a)(12). Include the date of the most recent burner inspection if it was not done on a five-year period and was delayed until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7550(c)(5)(xiv))**

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- 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. **40CFR63.7550(c)(5)(xvii)**
- 7. If verification of emission rates is required, the permittee shall submit the following: **(R 336.2001(3), (R 336.2001(4), (R 336.2001(5))**
 - a. The permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing.
 - b. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date.
 - c. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test.

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. SV001-025	144 ²	220 ²	R 336.1201(3)

IX. OTHER REQUIREMENT(S)

- 1. 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 DDDDD, as they apply to EUEASTAUXBOILER.² **(40 CFR Part 63 Subparts A and DDDDD)**
- 2. The permittee must demonstrate continuous compliance with the tune-up requirements by completing the following: **(40 CFR 63.7505(a))**
 - a. 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 tune-up or 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))**
 - 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 NOx 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

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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))**

- f. Maintain on-site and submit, if requested by the Administrator, the most recent periodic report containing the information as listed below. **(40 CFR 63.7540(a)(10)(vi))**
 - 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. **(40 CFR 63.7540(a)(10)(vi)(A))**
 - ii. A description of any corrective actions taken as a part of the tune-up. **(40 CFR 63.7540(a)(10)(vi)(B))**

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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**EUWESTAUXBOILER
 EMISSION UNIT CONDITIONS**

DESCRIPTION

West auxiliary boiler nominally rated at 173 MMBtu per hour heat input fired with No. 2, No. 6 oil or blends thereof (hereinafter termed "oil fuels"). This emission unit is a limited-use boiler (10% capacity factor) as defined in 40 CFR 63.7575. (PTI No. 129-13)

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Sulfur dioxide (SO ₂)	0.80 lb. per million Btu heat input ^{2*}	As-fired fuel. See Note*	EUWESTAUXBOILER	SC V.1	R 336.1201(3), R 336.1401(1)
	180 lbs. per hour ²	1-Hour average See Note**			
2. Particulate matter (PM)	0.072 lb. per million Btu heat input ²	Average of three 1-hour (60-minute minimum) runs per test protocol.	EUWESTAUXBOILER	SC VI.1	R 336.1201(3) R 336.1331(1)(d)
	16.20 lbs. per hour ²				
	0.10 lb. per 1,000 lbs. of exhaust gases, on a wet basis, corrected to 50% excess air ²	Average of three 1-hour (60-minute minimum) runs per test protocol.	EUWESTAUXBOILER	SC V.2	R 336.1331
3. Nitrogen oxides (NO _x)	0.90 lb. per million Btu heat input ²	Average of three 1-hour runs per test protocol.	EUWESTAUXBOILER	SC V.3	R 336.1201(3)
	202.5 lbs. per hour ²				
4. Visible Emissions	20% opacity ²	Average per six-minute period except for one six-minute period per hour of not more than 27% opacity	EUWESTAUXBOILER	SC VI.1, EPA Reference Method 9	R 336.1201(3) R 336.1301(1)

* This is equivalent to using oil fuels with 0.78% sulfur content and a heat value of 19,390 Btu's per pound.² Compliance with this limit shall be considered compliance with the limit of R 336.1401, which has been subsumed under this streamlined requirement. (R 336.1201(3))

** The 1-hour average value shall be determined by the average of three test runs per the test method requirements.

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II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. All oil fuels combusted (See Note A)	10 percent annual capacity factor ² (see Note B)	Calendar year	EUWESTAUXBOILER	SC VI.3	40 CFR 63.7555(a)(3), 40 CFR 63.7495(b), 40 CFR 63.7575, R 336.1201(3)

Note A: Effective December 31, 2015 for compliance with 40 CFR 63.7555(d)(3) and 40 CFR 63.7495(b) subject to the definition of a limited use boiler at 40 CFR 63.7575. *Limited-use boiler or process heater* means any boiler or process heater that burns any amount of solid, liquid, or gaseous fuels and has a federally enforceable annual capacity factor of no more than 10 percent.

Note B: 40 CFR 63.7575. *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 and 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.

III. PROCESS/OPERATIONAL RESTRICTION(S)

- At all times, the permittee must operate and maintain EUWESTAUXBOILER, 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))**
- The permittee must complete an initial tune-up by following the procedures described in 40 CFR 63.7540(a)(10)(i) through (vi) no later than January 31, 2016, except for existing affected sources that have not operated between the effective date of 40 CFR Part 63 Subpart DDDDD, January 31, 2013, and the compliance date January 31, 2016, the permittee must complete an initial tune-up no later than 30 days after the re-start of the affected source. **(40 CFR 63.7510(e)), (40 CFR 63.7510(j))**
- Subsequent tune-ups must be conducted no more than five years (61 months) after the previous tune-up following the procedures described in 40 CFR 63.7540(a)(10)(i) through (vi), except as allowed in 40 CFR 63.7540(a)(13) and 40 CFR 63.7500(b). **(40 CFR 63.7500(b), 40 CFR 63.7500(c), 40 CFR 63.7515(d)), 40 CFR 63.7540(a)(13))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

- The permittee shall install, calibrate, maintain and operate in a manner satisfactory to the District Supervisor, a device to monitor and record the oil fuels usage in EUWESTAUXBOILER on a continuous basis.² **(40 CFR 63.7555(a)(3), 40 CFR 63.7495(b), R 336.1201(3))**

V. TESTING/SAMPLING

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

- The permittee shall analyze and record the sulfur content of the oil fuels.² **(R 336.1201(3))**

See Appendix 3-1.1, Fuel Oil Sulfur Monitoring

- Upon request from the AQD District Supervisor, the permittee shall verify the PM emission rates from EUWESTAUXBOILER, by testing at owner's expense, in accordance with Department requirements. Testing of PM emission rates shall be performed using EPA Method 5 or an approved EPA Method listed in 40 CFR Part 60, Appendix A; and Part 10 of the Michigan Air Pollution Control Rules. An alternate method, or a modification

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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. Not less than 7 days before the test is conducted, permittee shall notify the AQD Technical Programs Unit and District Supervisor in writing of the time and place of the performance test. 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)**

3. Upon request from the AQD District Supervisor, the permittee shall verify the NO_x emission rates from EUWESTAUXBOILER, by testing at owner's expense, in accordance with Department requirements. Testing of NO_x emission rates shall be performed using EPA Method 7E or 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. Not less than 7 days before the test is conducted, permittee shall notify the AQD Technical Programs Unit and District Supervisor in writing of the time and place of the performance test. 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. **(R336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall verify the presence of visible emissions by taking six-minute visible emission readings for EUWESTAUXBOILER pursuant to the schedule outlined in Appendix 3.5-1. The VE reader shall take each visible emission reading during routine operating conditions. Multiple stacks may be observed simultaneously. If visible emissions are present, the procedures outlined in Appendix 3.5-1 shall be implemented, and the permittee shall maintain a written record of the corrective actions taken. The permittee may monitor visible emissions for EUWESTAUXBOILER from SV001-025 in a manner satisfactory to the District Supervisor.² **(R 336.1201(3), R 336.1301, R 336.1303)**
2. The permittee shall keep, in a manner satisfactory to the District Supervisor, records of all visible emission readings for EUWESTAUXBOILER. At a minimum, records shall include the date, time, name of observer/reader, whether the reader is certified, and status of visible emissions. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1201(3), R 336.1301, R 336.1303)**
3. The permittee shall maintain the following records on a monthly basis:
 - a. Hours of operation of EUWESTAUXBOILER² **(R 336.1201(3))**
 - b. Total volume of oil fuels consumed in EUWESTAUXBOILER, by type, in gallons² **(40 CFR 63.7555(a)(3), 40 CFR 63.7525(k), R 336.1201(3))**
 - c. Heating value of oil fuels, as fired, expressed in Btu per gallon² **(40 CFR 63.7555(a)(3), R 336.1201(3))**
 - d. Heat input from oil fuels, expressed in MMBtu per gallon² **(40 CFR 63.7555(a)(3), R 336.1201(3))**
 - e. Sulfur content of oil fuels, expressed as a percentage by weight² **(R 336.1201(3))**
 - f. Annual capacity factor for EUWESTAUXBOILER² **(40 CFR 63.7555(a)(3))**
4. The permittee must keep 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 tune-up compliance report that permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.7555(a)(1))**
5. 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 two 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 three years. **(40 CFR 63.7560(a), (b), and (c))**

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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 within 60 days following last date of test. **(R 336.1213(3)(c), R 336.2001(5))**
5. The permittee must submit the Notification of Compliance Status according to the requirements in 40 CFR 63.7545(e). **(40 CFR 63.7530(f))**
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 tune-up was completed and must be postmarked or submitted no later than March 15 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 15 of the year following the 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 compliance 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))**
7. The permittee must include the following information required in the boiler tune-up 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 subject to only the requirement to conduct an annual, biennial, or five-year tune-up according to 40 CFR 63.7540(a)(10), (11), or (12) respectively. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a five-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))**
 - f. The total operating time during the reporting period. **(40 CFR 63.7550(c)(5)(iv))**
8. 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. The notification must identify the following: **(40 CFR 63.7545(h))**
 - a. The name of the owner or operator of the affected source, as defined in 40 CFR 63.7490, the location of the source, the boiler(s) and process heater(s) that have switched fuels, were physically changed, and the date of the notice. **(40 CFR 63.7545(h)(1))**
 - b. The currently applicable subcategory under 40 CFR Part 63 Subpart DDDDD. **(40 CFR 63.7545(h)(2))**
 - c. The date upon which the fuel switch or physical change occurred. **(40 CFR 63.7545(h)(3))**

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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. SV001-025	144 ²	220 ²	R 336.1201(3)

IX. OTHER REQUIREMENT(S)

1. 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 DDDDD, as they apply to EUWESTAUXBOILER.² **(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).

**EU-GDF
 EMISSION UNIT CONDITIONS**

DESCRIPTION

A new (placed into operation on or after July 1, 1979) gasoline underground storage tank of 2,500-gallon capacity (9.46 cubic meters) at a gasoline dispensing facility (GDF). This emission unit is exempt from the requirements of Rule 336.1201 pursuant to R 336.1278 and per R 336.1284(2)(g)(ii).

Commented [ADT2]: DTE requests to add this EU description change to specify that is tank is located underground.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Vapor balance system

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The stationary vessel shall be equipped with a permanent submerged fill pipe. **(R 336.1703(1))**
2. The stationary vessel shall be controlled by a vapor balance system or an equivalent control system approved by the department. The vapor balance system shall capture displaced gasoline vapor and air via a vaportight collection line and shall be designed to return not less than 90% by weight of the displaced gasoline vapor from the stationary vessel to the delivery vessel. **(R 336.1703(2))**
3. The stationary vessel shall be equipped, maintained, or controlled with both of the following: **(R 336.1703(3))**
 - a. An interlocking system or procedure to ensure that the vaportight collection line is connected before any gasoline can be loaded.
 - b. A device to ensure that the vaportight collection line shall close upon disconnection so as to prevent release of gasoline vapor.

V. TESTING/SAMPLING

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

NA

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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))

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)

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).

**EUEMGFIREPUMP
EMISSION UNIT CONDITIONS****DESCRIPTION**

Emergency fire pump engine exempt from R 336.1201 per R 336.1285(2)(g) for internal combustion engines that have less than 10,000,000 Btu/hour maximum heat input. This engine is subject to 40 CFR Part 60 Subpart III Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. This engine was manufactured on April 14, 2016. This engine is a turbo-charged, air-cooled, 4-cycle, and in-line 6-cylinder diesel compression ignition engine with 8.9-liter total cylinder displacement. Maximum heat input of 1.98 MMBtu/hr. The engine nameplate rates the engine output at 260 HP at 1760 RPM. In accordance with 40 CFR 60.4200, the construction commenced on April 18, 2016.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NMHC + NOx	4.0 g/KW-hr. or 3.0 g/HP-hr.	Average of three 1-hour runs per test protocol.	EUEMGFIREPUMP	SC V.1 SC VI.3	40 CFR 60.4205(c)
2. PM	0.20 g/KW-hr. or 0.15 g/HP-hr.	Average of three 1-hour (60-minute minimum) runs per test protocol.	EUEMGFIREPUMP	SC V.1 SC VI.3	40 CFR 60.4205(c)

II. MATERIAL LIMIT(S)

- The permittee shall burn only diesel fuel with the maximum sulfur content of 15 ppm (0.0015 percent) by weight, and either minimum cetane index of 40 or maximum aromatic content of 35 volume percent. **(40 CFR 60.4207(b), 40 CFR 80.510(b))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

- For the engine to be operated as a certified engine, the permittee shall meet the following requirements for EUEMGFIREPUMP: **(40 CFR 60.4211(a), (c) and (g))**
 - Operate and maintain the certified engine according to the manufacturer's emission related written instructions, and
 - Change only those emission related settings that are permitted by the manufacturer.

If the permittee does not operate and maintain the certified engine according to the requirements in this condition, the engine will be considered to operate as a non-certified engine and SC III.2 must be followed.

- If the certified engine is not operated as a certified engine as described in SC III.1, the permittee must demonstrate compliance as follows: **(40 CFR 60.4211(g))**
 - The permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.
 - The permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within one year of startup, or within one year after an engine and control device is no

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longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within one year after the permittee changes emission-related settings in a way that is not permitted by the manufacturer.

3. There is no time limit on the use of EUEMGFIREPUMP in emergency situations. **(40 CFR 60.4211(f)(1))**
4. EUEMGFIREPUMP may be operated up to 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but 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 ICE beyond 100 hours per calendar year. **(40 CFR 60.4211(f)(2)(i))**
5. EUEMGFIREPUMP 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.4. **(40 CFR 60.4211(f)(3))**
6. The permittee shall operate and maintain EUEMGFIREPUMP to meet the emission standards as required by SC I.1 and I.2, over the entire life of the engine. **(40 CFR 60.4206)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee must install a non-resettable hour meter, to track the operating hours, prior to startup of the engine. **(40 CFR 60.4209(a))**
2. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of 40 CFR 60.4211. **(40 CFR 60.4211(c))**

V. TESTING/SAMPLING

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

1. If EUEMGFIREPUMP is operated in a non-certified manner, the permittee shall conduct an initial performance test for EUEMGFIREPUMP within one year of beginning operation in a non-certified manner to demonstrate compliance with the emission limits in SC I.1.1 and 1.2. 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 final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(40 CFR 60.4205(c), 40 CFR 60.4211(g), 40 CFR 60.4212, 40 CFR Part 60 Subpart IIII)**

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 must keep records, on a monthly basis, of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee must record the time of operation of the engine and the reason the engine was in operation during that time. **(40 CFR 60.4214(b))**
2. The permittee shall maintain, in a manner satisfactory to the AQD District Supervisor, a complete record of fuel specifications and/or a fuel oil analysis for each delivery, or storage tank, of fuel oil. These records may include purchase records for ASTM specification fuel oil, specifications or analyses provided by the vendor at the time of delivery, analytical results from laboratory testing, or any other record adequate to demonstrate compliance with SC.II.1. The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 60.4207, 40 CFR 80.510(b))**
3. The permittee shall keep, in a manner satisfactory to the AQD District Supervisor, the following records indicating that EUEMGFIREPUMP meets the applicable emission limitations contained in SC I1 and I.2. **(40 CFR 60.4211(g)(2))**

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- a. If the certified engine is being operated in a certified manner, the permittee shall keep engine certification documentation and records of maintenance activities for EUEMGFIREPUMP.
- b. If the certified engine is operated in a non-certified manner, the permittee shall keep a maintenance plan, records of maintenance activities performed, and the results of the one-time stack test for EUEMGFIREPUMP.

See Appendix 7-1

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. Permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD within 60 days following last date of test. **(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
NA	NA	NA	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, Subpart A and Subpart IIII, as they apply to EUEMGFIREPUMP. **(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, Subpart A and Subpart ZZZZ, as they apply to EUEMGFIREPUMP, and per 63.6590(c)(7), shall meet those requirements by meeting the requirements of 40 CFR 60 Subpart IIII. **(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).

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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.

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
FGCOLDCLEANERS	Any new cold cleaner (placed into operation after July 1, 1979 that is exempt from NSR permitting by R 336.1281(h) or R 336.1285(r)(iv).	EUCOLDCLEANER EU03-4
FGRULE290	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201; pursuant to Rules 278, 278a and 290.	EURULE290

**FGCOLDCLEANERS
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 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: EUCOLDCLEANER, EU03-4 machine shop parts cleaner.

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))**

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- 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

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-RULE 290
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278, 278a and 290. Emission units installed/modified before December 20, 2016, may show compliance with Rule 290 in effect at the time of installation/modification.

Emission Units installed on or after December 20, 2016: EU-RULE290 and any future emission unit that meets the requirements of this flexible group.

Emission Units installed prior to December 20, 2016: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

1. Each emission unit that emits only noncarcinogenic volatile organic compounds or noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, if the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively. **(R 336.1290(2)(a)(i))**
2. Any emission unit for which CO2 equivalent emissions are not more than 6,250 tons per month and for which the total uncontrolled or controlled emissions of all other air contaminants are not more than 1,000 or 500 pounds per month, respectively, and all the following criteria listed below are met: **(R 336.1290(2)(a)(ii))**
 - a. For toxic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 0.04 micrograms per cubic meter and less than 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(2)(a)(ii)(A))**
 - b. For toxic air contaminants with initial risk screening levels greater than or equal to 0.04 microgram per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(2)(a)(ii)(B))**
 - c. The emission unit shall not emit any toxic air contaminants, excluding non-carcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with an initial threshold screening level or initial risk screening level less than 0.04 microgram per cubic meter. **(R 336.1290(2)(a)(ii)(C))**
 - d. For total mercury, the uncontrolled or controlled emissions shall not exceed 0.01 pounds per month from emission units installed on or after December 20, 2016. **(R 336.1290(2)(a)(ii)(D))**
 - e. For lead, the uncontrolled or controlled emissions shall not exceed 16.7 pounds per month from emission units installed on or after December 20, 2016. **(R 336.1290(2)(a)(ii)(E))**
3. Any emission unit that emits only particulate air contaminants without initial risk screening levels and other air contaminants that are exempted under Rule 290(2)(a)(i) or Rule 290(2)(a)(ii), if all the following provisions are met: **(R 336.1290(2)(a)(iii))**

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- a. The particulate emissions are controlled by an appropriately designed and operated fabric filter collector or an equivalent control system which is designed to control particulate matter to a concentration of less than or equal to 0.01 pound of particulate per 1,000 pounds of exhaust gases and which does not have exhaust gas flow rate more than 30,000 actual cubic feet per minute. **(R 336.1290(2)(a)(iii)(A))**
- b. The visible emissions from the emission unit are not more than 5% opacity in accordance with the methods contained in Rule 303. **(R 336.1290(2)(a)(iii)(B))**
- c. The initial threshold screening level for each particulate toxic air contaminant, excluding nuisance particulate, is more than 2.0 micrograms per cubic meter. **(R 336.1290(2)(a)(iii)(C))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The provisions of Rule 290 apply to each emission unit that is operating pursuant to Rule 290. **(R 336.1290)**
2. The following requirements apply to emission units installed on or after December 20, 2016, utilizing control equipment:
 - b. An air cleaning device for volatile organic compounds shall be installed, maintained, and operated in accordance with the manufacturer's specifications. Examples include the following **(R 336.1290(2)(b)(i), R 336.1910)**
 - i. Oxidizers and condensers equipped with a continuously displayed temperature indication device.
 - ii. Wet scrubbers equipped with a liquid flow rate monitor.
 - iii. Dual stage carbon absorption where the first canister is monitored for breakthrough and replaced if breakthrough is detected.
 - c. An air cleaning device for particulate matter shall be installed, maintained, and operated in accordance with the manufacturer's specifications or the permittee shall develop a plan that provides to the extent practicable for the maintenance and operation of the equipment in the manner consistent with good air pollution control practices for minimizing emissions. It shall also be equipped to monitor appropriate indicators of performance, for example, static pressure drop, water pressure, and water flow rate. **(R 336.1290(2)(b)(ii), R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

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. The permittee shall maintain records of the following information for each emission unit for each calendar month using the methods outlined in the DEQ, AQD Rule 290; Permit to Install Exemption Record form (EQP 3558) or in a format that is acceptable to the AQD District Supervisor. **(R 336.1213(3))**
 - a. Records identifying each air contaminant that is emitted. **(R 336.1213(3))**
 - b. Records identifying if each air contaminant is controlled or uncontrolled. **(R 336.1213(3))**

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- c. Records identifying if each air contaminant is either carcinogenic or non-carcinogenic. **(R 336.1213(3))**
 - d. Records identifying the ITSL and IRSL, if established, of each air contaminant that is being emitted under the provisions of Rules 290(2)(a)(ii) and (iii). **(R 336.1213(3))**
 - e. Records of material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions in sufficient detail to demonstrate that the actual emissions of the emission unit meet the emission limits outlined in this table and Rule 290. Volatile organic compound emissions from units installed on or after December 20, 2016, shall be calculated using mass balance, generally accepted engineering calculations, or another method acceptable to the AQD District Supervisor. **(R 336.1213(3), R 336.1290(2)(d))**
 - f. Records are maintained on file for the most recent 2-year period and are made available to the department upon request. **(R 336.1213(3), R 336.1290(2)(e))**
2. The permittee shall maintain an inventory of each emission unit that is exempt pursuant to Rule 290. This inventory shall include the following information. **(R 336.1213(3))**
- a. The permittee shall maintain a written description of each emission unit as it is maintained and operated throughout the life of the emission unit. **(R 336.1290(2)(c), R 336.1213(3))**
 - b. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(2)(a)(iii), the permittee shall maintain a written description of the control device, including the designed control efficiency and the designed exhaust gas flow rate. **(R 336.1213(3))**
3. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(2)(a)(iii), the permittee shall perform a monthly visible emission observation of each stack or vent during routine operating conditions. This observation need not be performed using Method 9. The permittee shall keep a written record of the results of each observation. **(R 336.1213(3))**

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))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

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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. Acronyms and Abbreviations**

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 _{2e}	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 Environmental Quality	°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
MDEQ	Michigan Department of Environmental Quality	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 psig.

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Appendix 2-1. 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 3-1. Monitoring Requirements

The following monitoring procedures, methods, or specifications provide the details for the monitoring requirements identified and referenced in EUBOILER1, EUEASTAUXBOILER AND EUWESTAUXBOILER.

3-1.1. Fuel Oil Sulfur Monitoring

For EUBOILER1 and EUWESTAUXBOILER, the permittee shall maintain a complete record of fuel oil specifications and/or fuel analysis for each delivery, or storage tank, of fuel oil. These records may include purchase records for ASTM specification fuel oil, specifications or analyses provided by the vendor at the time of delivery, analytical results from laboratory testing, or any other records adequate to demonstrate compliance with the percent sulfur limit in fuel oil. The fuel analyses values shall be used to calculate SO₂ emission rates (lbs/hr) from EUWESTAUXBOILER.

3-1.2. Continuous Emission Monitoring Systems (SO₂)

The Continuous Emissions Monitoring Systems (CEMS) performance specifications defined in 40 CFR Part 75, Appendix B are adopted. The Certified SO₂ monitors will be used to determine sulfur dioxide emissions. The data reduction procedures defined in R 336.2175 will be used to determine SO₂ lbs/MMBTU. The CEMS data recording system will be capable of generating a monthly average of SO₂ emissions as the average of the one-hour periods reported for Part 75 for the previous month.

3-1.3. Continuous Emissions Monitoring System (Title IV)

The CEMS performance specifications defined in 40 CFR Part 75, Appendix B are adopted.

Methods of measurement, frequency of measurement and record keeping methods for CEMS required under 40 CFR 75 are outlined in the most recent version of the Acid Rain Program – Greenwood Energy Center Monitoring Plan.

Data Reporting: AQD may approve alternative data reporting or reduction procedures if it can be demonstrated that such procedures are at least as accurate as the procedures identified in R 336.2175.

3-1.4. Continuous Opacity Monitoring Systems

The Continuous Opacity Monitoring System (COMS) performance specifications defined in 40 CFR Part 60, Appendix B are adopted.

Cycling time for opacity: The COMS must complete a minimum of one cycle of sampling/analysis for each successive ten-second period and one cycle of data recording for each successive six-minute period. **(R 336.2152)**

Zero and Drift: The COMS must be subject to the manufacturer's zero and span check at least once daily. **(R 336.2153)**

Location: The location of the COMS or the monitoring devices must be such that representative measurements of emissions or process parameters are obtained. **(R 336.2155)**

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Alternative Systems: AQD may approve the use of an alternative monitoring system if one is available that meets COMS objectives and if, because of physical limitations or other reasons, COMS cannot be installed or give accurate measurements. **(R 336.2159)**

Monitoring and reporting requirements shall not apply during any period of monitoring system malfunction if it can be demonstrated to the satisfaction of AQD that: the cause of the malfunction could not have been avoided by any reasonable action and necessary repairs are being made as expeditiously as practicable. **(R 336.2190)**

3-1.5. Auxiliary Boiler Visible Emission Procedure

The permittee shall perform a non-certified visible emission observation of the Auxiliary Boiler common stack when an Auxiliary Boiler is combusting oil or natural gas according to the following operation schedule:

Number of Operating Hours per Week	Number of Observations per week
0 - 12	0
12 – 36	1
36 – 60	2
60 – 84	3
Etc.	+1, to a maximum of 7

Upon noting visible emissions during the non-certified visible emissions observation specified in EUEASTAUXBOILER OR EUWESTAUXBOILER Special Condition VI.1, the permittee shall initiate any of the following corrective actions until visible emissions return to permissible limits:

1. Conduct a certified visible emissions observation in compliance with EPA Method 9 -- Visual Determination of the Opacity of Emissions from Stationary Sources (40 CFR Part 60, Appendix A-4) to determine if the six minute average emissions exceeded the 20 percent opacity limit (except for one, six-minute period of 27 percent once per hour).
2. Inspect auxiliary boiler and operating parameters for possible cause of visible emissions and implement changes (if any).
3. Perform another non-certified visible emission observation of the exhaust stack to determine if visible emissions have stopped.

Once the visible emissions have stopped or are shown to be within permissible limits by certified Method 9 reading, then the corrective action situation is complete. If the corrective actions are not sufficient to reduce the visible emissions to permissible levels, the boiler shall be shut-down

Appendix 4-1. 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 5-1. Testing Procedures

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

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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-B6145-2011. 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-B6145-2011a is being reissued as Source-Wide PTI No. MI-PTI-B6145-2018.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
129-13	201400072	IB MACT CONDITIONS FOR ROP	EUBOILER1

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 MDEQ, AQD, Report Certification form (EQP 5736) and MDEQ, 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

The permittee shall use formats approved by the AQD District Supervisor for all other reporting. The MDEQ Report Certification form (EQP 5736) shall accompany all such reports (e.g., MAERS submittals).

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Appendix 9-1. Acid Rain Permit

Commented [ADT3]: EGLE to update ARP



Michigan Department of Environmental Quality
Air Quality Division

PHASE II ACID RAIN PERMIT
Permit No. MI-AR-6035-2018

Permittee Greenwood Energy Center
Address 7000 Kilgore Rd., Avoca, MI
SRN B6145
ORIS code 6035
Issue Date May 17, 2018
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-B6145-2018

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.

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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 Environmental Quality, 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:

Brian Carley
Environmental Quality Specialist
Michigan Department of Environmental Quality
Air Quality Division, Jackson District Office
301 East Louis Glick Highway
Jackson, Michigan 49201-1556
Telephone: (517) 780-7843
Facsimile: (517) 780-7855

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

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Terms and Conditions:

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

		20XX	20XX	20XX	20XX	20XX
Unit 1	SO ₂ allowances	541	541	541	541	541

		20XX	20XX	20XX	20XX	20XX
Unit CTG 11-1	SO ₂ allowances	This affected unit shall hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c) of this chapter) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and comply with the applicable Acid Rain emissions limitation for sulfur dioxide in accordance with 40 CFR 72.9 (c).				

		20XX	20XX	20XX	20XX	20XX
Unit CTG 11-2	SO ₂ allowances	This affected unit shall hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c) of this chapter) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and comply with the applicable Acid Rain emissions limitation for sulfur dioxide in accordance with 40 CFR 72.9 (c).				

		20XX	20XX	20XX	20XX	20XX
Unit CTG 12-1	SO ₂ allowances	This affected unit shall hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c) of this chapter) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and comply with the applicable Acid Rain emissions limitation for sulfur dioxide in accordance with 40 CFR 72.9 (c).				

Comments, notes and justifications regarding permit decisions, and changes made to the permit application forms during the review process: None

Permit Application: (attached)

Phase II Acid Rain Permit application submitted October 7, 2015

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United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258
Approval expires 11/30/2012

Acid Rain Permit Application

For more information, see instructions and 40 CFR 72.30 and 72.31.

This submission is: New Revised for ARP permit renewal

STEP 1

Identify the facility name, State, and plant (ORIS) code.

Greenwood Energy Center	MI	6035
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STEP 2

Enter the unit ID# for every affected unit at the affected source in column "a."

a	b
Unit ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)
1	Yes
CTG 11-1	Yes
CTG 11-2	Yes
CTG 12-1	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes



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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).

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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

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submission of a new certificate of representation changing the designated representative;

STEP 3, Cont'd. Recordkeeping and Reporting Requirements, 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:

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STEP 3, Cont'd.

(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

Effect on Other Authorities, 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.

STEP 4
Read the certification statement, sign, and date.

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 Warren, Designated Representative	
Signature: 	Date: 9-16-2015

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Appendix 10-1. Transport Rule (TR) Trading Program Title V Requirements

Commented [ADT4]: EGLE to update this Appendix for CSAPR. Change all TR references to CSAPR.

Description of TR Monitoring Provisions

The TR 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 TR NOx Annual Trading Program, TR NOx Ozone Season Trading Program, and TR 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) and 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: Unit 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 and 40 CFR Part 75, Subpart H

Unit ID: CTG 11-1	
Parameter	Monitoring Methodology
SO ₂	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR Part 75, appendix D
NO _x	Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR Part 75, appendix E
Heat Input	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR Part 75, appendix D

Unit ID: CTG 11-2	
Parameter	Monitoring Methodology
SO ₂	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR Part 75, appendix D
NO _x	Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR Part 75, appendix E
Heat Input	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR Part 75, appendix D

Unit ID: CTG 12-2	
Parameter	Monitoring Methodology
SO ₂	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR Part 75, appendix D
NO _x	Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR Part 75, appendix E
Heat Input	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR Part 75, appendix D

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1. 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 (TR NO_x Annual Trading Program), 97.530 through 97.535 (TR NO_x Ozone Season Trading Program), and 97.630 through 97.635 (TR 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 TR trading programs.
2. 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>.
3. 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 (TR NO_x Annual Trading Program), 97.535 (TR NO_x Ozone Season Trading Program), and/or 97.635 (TR 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>.
4. Owners and operators that want to use an alternative to any monitoring, recordkeeping, or reporting requirement under 40 CFR 97.430 through 97.434 (TR NO_x Annual Trading Program), 97.530 through 97.534 (TR NO_x Ozone Season Trading Program), and/or 97.630 through 97.634 (TR 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 (TR NO_x Annual Trading Program), 97.535 (TR NO_x Ozone Season Trading Program), and/or 97.635 (TR 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>.
5. The descriptions of monitoring applicable to the unit included above meet the requirement of 40 CFR 97.430 through 97.434 (TR NO_x Annual Trading Program), 97.530 through 97.534 (TR NO_x Ozone Season Trading Program), and 97.630 through 97.634 (TR 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: TR 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.

(1) The owners and operators, and the designated representative, of each TR NO_x Annual source and each TR 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).

(2) The emissions data determined in accordance with 40 CFR 97.430 through 97.435 shall be used to calculate allocations of TR NO_x Annual allowances under 40 CFR 97.411(a)(2) and (b) and 97.412 and to determine compliance with the TR 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) TR 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 TR NO_x Annual source and each TR NO_x Annual unit at the source shall hold, in the source's

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compliance account, TR 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 TR NO_x Annual units at the source.

- (ii). If total NO_x emissions during a control period in a given year from the TR NO_x Annual units at a TR NO_x Annual source are in excess of the TR NO_x Annual emissions limitation set forth in paragraph (c)(1)(i) above, then:

- (A). The owners and operators of the source and each TR NO_x Annual unit at the source shall hold the TR NO_x Annual allowances required for deduction under 40 CFR 97.424(d); and
- (B). The owners and operators of the source and each TR 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) TR NO_x Annual assurance provisions.

- (i). If total NO_x emissions during a control period in a given year from all TR NO_x Annual units at TR 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) TR 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 TR NO_x Annual units at TR 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 TR 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 TR NO_x Annual units at TR 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 TR NO_x Annual units at TR 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 TR NO_x Annual units at TR 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 TR 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 TR 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.

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- (3) Compliance periods.
- (i). A TR 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 TR 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 TR 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 TR NO_x Annual allowance that was allocated for such control period or a control period in a prior year.
 - (ii). A TR 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 TR 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 TR 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 TR 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 TR 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 TR 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 TR NO_x Annual allowances in accordance with 40 CFR Part 97, Subpart AAAAA.
 - (2) This permit incorporates the TR 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 TR 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 TR NO_x Annual source and each TR 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 TR 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 TR NO_x Annual Trading Program.
- (2) The designated representative of a TR NO_x Annual source and each TR NO_x Annual unit at the source shall make all submissions required under the TR 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.

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(f) Liability.

- (1) Any provision of the TR NO_x Annual Trading Program that applies to a TR NO_x Annual source or the designated representative of a TR NO_x Annual source shall also apply to the owners and operators of such source and of the TR NO_x Annual units at the source.
- (2) Any provision of the TR NO_x Annual Trading Program that applies to a TR NO_x Annual unit or the designated representative of a TR NO_x Annual unit shall also apply to the owners and operators of such unit.

(g) Effect on other authorities.

No provision of the TR 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 TR NO_x Annual source or TR 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: TR NO_x Ozone Season Trading Program Requirements (40 CFR 97.506)

(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 97.513 through 97.518.

(b) Emissions monitoring, reporting, and recordkeeping requirements.

- (1) The owners and operators, and the designated representative, of each TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.530 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.531 (initial monitoring system certification and recertification procedures), 97.532 (monitoring system out-of-control periods), 97.533 (notifications concerning monitoring), 97.534 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.535 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).
- (2) The emissions data determined in accordance with 40 CFR 97.530 through 97.535 shall be used to calculate allocations of TR NO_x Ozone Season allowances under 40 CFR 97.511(a)(2) and (b) and 97.512 and to determine compliance with the TR NO_x Ozone Season 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 97.530 through 97.535 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) TR NO_x Ozone Season emissions limitation.
 - (i). As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall hold, in the source's compliance account, TR NO_x Ozone Season allowances available for deduction for such control period under 40 CFR 97.524(a) in an amount not less than the tons of total NO_x emissions for such control period from all TR NO_x Ozone Season units at the source.
 - (ii). If total NO_x emissions during a control period in a given year from the TR NO_x Ozone Season units at a TR NO_x Ozone Season source are in excess of the TR NO_x Ozone Season emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - (A). The owners and operators of the source and each TR NO_x Ozone Season unit at the source shall hold the TR NO_x Ozone Season allowances required for deduction under 40 CFR 97.524(d); and
 - (B). The owners and operators of the source and each TR NO_x Ozone Season 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 BBBBB and the Clean Air Act.

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- (2) TR NO_x Ozone Season assurance provisions.
- (i). If total NO_x emissions during a control period in a given year from all TR NO_x Ozone Season units at TR NO_x Ozone Season 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) TR NO_x Ozone Season allowances available for deduction for such control period under 40 CFR 97.525(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 97.525(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 TR NO_x Ozone Season units at TR NO_x Ozone Season 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 TR NO_x Ozone Season 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 TR NO_x Ozone Season units at TR NO_x Ozone Season 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 97.510(a) and the state's variability limit under 40 CFR 97.510(b).
 - (iv). It shall not be a violation of 40 CFR Part 97, Subpart BBBBBB or of the Clean Air Act if total NO_x emissions from all TR NO_x Ozone Season units at TR NO_x Ozone Season 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 TR NO_x Ozone Season units at TR NO_x Ozone Season 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 TR NO_x Ozone Season 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 TR NO_x Ozone Season 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 BBBBBB and the Clean Air Act.
- (3) Compliance periods.
- (i). A TR NO_x Ozone Season 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 97.530(b) and for each control period thereafter.
 - (ii). A TR NO_x Ozone Season 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 97.530(b) and for each control period thereafter.
- (4) Vintage of allowances held for compliance.
- (i). A TR NO_x Ozone Season allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR NO_x Ozone Season allowance that was allocated for such control period or a control period in a prior year.

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- (ii). A TR NO_x Ozone Season 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 TR NO_x Ozone Season 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 TR NO_x Ozone Season 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 BBBBB.
- (6) Limited authorization. A TR NO_x Ozone Season 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 TR NO_x Ozone Season Trading Program; and
 - (ii). Notwithstanding any other provision of 40 CFR Part 97, Subpart BBBBB, 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 TR NO_x Ozone Season 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 TR NO_x Ozone Season allowances in accordance with 40 CFR Part 97, Subpart BBBBB.
 - (2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.530 through 97.535, 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 TR 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 97.506(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 TR NO_x Ozone Season source and each TR NO_x Ozone Season 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 97.516 for the designated representative for the source and each TR NO_x Ozone Season 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 97.516 changing the designated representative.
 - (ii). All emissions monitoring information, in accordance with 40 CFR Part 97, Subpart BBBBB.
 - (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 TR NO_x Ozone Season Trading Program.
 - (2) The designated representative of a TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall make all submissions required under the TR NO_x Ozone Season Trading Program, except as provided in 40 CFR 97.518. 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 TR NO_x Ozone Season Trading Program that applies to a TR NO_x Ozone Season source or the designated representative of a TR NO_x Ozone Season source shall also apply to the owners and operators of such source and of the TR NO_x Ozone Season units at the source.
 - (2) Any provision of the TR NO_x Ozone Season Trading Program that applies to a TR NO_x Ozone Season unit or the designated representative of a TR NO_x Ozone Season unit shall also apply to the owners and operators of such unit.
- (g) Effect on other authorities.**

No provision of the TR NO_x Ozone Season Trading Program or exemption under 40 CFR 97.505 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a TR NO_x Ozone Season

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source or TR NO_x Ozone Season 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: TR 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 TR SO₂ Group 1 source and each TR 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 TR SO₂ Group 1 allowances under 40 CFR 97.611(a)(2) and (b) and 97.612 and to determine compliance with the TR 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) TR 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 TR SO₂ Group 1 source and each TR SO₂ Group 1 unit at the source shall hold, in the source's compliance account, TR 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 TR SO₂ Group 1 units at the source.
 - (ii). If total SO₂ emissions during a control period in a given year from the TR SO₂ Group 1 units at a TR SO₂ Group 1 source are in excess of the TR SO₂ Group 1 emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - (A). The owners and operators of the source and each TR SO₂ Group 1 unit at the source shall hold the TR SO₂ Group 1 allowances required for deduction under 40 CFR 97.624(d); and
 - (B). The owners and operators of the source and each TR 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 CCCC and the Clean Air Act.
- (2) TR SO₂ Group 1 assurance provisions.
 - (i). If total SO₂ emissions during a control period in a given year from all TR SO₂ Group 1 units at TR 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) TR 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—

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- (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 TR SO₂ Group 1 units at TR 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 TR 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 TR SO₂ Group 1 units at TR 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 TR SO₂ Group 1 units at TR 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 TR SO₂ Group 1 units at TR 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 TR 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 TR 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 TR 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 TR 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 TR 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 TR SO₂ Group 1 allowance that was allocated for such control period or a control period in a prior year.
 - (ii). A TR 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 TR 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 TR 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 TR 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 TR 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.

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(7) Property right. A TR 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 TR SO₂ Group 1 allowances in accordance with 40 CFR Part 97, Subpart CCCCC.
- (2) This permit incorporates the TR 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 Part 75.19), and an alternative monitoring system (pursuant to 40 CFR Part 75, Subpart E). Therefore, the Description of TR 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 TR SO₂ Group 1 source and each TR 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 TR 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 TR SO₂ Group 1 Trading Program.
- (2) The designated representative of a TR SO₂ Group 1 source and each TR SO₂ Group 1 unit at the source shall make all submissions required under the TR 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 TR SO₂ Group 1 Trading Program that applies to a TR SO₂ Group 1 source or the designated representative of a TR SO₂ Group 1 source shall also apply to the owners and operators of such source and of the TR SO₂ Group 1 units at the source.
- (2) Any provision of the TR SO₂ Group 1 Trading Program that applies to a TR SO₂ Group 1 unit or the designated representative of a TR SO₂ Group 1 unit shall also apply to the owners and operators of such unit.

(g) Effect on other authorities.

No provision of the TR 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 TR SO₂ Group 1 source or TR 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.

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SECTION 2 – COMBUSTION TURBINE GENERATORS

Section 2 – Combustion Turbine Generators

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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))**

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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% 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))**

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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.
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))**
 - 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)(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))**

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- e. 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:
 - f. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
 - g. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
 - h. 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))**
 - i. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
 - j. 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))**

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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))**

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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))**
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, MDEQ.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, MDEQ, 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).

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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.

There are no Source-Wide Conditions applicable to Section 2.

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C. EMISSION UNIT CONDITIONS

There are no terms and conditions that are specific to individual emission units in the Emission Unit Summary Table.

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
EUCTG11-1	Combustion Turbine Generator Peaking Unit No. 11-1 (82.4 MW). Natural gas fired, simple-cycle turbine with dry low-NOx combustor.	01-01-98/ 10-23-08	FG-CTGS
EUCTG11-2	Combustion Turbine Generator Peaking Unit No. 11-2 (82.4 MW). Natural gas fired, simple-cycle turbine with dry low-NOx combustor.	01-01-98/ 10-23-08	FG-CTGS
EUCTG12-1	Combustion Turbine Generator Peaking Unit No. 12-1 (82.4 MW). Natural gas fired, simple-cycle turbine with dry low-NOx combustor.	01-01-98/ 10-23-08	FG-CTGS

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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.

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-CTGS	Three natural gas-fired combustion turbine generator peaking units, each <u>nominally</u> rated at 82.4 MW <u>at ISO conditions</u> and equipped with dry low-NOx combustors.	EUCTG11-1 EUCTG11-2 EUCTG12-1

Commented [ADT5]: DTE requests to add this FG description change to align this FG description with other DTE facilities.

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FG-CTGS
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Three natural gas-fired combustion turbine generator peaking units, each nominally rated at 82.4 MW at ISO conditions and equipped with dry low-NOx combustors.

Emission Units: EUCTG11-1, EUCTG11-2, and EUCTG12-1

POLLUTION CONTROL EQUIPMENT

The turbines are equipped with dry low-NOx combustors.

I. EMISSION LIMIT(S)

Pollutant	Limit*	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Nitrogen oxides (as nitrogen dioxide) (NOx)	9 ppm dry gas basis at 15% O ₂ and 100% load ²	Averaged over operating hours in a calendar day	Each turbine	SC V.1 Appendix 7-2	40 CFR 52.21(j) and (x)(i)-(iii)
	522 tons per year ²	12-month rolling total determined at the end of each calendar month	FG-CTGS	SC V.1 Appendix 7-2	R 336.1205(1)(a) and (b) 40 CFR 60.332(a)(1)
2. Carbon monoxide (CO)	25 ppm by volume, dry gas basis at 15%O ₂ ²	Averaged over operating hours in a calendar day	Each turbine	SC V.2 Appendix 7-2	40 CFR 52.21 R 336.1205(1) and (30)
	856 tons per year ²	12-month rolling total determined at the end of each calendar month	FG-CTGS	SC V.2 Appendix 7-2	
3. Formaldehyde (HCHO)	9.9 tons per year ²	12-month rolling total determined at the end of each calendar month	FG-CTGS	SC V.4 Appendix 7-2	R 336.1205(2) R 336.1225
4. Visible emissions (Opacity)	10% six-minute average opacity ²	At least once every 1,812 hours of operation	Each turbine	SC V.3	40 CFR 52.21 R 336.1301
5. Particulate matter (PM-10)	9.0 pounds per hour ²	Averaged over operating hours in a calendar day	Each turbine	SC V.4 Appendix 7-2	40 CFR 52.21(j) R 336.1205(1)(a) and (b)
	102 tons per year ²	12-month rolling total determined at the end of each calendar month	FG-CTGS	SC V.4 Appendix 7-2	40 CFR 52.21(j) R 336.1205(1)(a) and (b)

*These emission limits do not apply during start-up, shut-down, or malfunction events.²

Commented [ADT6]: DTE requests to add this FG description change to align this FG description with other DTE facilities.

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II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Natural gas	27,300 million cubic feet ²	12-month rolling total determined at the end of each calendar month	FG-CTGS	SC VI.1	40 CFR 52.21 (j) & (x)(i) – (iii) R 336.1205(1) (a) and (b) R 336.1225

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall minimize the NOx, CO and PM-10 emission rates during startup, shutdown, and malfunction conditions in accordance with the approved Emission Minimization Plan. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. Alternate plans or modifications to the approved plan must be approved by the District Supervisor. Unless notified by the District Supervisor within 30 business days after plan submittal, the plan shall be deemed approved.² (R 336.1911, R 336.1912 and 40 CFR 52.21(j))
2. The total hours for startup and shutdown for FG-CTGS shall not exceed 500 hours per turbine per 12-month rolling time period as determined at the end of each calendar month. Startup is defined as the period of time from initiation of combustion firing until the unit reaches steady state operation (i.e., when pre-mix conditions are achieved). Shutdown is defined as that period of time from the initial lowering of the turbine output, with the intent to shut down, until the point at which the combustion process has stopped.² (40 CFR 52.21(j))
3. The permittee shall not operate FG-CTGS unless all provisions of the federal Prevention of Significant Deterioration regulations, 40 CFR 52.21, are met.² (40 CFR 52.21)
4. The permittee shall burn only pipeline quality natural gas in FG-CTGS.² (R 336.1225, R 336.1702(a), 40 CFR 60.333(b), and 40 CFR 52.21(x)(6)(iv))

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each turbine included in FG-CTGS with a dry low-NOx combustor.² (R 336.1910 and 40 CFR 52.21(x)(6)(iv) and (7)(iii))

V. TESTING/SAMPLING

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

1. In accordance with 40 CFR 75, Appendix E, the permittee shall retest the NOx emission rate of each turbine at least once every 20 calendar quarters. Testing shall be performed using test methods specified in 40CFR60.335 and 40 CFR 60, Appendix A. The permittee shall perform NOx testing for at least four (4) approximately equally spaced operating load points, ranging from the maximum operating load to the minimum operating load. 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. Not less than 7 days before the test is conducted, permittee shall notify the AQD Technical Programs Unit and District Supervisor in writing of the time and place of the performance test. 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, 40 CFR Subparts GG, 40 CFR Part 60, Appendix A, 40 CFR 75 Appendix E, 40 CFR 75, 40 CFR 60.8 and 60.335)
2. Permittee shall verify CO emission rates from each turbine in accordance with Department requirements. Testing must be done for each turbine in conjunction with NOx testing and under the same operating load and test

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averaging period requirements. Testing shall be performed using test methods specified in 40 CFR 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. Not less than 7 days before the test is conducted, permittee shall notify the AQD Technical Programs Unit and District Supervisor in writing of the time and place of the performance test. 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)

3. Compliance with the visible emissions limit shall be determined at least once per 1,812 hours of operation per turbine using Federal Reference Method 9 (40 CFR Part 60, Appendix A).² (R 336.1301 and 40 CFR 52.21)
4. Emission factors developed from previous formaldehyde and PM-10 stack test will be used along with hourly fuel usage data to demonstrate compliance with annual limits.² (R 336.2001, R 336.2003, R 336.2004)

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall continuously monitor, and record hourly, the natural gas usage from each turbine included in FG-CTGS in a manner and with instrumentation acceptable to the District Supervisor, Air Quality Division.² (R 336.1205(1)(a) and (b); 40 CFR 52.21(x)(6)(v))
2. The permittee shall record the total number of start-up and shutdown hours per month for each turbine included in FG-CTGS. Startup and shutdown hours are defined as those periods of time in which the turbine is not operating in a premix mode of operation.² (R 336.1213(3))
3. The permittee shall keep records, for each turbine included in FG-CTGS, of the calendar day average, monthly, and previous 12-month emission calculations for the following pollutants:
 - a. NO_x (R 336.1205(1)(a) and (b), 40 CFR 52.21(x)(6)(v), 40 CFR Part 60, Subpart GG, 40 CFR 75.2(a) and 40 CFR Part 75.1(b))
 - b. CO (R 336.1205(1)(a) and (b), 40 CFR 52.21)
 - c. PM-10 (R 336.1205(1)(a) and (b), 40 CFR 52.21)
 - d. HCHO (R 336.1205(2) and R 336.1225)

All such records and calculations are for the purpose of compliance demonstration and shall be kept on file for a period of at least five years and made available to the AQD upon request.²

See Appendix 7-2

4. Results of the visible emission readings shall be kept on file for a period of at least five years and made available to the AQD upon request.² (R 336.1301 and 40 CFR 52.21)
5. The permittee shall monitor and record the capacity factor of each turbine included in FG-CTGS each calendar year. If the capacity factor for each individual turbine exceeds 20 percent in any calendar year, or exceeds 10 percent averaged over the previous three calendar years, a continuous emission monitor for NO_x must be installed, certified and operated no later than December 31 of the following calendar year. These records shall be kept on file for a period of at least five years and made available to the AQD upon request.² (40 CFR 75.12(c)(2) and 40 CFR 52.21(x)(6)(v))

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))

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- 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 any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD within 60 days following the last date of the test.² **(R 336.1213(3)(c), R336.2001(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-CTG-111	228 x 108 ²	56 ²	40 CFR 52.21(c) and (d) R 336.1225 R 336.1201(3)
2. SV-CTG-112	228 x 108 ²	56 ²	
3. SV-CTG-121	228 x 108 ²	56 ²	

IX. OTHER REQUIREMENT(S)

- 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 GG, as they apply to FG-CTGS.² **(40 CFR Part 60, Subparts A and GG and 40 CFR 52.21(x)(6)(iv))**
- The permittee shall comply with the acid rain permitting provisions of 40 CFR 72.1 to 40 CFR 72.94 as outlined in a complete Phase II Acid Rain Permit issued by the AQD. Phase II Acid Rain Permit No. MI-AR-6035-~~20XX~~ is hereby incorporated into this ROP.² **(R 336.1299(d))**
NOTE: Acid Rain Permit No. MI-AR-6035-~~20XX~~ is in Appendix 9-1.
- 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 336.1299(d) and 40 CFR 72.9(c)(1)(i).² **(R 336.1213(10))**
- The permittee shall comply with the provisions of the Transport 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)**
- The permittee shall comply with the provisions of the Transport Rule NOx Ozone Trading Program, as specified in 40 CFR Part 97, Subpart BBBBB, and identified in Appendix 10-1. **(40 CFR Part 97, Subpart BBBBB)**
- The permittee shall comply with the provisions of the Transport 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).

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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).

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APPENDICES

Appendix 1-2. Acronyms and Abbreviations

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 _{2e}	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 Environmental Quality	°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
MDEQ	Michigan Department of Environmental Quality	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 psig.

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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

Specific testing requirement plans, procedures, and averaging times are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. 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-B6145-2011. 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-B6145-2011a is being reissued as Source-Wide PTI No. MI-PTI-B6145-2018.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
NA	NA	NA	NA

Appendix 7-2. Emission Calculations

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in FG-CTGS.

Natural gas usage is monitored continuously but recorded once per hour and tracked on a monthly basis.

The NO_x, and CO, calendar day ppmv limits are assured by the latest stack testing results. The worst case concentration data (in ppmv) from the tested operating loads are compared to permit limits.

From stack testing, emission factors for CO, PM-10 and formaldehyde are developed in lbs. pollutant/million cubic feet of natural gas for each corresponding load specified in stack test protocol. Emission factors for each pollutant are calculated using the worst-case emissions recorded during the last representative stack test on a pollutant-specific basis. The emission factors, along with the fuel monitoring requirement, shall be applied to each hour to ensure compliance with PM-10's calendar day average and CO's, PM-10's and formaldehyde's rolling 12-month period emission limits.

From stack testing at the four load points, correlation curves are developed from NO_x emissions (lb/MMBtu) and heat input (MMBtu/hr) for each CTG. Consistent with Part 75, Appendix E, an hourly NO_x emission rate (lb/MMBtu) is

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applied to each operating hour. Each QA-QC validated hour either has the NOx emission rate from the correlation curve applied or the appropriate substitute NOx emission rate applied if the hour is outside operational and control equipment parameters, per Appendix E, section 2.5.2. The product of the hourly NOx emission rates and heat inputs are aggregated monthly to report the tons of NOx on a rolling 12-month basis.

Appendix 8-2. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the MDEQ, AQD, Report Certification form (EQP 5736) and MDEQ, 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.



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: B6145

Section Number (if applicable):

1. Additional Information ID

AI-PART C

Additional Information

2. Is This Information Confidential?

Yes No

C6. Unit 1, CTG 11-1, CTG 11-2, and CTG 12-1 are subject to the Cross-State Air Pollution Rule (CSAPR).

C7. Unit 1, CTG 11-1, CTG 11-2, and CTG 12-1 are subject to the federal Acid Rain Program. Enclosed is the Acid Rain Permit Renewal Application.

C9. Enclosed are copies of the Quality Control Program for Burning Specification Used Oil, CTGs' Emissions Minimization Plan, and CTGs' Continuous Compliance Protocol.

C7. Acid Rain Permit Renewal Application
for Unit 1, CTG 11-1, 11-2 & 12-1



Acid Rain Permit Application

For more information, see instructions and 40 CFR 72.30 and 72.31

This submission is: new revised for ARP permit renewal

STEP 1

Identify the facility name, State, and plant (ORIS) code.

DTE Electric – Greenwood Energy Center	MI	6035
Facility (Source) Name		

STEP 2

Enter the unit ID# for every affected unit at the affected source in column “a.”

a	b
Unit ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)
1	Yes
CTG 11-1	Yes
CTG 11-2	Yes
CTG 12-1	Yes

STEP 3

Read the standard requirements.

Permit 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.

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.

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:

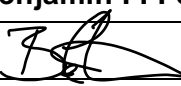
- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the 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.

<u>Name:</u> Mr. Benjamin F. Felton, Senior VP – Energy Supply	
<u>Signature:</u> 	<u>Date:</u> 7/27/2022

C9. Quality Control Program for Burning Specification Used Oil,
CTGs' Emissions Minimization Plan,
& CTGs' Continuous Compliance Protocol

Greenwood Energy Center's Quality Control Program for Burning Specification Used Oil

EPA's Used Oil Regulations found in 40 CFR Part 279 were intended, in part, to encourage recycling of used oil. One means of recycling used oil is burning for energy recovery. EPA has established a set of specifications, which when met, indicate that on-specification used oil is in product-like condition. According to Part 279.11, "once used oil that is to be burned for energy recovery has been shown not to exceed any specification and the person making that showing complies with 279.72, 279.73, and 279.74(b), the used oil is no longer subject to this part." Greenwood Energy Center (GWEC) will purchase used oil that meets specification levels.

GWEC outlines below a Quality Control Program instituting a mechanism for responsible energy recovery of used oil.

1. Each batch from the used oil vendor must be accompanied by vendor's documentation demonstrating that the used oil meets specification levels shown in 40CFR 279.11. A batch is a quantity of used oil, contained in one storage unit (e.g., a tank) where no more oil is added between time of testing and shipment. The documentation will include vendor certification noting the shipment quantity and analytical data. The certification will provide information similar to that shown in Exhibit 1. Detroit Edison and used oil vendor shall agree to appropriate analytical test methods. Examples of acceptable methods are shown in Exhibit 2

Verification: File containing shipping records for each load received will be kept at GWEC a minimum of 5 years.

2. Each batch of used oil fuel will be tested for Total Halogens prior to off-loading. (Current suggested analytical test method is SW-846, Method #9077 - Chlor-D-Tect Kit.) A Greenwood delegate shall obtain a representative sample according to methods described in EPA publication SW-846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" and test for total halogens.

Sulfur will be tested on the same frequency and method (x-ray fluorescence) as currently employed for the burning of No. 2 and residual oil at the facility.

Verification: Record documenting the Total Halogens test completion will be kept at GWEC a minimum of 5 years.

3. Each calendar year, at least one sample from each used oil vendor will be gathered and tested for all the parameters listed in Exhibit 2. The sample could be obtained either as a split sample from the vendor, line sample from GWEC, or some other practical method. GWEC's test results shall be compared to the vendor's test results to confirm the validity of the documentation accompanying the shipment.

Verification: A file containing both vendor's and GWEC's analytical data for the same shipment will be maintained a minimum of 5 years.

4. If GWEC's analytical data obtained in 2 or 3 above does not reasonably match the vendor's analytical data or simply exceeds used oil specification levels, the used oil vendor will maintain possession of the fuel, as stipulated in their contract, until the discrepancies are resolved.

Verification: Records documenting steps taken to resolve testing discrepancy will be kept at GWEC at least 5 years.

Exhibit 1: Example of Used Oil Vendor Certification

Vendor Name: _____ Shipment Date: _____
 Manifest / Bill of Lading Number: _____ Quantity: _____
 Batch Sample Number: _____ Analytical Report Date: _____

Parameters	Units	Vendor Results	Used Oil Rule Specification Limit	Additional GWEC Limits	MDEQ Liquid Industrial Waste Act Limits(3)
Arsenic (Total)	ppm		≤ 5		< 5
Cadmium (Total)	ppm		≤ 2		< 2
Chromium (Total)	ppm		≤ 10		< 10
Lead (Total)	ppm		≤ 100		< 50
Flash Point	°F		≥ 100	≥ 150°F	> 141
Total Halogens (5)	ppm		≤ 4000 (1)	≤ 4000	< 4000 (1)
PCB	ppm		< 2 (2)		< 1 (2)
Sodium	ppm			≤ 450	
Vanadium	ppm			≤ 40	
Sulfur	Mass % @ 18,000 Btu/lb.			≤ 0.70	< 1
Ash	Mass %			≤ 0.40	< 2 (4)
API Gravity	Degree API			≥ 12 and ≤ 32	
Btu/Gallon	Gross Btu/gal			≥ 135,000	> 140,000
Pour Point	°F			≤ 15	
Beryllium	ppm				< 5
Manganese	ppm				< 10 (4)
Mercury	ppm				< 0.2
Nickel	ppm				< 5 (4)
BS&W	Volume %			≤ 4	< 2.5
Viscosity	SUS @ 100 °F			≥ 38 and ≤ 400	

- (1) If greater than 1,000 ppm Total Halogens, report must include analytical data confirming that no RCRA halogenated solvent listed in 40 CFR Part 261 Appendix VIII is present at greater than 100 ppm using SW-846, 8260.
- (2) Used Oil for energy recovery is presumed to contain quantifiable levels (greater than or equal to 2 ppm) PCB unless the marketer obtains analyses that the used oil fuel does not contain quantifiable levels of PCB and marketer assures no source stream at 50 ppm or greater PCB was added to batch per 40 CFR 761.20(e)(2).
- (3) The MDEQ Liquid Industrial Waste Act limits must be met unless the transporter is a licensed liquid industrial waste hauler and uses a MI manifest.
- (4) These are proposed, not actual, limits and are included for information gathering purposes only.
- (5) Perform total halogens using either ASTM D 5384 Method B or SW-846, 9077 Method C (Chlor-D-Tect 4000, report the higher of the two results).

Halogenated Solvents Listed in 40 CFR Part 261 Appendix VIII

Regulatory Name	CAS Number	Synonyms	Result
Carbon Tetrachloride (F001)	56-23-5	Tetrachloromethane	ppm
Chlorobenzene (F002)	108-90-7		ppm
1,2 Dichlorobenzene (F002)	95-50-1	O-Dichlorobenzene	ppm
1,3 Dichlorobenzene (F002)	541-73-1	M-Dichlorobenzene	ppm
1,4 Dichlorobenzene (F002)	106-46-7	P-Dichlorobenzene	ppm
Dichlorodifluoromethane (F001)	75-71-8		ppm
Methylene Chloride (F001,F002)	75-09-2	Dichloromethane	ppm
Tetrachloroethylene (F001,F002)	127-18-4	Tetrachloroethane, Perchloroethylene	ppm
1,1,1 Trichloroethane (F001,F002)	71-55-6	Methyl Chloroform	ppm
1,1,2 Trichloroethane (F002)	79-00-5		ppm
1,1,2 Trichloro-1,2,2 Trifluoroethane (F002)	76-13-1		ppm
Trichloroethylene (F001,F002)	79-01-6	TCE, Trichloroethene	ppm
Trichlorofluoromethane (F002)	75-69-4	Trichloromonofluoromethane	ppm

I certify that the above noted shipment of used oil fuel meets all RCRA and Act 451 Part 111 criteria for “specification” used oil. If I am not a licensed liquid industrial waste hauler and/or not using a manifest, then I also certify that this shipment meets the MDEQ criteria for “Used oil for Energy Recovery.” Further, I certify that the above noted shipment of used oil does not contain quantifiable levels of PCB in accordance with 40 CFR 761.20(e)(2).

Signature of Responsible Vendor Representative
 Printed Name of Responsible Vendor Representative
 Date

Exhibit 2: Example of Analytical Test Methods

<u>Constituent</u>	<u>Contract Limits</u>	<u>Test Methods</u>
Flash Point	> or equal to 150° F (Closed Cup)	D 93

<u>Constituent</u>	<u>Regulatory Limits</u>	<u>Test Methods</u>
Total Lead	< or equal to 100 ppm	SW-846, 6020
Total Cadmium	< or equal to 2 ppm	SW-846, 6020
Total Chromium	< or equal to 10 ppm	SW-846, 6020
Total Arsenic	< or equal to 5 ppm	SW-846, 6020
Total Halogens ⁽¹⁾	< or equal to 4,000 ppm	SW 846, #9077
PCB ⁽²⁾	< 2 ppm	SW-846, 8082

⁽¹⁾ If greater than 1,000 ppm, an analysis (for example, gas chromatogram) demonstrating 100 ppm or less of any halogenated compound listed in Appendix VIII of 40CFR261 will be conducted. (Analysis shall be for totals and not extract.)

⁽²⁾ Used Oil for energy recovery is presumed to contain quantifiable levels (greater than or equal to 2 ppm) PCB unless the marketer obtains analyses that the used oil fuel does not contain quantifiable levels of PCB and marketer assures no source stream at 50 ppm or greater PCB was added to batch per requirements shown in 40CFR761.20(e)(2).

August 21, 2001

Ms. Lillian Woolley
District Supervisor - Air Quality Division
Michigan Department of Environmental Quality
Southeast Michigan District
38980 Seven Mile Road
Livonia, MI 48152-1006

RE: SUPPLEMENT TO PERMIT NO. 320-98A: PLAN TO MINIMIZE EMISSIONS DURING START-UP, SHUTDOWN, AND MALFUNCTION OF THE NATURAL GAS-FIRED COMBUSTION TURBINE GENERATORS AT THE DETROIT EDISON COMPANY'S GREENWOOD ENERGY CENTER

Dear Ms. Woolley:

Pursuant to Special Condition 2.16 of Supplement to Permit No. 320-98A, this letter is intended to act as a plan to describe how emissions will be minimized during startup, shutdown and malfunction of the four combustion turbine generators ("CTGs") at the Detroit Edison Company's ("DEC's") Greenwood Energy Center (the "Facility"). Three of the four permitted CTGs are installed and operated at this time. The enclosed documentation has been prepared by Horizon Environmental Corporation ("Horizon"), an authorized agent of the applicant, Detroit Edison.

MAR 912 requires that a facility operate a source, to the extent reasonably possible, in a manner consistent with good air pollution control practices for minimizing emissions during periods of start-up, shutdown, and malfunction. During these periods, the simple-cycle CTGs at the Facility have variable NO_x and CO emissions that are, intermittently, higher and lower (on a mass per unit time basis) than when operations are at continuous operating loads.

START-UP/SHUTDOWN

Emissions will be minimized during start-up and shutdown periods by performing these operations based on the recommendations of the manufacturer, General Electric ("GE").

Start-up of the GE PG7121(EA) CTGs in use at the Facility consists of a series of steps, each required to reach normal baseload operations. Because the simple cycle CTGs will generally operate as "peaking" units, most start-ups are considered "cold" starts. The following steps make up a normal start-up:

1. Primary Mode – Fuel is delivered to the primary combustion nozzles within the CTG, with flame in the primary zone only. This mode is used to ignite the fuel, accelerate the turbine, synchronize the turbine and generator at a no-load state, and to operate the CTG at low loads. Duration is approximately 15 minutes.
2. Lean-Lean Mode – Fuel is delivered to both the primary and secondary combustion nozzles, with flame in both the primary and secondary zones, for intermediate load conditions. Duration is approximately 5 minutes.
3. Secondary Mode – Fuel is only delivered to the secondary combustion nozzles, with flame in the secondary zone only. This transition mode is necessary to extinguish the flame and purge the primary zone, prior to reintroduction of fuel into what becomes the primary premixing zone. Duration is approximately 2 minutes.
4. Premix Mode – Fuel is delivered to both the primary and secondary combustion nozzles, with flame in the secondary zone only. Approximately 10 minutes is required to reach baseload conditions and for full utilization of the dry, low-NO_x (“DLN”) burner system. Premixing of fuel and combustion air in the DLN system results in flame cooling, and therefore lower NO_x emissions. Full load operation in premix mode generally results in lower emissions of all constituents.

Start-up of a simple-cycle CTG at the Facility from “cold start” conditions to normal base load operation therefore requires approximately 30 minutes.

During the shutdown sequence, fuel delivery to the primary and secondary combustion nozzles is gradually decreased to minimize thermal shock to the combustion zone equipment. This cooling stage continues for approximately 20 minutes before fuel delivery is discontinued so that combustion, and therefore associated emissions, is halted.

Based on GE recommendations, start-up and shutdown of the Facility CTGs follow these steps to assure that the CTGs are operated safely, and the potential for damage of the CTGs is minimized during start-up and shutdown. Detroit Edison will strive to minimize emissions during start-up and shutdown by maintaining the CTGs per manufacturer recommendations and by minimizing the period of time the CTGs are not in normal baseload operations.

MAR 912 requires that a facility provide notice to AQD of an abnormal condition, start-up, shutdown, or malfunction that results in an emission of a hazardous air pollutant in excess of an applicable emission standard, and continuing for more than one hour. MAR 912 also mandates notice for a facility’s operation that results in emissions of any contaminant continuing for more than 2 hours in excess of an applicable emission standard. The facility shall provide notice and a written report in the event of an abnormal condition, start-up, shutdown, or malfunction that results in either of these circumstances within the time frame identified in MAR 912.

Ms. Lillian Woolley
August 21, 2001
Page 3

Based on the anticipated duration of normal start-up and shutdown events, Detroit Edison does not anticipate that start-up and shutdown periods will typically necessitate notification of the Air Quality Division ("AQD") pursuant to the requirements of MAR 912, although all required notification will be performed, as necessary.

MALFUNCTION

Emissions will be minimized during malfunctions by performing regular maintenance, testing, and service on the CTGs, based on the recommendations of GE. Proper maintenance of the CTGs will minimize the number of malfunctions during operation.

In addition, Detroit Edison personnel will quickly respond to CTG malfunctions, performing the required repairs to allow the CTG to continue normal operations in a timely fashion, or shutting the CTG down in a safe and efficient manner to allow troubleshooting of the problem while the CTG is off-line. The timely repair or shutdown of the CTGs during malfunctions will also minimize the potential for elevated emissions generated during these periods.

As noted previously, MAR 912 requires that a facility provide notice to AQD of an abnormal condition or malfunction that results in an emission of a hazardous air pollutant in excess of an applicable emission standard, and continuing for more than one hour. MAR 912 also mandates notice for a facility's operation that results in emissions of any contaminant continuing for more than 2 hours in excess of an applicable emission standard. The facility shall provide notice and a written report in either of these circumstances within the time frame identified in MAR 912.

- oOo -

Should you have any questions concerning the enclosed information, please call me at (616) 554-3210.

Sincerely,

HORIZON ENVIRONMENTAL



Brian P. Greenwald, P.E.
Senior Project Engineer

cc: A. Greenberg, Horizon Environmental
M. Lebeis, Detroit Edison Company

November 12, 1999



Ms. Lisa Scarpelli, Unit Supervisor
Southeast Michigan District Office
Air Quality Division
Michigan Department of Environmental Quality
38980 West Seven Mile Road
Livonia, MI 48152

Subject: Transmittal of Continuous Compliance Protocol for Greenwood Energy Center
Combustion Turbine Generator Nos. 11-1, 11-2 and 12-1 (Permit No. 320-98)

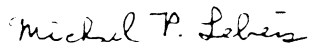
Dear Ms. Scarpelli:

Detroit Edison recently completed construction on three new combustion turbine generators (CTG) at its Greenwood Energy Center. Special Permit Condition 4, of the installation permit, requires us to submit a protocol identifying how the owner will demonstrate continuous compliance with the CTG nitrogen oxide (NO_x) and carbon monoxide (CO) emission limits. This protocol must be submitted to the appropriate Air Quality Division district office.

The attached continuous compliance protocol addresses this requirement.

Please contact me, at (313) 235-8615, if you have any questions about this document.

Sincerely,



Michael P. Lebeis
Air Quality Engineer
Environmental Management & Resources
Detroit Edison

Attachment

bcc: Andrew Fadanelli
Patty Ireland
Ken Kuszynski – No attachments
Michael Lebeis
Jim Masterson
Alan Rayner – No attachments
Fred Rosiak – No attachments

CONTINUOUS COMPLIANCE PROTOCOL

For

**Detroit Edison Company
Greenwood Energy Center Units 1 - 3
Avoca, Michigan**

October 18, 1999

Prepared by:

RMB Consulting & Research, Inc.
5104 Bur Oak Circle
Raleigh, North Carolina 27612
(919) 510-5102

1.0 INTRODUCTION

Detroit Edison Company's (Detroit Edison) Greenwood Energy Center, located in Avoca, Michigan, operates three (3) natural gas-fired combustion turbines (Units 1 - 3). Consistent with Permit No. 320-98, each turbine shall not exceed the total nitrogen oxides (NO_x) emission limit of 9.0 parts per million (ppm) by volume at fifteen (15%) oxygen (O₂) as calculated on a dry basis at 100% load or 43.7 pounds per hour (lb/hr) at 100% load. The three turbines combined shall not exceed 35.2 tons per 12-month rolling time period. The total carbon monoxide (CO) emission rate for each turbine shall not exceed 71.3 lb/hr at 100% load. The three turbines combined shall not exceed 57.9 tons per 12-month rolling time period. This protocol is submitted to meet the requirement specified by the Michigan Department of Environmental Quality (MDEQ) in Special Condition 4 of Permit No. 320-98.

2.0 FACILITY DESCRIPTION

The Greenwood Energy Center is located at 7000 Kilgore Road, Avoca, Michigan, 48226. Units 1 through 3 are General Electric Frame 7 simple cycle combustion turbines nominally rated at 82.4 megawatts each at base load. The units combust pipeline natural gas only. Flue gases from each unit exhaust through a separate stack which have an exit height of 56.0 feet above ground level.

Each of the three Part 75 affected units will be dispatched as peaking units, as defined in 40 CFR §72.2. Each unit is equipped with a low-NO_x combustor for NO_x control. The turbines are not equipped with add-on emission controls for particulate. A Part 75 certified data acquisition system (DAS) is used to continuously record and report emissions data for each of the three units.

3.0 CONTINUOUS COMPLIANCE PROTOCOL

The subsections presented below provide information concerning the procedures that will be implemented by Detroit Edison to determine continuous compliance with the applicable NO_x and CO permit limits. In accordance with other special permit conditions, a site-specific test protocol that describes the test procedures referenced below in greater detail, and a Monitoring Plan that complies with the requirements specified in 40 CFR Part 75 as well as the *Michigan Air Use Permit Technical Manual* were submitted to MDEQ.

3.1.1 Nitrogen Oxides

The protocol specified in Appendix E to 40 CFR Part 75 is utilized to determine NO_x mass emissions for each unit. In accordance with Appendix E, performance tests were performed on each unit to determine a relationship between the NO_x emission rate and unit heat input. Heat input was determined using fuel flow and a gross calorific value (GCV) based on samples collected during the initial compliance test program.

In accordance with Appendix E to Part 75, four turbine operating parameters indicative of NO_x formation and proper turbine operation were also recorded during the initial testing. The four turbine operating parameters for each of the three Greenwood units are: (1) inlet guide vane position, (2) compressor discharge temperature, (3) compressor discharge pressure and (4) exhaust temperature. These four operating parameters are continuously monitored by the DAS to ensure that the NO_x formation characteristics of the unit remain consistent with those experienced during the performance tests and consistent with normal operations for the parameters (as provided by the turbine vendor). The NO_x emission rate-heat input correlation is reverified and if necessary modified after the manufacturer's recommended range for any of the four operating parameters is continuously exceeded for more than sixteen (16) consecutive unit operating hours.

Compliance testing was used to demonstrate initial compliance with the permitted NO_x limit. Testing was conducted in accordance with Appendix E to Part 75 and 40 CFR Part 60, Subparts A and GG using the procedures specified in EPA Reference Method 20. Consistent with Appendix E to Part 75, each combustion turbine was tested at four evenly spaced load points in a range between the projected maximum and the minimum operating loads. The maximum and minimum operating loads were selected based on the units' projected dispatch during each units' first five years of service. Tables 1 through 3 in Attachment A provide the test results for each of the three units and the turbine parameter ranges at each of the four tested load points. These Tables contain all the data necessary to generate the NO_x correlation curves and the parameter ranges that will be used to indicate proper turbine operations. Schematics of the NO_x correlations used by the DAS to interpolate hourly NO_x emissions data for each of the three units are provided in Attachment A.

A fuel flow meter is used to continuously measure fuel consumption using procedures specified in Appendix D to Part 75. The fuel flow signal is continuously recorded by the DAS. In

accordance with Appendix D, a monthly fuel sample is analyzed to determine the gross calorific value (GCV) of the fuel which is used by the DAS to calculate heat input.

This information is used to by the DAS to determine the NO_x mass emissions as listed below.

- lb/mmbtu per hour.
- lbs/hr for each unit.
- lbs/hr for all three units combined, and
- tons/12 month rolling period for all units combined.

Attachment B provides the calculations used by the DAS to determine NO_x emissions.

3.1.2 Carbon Monoxide

Detroit Edison used an initial testing procedures similar to those specified in Appendix E of 40 CFR Part 75 to determine continuous compliance with the permitted CO limit. As described in Section 3.1 of this protocol, each combustion turbine was tested for CO at four evenly spaced load points in the range of normal operating loads. Testing was performed in accordance with EPA Reference Method 10. This test data is used to demonstrate that the CO permit limit will not be exceeded during future turbine operations.

3.1.3 Fuel Consumption

Fuel consumption for each unit is determined using an orifice-plate fuel flowmeter which transmits a signal to the DAS. The DAS records the amount of fuel combusted by each unit as well as the total fuel combusted by all three units. The DAS records the total fuel combusted by the three units on a 12-month rolling time period.

ATTACHMENT A

TEST RESULTS

Table 1. Greenwood Unit 11-1

Load (mmBtu/hr)	NOx (lb/mmBtu)	Inlet Guide Vane (deg)	Compressor Discharge Temp. (°F)	Compressor Discharge Pressure (psia)	Exhaust Temp. (°F)
944.1	0.030	70 - 90	625 - 725	132 - 182	900 - 1050
838.9	0.032	62 - 87	595 - 695	110 - 160	940 - 1060
760.7	0.030	55 - 80	595 - 695	97 - 147	940 - 1090
698.9	0.027	45 - 70	550 - 650	85 - 135	875 - 1115

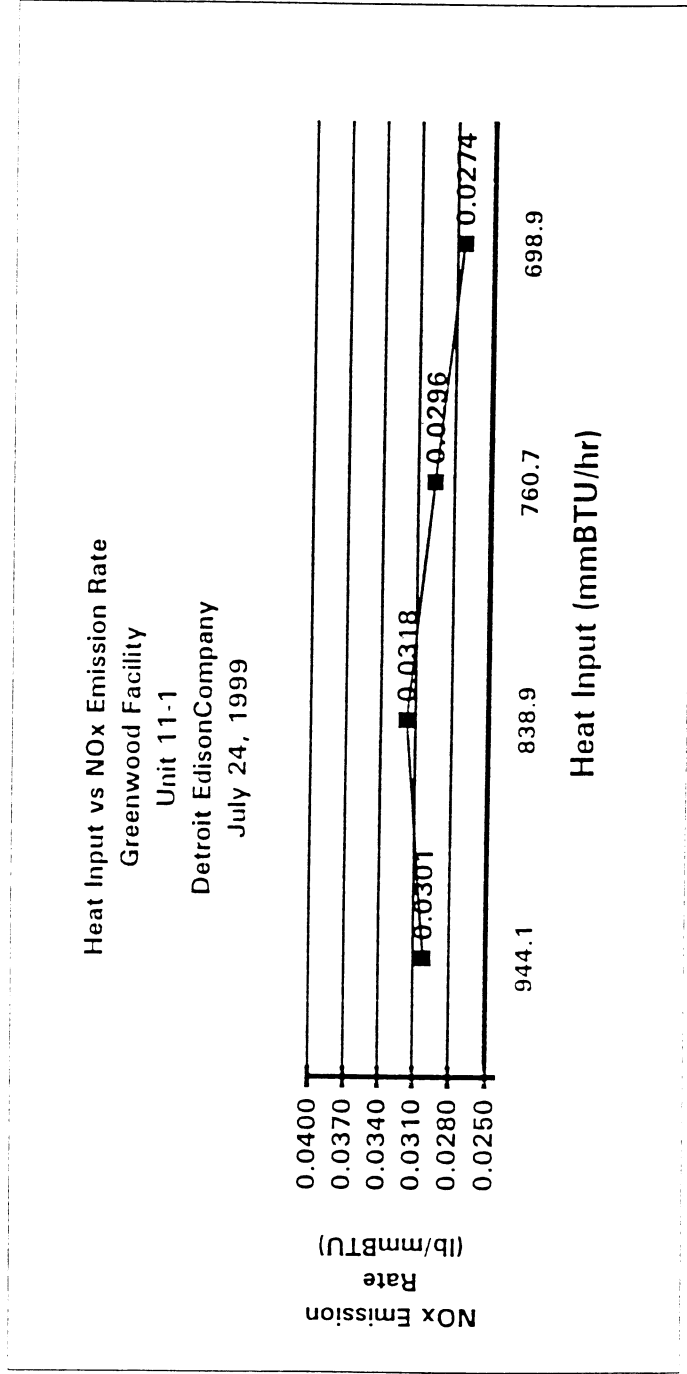
Table 2. Greenwood Unit 11-2

Load (mmBtu/hr)	NOx (lb/mmBtu)	Inlet Guide Vane (deg)	Compressor Discharge Temp. (°F)	Compressor Discharge Pressure (psia)	Exhaust Temp. (°F)
971.8	0.032	70 - 90	625 - 725	132 - 182	900 - 1050
872.1	0.033	62 - 87	595 - 695	110 - 160	940 - 1060
814.0	0.034	55 - 80	595 - 695	97 - 147	940 - 1090
755.8	0.033	45 - 70	550 - 650	85 - 135	875 - 1115

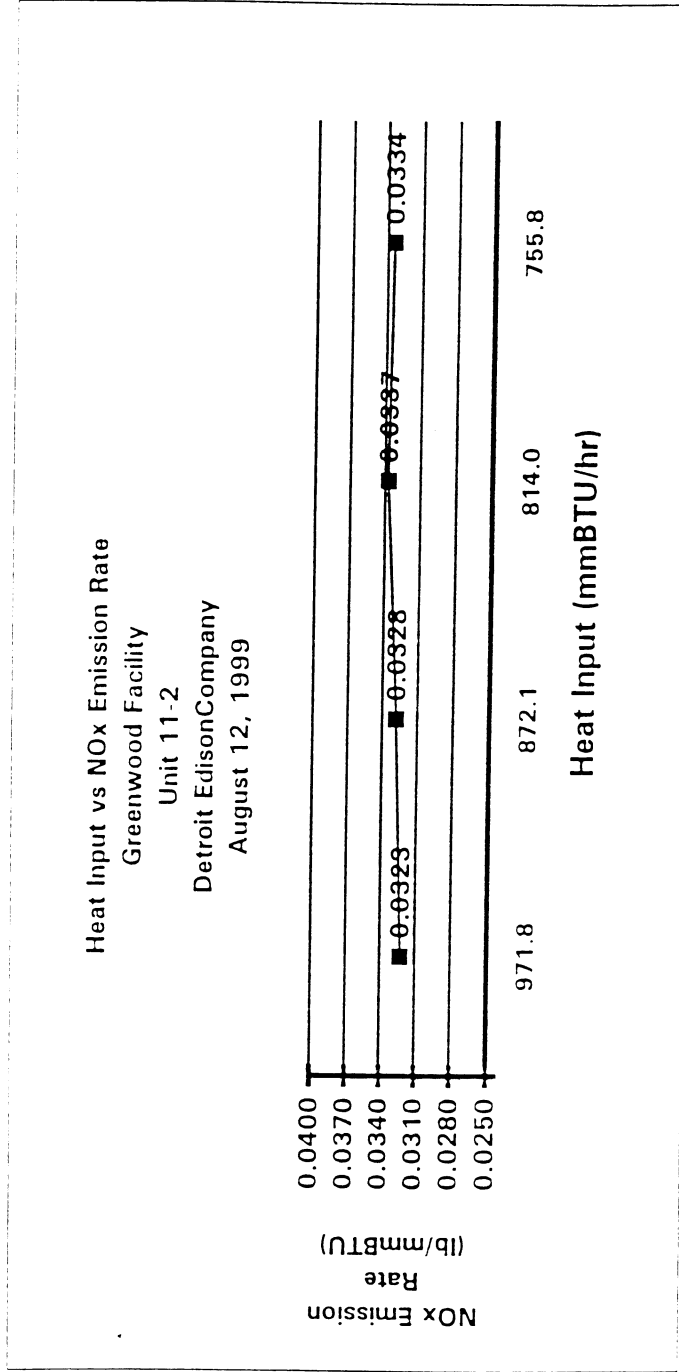
Table 3. Greenwood Unit 12-1

Load (mmBtu/hr)	NOx (lb/mmBtu)	Inlet Guide Vane (deg)	Compressor Discharge Temp. (°F)	Compressor Discharge Pressure (psia)	Exhaust Temp. (°F)
953.4	0.030	70 - 90	625 - 725	132 - 182	900 - 1050
873.8	0.033	62 - 87	595 - 695	110 - 160	940 - 1060
843.4	0.034	55 - 80	595 - 695	97 - 147	940 - 1090
802.3	0.034	45 - 70	550 - 650	85 - 135	875 - 1115

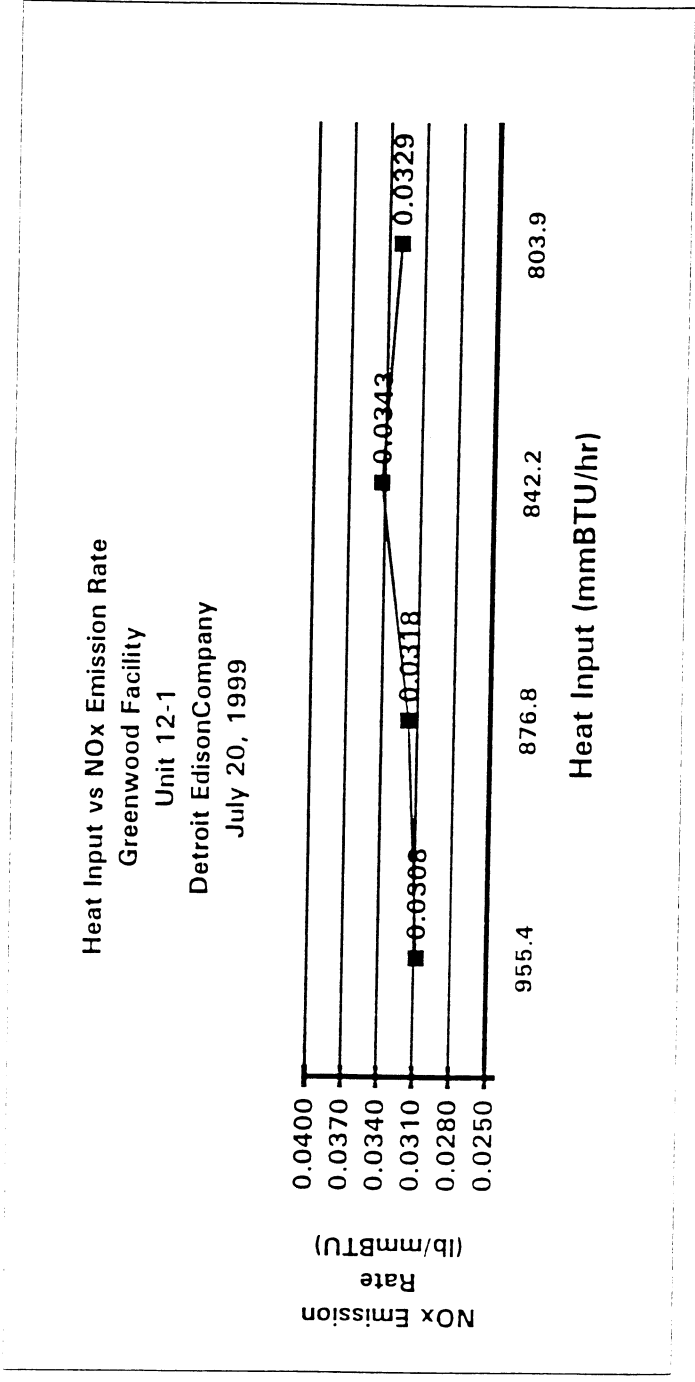
NOx (lb/mmBtu)	Heat Input (mmBtu/hr)
0.0301	944.1
0.0318	838.9
0.0296	760.7
0.0274	698.9



NOx (lb/mmBtu)	Heat Input (mmBtu/hr)
0.0323	971.8
0.0328	872.1
0.0337	814.0
0.0334	755.8



NOx (lb/mmBtu)	Heat Input (mmBtu/hr)
0.0308	955.4
0.0318	876.8
0.0343	842.2
0.0329	803.9



ATTACHMENT B
DATA ACQUISITION SYSTEM CALCULATIONS

1. Heat Input

The equation presented below (Equation E-1 of Appendix E) is used to determine the total heat input to each unit. Each unit combusts only pipeline quality natural gas.

$$HI = \left(\frac{Q \times GCV}{10,000} \right)$$

Where:

- HI = Heat input, mmBtu/hr
- Q = metered fuel flow, hundred cubic feet
- GCV = gross calorific value, Btu/scf
- 10,000 = Conversion factor, Btu-100 scf/mmBtu-scf

2. NO_x Emissions (lb/mmBtu)

The DAS interpolates the hourly average NO_x emission using the NO_x correlation graphs presented in Attachment A.

3. NO_x Emissions (lb/hr)

The equation presented below is used to calculate NO_x emissions in lb/hr for each unit.

$$NO_x(lb/hr) = NO_x(lb/mmBtu) \times HeatInput(mmBtu/hr)$$

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

EFFECTIVE DATE: May 17, 2018

ISSUED TO

DTE Electric Company – Greenwood Energy Center

State Registration Number (SRN): B6145

LOCATED AT

7000 Kilgore Road, Avoca, Michigan 48006-2525

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-B6145-2018

Expiration Date: May 17, 2023

Administratively Complete ROP Renewal Application
Due Between November 17, 2021 and November 17, 2022

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-B6145-2018

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 Environmental Quality

Joyce Zhu, Southeast Michigan District Supervisor

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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 Environmental Quality (MDEQ) 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.

Section 1 – Main Boiler

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SECTION 1 – MAIN BOILER

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 1 – Main Boiler

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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% 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))**

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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.
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))**
 - 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)(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))**

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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))**
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))**

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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))**

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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))**
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, MDEQ.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, MDEQ, 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).

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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.

There are no Source-Wide Conditions applicable to Section 1.

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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
EUBOILER1	Greenwood Energy Center Unit 1 boiler, nominally rated at 785 MW gross output; fueled by No. 2 fuel oil, No. 6 fuel oil, specification used oil, or a combination thereof (hereinafter termed "oil fuels"), and/or natural gas. Flue gas injection is used for NOx control. (PTI No. 129-13)	05-01-72 / 09-11-97	NA
EUEASTAUXBOILER	East auxiliary boiler nominally rated at 181.4 MMBtu per hour heat input, equipped with a continuous oxygen trim system and fired only with pipeline quality natural gas. Maximum steam output is 150,000 pounds per hour. This emission unit is subject to the Major Source Existing Gas 1 Fuel Subcategory per 40 CFR Part 63, Subpart DDDDD. (PTI No. 129-13)	05-01-72 / 09-11-97	NA
EUWESTAUXBOILER	West auxiliary boiler nominally rated at 173 MMBtu per hour heat input fired with No. 2, No. 6 oil or blends thereof (hereinafter termed "oil fuels"). This emission unit is a limited-use boiler (10% capacity factor) as defined in 40 CFR 63.7575. (PTI No. 129-13)	05-01-72 / 09-11-97	NA
EUCOLDCLEANER	Any new cold cleaner exempt from NSR permitting.	NA	FGCOLDCLEANERS
EU-GDF	A new (placed into operation on or after July 1, 1979) gasoline <u>underground</u> storage tank of 2,500--gallon capacity (9.46 cubic meters) at a gasoline dispensing facility (GDF). This emission unit is exempt from the requirements of Rule 336.1201 pursuant to R 336.1278 and per R 336.1284(2)(g)(ii).	Original installation in late 1970s. Underground storage tank replaced 09-09-92	NA

Commented [ADT1]: DTE requests to add this EU description change to specify that is tank is located underground.

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Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUEMGFIREPUMP	Emergency fire pump engine exempt from R 336.1201 per R 336.1285(2)(g) for internal combustion engines that have less than 10,000,000 Btu/hour maximum heat input. This engine is subject to 40 CFR Part 60 Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. This engine was manufactured on April 14, 2016. This engine is a turbo-charged, air-cooled, 4-cycle, and in-line 6-cylinder diesel compression ignition engine with 8.9-liter total cylinder displacement. Maximum heat input of 1.98 MMBtu/hr. The engine nameplate rates the engine output at 260 HP at 1760 RPM. In accordance with 40 CFR 60.4200, the construction commenced on April 18, 2016.	08-03-16	NA
EURULE290	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201; pursuant to Rules 278, 278a and 290.	NA	FGRULE290

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**EUBOILER1
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Greenwood Energy Center Unit 1 boiler, nominally rated at 785 MW gross output; fueled by No. 2 fuel oil, No. 6 fuel oil, specification used oil, or a combination thereof (hereinafter termed "oil fuels"), and/or natural gas. Flue gas injection is used for NOx control. (PTI No. 129-13)

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Flue gas injection system

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Sulfur dioxide (SO ₂)	0.80 lb. per million Btu heat input ² See Note a.	3-hour average	EUBOILER1	SC VI.1 See Notes c & d	40 CFR Part 60, Subparts A and D, 60.43(a)(1)
	5760 lbs. per hour ²	3-hour average	EUBOILER1	SC VI.1 See Notes c & d	40 CFR Part 60, Subparts A and D, 60.43(a)(1), R 336.1201(3)
2. Particulate matter (PM)	0.072 lb. per million Btu heat input ²	1-hour average*	EUBOILER1	SC V.2 SC VI.1	40 CFR Part 60, Subpart D, 60.42(a)(1)
	518.4 lbs. per hour ²	1-hour average*	EUBOILER1	SC V.2 SC VI.1	40 CFR Part 60, Subpart D, 60.42(a)(1), R 336.1201(3)
	0.10 lb. per 1,000 lbs. of exhaust gases on a wet basis, corrected to 50% excess air ²	1-hour average*	EUBOILER1	SC V.2 SC VI.1	R 336.1331 R 336.1201(3)
3. Nitrogen oxides (NOx) <i>(When firing oil fuels only)</i>	0.30 lb. per million Btu heat input ²	3-hour average	EUBOILER1	SC VI.1 See Notes c & d	40 CFR Part 60, Subpart A, 60.8 and Subpart D, 60.44 (a)(2)
	2,160 lbs. / hour ²	3-hour average	EUBOILER1	SC VI.1 See Notes c & d	40 CFR Part 60, Subpart A, 60.8 and Subpart D, 60.44 (a)(2), R 336.1201(3)
<i>(When firing natural gas only)</i>	0.20 lb. per million Btu heat input ²	3-hour average	EUBOILER1	SC VI.1 See Notes c & d	40 CFR Part 60, Subpart A, 60.8 and Subpart D, 60.44 (a)(1)

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Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
	1,494 lbs. / hour ²	3-hour average	EUBOILER1	SC VI.1 See Notes c & d	40 CFR Part 60, Subpart A, 60.8 and Subpart D, 60.44 (a)(1), R 336.1201(3)
<i>(When co-firing oil fuels and natural gas)</i>	Prorated between 0.20 and 0.30 lb. per million Btu See Note b.	3-hour average	EUBOILER1	SC VI.1 See Notes c & d	40 CFR Part 60, Subpart A, 60.8 and Subpart D 60.44 (b)
4. Opacity	20% per 6- minute period except for one 6-minute period per hour of not more than 27%	6-minute average	EUBOILER1	SC VI.1 Method 9	40 CFR Part 60, Subpart D, 60.42(a)(2) R 336.1301(1)(b)

Note a: This is equivalent to using oil fuels with 0.78% sulfur content and a heat value of 19,390 Btu's per pound. Compliance with this limit shall be considered compliance with the limit of R 336.1401, which has been subsumed under this streamlined requirement.² (R 336.1213)

Note b: Based on the ratio of the total heat input provided by the natural gas and the total heat input provided by the oil that is being combusted as a mixture in the boiler.

Note c: Compliance with SO₂/NO_x emission rate limits shall be based upon any three-hour average determined in accordance with the performance test established by 40 CFR 60.8.

Note d: The emission rate limits do not apply during periods of startup, shutdown, or malfunction per 40 CFR 60.8(c).

* *The 1-hour average value shall be determined by the average of three test runs per the test method requirements.*

II. MATERIAL LIMIT(S)

- The permittee shall burn only No. 2 fuel oil, No. 6 fuel oil, specification used oil, or natural gas or blends of these fuels in EUBOILER1.² (R 336.1201(3))

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Total halogens in specification used oil	≤ 4,000 ppm ^{2*} (by weight)	Each batch received	EUBOILER1	SC V.3	R 336.1201(3), 40 CFR 279.11
2. Total lead (Pb) in specification used oil	≤ 100 ppm ²	Each batch received	EUBOILER1	SC V.3	R 336.1201(3), 40 CFR 279.11
3. Total cadmium (Cd) in specification used oil	≤ 2 ppm ²	Each batch received	EUBOILER1	SC V.3	R 336.1201(3), 40 CFR 279.11
4. Total chromium (Cr) in specification used oil	≤ 10 ppm ²	Each batch received	EUBOILER1	SC V.3	R 336.1201(3), 40 CFR 279.11

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Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
5. Total arsenic (As) in specification used oil	≤ 5 ppm ²	Each batch received	EUBOILER1	SC V.3	R 336.1201(3), 40 CFR 279.11
6. Flashpoint of specification used oil	≥ 100 °F ² (closed cup)	Each batch received	EUBOILER1	SC V.3	R 336.1201(3), 40 CFR 279.11
7. Polychlorinated biphenyls (PCB) in specification used oil	< 2 ppm ²	Each batch received	EUBOILER1	SC V.3	R 336.1201(3), 40 CFR 761.20(e)

* If total halogens are >1,000 ppm, an analysis shall be conducted to ensure that no halogenated compound listed in Appendix VIII of 40 CFR, Part 261 is present in concentrations greater than 100 ppm.²

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not receive, unload, or store, any specification used oil which is not accompanied by the vendor's certification and analytical data. Analytical data must show compliance with the limits set forth in Section II prior to unloading and/or storing the specification used oil.² **(R 336.1201(3))**
2. The permittee shall not operate EUBOILER1 unless all of the requirements of 40 CFR 52.21, the federal Prevention of Significant Deterioration rules and regulations, are being met. This permit is issued pursuant to the determination that the equipment covered by this permit can comply with all of the requirements under these rules and regulations.² **(R 336.1201(3))**
3. The permittee shall not operate EUBOILER1 unless the flue gas injection system is installed, maintained, and operated in a manner satisfactory to the District Supervisor.² **(R 336.1910)**

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. The permittee shall analyze and record the sulfur content of the oil fuel.² **(R 336.1201(3))**

See Appendix 3-1.1, Fuel Oil Sulfur Monitoring

2. Every third year, or more frequently upon AQD request, the permittee shall verify PM emission rates from EUBOILER1 by testing at owner's expense, in accordance with Department requirements. The permittee shall test the particulate matter emission rate using Reference Method 5, results reported on a wet basis, corrected to 50% excess air. Alternate methods may be used, subject to AQD approval. 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. 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.² **(R 336.1201(3), R 336.2001(3), R 336.2001(4), R 336.2001(5))**
3. The permittee shall not operate EUBOILER1 unless the approved facility Quality Control Program for Burning Specification Used Oil is implemented and maintained.² **(R 336.1201(3))**

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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 install, calibrate, maintain and operate continuous emission monitoring systems for sulfur dioxide, nitrogen oxides, and carbon dioxide, and a continuous opacity monitoring system of the exhaust gases in accordance with the Emission and Fuel Monitoring section of 40 CFR Part 60, Subpart D.² (40 CFR Part 60, Subpart D)

See Appendices 3-1.2, 3-1.3, and 3-1.4

2. The permittee shall maintain the following records on a monthly basis:² (R 336.1213(3))
 - a. Heating value of oil fuels, as fired, expressed in Btu per pound
 - b. Heat input to EUBOILER1 from natural gas, expressed in MMBtu per hour
 - c. Heat input to EUBOILER1 from oil fuels, expressed in MMBtu per hour
 - d. Sulfur content of oil fuels, expressed as a percentage by weight
 - e. Total operating hours
 - f. Quantity of used oil burned
3. The permittee shall not operate EUBOILER1 unless the monitoring and recordkeeping provisions of the approved facility Quality Control Program for Burning Specification Used Oil are implemented and maintained.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. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD within 60 days following last date of test. (R 336.1213(3)(c), R 336.2001(5))
5. Permittee shall submit quarterly Excess Emission and Monitoring System Performance reports of operating information within 30 calendar days following the end of the quarter in which the data were collected. Compliance with this requirement shall be considered compliance with the reporting requirement specified in 40 CFR Part 60 Subpart D.² (R 336.2170, 40CFR60, Subpart D)
6. The permittee shall report sulfur dioxide, nitrogen oxide and carbon dioxide emission, volumetric flow, and opacity data in accordance with 40 CFR, Part 75 (Continuous Emission Monitoring).² (R 336.1201(3))
7. For the continuous monitoring system for the measurement of opacity, the permittee shall submit to the District Supervisor and Compliance Support Unit Supervisor, Air Quality Division and to the Chief of the Air Compliance Branch, U.S. Environmental Protection Agency, within 30 days of the end of the calendar quarter, a written report for each calendar quarter which shall include all of the following information.² (Title I (Air Pollution Prevention and Control), Clean Air Act, Section 114(a); R 336.2170(1)(a), (b), and (c))
 - a. Excess emissions, corrective action taken and the nature and cause of excess emissions, if known, as follows: For opacity measurements, the report shall consist of the magnitude, in actual percent opacity, of all six-minute averages of opacity more than the applicable opacity standard for each hour of operation (all allowable exceptions are to be deducted prior to determining the excess averages of opacity). Average values shall be obtained by integration over the averaging period of by arithmetically averaging a minimum of 24 equally spaced, instantaneous opacity measurements per six minutes.

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- b. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of repairs or adjustments made.
 - c. If the monitoring system has not been inoperative, repaired, or adjusted, and if no excess emissions occurred, a statement attesting to this fact.
8. The permittee shall submit to the Chief of the Air Compliance Branch, U.S. Environmental Protection Agency and the District Supervisor of the Air Quality Division, within 30 days of the end of the calendar quarter, a written report for each calendar quarter which shall include sulfur dioxide monthly emission rate averages.² **(Title I (Air Pollution Prevention and Control) of the Clean Air Act, Section 114(a); (R 336.1201(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
1. SV001	279 ²	496 ²	R 336.1201(3)

IX. OTHER REQUIREMENT(S)

- 1. The permittee shall comply with the acid rain permitting provisions of 40 CFR 72.1 to 40 CFR 72.94 as outlined in a complete Phase II Acid Rain Permit issued by the AQD. Phase II Acid Rain Permit No. MI-AR-6035-201~~X~~ is hereby incorporated into this ROP as Appendix 9-1. **(R 336.1299(2)(a))**
- 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 336.1299(d) and 40 CFR 72.9(c)(1)(i). **(R 336.1213(10))**
- 3. The permittee shall comply with the applicable provisions 40 CFR Part 60 Subparts A and D. **(R 336.1213(3))**
- 4. As would apply to any other condition in this permit, nothing in this permit shall preclude the use, including exclusive use of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.² **(40 CFR 60.11(g))**
- 5. The permittee shall comply with the provisions of the Transport 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)**
- 6. The permittee shall comply with the provisions of the Transport Rule NOx Ozone Trading Program, as specified in 40 CFR, Part 97 Subpart BBBBB, and identified in Appendix 10-1. **(40 CFR Part 97, Subpart BBBBB)**
- 7. The permittee shall comply with the provisions of the Transport 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).

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**EUEASTAUXBOILER
 EMISSION UNIT CONDITIONS**

DESCRIPTION

East auxiliary boiler nominally rated at 181.4 MMBtu per hour heat input, equipped with a continuous oxygen trim system and fired only with pipeline quality natural gas. Maximum steam output is 150,000 pounds per hour. This emission unit is subject to the Major Source Existing Gas 1 Fuel Subcategory per 40 CFR Part 63, Subpart DDDDD. (PTI No. 129-13)

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Nitrogen oxides (NOx)	0.90 lb. per million Btu heat input ²	Average of three 1-hour runs per test protocol.	EUEASTAUXBOILER	SC V.1	R 336.1201(3)
2. Nitrogen oxides (NOx)	202.5 lbs. per hour ²	Average of three 1-hour runs per test protocol.	EUEASTAUXBOILER	SC V.1	R 336.1201(3)
3. VE	20% opacity ²	Average per six-minute period except for one six-minute period per hour of not more than 27% opacity	EUEASTAUXBOILER	SC VI.1, EPA Reference Method 9	R 336.1201(3) R 336.1301(1)

II. MATERIAL LIMIT(S)

1. The permittee shall burn only pipeline quality natural gas in EUEASTAUXBOILER.² (R 336.1201(3), 40 CFR 63.7499(I))

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. At all times, the permittee must operate and maintain EUEASTAUXBOILER, 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))
2. The permittee must complete five year tune-ups on EUEASTAUXBOILER following the procedures stated in SC IX: (40 CFR 63.7540(a)(12))
 - a. Conduct the tune-up within 30 calendar days of startup, if the unit is not operating on the required date for a tune-up. (40 CFR 63.7540(a)(13))
 - b. The burner inspection specified in SC IX.2(a) may be delayed until the next scheduled or unscheduled unit shutdown, but must be completed at least once every 72 months. (40 CFR 63.7540(a)(12))

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- c. Each five-year tune-up must be conducted no more than 61 months after the previous tune-up except as described in SC III.2.a. **(40 CFR 63.7515(d))**
3. The oxygen level setting on the oxygen trim system for EUEASTAUXBOILER must be set no lower than the oxygen concentration measured during the most recent tune-up. **(40 CFR 63.7540(a)(12))**
4. The permittee may request approval from the Administrator to use an alternative to the tune up work practice standard described in SC III. **(40 CFR 63.7500(b))**
5. If the permittee switches fuel or makes a physical change to the boiler resulting in the applicability of a different subcategory after the initial compliance date, compliance must be demonstrated within 60 days of the effective date of the switch, unless a compliance demonstration for this subcategory has been conducted within the previous 12 months. **(40 CFR 63.7510(k))**
6. The permittee must complete the one-time energy assessment specified in Table 3 to 40 CFR Part 63 Subpart DDDDD no later than January 31, 2016. **(40 CFR 63.7510(e))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, calibrate, maintain and operate in a manner satisfactory to the District Supervisor, a device to monitor and record the natural gas usage in EUEASTAUXBOILER on a continuous basis.² **(R 336.1201(3))**

V. TESTING/SAMPLING

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

1. Upon request from the AQD District Supervisor, the permittee shall verify the NOx emission rates from EUEASTAUXBOILER, by testing at owner's expense, in accordance with Department requirements. Testing of NOx emission rates shall be performed using EPA Method 7E or 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. Not less than 7 days before the test is conducted, permittee shall notify the AQD Technical Programs Unit and District Supervisor in writing of the time and place of the performance test. 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. **(R336.1213(3)), R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall verify the presence of visible emissions by taking six-minute visible emission readings for EUEASTAUXBOILER pursuant to the schedule outlined in Appendix 3.5-1. The VE reader shall take each visible emission reading during routine operating conditions. Multiple stacks may be observed simultaneously. If visible emissions are present, the procedures outlined in Appendix 3.5-1 shall be implemented and the permittee shall maintain a written record of the corrective actions taken. The permittee may monitor visible emissions for EUEASTAUXBOILER from SV001-025 in a manner satisfactory to the District Supervisor.² **(R 336.1201(3), R 336.1301, R 336.1303)**
2. The permittee shall keep, in a manner satisfactory to the District Supervisor, records of all visible emission readings for EUEASTAUXBOILER. At a minimum, records shall include the date, time, name of observer/reader, whether the reader is certified, and status of visible emissions. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1201(3), R 336.1301, R 336.1303)**
3. The permittee shall maintain the following records on a monthly basis: **(R 336.1201(3))**
 - a. Hours of operation of EUEASTAUXBOILER.²

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- b. Total volume of natural gas consumed in EUEASTAUXBOILER.²
 - c. Heat input EUEASTAUXBOILER expressed in MMBtu.²
- 4. The permittee must keep a copy of each notification and report that the permittee submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or compliance report that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.7555(a)(1))**
 - 5. 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 two 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 three years. **(40 CFR 63.7560(a), (b), and (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. 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. The notification must identify:
 - a. The name of the owner or operator of the affected source, as defined in 40 CFR 63.7490, the location of the source, the boiler(s) that have switched fuels, were physically changed, and the date of the notice.
 - b. The currently applicable subcategory under this subpart.
 - c. The date upon which the fuel switch or physical change occurred. **(40 CFR 63.7545(h))**
- 5. 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 15 of the reporting year that immediately follows the year in which the tune-up was completed. Each subsequent compliance report must be postmarked or submitted no later than March 15th of the year following the tune-up and must cover the period starting from January 1 of the year following the previous tune-up to December 31 of the year of the latest tune-up. 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. The permittee shall begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. **(40 CFR 63.7550(b), 40 CFR 63.10(a)(5), 40 CFR 63.7550(h)(3))**
- 6. The permittee must include the following information in the boiler tune-up compliance report. **(40 CFR 63.7550(c), 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 date of the most recent tune-up for each unit subject to only the requirement to conduct a five-year tune-up according to 40 CFR 63.7540(a)(12). Include the date of the most recent burner inspection if it was not done on a five-year period and was delayed until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7550(c)(5)(xiv))**

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- 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. **40CFR63.7550(c)(5)(xvii)**
- 7. If verification of emission rates is required, the permittee shall submit the following: **(R 336.2001(3), (R 336.2001(4), (R 336.2001(5))**
 - a. The permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing.
 - b. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date.
 - c. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test.

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. SV001-025	144 ²	220 ²	R 336.1201(3)

IX. OTHER REQUIREMENT(S)

- 1. 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 DDDDD, as they apply to EUEASTAUXBOILER.² **(40 CFR Part 63 Subparts A and DDDDD)**
- 2. The permittee must demonstrate continuous compliance with the tune-up requirements by completing the following: **(40 CFR 63.7505(a))**
 - a. 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 tune-up or 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))**
 - 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 NOx 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

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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))**

- f. Maintain on-site and submit, if requested by the Administrator, the most recent periodic report containing the information as listed below. **(40 CFR 63.7540(a)(10)(vi))**
 - 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. **(40 CFR 63.7540(a)(10)(vi)(A))**
 - ii. A description of any corrective actions taken as a part of the tune-up. **(40 CFR 63.7540(a)(10)(vi)(B))**

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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**EUWESTAUXBOILER
 EMISSION UNIT CONDITIONS**

DESCRIPTION

West auxiliary boiler nominally rated at 173 MMBtu per hour heat input fired with No. 2, No. 6 oil or blends thereof (hereinafter termed "oil fuels"). This emission unit is a limited-use boiler (10% capacity factor) as defined in 40 CFR 63.7575. (PTI No. 129-13)

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Sulfur dioxide (SO ₂)	0.80 lb. per million Btu heat input ^{2*}	As-fired fuel. See Note*	EUWESTAUXBOILER	SC V.1	R 336.1201(3), R 336.1401(1)
	180 lbs. per hour ²	1-Hour average See Note**			
2. Particulate matter (PM)	0.072 lb. per million Btu heat input ²	Average of three 1-hour (60-minute minimum) runs per test protocol.	EUWESTAUXBOILER	SC VI.1	R 336.1201(3) R 336.1331(1)(d)
	16.20 lbs. per hour ²				
	0.10 lb. per 1,000 lbs. of exhaust gases, on a wet basis, corrected to 50% excess air ²	Average of three 1-hour (60-minute minimum) runs per test protocol.	EUWESTAUXBOILER	SC V.2	R 336.1331
3. Nitrogen oxides (NO _x)	0.90 lb. per million Btu heat input ²	Average of three 1-hour runs per test protocol.	EUWESTAUXBOILER	SC V.3	R 336.1201(3)
	202.5 lbs. per hour ²				
4. Visible Emissions	20% opacity ²	Average per six-minute period except for one six-minute period per hour of not more than 27% opacity	EUWESTAUXBOILER	SC VI.1, EPA Reference Method 9	R 336.1201(3) R 336.1301(1)

* This is equivalent to using oil fuels with 0.78% sulfur content and a heat value of 19,390 Btu's per pound.² Compliance with this limit shall be considered compliance with the limit of R 336.1401, which has been subsumed under this streamlined requirement. (R 336.1201(3))

** The 1-hour average value shall be determined by the average of three test runs per the test method requirements.

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II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. All oil fuels combusted (See Note A)	10 percent annual capacity factor ² (see Note B)	Calendar year	EUWESTAUXBOILER	SC VI.3	40 CFR 63.7555(a)(3), 40 CFR 63.7495(b), 40 CFR 63.7575, R 336.1201(3)

Note A: Effective December 31, 2015 for compliance with 40 CFR 63.7555(d)(3) and 40 CFR 63.7495(b) subject to the definition of a limited use boiler at 40 CFR 63.7575. *Limited-use boiler or process heater* means any boiler or process heater that burns any amount of solid, liquid, or gaseous fuels and has a federally enforceable annual capacity factor of no more than 10 percent.

Note B: 40 CFR 63.7575. *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 and 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.

III. PROCESS/OPERATIONAL RESTRICTION(S)

- At all times, the permittee must operate and maintain EUWESTAUXBOILER, 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))**
- The permittee must complete an initial tune-up by following the procedures described in 40 CFR 63.7540(a)(10)(i) through (vi) no later than January 31, 2016, except for existing affected sources that have not operated between the effective date of 40 CFR Part 63 Subpart DDDDD, January 31, 2013, and the compliance date January 31, 2016, the permittee must complete an initial tune-up no later than 30 days after the re-start of the affected source. **(40 CFR 63.7510(e)), (40 CFR 63.7510(j))**
- Subsequent tune-ups must be conducted no more than five years (61 months) after the previous tune-up following the procedures described in 40 CFR 63.7540(a)(10)(i) through (vi), except as allowed in 40 CFR 63.7540(a)(13) and 40 CFR 63.7500(b). **(40 CFR 63.7500(b), 40 CFR 63.7500(c), 40 CFR 63.7515(d)), 40 CFR 63.7540(a)(13))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

- The permittee shall install, calibrate, maintain and operate in a manner satisfactory to the District Supervisor, a device to monitor and record the oil fuels usage in EUWESTAUXBOILER on a continuous basis.² **(40 CFR 63.7555(a)(3), 40 CFR 63.7495(b), R 336.1201(3))**

V. TESTING/SAMPLING

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

- The permittee shall analyze and record the sulfur content of the oil fuels.² **(R 336.1201(3))**

See Appendix 3-1.1, Fuel Oil Sulfur Monitoring

- Upon request from the AQD District Supervisor, the permittee shall verify the PM emission rates from EUWESTAUXBOILER, by testing at owner's expense, in accordance with Department requirements. Testing of PM emission rates shall be performed using EPA Method 5 or an approved EPA Method listed in 40 CFR Part 60, Appendix A; and Part 10 of the Michigan Air Pollution Control Rules. An alternate method, or a modification

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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. Not less than 7 days before the test is conducted, permittee shall notify the AQD Technical Programs Unit and District Supervisor in writing of the time and place of the performance test. 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)**

3. Upon request from the AQD District Supervisor, the permittee shall verify the NO_x emission rates from EUWESTAUXBOILER, by testing at owner's expense, in accordance with Department requirements. Testing of NO_x emission rates shall be performed using EPA Method 7E or 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. Not less than 7 days before the test is conducted, permittee shall notify the AQD Technical Programs Unit and District Supervisor in writing of the time and place of the performance test. 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. **(R336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall verify the presence of visible emissions by taking six-minute visible emission readings for EUWESTAUXBOILER pursuant to the schedule outlined in Appendix 3.5-1. The VE reader shall take each visible emission reading during routine operating conditions. Multiple stacks may be observed simultaneously. If visible emissions are present, the procedures outlined in Appendix 3.5-1 shall be implemented, and the permittee shall maintain a written record of the corrective actions taken. The permittee may monitor visible emissions for EUWESTAUXBOILER from SV001-025 in a manner satisfactory to the District Supervisor.² **(R 336.1201(3), R 336.1301, R 336.1303)**
2. The permittee shall keep, in a manner satisfactory to the District Supervisor, records of all visible emission readings for EUWESTAUXBOILER. At a minimum, records shall include the date, time, name of observer/reader, whether the reader is certified, and status of visible emissions. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1201(3), R 336.1301, R 336.1303)**
3. The permittee shall maintain the following records on a monthly basis:
 - a. Hours of operation of EUWESTAUXBOILER² **(R 336.1201(3))**
 - b. Total volume of oil fuels consumed in EUWESTAUXBOILER, by type, in gallons² **(40 CFR 63.7555(a)(3), 40 CFR 63.7525(k), R 336.1201(3))**
 - c. Heating value of oil fuels, as fired, expressed in Btu per gallon² **(40 CFR 63.7555(a)(3), R 336.1201(3))**
 - d. Heat input from oil fuels, expressed in MMBtu per gallon² **(40 CFR 63.7555(a)(3), R 336.1201(3))**
 - e. Sulfur content of oil fuels, expressed as a percentage by weight² **(R 336.1201(3))**
 - f. Annual capacity factor for EUWESTAUXBOILER² **(40 CFR 63.7555(a)(3))**
4. The permittee must keep 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 tune-up compliance report that permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.7555(a)(1))**
5. 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 two 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 three years. **(40 CFR 63.7560(a), (b), and (c))**

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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 within 60 days following last date of test. **(R 336.1213(3)(c), R 336.2001(5))**
5. The permittee must submit the Notification of Compliance Status according to the requirements in 40 CFR 63.7545(e). **(40 CFR 63.7530(f))**
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 tune-up was completed and must be postmarked or submitted no later than March 15 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 15 of the year following the 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 compliance 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))**
7. The permittee must include the following information required in the boiler tune-up 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 subject to only the requirement to conduct an annual, biennial, or five-year tune-up according to 40 CFR 63.7540(a)(10), (11), or (12) respectively. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a five-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))**
 - f. The total operating time during the reporting period. **(40 CFR 63.7550(c)(5)(iv))**
8. 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. The notification must identify the following: **(40 CFR 63.7545(h))**
 - a. The name of the owner or operator of the affected source, as defined in 40 CFR 63.7490, the location of the source, the boiler(s) and process heater(s) that have switched fuels, were physically changed, and the date of the notice. **(40 CFR 63.7545(h)(1))**
 - b. The currently applicable subcategory under 40 CFR Part 63 Subpart DDDDD. **(40 CFR 63.7545(h)(2))**
 - c. The date upon which the fuel switch or physical change occurred. **(40 CFR 63.7545(h)(3))**

See Appendix 8-1

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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. SV001-025	144 ²	220 ²	R 336.1201(3)

IX. OTHER REQUIREMENT(S)

1. 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 DDDDD, as they apply to EUWESTAUXBOILER.² **(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).

**EU-GDF
 EMISSION UNIT CONDITIONS**

DESCRIPTION

A new (placed into operation on or after July 1, 1979) gasoline underground storage tank of 2,500-gallon capacity (9.46 cubic meters) at a gasoline dispensing facility (GDF). This emission unit is exempt from the requirements of Rule 336.1201 pursuant to R 336.1278 and per R 336.1284(2)(g)(ii).

Commented [ADT2]: DTE requests to add this EU description change to specify that is tank is located underground.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Vapor balance system

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The stationary vessel shall be equipped with a permanent submerged fill pipe. **(R 336.1703(1))**
2. The stationary vessel shall be controlled by a vapor balance system or an equivalent control system approved by the department. The vapor balance system shall capture displaced gasoline vapor and air via a vaportight collection line and shall be designed to return not less than 90% by weight of the displaced gasoline vapor from the stationary vessel to the delivery vessel. **(R 336.1703(2))**
3. The stationary vessel shall be equipped, maintained, or controlled with both of the following: **(R 336.1703(3))**
 - a. An interlocking system or procedure to ensure that the vaportight collection line is connected before any gasoline can be loaded.
 - b. A device to ensure that the vaportight collection line shall close upon disconnection so as to prevent release of gasoline vapor.

V. TESTING/SAMPLING

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

NA

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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))

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)

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).

**EUEMGFIREPUMP
EMISSION UNIT CONDITIONS****DESCRIPTION**

Emergency fire pump engine exempt from R 336.1201 per R 336.1285(2)(g) for internal combustion engines that have less than 10,000,000 Btu/hour maximum heat input. This engine is subject to 40 CFR Part 60 Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. This engine was manufactured on April 14, 2016. This engine is a turbo-charged, air-cooled, 4-cycle, and in-line 6-cylinder diesel compression ignition engine with 8.9-liter total cylinder displacement. Maximum heat input of 1.98 MMBtu/hr. The engine nameplate rates the engine output at 260 HP at 1760 RPM. In accordance with 40 CFR 60.4200, the construction commenced on April 18, 2016.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NMHC + NOx	4.0 g/KW-hr. or 3.0 g/HP-hr.	Average of three 1-hour runs per test protocol.	EUEMGFIREPUMP	SC V.1 SC VI.3	40 CFR 60.4205(c)
2. PM	0.20 g/KW-hr. or 0.15 g/HP-hr.	Average of three 1-hour (60-minute minimum) runs per test protocol.	EUEMGFIREPUMP	SC V.1 SC VI.3	40 CFR 60.4205(c)

II. MATERIAL LIMIT(S)

- The permittee shall burn only diesel fuel with the maximum sulfur content of 15 ppm (0.0015 percent) by weight, and either minimum cetane index of 40 or maximum aromatic content of 35 volume percent. **(40 CFR 60.4207(b), 40 CFR 80.510(b))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

- For the engine to be operated as a certified engine, the permittee shall meet the following requirements for EUEMGFIREPUMP: **(40 CFR 60.4211(a), (c) and (g))**
 - Operate and maintain the certified engine according to the manufacturer's emission related written instructions, and
 - Change only those emission related settings that are permitted by the manufacturer.

If the permittee does not operate and maintain the certified engine according to the requirements in this condition, the engine will be considered to operate as a non-certified engine and SC III.2 must be followed.

- If the certified engine is not operated as a certified engine as described in SC III.1, the permittee must demonstrate compliance as follows: **(40 CFR 60.4211(g))**
 - The permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.
 - The permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within one year of startup, or within one year after an engine and control device is no

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longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within one year after the permittee changes emission-related settings in a way that is not permitted by the manufacturer.

3. There is no time limit on the use of EUEMGFIREPUMP in emergency situations. **(40 CFR 60.4211(f)(1))**
4. EUEMGFIREPUMP may be operated up to 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but 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 ICE beyond 100 hours per calendar year. **(40 CFR 60.4211(f)(2)(i))**
5. EUEMGFIREPUMP 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.4. **(40 CFR 60.4211(f)(3))**
6. The permittee shall operate and maintain EUEMGFIREPUMP to meet the emission standards as required by SC I.1 and I.2, over the entire life of the engine. **(40 CFR 60.4206)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee must install a non-resettable hour meter, to track the operating hours, prior to startup of the engine. **(40 CFR 60.4209(a))**
2. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of 40 CFR 60.4211. **(40 CFR 60.4211(c))**

V. TESTING/SAMPLING

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

1. If EUEMGFIREPUMP is operated in a non-certified manner, the permittee shall conduct an initial performance test for EUEMGFIREPUMP within one year of beginning operation in a non-certified manner to demonstrate compliance with the emission limits in SC I.1.1 and 1.2. 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 final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(40 CFR 60.4205(c), 40 CFR 60.4211(g), 40 CFR 60.4212, 40 CFR Part 60 Subpart IIII)**

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 must keep records, on a monthly basis, of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee must record the time of operation of the engine and the reason the engine was in operation during that time. **(40 CFR 60.4214(b))**
2. The permittee shall maintain, in a manner satisfactory to the AQD District Supervisor, a complete record of fuel specifications and/or a fuel oil analysis for each delivery, or storage tank, of fuel oil. These records may include purchase records for ASTM specification fuel oil, specifications or analyses provided by the vendor at the time of delivery, analytical results from laboratory testing, or any other record adequate to demonstrate compliance with SC.II.1. The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 60.4207, 40 CFR 80.510(b))**
3. The permittee shall keep, in a manner satisfactory to the AQD District Supervisor, the following records indicating that EUEMGFIREPUMP meets the applicable emission limitations contained in SC I1 and I.2. **(40 CFR 60.4211(g)(2))**

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- a. If the certified engine is being operated in a certified manner, the permittee shall keep engine certification documentation and records of maintenance activities for EUEMGFIREPUMP.
- b. If the certified engine is operated in a non-certified manner, the permittee shall keep a maintenance plan, records of maintenance activities performed, and the results of the one-time stack test for EUEMGFIREPUMP.

See Appendix 7-1

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. Permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD within 60 days following last date of test. **(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
NA	NA	NA	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, Subpart A and Subpart IIII, as they apply to EUEMGFIREPUMP. **(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, Subpart A and Subpart ZZZZ, as they apply to EUEMGFIREPUMP, and per 63.6590(c)(7), shall meet those requirements by meeting the requirements of 40 CFR 60 Subpart IIII. **(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).

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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.

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
FGCOLDCLEANERS	Any new cold cleaner (placed into operation after July 1, 1979 that is exempt from NSR permitting by R 336.1281(h) or R 336.1285(r)(iv).	EUCOLDCLEANER EU03-4
FGRULE290	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201; pursuant to Rules 278, 278a and 290.	EURULE290

**FGCOLDCLEANERS
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 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: EUCOLDCLEANER, EU03-4 machine shop parts cleaner.

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))**

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- 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

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-RULE 290
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278, 278a and 290. Emission units installed/modified before December 20, 2016, may show compliance with Rule 290 in effect at the time of installation/modification.

Emission Units installed on or after December 20, 2016: EU-RULE290 and any future emission unit that meets the requirements of this flexible group.

Emission Units installed prior to December 20, 2016: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

1. Each emission unit that emits only noncarcinogenic volatile organic compounds or noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, if the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively. **(R 336.1290(2)(a)(i))**
2. Any emission unit for which CO2 equivalent emissions are not more than 6,250 tons per month and for which the total uncontrolled or controlled emissions of all other air contaminants are not more than 1,000 or 500 pounds per month, respectively, and all the following criteria listed below are met: **(R 336.1290(2)(a)(ii))**
 - a. For toxic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 0.04 micrograms per cubic meter and less than 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(2)(a)(ii)(A))**
 - b. For toxic air contaminants with initial risk screening levels greater than or equal to 0.04 microgram per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(2)(a)(ii)(B))**
 - c. The emission unit shall not emit any toxic air contaminants, excluding non-carcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with an initial threshold screening level or initial risk screening level less than 0.04 microgram per cubic meter. **(R 336.1290(2)(a)(ii)(C))**
 - d. For total mercury, the uncontrolled or controlled emissions shall not exceed 0.01 pounds per month from emission units installed on or after December 20, 2016. **(R 336.1290(2)(a)(ii)(D))**
 - e. For lead, the uncontrolled or controlled emissions shall not exceed 16.7 pounds per month from emission units installed on or after December 20, 2016. **(R 336.1290(2)(a)(ii)(E))**
3. Any emission unit that emits only particulate air contaminants without initial risk screening levels and other air contaminants that are exempted under Rule 290(2)(a)(i) or Rule 290(2)(a)(ii), if all the following provisions are met: **(R 336.1290(2)(a)(iii))**

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- a. The particulate emissions are controlled by an appropriately designed and operated fabric filter collector or an equivalent control system which is designed to control particulate matter to a concentration of less than or equal to 0.01 pound of particulate per 1,000 pounds of exhaust gases and which does not have exhaust gas flow rate more than 30,000 actual cubic feet per minute. **(R 336.1290(2)(a)(iii)(A))**
- b. The visible emissions from the emission unit are not more than 5% opacity in accordance with the methods contained in Rule 303. **(R 336.1290(2)(a)(iii)(B))**
- c. The initial threshold screening level for each particulate toxic air contaminant, excluding nuisance particulate, is more than 2.0 micrograms per cubic meter. **(R 336.1290(2)(a)(iii)(C))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The provisions of Rule 290 apply to each emission unit that is operating pursuant to Rule 290. **(R 336.1290)**
2. The following requirements apply to emission units installed on or after December 20, 2016, utilizing control equipment:
 - b. An air cleaning device for volatile organic compounds shall be installed, maintained, and operated in accordance with the manufacturer's specifications. Examples include the following **(R 336.1290(2)(b)(i), R 336.1910)**
 - i. Oxidizers and condensers equipped with a continuously displayed temperature indication device.
 - ii. Wet scrubbers equipped with a liquid flow rate monitor.
 - iii. Dual stage carbon absorption where the first canister is monitored for breakthrough and replaced if breakthrough is detected.
 - c. An air cleaning device for particulate matter shall be installed, maintained, and operated in accordance with the manufacturer's specifications or the permittee shall develop a plan that provides to the extent practicable for the maintenance and operation of the equipment in the manner consistent with good air pollution control practices for minimizing emissions. It shall also be equipped to monitor appropriate indicators of performance, for example, static pressure drop, water pressure, and water flow rate. **(R 336.1290(2)(b)(ii), R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

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. The permittee shall maintain records of the following information for each emission unit for each calendar month using the methods outlined in the DEQ, AQD Rule 290; Permit to Install Exemption Record form (EQP 3558) or in a format that is acceptable to the AQD District Supervisor. **(R 336.1213(3))**
 - a. Records identifying each air contaminant that is emitted. **(R 336.1213(3))**
 - b. Records identifying if each air contaminant is controlled or uncontrolled. **(R 336.1213(3))**

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- c. Records identifying if each air contaminant is either carcinogenic or non-carcinogenic. **(R 336.1213(3))**
 - d. Records identifying the ITSL and IRSL, if established, of each air contaminant that is being emitted under the provisions of Rules 290(2)(a)(ii) and (iii). **(R 336.1213(3))**
 - e. Records of material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions in sufficient detail to demonstrate that the actual emissions of the emission unit meet the emission limits outlined in this table and Rule 290. Volatile organic compound emissions from units installed on or after December 20, 2016, shall be calculated using mass balance, generally accepted engineering calculations, or another method acceptable to the AQD District Supervisor. **(R 336.1213(3), R 336.1290(2)(d))**
 - f. Records are maintained on file for the most recent 2-year period and are made available to the department upon request. **(R 336.1213(3), R 336.1290(2)(e))**
2. The permittee shall maintain an inventory of each emission unit that is exempt pursuant to Rule 290. This inventory shall include the following information. **(R 336.1213(3))**
- a. The permittee shall maintain a written description of each emission unit as it is maintained and operated throughout the life of the emission unit. **(R 336.1290(2)(c), R 336.1213(3))**
 - b. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(2)(a)(iii), the permittee shall maintain a written description of the control device, including the designed control efficiency and the designed exhaust gas flow rate. **(R 336.1213(3))**
3. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(2)(a)(iii), the permittee shall perform a monthly visible emission observation of each stack or vent during routine operating conditions. This observation need not be performed using Method 9. The permittee shall keep a written record of the results of each observation. **(R 336.1213(3))**

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))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

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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. Acronyms and Abbreviations**

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 _{2e}	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 Environmental Quality	°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
MDEQ	Michigan Department of Environmental Quality	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 psig.

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Appendix 2-1. 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 3-1. Monitoring Requirements

The following monitoring procedures, methods, or specifications provide the details for the monitoring requirements identified and referenced in EUBOILER1, EUEASTAUXBOILER AND EUWESTAUXBOILER.

3-1.1. Fuel Oil Sulfur Monitoring

For EUBOILER1 and EUWESTAUXBOILER, the permittee shall maintain a complete record of fuel oil specifications and/or fuel analysis for each delivery, or storage tank, of fuel oil. These records may include purchase records for ASTM specification fuel oil, specifications or analyses provided by the vendor at the time of delivery, analytical results from laboratory testing, or any other records adequate to demonstrate compliance with the percent sulfur limit in fuel oil. The fuel analyses values shall be used to calculate SO₂ emission rates (lbs/hr) from EUWESTAUXBOILER.

3-1.2. Continuous Emission Monitoring Systems (SO₂)

The Continuous Emissions Monitoring Systems (CEMS) performance specifications defined in 40 CFR Part 75, Appendix B are adopted. The Certified SO₂ monitors will be used to determine sulfur dioxide emissions. The data reduction procedures defined in R 336.2175 will be used to determine SO₂ lbs/MMBTU. The CEMS data recording system will be capable of generating a monthly average of SO₂ emissions as the average of the one-hour periods reported for Part 75 for the previous month.

3-1.3. Continuous Emissions Monitoring System (Title IV)

The CEMS performance specifications defined in 40 CFR Part 75, Appendix B are adopted.

Methods of measurement, frequency of measurement and record keeping methods for CEMS required under 40 CFR 75 are outlined in the most recent version of the Acid Rain Program – Greenwood Energy Center Monitoring Plan.

Data Reporting: AQD may approve alternative data reporting or reduction procedures if it can be demonstrated that such procedures are at least as accurate as the procedures identified in R 336.2175.

3-1.4. Continuous Opacity Monitoring Systems

The Continuous Opacity Monitoring System (COMS) performance specifications defined in 40 CFR Part 60, Appendix B are adopted.

Cycling time for opacity: The COMS must complete a minimum of one cycle of sampling/analysis for each successive ten-second period and one cycle of data recording for each successive six-minute period. (R 336.2152)

Zero and Drift: The COMS must be subject to the manufacturer's zero and span check at least once daily. (R 336.2153)

Location: The location of the COMS or the monitoring devices must be such that representative measurements of emissions or process parameters are obtained. (R 336.2155)

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Alternative Systems: AQD may approve the use of an alternative monitoring system if one is available that meets COMS objectives and if, because of physical limitations or other reasons, COMS cannot be installed or give accurate measurements. **(R 336.2159)**

Monitoring and reporting requirements shall not apply during any period of monitoring system malfunction if it can be demonstrated to the satisfaction of AQD that: the cause of the malfunction could not have been avoided by any reasonable action and necessary repairs are being made as expeditiously as practicable. **(R 336.2190)**

3-1.5. Auxiliary Boiler Visible Emission Procedure

The permittee shall perform a non-certified visible emission observation of the Auxiliary Boiler common stack when an Auxiliary Boiler is combusting oil or natural gas according to the following operation schedule:

Number of Operating Hours per Week	Number of Observations per week
0 - 12	0
12 – 36	1
36 – 60	2
60 – 84	3
Etc.	+1, to a maximum of 7

Upon noting visible emissions during the non-certified visible emissions observation specified in EUEASTAUXBOILER OR EUWESTAUXBOILER Special Condition VI.1, the permittee shall initiate any of the following corrective actions until visible emissions return to permissible limits:

1. Conduct a certified visible emissions observation in compliance with EPA Method 9 -- Visual Determination of the Opacity of Emissions from Stationary Sources (40 CFR Part 60, Appendix A-4) to determine if the six minute average emissions exceeded the 20 percent opacity limit (except for one, six-minute period of 27 percent once per hour).
2. Inspect auxiliary boiler and operating parameters for possible cause of visible emissions and implement changes (if any).
3. Perform another non-certified visible emission observation of the exhaust stack to determine if visible emissions have stopped.

Once the visible emissions have stopped or are shown to be within permissible limits by certified Method 9 reading, then the corrective action situation is complete. If the corrective actions are not sufficient to reduce the visible emissions to permissible levels, the boiler shall be shut-down

Appendix 4-1. 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 5-1. Testing Procedures

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

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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-B6145-2011. 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-B6145-2011a is being reissued as Source-Wide PTI No. MI-PTI-B6145-2018.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
129-13	201400072	IB MACT CONDITIONS FOR ROP	EUBOILER1

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 MDEQ, AQD, Report Certification form (EQP 5736) and MDEQ, 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

The permittee shall use formats approved by the AQD District Supervisor for all other reporting. The MDEQ Report Certification form (EQP 5736) shall accompany all such reports (e.g., MAERS submittals).

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Appendix 9-1. Acid Rain Permit

Commented [ADT3]: EGLE to update ARP



Michigan Department of Environmental Quality
Air Quality Division

PHASE II ACID RAIN PERMIT
Permit No. MI-AR-6035-2018

Permittee Greenwood Energy Center
Address 7000 Kilgore Rd., Avoca, MI
SRN B6145
ORIS code 6035
Issue Date May 17, 2018
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-B6145-2018

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.

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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 Environmental Quality, 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:

Brian Carley
Environmental Quality Specialist
Michigan Department of Environmental Quality
Air Quality Division, Jackson District Office
301 East Louis Glick Highway
Jackson, Michigan 49201-1556
Telephone: (517) 780-7843
Facsimile: (517) 780-7855

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

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Terms and Conditions:

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

		20XX	20XX	20XX	20XX	20XX
Unit 1	SO ₂ allowances	541	541	541	541	541

		20XX	20XX	20XX	20XX	20XX
Unit CTG 11-1	SO ₂ allowances	This affected unit shall hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c) of this chapter) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and comply with the applicable Acid Rain emissions limitation for sulfur dioxide in accordance with 40 CFR 72.9 (c).				

		20XX	20XX	20XX	20XX	20XX
Unit CTG 11-2	SO ₂ allowances	This affected unit shall hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c) of this chapter) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and comply with the applicable Acid Rain emissions limitation for sulfur dioxide in accordance with 40 CFR 72.9 (c).				

		20XX	20XX	20XX	20XX	20XX
Unit CTG 12-1	SO ₂ allowances	This affected unit shall hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c) of this chapter) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and comply with the applicable Acid Rain emissions limitation for sulfur dioxide in accordance with 40 CFR 72.9 (c).				

Comments, notes and justifications regarding permit decisions, and changes made to the permit application forms during the review process: None

Permit Application: (attached)

Phase II Acid Rain Permit application submitted October 7, 2015

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United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2050-0258
Approval expires 11/30/2012

Acid Rain Permit Application

For more information, see instructions and 40 CFR 72.30 and 72.31.

This submission is: New Revised for ARP permit renewal

STEP 1

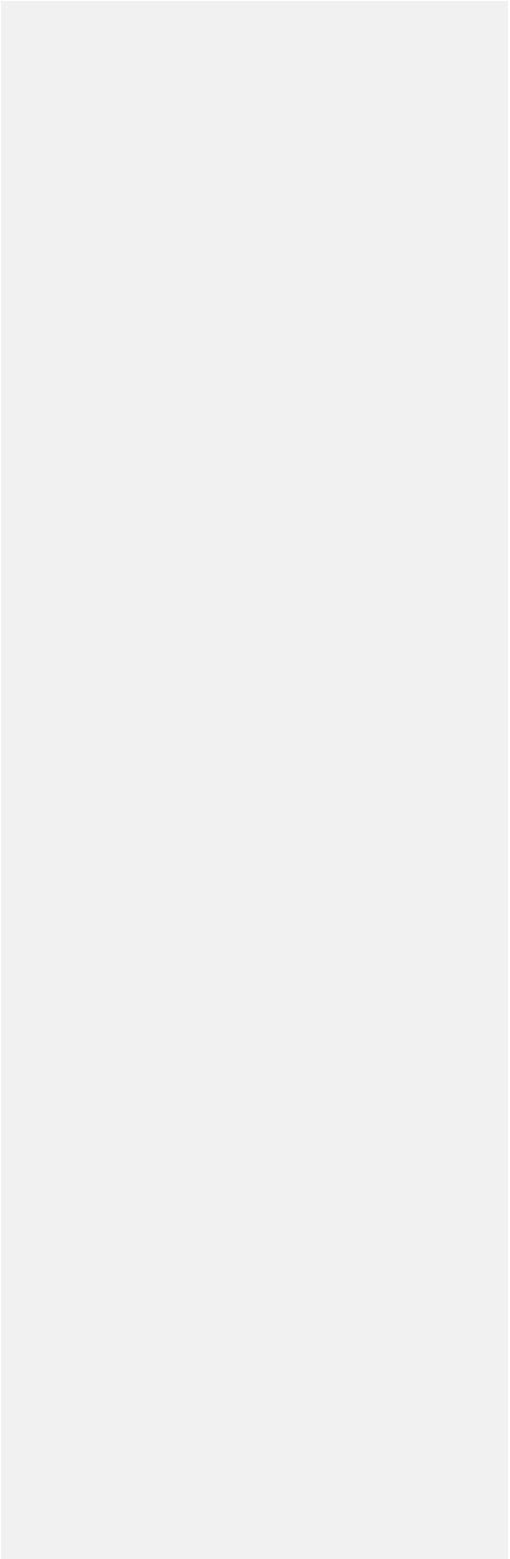
Identify the facility name, State, and plant (ORIS) code.

Greenwood Energy Center	MI	6035
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STEP 2

Enter the unit ID# for every affected unit at the affected source in column "a."

a	b
Unit ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)
1	Yes
CTG 11-1	Yes
CTG 11-2	Yes
CTG 12-1	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes



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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).

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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

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submission of a new certificate of representation changing the designated representative;

STEP 3, Cont'd. Recordkeeping and Reporting Requirements, 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:

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STEP 3, Cont'd.

(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

Effect on Other Authorities, 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;

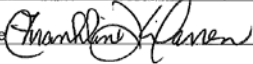
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

STEP 4
Read the certification statement, sign, and date.

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 Warren, Designated Representative	
Signature: 	Date: 9-16-2015

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Appendix 10-1. Transport Rule (TR) Trading Program Title V Requirements

Commented [ADT4]: EGLE to update this Appendix for CSAPR. Change all TR references to CSAPR.

Description of TR Monitoring Provisions

The TR 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 TR NOx Annual Trading Program, TR NOx Ozone Season Trading Program, and TR 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) and 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: Unit 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 and 40 CFR Part 75, Subpart H

Unit ID: CTG 11-1	
Parameter	Monitoring Methodology
SO ₂	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR Part 75, appendix D
NO _x	Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR Part 75, appendix E
Heat Input	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR Part 75, appendix D

Unit ID: CTG 11-2	
Parameter	Monitoring Methodology
SO ₂	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR Part 75, appendix D
NO _x	Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR Part 75, appendix E
Heat Input	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR Part 75, appendix D

Unit ID: CTG 12-2	
Parameter	Monitoring Methodology
SO ₂	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR Part 75, appendix D
NO _x	Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR Part 75, appendix E
Heat Input	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR Part 75, appendix D

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1. 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 (TR NO_x Annual Trading Program), 97.530 through 97.535 (TR NO_x Ozone Season Trading Program), and 97.630 through 97.635 (TR 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 TR trading programs.
2. 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>.
3. 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 (TR NO_x Annual Trading Program), 97.535 (TR NO_x Ozone Season Trading Program), and/or 97.635 (TR 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>.
4. Owners and operators that want to use an alternative to any monitoring, recordkeeping, or reporting requirement under 40 CFR 97.430 through 97.434 (TR NO_x Annual Trading Program), 97.530 through 97.534 (TR NO_x Ozone Season Trading Program), and/or 97.630 through 97.634 (TR 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 (TR NO_x Annual Trading Program), 97.535 (TR NO_x Ozone Season Trading Program), and/or 97.635 (TR 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>.
5. The descriptions of monitoring applicable to the unit included above meet the requirement of 40 CFR 97.430 through 97.434 (TR NO_x Annual Trading Program), 97.530 through 97.534 (TR NO_x Ozone Season Trading Program), and 97.630 through 97.634 (TR 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: TR 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.

(1) The owners and operators, and the designated representative, of each TR NO_x Annual source and each TR 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).

(2) The emissions data determined in accordance with 40 CFR 97.430 through 97.435 shall be used to calculate allocations of TR NO_x Annual allowances under 40 CFR 97.411(a)(2) and (b) and 97.412 and to determine compliance with the TR 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) TR 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 TR NO_x Annual source and each TR NO_x Annual unit at the source shall hold, in the source's

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compliance account, TR 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 TR NO_x Annual units at the source.

- (ii). If total NO_x emissions during a control period in a given year from the TR NO_x Annual units at a TR NO_x Annual source are in excess of the TR NO_x Annual emissions limitation set forth in paragraph (c)(1)(i) above, then:

- (A). The owners and operators of the source and each TR NO_x Annual unit at the source shall hold the TR NO_x Annual allowances required for deduction under 40 CFR 97.424(d); and
- (B). The owners and operators of the source and each TR 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) TR NO_x Annual assurance provisions.

- (i). If total NO_x emissions during a control period in a given year from all TR NO_x Annual units at TR 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) TR 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 TR NO_x Annual units at TR 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 TR 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 TR NO_x Annual units at TR 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 TR NO_x Annual units at TR 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 TR NO_x Annual units at TR 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 TR 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 TR 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.

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- (3) Compliance periods.
- (i). A TR 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 TR 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 TR 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 TR NO_x Annual allowance that was allocated for such control period or a control period in a prior year.
 - (ii). A TR 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 TR 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 TR 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 TR 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 TR 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 TR 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 TR NO_x Annual allowances in accordance with 40 CFR Part 97, Subpart AAAAA.
 - (2) This permit incorporates the TR 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 TR 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 TR NO_x Annual source and each TR 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 TR 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 TR NO_x Annual Trading Program.
- (2) The designated representative of a TR NO_x Annual source and each TR NO_x Annual unit at the source shall make all submissions required under the TR 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.

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(f) Liability.

- (1) Any provision of the TR NO_x Annual Trading Program that applies to a TR NO_x Annual source or the designated representative of a TR NO_x Annual source shall also apply to the owners and operators of such source and of the TR NO_x Annual units at the source.
- (2) Any provision of the TR NO_x Annual Trading Program that applies to a TR NO_x Annual unit or the designated representative of a TR NO_x Annual unit shall also apply to the owners and operators of such unit.

(g) Effect on other authorities.

No provision of the TR 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 TR NO_x Annual source or TR 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: TR NO_x Ozone Season Trading Program Requirements (40 CFR 97.506)

(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 97.513 through 97.518.

(b) Emissions monitoring, reporting, and recordkeeping requirements.

- (1) The owners and operators, and the designated representative, of each TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.530 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.531 (initial monitoring system certification and recertification procedures), 97.532 (monitoring system out-of-control periods), 97.533 (notifications concerning monitoring), 97.534 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.535 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).
- (2) The emissions data determined in accordance with 40 CFR 97.530 through 97.535 shall be used to calculate allocations of TR NO_x Ozone Season allowances under 40 CFR 97.511(a)(2) and (b) and 97.512 and to determine compliance with the TR NO_x Ozone Season 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 97.530 through 97.535 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) TR NO_x Ozone Season emissions limitation.
 - (i). As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall hold, in the source's compliance account, TR NO_x Ozone Season allowances available for deduction for such control period under 40 CFR 97.524(a) in an amount not less than the tons of total NO_x emissions for such control period from all TR NO_x Ozone Season units at the source.
 - (ii). If total NO_x emissions during a control period in a given year from the TR NO_x Ozone Season units at a TR NO_x Ozone Season source are in excess of the TR NO_x Ozone Season emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - (A). The owners and operators of the source and each TR NO_x Ozone Season unit at the source shall hold the TR NO_x Ozone Season allowances required for deduction under 40 CFR 97.524(d); and
 - (B). The owners and operators of the source and each TR NO_x Ozone Season 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 BBBBB and the Clean Air Act.

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- (2) TR NO_x Ozone Season assurance provisions.
- (i). If total NO_x emissions during a control period in a given year from all TR NO_x Ozone Season units at TR NO_x Ozone Season 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) TR NO_x Ozone Season allowances available for deduction for such control period under 40 CFR 97.525(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 97.525(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 TR NO_x Ozone Season units at TR NO_x Ozone Season 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 TR NO_x Ozone Season 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 TR NO_x Ozone Season units at TR NO_x Ozone Season 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 97.510(a) and the state's variability limit under 40 CFR 97.510(b).
 - (iv). It shall not be a violation of 40 CFR Part 97, Subpart BBBBB or of the Clean Air Act if total NO_x emissions from all TR NO_x Ozone Season units at TR NO_x Ozone Season 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 TR NO_x Ozone Season units at TR NO_x Ozone Season 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 TR NO_x Ozone Season 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 TR NO_x Ozone Season 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 BBBBB and the Clean Air Act.
- (3) Compliance periods.
- (i). A TR NO_x Ozone Season 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 97.530(b) and for each control period thereafter.
 - (ii). A TR NO_x Ozone Season 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 97.530(b) and for each control period thereafter.
- (4) Vintage of allowances held for compliance.
- (i). A TR NO_x Ozone Season allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR NO_x Ozone Season allowance that was allocated for such control period or a control period in a prior year.

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- (ii). A TR NO_x Ozone Season 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 TR NO_x Ozone Season 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 TR NO_x Ozone Season 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 BBBBBB.
- (6) Limited authorization. A TR NO_x Ozone Season 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 TR NO_x Ozone Season Trading Program; and
 - (ii). Notwithstanding any other provision of 40 CFR Part 97, Subpart BBBBBB, 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 TR NO_x Ozone Season 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 TR NO_x Ozone Season allowances in accordance with 40 CFR Part 97, Subpart BBBBBB.
 - (2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.530 through 97.535, 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 TR 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 97.506(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 TR NO_x Ozone Season source and each TR NO_x Ozone Season 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 97.516 for the designated representative for the source and each TR NO_x Ozone Season 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 97.516 changing the designated representative.
 - (ii). All emissions monitoring information, in accordance with 40 CFR Part 97, Subpart BBBBBB.
 - (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 TR NO_x Ozone Season Trading Program.
 - (2) The designated representative of a TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall make all submissions required under the TR NO_x Ozone Season Trading Program, except as provided in 40 CFR 97.518. 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 TR NO_x Ozone Season Trading Program that applies to a TR NO_x Ozone Season source or the designated representative of a TR NO_x Ozone Season source shall also apply to the owners and operators of such source and of the TR NO_x Ozone Season units at the source.
 - (2) Any provision of the TR NO_x Ozone Season Trading Program that applies to a TR NO_x Ozone Season unit or the designated representative of a TR NO_x Ozone Season unit shall also apply to the owners and operators of such unit.
- (g) Effect on other authorities.**

No provision of the TR NO_x Ozone Season Trading Program or exemption under 40 CFR 97.505 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a TR NO_x Ozone Season

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source or TR NO_x Ozone Season 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: TR 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 TR SO₂ Group 1 source and each TR 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 TR SO₂ Group 1 allowances under 40 CFR 97.611(a)(2) and (b) and 97.612 and to determine compliance with the TR 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) TR 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 TR SO₂ Group 1 source and each TR SO₂ Group 1 unit at the source shall hold, in the source's compliance account, TR 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 TR SO₂ Group 1 units at the source.
 - (ii). If total SO₂ emissions during a control period in a given year from the TR SO₂ Group 1 units at a TR SO₂ Group 1 source are in excess of the TR SO₂ Group 1 emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - (A). The owners and operators of the source and each TR SO₂ Group 1 unit at the source shall hold the TR SO₂ Group 1 allowances required for deduction under 40 CFR 97.624(d); and
 - (B). The owners and operators of the source and each TR 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) TR SO₂ Group 1 assurance provisions.
 - (i). If total SO₂ emissions during a control period in a given year from all TR SO₂ Group 1 units at TR 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) TR 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—

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- (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 TR SO₂ Group 1 units at TR 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 TR 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 TR SO₂ Group 1 units at TR 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 TR SO₂ Group 1 units at TR 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 TR SO₂ Group 1 units at TR 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 TR 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 TR 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 TR 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 TR 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 TR 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 TR SO₂ Group 1 allowance that was allocated for such control period or a control period in a prior year.
 - (ii). A TR 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 TR 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 TR 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 TR 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 TR 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.

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(7) Property right. A TR 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 TR SO₂ Group 1 allowances in accordance with 40 CFR Part 97, Subpart CCCCC.
- (2) This permit incorporates the TR 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 Part 75.19), and an alternative monitoring system (pursuant to 40 CFR Part 75, Subpart E), Therefore, the Description of TR 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 TR SO₂ Group 1 source and each TR 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 TR 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 TR SO₂ Group 1 Trading Program.
- (2) The designated representative of a TR SO₂ Group 1 source and each TR SO₂ Group 1 unit at the source shall make all submissions required under the TR 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 TR SO₂ Group 1 Trading Program that applies to a TR SO₂ Group 1 source or the designated representative of a TR SO₂ Group 1 source shall also apply to the owners and operators of such source and of the TR SO₂ Group 1 units at the source.
- (2) Any provision of the TR SO₂ Group 1 Trading Program that applies to a TR SO₂ Group 1 unit or the designated representative of a TR SO₂ Group 1 unit shall also apply to the owners and operators of such unit.

(g) Effect on other authorities.

No provision of the TR 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 TR SO₂ Group 1 source or TR 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.

Section 2 – Combustion Turbine Generators

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SECTION 2 – COMBUSTION TURBINE GENERATORS

Section 2 – Combustion Turbine Generators

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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))**

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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% 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))**

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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))**
- 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.

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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)(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))**

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- e. 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:
 - f. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
 - g. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
 - h. 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))**
 - i. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
 - j. 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))**

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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))**

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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))**
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, MDEQ.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, MDEQ, 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).

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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.

There are no Source-Wide Conditions applicable to Section 2.

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C. EMISSION UNIT CONDITIONS

There are no terms and conditions that are specific to individual emission units in the Emission Unit Summary Table.

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
EUCTG11-1	Combustion Turbine Generator Peaking Unit No. 11-1 (82.4 MW). Natural gas fired, simple-cycle turbine with dry low-NOx combustor.	01-01-98/ 10-23-08	FG-CTGS
EUCTG11-2	Combustion Turbine Generator Peaking Unit No. 11-2 (82.4 MW). Natural gas fired, simple-cycle turbine with dry low-NOx combustor.	01-01-98/ 10-23-08	FG-CTGS
EUCTG12-1	Combustion Turbine Generator Peaking Unit No. 12-1 (82.4 MW). Natural gas fired, simple-cycle turbine with dry low-NOx combustor.	01-01-98/ 10-23-08	FG-CTGS

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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.

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-CTGS	Three natural gas-fired combustion turbine generator peaking units, each <u>nominally</u> rated at 82.4 MW <u>at ISO conditions</u> and equipped with dry low-NOx combustors.	EUCTG11-1 EUCTG11-2 EUCTG12-1

Commented [ADT5]: DTE requests to add this FG description change to align this FG description with other DTE facilities.

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FG-CTGS
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Three natural gas-fired combustion turbine generator peaking units, each nominally rated at 82.4 MW at ISO conditions and equipped with dry low-NOx combustors.

Emission Units: EUCTG11-1, EUCTG11-2, and EUCTG12-1

POLLUTION CONTROL EQUIPMENT

The turbines are equipped with dry low-NOx combustors.

I. EMISSION LIMIT(S)

Pollutant	Limit*	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Nitrogen oxides (as nitrogen dioxide) (NOx)	9 ppm dry gas basis at 15% O ₂ and 100% load ²	Averaged over operating hours in a calendar day	Each turbine	SC V.1 Appendix 7-2	40 CFR 52.21 (j) and (x)(i)–(iii)
	522 tons per year ²	12-month rolling total determined at the end of each calendar month	FG-CTGS	SC V.1 Appendix 7-2	R 336.1205(1) (a) and (b) 40 CFR 60.332(a)(1)
2. Carbon monoxide (CO)	25 ppm by volume, dry gas basis at 15%O ₂ ²	Averaged over operating hours in a calendar day	Each turbine	SC V.2 Appendix 7-2	40 CFR 52.21 R 336.1205(1) and (30)
	856 tons per year ²	12-month rolling total determined at the end of each calendar month	FG-CTGS	SC V.2 Appendix 7-2	
3. Formaldehyde (HCHO)	9.9 tons per year ²	12-month rolling total determined at the end of each calendar month	FG-CTGS	SC V.4 Appendix 7-2	R 336.1205(2) R 336.1225
4. Visible emissions (Opacity)	10% six-minute average opacity ²	At least once every 1,812 hours of operation	Each turbine	SC V.3	40 CFR 52.21 R 336.1301
5. Particulate matter (PM-10)	9.0 pounds per hour ²	Averaged over operating hours in a calendar day	Each turbine	SC V.4 Appendix 7-2	40 CFR 52.21(j) R 336.1205(1) (a) and (b)
	102 tons per year ²	12-month rolling total determined at the end of each calendar month	FG-CTGS	SC V.4 Appendix 7-2	40 CFR 52.21(j) R 336.1205(1) (a) and (b)

*These emission limits do not apply during start-up, shut-down, or malfunction events.²

Commented [ADT6]: DTE requests to add this FG description change to align this FG description with other DTE facilities.

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II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Natural gas	27,300 million cubic feet ²	12-month rolling total determined at the end of each calendar month	FG-CTGS	SC VI.1	40 CFR 52.21 (j) & (x)(i) – (iii) R 336.1205(1) (a) and (b) R 336.1225

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall minimize the NOx, CO and PM-10 emission rates during startup, shutdown, and malfunction conditions in accordance with the approved Emission Minimization Plan. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. Alternate plans or modifications to the approved plan must be approved by the District Supervisor. Unless notified by the District Supervisor within 30 business days after plan submittal, the plan shall be deemed approved.² (R 336.1911, R 336.1912 and 40 CFR 52.21(j))
2. The total hours for startup and shutdown for FG-CTGS shall not exceed 500 hours per turbine per 12-month rolling time period as determined at the end of each calendar month. Startup is defined as the period of time from initiation of combustion firing until the unit reaches steady state operation (i.e., when pre-mix conditions are achieved). Shutdown is defined as that period of time from the initial lowering of the turbine output, with the intent to shut down, until the point at which the combustion process has stopped.² (40 CFR 52.21(j))
3. The permittee shall not operate FG-CTGS unless all provisions of the federal Prevention of Significant Deterioration regulations, 40 CFR 52.21, are met.² (40 CFR 52.21)
4. The permittee shall burn only pipeline quality natural gas in FG-CTGS.² (R 336.1225, R 336.1702(a), 40 CFR 60.333(b), and 40 CFR 52.21(x)(6)(iv))

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each turbine included in FG-CTGS with a dry low-NOx combustor.² (R 336.1910 and 40 CFR 52.21(x)(6)(iv) and (7)(iii))

V. TESTING/SAMPLING

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

1. In accordance with 40 CFR 75, Appendix E, the permittee shall retest the NOx emission rate of each turbine at least once every 20 calendar quarters. Testing shall be performed using test methods specified in 40CFR60.335 and 40 CFR 60, Appendix A. The permittee shall perform NOx testing for at least four (4) approximately equally spaced operating load points, ranging from the maximum operating load to the minimum operating load. 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. Not less than 7 days before the test is conducted, permittee shall notify the AQD Technical Programs Unit and District Supervisor in writing of the time and place of the performance test. 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, 40 CFR Subparts GG, 40 CFR Part 60, Appendix A, 40 CFR 75 Appendix E, 40 CFR 75, 40 CFR 60.8 and 60.335)
2. Permittee shall verify CO emission rates from each turbine in accordance with Department requirements. Testing must be done for each turbine in conjunction with NOx testing and under the same operating load and test

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averaging period requirements. Testing shall be performed using test methods specified in 40 CFR 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. Not less than 7 days before the test is conducted, permittee shall notify the AQD Technical Programs Unit and District Supervisor in writing of the time and place of the performance test. 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)

3. Compliance with the visible emissions limit shall be determined at least once per 1,812 hours of operation per turbine using Federal Reference Method 9 (40 CFR Part 60, Appendix A).² (R 336.1301 and 40 CFR 52.21)
4. Emission factors developed from previous formaldehyde and PM-10 stack test will be used along with hourly fuel usage data to demonstrate compliance with annual limits.² (R 336.2001, R 336.2003, R 336.2004)

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall continuously monitor, and record hourly, the natural gas usage from each turbine included in FG-CTGS in a manner and with instrumentation acceptable to the District Supervisor, Air Quality Division.² (R 336.1205(1)(a) and (b); 40 CFR 52.21(x)(6)(v))
2. The permittee shall record the total number of start-up and shutdown hours per month for each turbine included in FG-CTGS. Startup and shutdown hours are defined as those periods of time in which the turbine is not operating in a premix mode of operation.² (R 336.1213(3))
3. The permittee shall keep records, for each turbine included in FG-CTGS, of the calendar day average, monthly, and previous 12-month emission calculations for the following pollutants:
 - a. NO_x (R 336.1205(1)(a) and (b), 40 CFR 52.21(x)(6)(v), 40 CFR Part 60, Subpart GG, 40 CFR 75.2(a) and 40 CFR Part 75.1(b))
 - b. CO (R 336.1205(1)(a) and (b), 40 CFR 52.21)
 - c. PM-10 (R 336.1205(1)(a) and (b), 40 CFR 52.21)
 - d. HCHO (R 336.1205(2) and R 336.1225)

All such records and calculations are for the purpose of compliance demonstration and shall be kept on file for a period of at least five years and made available to the AQD upon request.²

See Appendix 7-2

4. Results of the visible emission readings shall be kept on file for a period of at least five years and made available to the AQD upon request.² (R 336.1301 and 40 CFR 52.21)
5. The permittee shall monitor and record the capacity factor of each turbine included in FG-CTGS each calendar year. If the capacity factor for each individual turbine exceeds 20 percent in any calendar year, or exceeds 10 percent averaged over the previous three calendar years, a continuous emission monitor for NO_x must be installed, certified and operated no later than December 31 of the following calendar year. These records shall be kept on file for a period of at least five years and made available to the AQD upon request.² (40 CFR 75.12(c)(2) and 40 CFR 52.21(x)(6)(v))

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))

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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 within 60 days following the last date of the test.² **(R 336.1213(3)(c), R336.2001(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-CTG-111	228 x 108 ²	56 ²	40 CFR 52.21(c) and (d) R 336.1225 R 336.1201(3)
2. SV-CTG-112	228 x 108 ²	56 ²	
3. SV-CTG-121	228 x 108 ²	56 ²	

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 GG, as they apply to FG-CTGS.² **(40 CFR Part 60, Subparts A and GG and 40 CFR 52.21(x)(6)(iv))**
2. The permittee shall comply with the acid rain permitting provisions of 40 CFR 72.1 to 40 CFR 72.94 as outlined in a complete Phase II Acid Rain Permit issued by the AQD. Phase II Acid Rain Permit No. MI-AR-6035-~~20XX~~ is hereby incorporated into this ROP.² **(R 336.1299(d))**
NOTE: Acid Rain Permit No. MI-AR-6035-~~20XX~~ is in Appendix 9-1.
3. 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 336.1299(d) and 40 CFR 72.9(c)(1)(i).² **(R 336.1213(10))**
4. The permittee shall comply with the provisions of the Transport 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)**
5. The permittee shall comply with the provisions of the Transport Rule NOx Ozone Trading Program, as specified in 40 CFR Part 97, Subpart BBBBB, and identified in Appendix 10-1. **(40 CFR Part 97, Subpart BBBBB)**
6. The permittee shall comply with the provisions of the Transport 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).

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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).

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APPENDICES

Appendix 1-2. Acronyms and Abbreviations

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 _{2e}	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 Environmental Quality	°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
MDEQ	Michigan Department of Environmental Quality	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 psig.

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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

Specific testing requirement plans, procedures, and averaging times are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. 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-B6145-2011. 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-B6145-2011a is being reissued as Source-Wide PTI No. MI-PTI-B6145-2018.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
NA	NA	NA	NA

Appendix 7-2. Emission Calculations

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in FG-CTGS.

Natural gas usage is monitored continuously but recorded once per hour and tracked on a monthly basis.

The NO_x, and CO, calendar day ppmv limits are assured by the latest stack testing results. The worst case concentration data (in ppmv) from the tested operating loads are compared to permit limits.

From stack testing, emission factors for CO, PM-10 and formaldehyde are developed in lbs. pollutant/million cubic feet of natural gas for each corresponding load specified in stack test protocol. Emission factors for each pollutant are calculated using the worst-case emissions recorded during the last representative stack test on a pollutant-specific basis. The emission factors, along with the fuel monitoring requirement, shall be applied to each hour to ensure compliance with PM-10's calendar day average and CO's, PM-10's and formaldehyde's rolling 12-month period emission limits.

From stack testing at the four load points, correlation curves are developed from NO_x emissions (lb/MMBtu) and heat input (MMBtu/hr) for each CTG. Consistent with Part 75, Appendix E, an hourly NO_x emission rate (lb/MMBtu) is

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applied to each operating hour. Each QA-QC validated hour either has the NOx emission rate from the correlation curve applied or the appropriate substitute NOx emission rate applied if the hour is outside operational and control equipment parameters, per Appendix E, section 2.5.2. The product of the hourly NOx emission rates and heat inputs are aggregated monthly to report the tons of NOx on a rolling 12-month basis.

Appendix 8-2. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the MDEQ, AQD, Report Certification form (EQP 5736) and MDEQ, 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.