GRAYLING GENERATING STATION
4400 West Four Mile Road
Grayling, Michigan 49738
(989) 348-4575

Received - DEQ/AQD
Gaylord Field Office
February 01, 2019
App No. 201900012

Mr. Shane Nixon
MDEQ – Air Quality Division
Cadillac District Office
120 West Chapin Street
Cadillac, MI 49601

January 25, 2019

Re: Renewal Application for Renewable Operating Permit (ROP)
Grayling Generating Station Limited Partnership (SRN: N2388)
Grayling, Michigan

Dear Mr. Nixon:

Grayling Generating Station Limited Partnership (GGS) is submitting the enclosed Renewable Operating Permit (ROP) renewal application for our biomass-fired electric generating facility located at 4400 West Four Mile Road in Grayling, Michigan.

GGS operates a biomass boiler and associated equipment in accordance with ROP No. MI-ROP-N2388-2014a that was issued on September 4, 2014, and revised on June 16, 2016. As required by Michigan Air Pollution Control Rule R 336.1210(9), the facility must submit an ROP renewal application not more than 18 months, but not less than 6 months, prior to the expiration date of the current ROP. GGS' ROP expires September 4, 2019; therefore, an ROP renewal application must be submitted and deemed administratively complete by March 4, 2019.

The ROP renewal application is being submitted electronically, in addition to paper hard copy, to allow 15 days for an administrative completeness determination pursuant to Rule R 336.1210(2)(a)(i)(B).

GGS operates one (1) spreader-stoker boiler capable of firing biomass and tire-derived-fuel (TDF), and equipped with natural gas auxiliary burners. The boiler is subject to the Cross State Air Pollution Rule (CSAPR) pursuant to 40 CFR Part 97 and operates according to Compliance Assurance Monitoring (CAM) requirements for particulate matter (PM) specified by the CAM Plan and applicable requirements of 40 CFR Part 64. GGS maintains and operates a diesel fuel-fired emergency generator and fire pump generator that are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) codified at 40 CFR Part 63 Subpart ZZZZ.

GGS has not added or modified equipment since the last ROP renewal. GGS is not proposing additions or deletions conditions contained in the ROP, with the exception of a few minor changes to timing of recordkeeping requirements contained in EUBOILER SC VI.6 and VI.1 and corrections to CSAPR regulatory subpart references. We have also made administrative changes to the CAM plan that is enclosed.

The ROP renewal application and supporting documentation are enclosed. If there are questions regarding this ROP renewal application, please contact me at (989) 348-4575.

Sincerely,

Edward A. Going
Plant Manager

cc: Rebecca Radulski, MDEQ
Kathryn Cunningham, Consumers Energy
Chris Occhipinti, NTH Consultants, Ltd.
DEQ-ROP@michigan.gov

ROP Renewal Application

Grayling Generating Station

4400 West Four Mile Road
Grayling, Michigan

NTH Project No. 74-180061-02
January 25, 2019

NTH Consultants, Ltd.
608 S. Washington Ave.
Lansing, MI 48933

Table of Contents

1.0 FACILITY OVERVIEW

Grayling Generating Station Limited Partnership (GGS) is an existing electric generating plant located at 4400 West Four Mile Road in Grayling, Crawford County, Michigan. The facility includes one (1) spreader-stoker boiler ("EUBOILER") rated at 523 million British thermal units per hour (MMBtu/hr) capable of firing biomass and tire-derived-fuel (TDF), and equipped with natural gas auxiliary burners. The boiler operates with a multiclone dust collector to capture and re-inject fly ash, an electrostatic precipitator (ESP) for control of particulate matter (PM), and a selective non-catalytic reduction (SNCR) system for the control of nitrogen oxides (NO_x). The boiler produces steam that is sent to a steam turbine to produce 36 megawatts (MW) of electricity at maximum capacity. GGS also maintains and operates one (1) diesel-fired emergency generator ("EUEMERGENERATOR") and one (1) diesel-fired emergency fire pump ("EUFIREPUMP"). GGS operates this equipment in accordance with Renewable Operating Permit (ROP) No. MI-ROP-N2388-2014a.

ROP No. MI-ROP-N2388-2014a was issued on September 4, 2014, revised on June 16, 2016, and is set to expire on September 4, 2019. As required by Michigan Air Pollution Control Rule R 336.1210(9), the facility must submit an administratively complete ROP renewal application not more than 18 months, but not less than 6 months, prior to the expiration date of the current ROP. The current ROP expires September 4, 2019; therefore, an ROP renewal application must be submitted and deemed administratively complete by March 4, 2019.

GGS monitors and records emissions of nitrogen oxides (NO_x), sulfur dioxide (SO_2), and carbon monoxide (CO) from the boiler through the use of a Continuous Emissions Monitoring System (CEMS) and opacity through the use of a Continuous Opacity Monitoring System (COMS). GGS is subject to the provisions of the Cross State Air Pollution Rule (CSAPR) codified at 40 CFR Part 97, Subparts AAAAA, CCCCC, and EEEEE. These subparts contain requirements for the CSAPR NO_x Annual, SO_2 Group 1, and NO_x Group 2 Ozone Season Trading Programs.

The boiler is also subject to Compliance Assurance Monitoring (CAM), pursuant to 40 CFR Part 64, for the PM emission limits of 0.03 pounds per million British thermal units (lb/MMBtu), 12.0 pounds per hour (lb/hr), and 25.2 tons per year (tpy). The enclosed CAM Plan specifies monitoring parameters for the continuous opacity monitoring system (COMS) that provide reasonable assurance

of compliance with the PM limits. The CAM Plan includes further clarification regarding the definition of an excursion as well as the methods GGS uses to monitor and report excursions.

GGS also maintains a Preventative Maintenance/Malfunction Abatement Program for the boiler as well as a program of fugitive dust control for material storage piles, material handling equipment, plant roadways, and the plant year as outlined in our Fugitive Dust Plan.

GGS is considered an area source of hazardous air pollutants (HAPs) and is subject to federal Maximum Achievable Control Technology (MACT) standards. EUBOILER is subject to the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers at Area Sources ("Boiler MACT") promulgated in 40 CFR Part 63, Subparts A and JJJJJJ. The ROP contains special conditions for applicable requirements from the Boiler MACT. The Boiler MACT special conditions reflect ongoing source and work practice standard requirements for EUBOILER; the initial notifications, one-time energy assessment, and initial boiler tune-up have been completed and are not listed in the ROP.

EUEMERGENERATOR and EUFIREPUMP are subject to the National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subparts A and ZZZZ. ("RICE MACT"). The ROP contains special conditions for applicable requirements from the RICE MACT.

2.0 ROP RENEWAL APPLICATION

The enclosed ROP renewal application satisfies the requirements of Michigan Air Pollution Control Rule R 336.1210(9). The ROP renewal application has been created using the ROP Renewal Application Form (EQP 6000), revised July 2018. There have been no additions or modifications to GGS equipment since issuance of ROP No. MI-ROP-N2388-2014a on September 4, 2014.

The ROP application is being submitted electronically, in addition to paper copy, to allow for an administrative completeness determination pursuant to Rule R 336.1210(2)(a)(i)(B). The ROP Renewal Application Form has been populated according to guidance provided by Michigan Department of Environmental Quality (MDEQ), and the paper copy of the renewal application has

been organized according to the MDEQ instructions. The ROP application is certified by the Responsible Official.

GGS is not proposing additions, deletions, or changes to conditions contained in the ROP, with the exception of minor corrections to CSAPR regulatory subpart references due to U.S. EPA's "CSAPR Update" on September 7, 2016 for the 2008 ozone NAAQS. This is noted in the mark-up copy of ROP No. MI-ROP-N2388-2014a contained in Appendix A. Copies of the CAM Plan, Fugitive Dust Plan, and Preventative Maintenance/Malfunction Abatement Plan are included in Appendices B, C, and D, respectively.

Michigan Department Of Environmental Quality - Air Quality Division

RENEWABLE OPERATING PERMIT APPLICATION
C-001: CERTIFICATION

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 provide this information may result in civil and/or criminal penalties. Please type or print clearly.

This form is completed and included as part of Renewable Operating Permit (ROP) initial and renewal applications, notifications of change, amendments, modifications, and additional information.

Form Type **C-001**	SRN N2388

Stationary Source Name Grayling Generating Station Limited Partnership	
City Grayling	County Crawford

SUBMITTAL CERTIFICATION INFORMATION

1. Type of Submittal *Check only one box.*

☐ Initial Application (Rule 210) ☐ Notification / Administrative Amendment / Modification (Rules 215/216)

☒ Renewal (Rule 210) ☐ Other, describe on AI-001

2. If this ROP has more than one Section, list the Section(s) that this Certification applies to _____

3. Submittal Media ☒ E-mail ☐ FTP ☐ Disk ☒ Paper

4. Operator's Additional Information ID - Create an Additional Information (AI) ID that is used to provide supplemental information on AI-001 regarding a submittal.

AI C

CONTACT INFORMATION

Contact Name Edward Going	Title Plant Manager
Phone number (989)3484575	E-mail address edward.going@cmsenergy.com

This form must be signed and dated by a Responsible Official.

Responsible Official Name Edward Going			Title Plant Manager	
Mailing address 4400 West Four Mile Road				
City Grayling	State MI	ZIP Code 49738	County Crawford	Country USA

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

Edward J. PLANT MANAGER 1/29/19

Signature of Responsible Official Date

Received - DEQ/AQD
Gaylord Field Office
February 01, 2019
App No. 201900012

Michigan Department of Environmental Quality - Air Quality Division

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	SIC Code	NAICS Code	Existing ROP Number	Section Number (if applicable)
N2388	4911	221118	MI-ROP-N2388-2014a	N/A

Source Name: Grayling Generating Station Limited Partnership

Street Address: 4400 West Four Mile Road

City	State	ZIP Code	County
Grayling	MI	49738	Crawford

Section/Town/Range (if address not available):

Source Description: The Grayling Generation Station Limited Partnership is an electric utility facility located in Grayling, Michigan. The facility includes one 523 MMBtu/hr wood and tire-derived-fuel (TDF) fired boiler and ancilliary equipment.

☐ 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	Section Number (if applicable)
CMS Enterprises Company	N/A

Mailing address (☐ check if same as source address): One Energy Plaza

City	State	ZIP Code	County	Country
Jackson	MI	49201	Jackson	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.

SRN: N2388	Section Number (if applicable):

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			Title	
Edward Going			Plant Manager	
Company Name & Mailing address (☒ check if same as source address)				
4400 West Four Mile Road				
City	State	ZIP Code	County	Country
Grayling	MI	49738	Crawford	USA
Phone number		E-mail address		
989-348-4575		edward.going@cmsenergy.com		

Contact 2 Name (optional)			Title	
Company Name & Mailing address (☐ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		

RESPONSIBLE OFFICIAL INFORMATION

Responsible Official 1 Name			Title	
Edward Going			Plant Manager	
Company Name & Mailing address (☒ check if same as source address)				
4400 West Four Mile Road				
City	State	ZIP Code	County	Country
Grayling	MI	49738	Crawford	USA
Phone number		E-mail address		
989-348-4575		edward.going@cmsenergy.com		

Responsible Official 2 Name (optional)			Title	
Company Name & Mailing address (☐ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		

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

SRN: N2388	Section Number (if applicable):

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

Edward A. Going, Plant Manager

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.

Edward A. Going Plant Manager — 1/29/19

Signature of Responsible Official — **Date**

SRN: N2388	Section Number (if applicable):

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.	☐ Yes ☒ No
C2.	Is this source subject to the federal regulations on ozone-depleting substances? (40 CFR Part 82)	☐ Yes ☒ 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?	☐ Yes ☒ No ☐ Yes ☐ No
C4.	Has this stationary source **added or modified** equipment since the last ROP renewal that changes the potential to emit (PTE) for criteria pollutant (CO, NOx, PM10, PM2.5, 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.	☐ Yes ☒ 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.	☐ Yes ☒ 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.	☒ Yes ☐ 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?	☐ Yes ☒ No ☐ Yes ☒ 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 the MDEQ, 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	☒ Yes ☐ No ☒ Yes ☐ No ☐ ☒
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.	☒ Yes ☐ 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.	☐ Yes ☒ No

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

SRN: N2388	Section Number (if applicable):

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-**

SRN: N2388	Section Number (if applicable):

PART E: EXISTING ROP INFORMATION

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

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

Comments:

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

SRN: N2388	Section Number (if applicable):

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. If No, go to Part G. ☐ Yes ☒ No

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, identity 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**
☐ Rule 281(2)(h) or 285(2)(r)(iv) cleaning operation		
☐ Rule 287(2)(c) surface coating line		
☐ 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-**

SRN: N2388	Section Number (if applicable):

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 Yes, answer the questions below.	☒ Yes	☐ No
H2. Are there any proposed administrative changes to any of the existing emission unit names, descriptions or control devices in the ROP? If Yes, describe the changes in questions H8 – H16 below and in the affected Emission Unit Table(s) in the mark-up of the ROP.	☐ Yes	☒ 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 Yes, 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.	☐ Yes	☒ No
H4. Does the source propose to add new state or federal regulations to the existing ROP? If Yes, on an AI-001 Form, identify each emission unit/flexible group that the new regulation applies to and identify each 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.	☐ Yes	☒ No
H5. Has a Consent Order/Consent Judgment (CO/CJ) been issued where the requirements were not incorporated into the existing ROP? If Yes, 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.	☐ Yes	☒ No
H6. Does the source propose to add, change and/or delete **source-wide** 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
H7. Are you proposing to **streamline** any requirements? If Yes, identify the streamlined and subsumed requirements and the EU ID, and provide a justification for streamlining the applicable requirement below.	☐ Yes	☒ 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

GGS is requesting a minor change to EUBOILER SC VI. 6 and VI.8 to require pollutant calculations by the last day of the calendar month, for the previous calendar month, to be consistent with other recordkeeping requirements. This provides GGS necessary time to gather operational information for emissions calculations while still completing recordkeeping in a timely manner.

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

GGS is proposing an update to the Other Requirements listed under EUBOILER for CSAPR due to EPA's "CSAPR Update" on September 7, 2016 for the 2008 ozone NAAQS. The CSAPR NOx Ozone Trading Program is now specified in 40 CFR Part 97 Subpart EEEEE rather than Subpart BBBBB. Refer to enclosed ROP Mark-Up. This change also is reflected in ROP Appendix 9.

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: N2388	Section Number (if applicable):

1. Additional Information ID
AI-C

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

Part C, Question C6: EUBOILER is subject to the Cross State Air Pollution Rule (CSAPR).

Part C, Question C8: EUBOILER is subject to compliance assurance monitoring (CAM) for PM.

APPENDIX

// Mark-Up of ROP

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

EFFECTIVE DATE: ~~September 4, 2014~~
REVISION DATE: ~~June 16, 2016~~

ISSUED TO

Grayling Generating Station Limited Partnership

State Registration Number (SRN): N2388

LOCATED AT

4400 West Four Mile Road, Grayling, Crawford County, Michigan 49738

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-N2388~~N2388N2388N2388N2388~~-2014a

Expiration Date: ~~September 4, 2019~~

Administratively Complete ROP Renewal Application Due Between
~~March 4, 2018~~ and ~~March 4, 2019~~

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-N2388~~N2388N2388N2388N2388~~-2014a

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

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ROP No: MI-ROP-

~~N2388~~N2388~~N2388~~N2388~~-2014a

Expiration Date: September 4, 2019
PTI No.: MI-PTI-

~~N2388~~N2388~~N2388~~N2388~~-2014a

Janis Ransom, Cadillac 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 will be identified for each ROP term or condition. All terms and conditions that are included in a PTI are streamlined or subsumed, or is 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.

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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

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Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**

7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**

8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

Equipment & Design

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(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: **(R 336.1301(1))**
    a. A 6-minute average of 20 percent opacity, except for one 6-minute average per hour of not more than 27 percent opacity.
    b. A limit specified by an applicable federal new source performance standard.

    The grading of visible emissions shall be determined in accordance with Rule 303.

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

Testing/Sampling

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1). **(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))**
    a. Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
    b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a Responsible Official which states that, "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete". The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.

23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**

24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**

25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA. **(R 336.1912)**

Permit Shield

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance, if either of the following provisions is satisfied. **(R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))**
    a. The applicable requirements are included and are specifically identified in the ROP.
    b. The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.

    Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.

27. Nothing in this ROP shall alter or affect any of the following:
    a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
    b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**

c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**
d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**

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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, Part 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, Part 68.10(a):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR, Part 68.130, or
    c. 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:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

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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.

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SOURCE-WIDE CONDITIONS

POLLUTION CONTROL EQUIPMENT

NA

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)

1. The permittee shall maintain a program of fugitive dust control for all material storage piles, and all material handling equipment, all plant roadways, and the plant yard as approved by the District Supervisor. Changes to the program may be made upon approval by the AQD District Supervisor.[2] **(R 336.1331(1)(c), R 336.1372)**

2. The permittee shall not operate EUBOILER unless a Malfunction Abatement Plan (MAP) is implemented and maintained.[2] **(R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. Records of street and parking lot washing/sweeping shall be kept and maintained on site and made available to the AQD staff upon request. **(R 336.1213(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))**

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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))**

See Appendix 8

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 provisions and procedures of the program for continuous fugitive emissions shall be reviewed by the permittee on a yearly basis and the permittee shall submit any updates/changes to the AQD District Supervisor for approval. **(R 336.1213(3))**

2. The Preventative Maintenance/Malfunction Abatement Plan shall be reviewed and updated (if necessary) on a yearly basis. Changes to this plan may be made upon approval from the AQD District Supervisor.[2] **(R 336.1911)**

Footnotes:

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

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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
EUBOILER	This emission unit consists of one 523 MM Btu/hr. wood and tire-derived-fuel (TDF) fired boiler used to produce steam and equipped with natural gas auxiliary burners. The boiler is of a spreader-stroker design, and is equipped with a multi clone dust collector in order to capture and re-inject fly ash, an electrostatic precipitator (ESP) for the control of particulate matter, and a selective non-catalytic reduction (SNCR) system for the control of nitrogen oxides. The steam is used to produce approximately 36 megawatts of electricity at full capacity.	1/5/1992	NA
EUEMERGENERATOR	This emission unit consists of one 6,188,000 Btu/hr. diesel-fired reciprocating internal combustion engine. The unit is standby diesel fired emergency generator used to provide electricity to the facility on an emergency basis.	1/5/1992	FGCIRICEMACT
EUFIREPUMP	This emission unit consists of one 1,040,000 Btu/hr. diesel-fired reciprocating internal combustion engine. The diesel fired engine is used to run a fire suppression system.	1/5/1992	FGCIRICEMACT

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Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EURAWMATL-HDLG	The raw material handling group includes the wood fuel pile, the wood conveyor, the TDF pile, and the TDF conveyor. Trucks supplying the wood to the facility unload at the wood fuel pile. Bulldozers transport the wood from the pile to the feed area of the wood conveyor. The TDF is taken from the pile and transferred to a TDF hopper by way of a front end loader. The TDF hopper feeds a conveyor that drops TDF onto the conveyor carrying wood to the boiler. The wood conveyor transfers the wood and TDF to the feed hopper of the boiler.	1/5/1992	FGMATHDLG
EUASH-HDLG	The ash material handling group includes the ash conveyors and the ash storage building. The fly ash removed from the boiler exhaust gases by the ESP is collected in a hopper under the ESP.	1/5/1992	FGMATHDLG

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EUBOILER
EMISSION UNIT CONDITIONS

DESCRIPTION

This emission unit consists of one 523 MM Btu/hr. wood and TDF fired boiler equipped with natural gas auxiliary burners. The boiler is of a spreader-stroker design. The steam is used to produce approximately 36 megawatts of electricity at full capacity.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

The boiler is equipped with a multi clone dust collector in order to capture and re-inject fly ash, an ESP for the control of particulate matter, and a SNCR system for the control of nitrogen oxide.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	0.03 pounds per million Btu (lb/MMBtu) heat input[2a]	Test Protocol*	EUBOILER	SC V.1	**40 CFR 52.21(c),(d),&(j), R 336.1331(1)(c)**
2. Particulate	12.0 pounds per hour[2]	Test Protocol*	EUBOILER	SC V.1	**40 CFR 52.21(c),(d),&(j), R 336.1331(1)(c)**
3. Particulate	25.2 tons per year[2]	12-month rolling time period	EUBOILER	SC VI. 16	**40 CFR 52.21(j), R 336.1331(1)(c)**
4. Visible emissions	10% opacity, except for one 6-minute average per hour of not more than 20% opacity.[2b]	6-minute average	EUBOILER	SC VI. 7	**40 CFR 52.21(c),(d),&(j), R 336.1301(1)(c)**
5. Nitrogen Oxides	0.15 lb/MMBtu heat input[2c]	30-day rolling average	EUBOILER	SC VI. 1, SC VI. 15	**40 CFR 52.21(j)**
6. Nitrogen Oxides	78.5 pounds per hour[2]	30-day rolling average	EUBOILER	SC VI. 1, SC VI. 15	**40 CFR 52.21(j)**
7. Nitrogen Oxides	343.6 tons per year[2]	12-month rolling time period	EUBOILER	SC VI. 14	**40 CFR 52.21 (c)(d)&(j)**
8. Carbon Monoxide	0.40 lb/MMBtu heat input[2c]	24-hour rolling average	EUBOILER	SC VI. 2, SC VI. 15	**40 CFR 52.21 (d)&(j)**
9. Carbon Monoxide	209.2 pounds per hour[2]	24-hour rolling average	EUBOILER	SC VI. 2, SC VI. 15	**40 CFR 52.21 (d)&(j)**
10. Carbon Monoxide	916.3 tons per year[2]	12-month rolling time period	EUBOILER	SC VI. 14	**40 CFR 52.21(j)**

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Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
11. Volatile Organic Compounds	0.017 lb/MMBtu heat input[2]	Test Protocol*	EUBOILER	SC V.1	**40 CFR 52.21 (c),(d)&(j), R 336.1702(c)**
12. Volatile Organic Compounds	8.9 pounds per hour[2]	Test Protocol*	EUBOILER	SC V.1	**40 CFR 52.21(j), R 336.1702(c)**
13. Volatile Organic Compounds	39.0 tons per year[2]	12-month rolling time period	EUBOILER	SC VI. 16	**40 CFR 52.21(j), R 336.1702(c)**
14. Sulfur Dioxide	0.07 lb/MMBtu heat input[2c]	24-hour rolling average	EUBOILER	SC VI. 3, SC VI. 4, SC VI. 15	**40 CFR 52.21 (c)(d)&(j)**
15. Sulfur Dioxide	11.2 pounds per hour[2]	24-hour rolling average	EUBOILER	SC VI. 3, SC VI. 4, SC VI. 15	**40 CFR 52.21 (c)(d)&(j)**
16. Sulfur Dioxide	39.0 tons per year[2]	12-month rolling time period	EUBOILER	SC VI. 14	**40 CFR 52.21(j)**
17. Lead	0.02 pounds per hour[2]	Test Protocol*	EUBOILER	SC V.1	**40 CFR 52.21(d), R 336.1205**
18. Lead	0.10 tons per year[2]	12-month rolling time period	EUBOILER	SC VI. 16	**40 CFR 52.21(d), R 336.1205**
19. Sulfuric Acid Mist	0.003 lb/MMBtu heat input[2]	Test Protocol*	EUBOILER	SC V.1	**R 336.1225, R 336.1224, 40 CFR 52.21**
20. Sulfuric Acid Mist	1.5 pounds per hour[2]	Test Protocol*	EUBOILER	SC V.1	**R 336.1225, R 336.1224, 40 CFR 52.21(c)(d)&(j)**
21. Sulfuric Acid Mist	6.6 tons per year[2]	12-month rolling time period	EUBOILER	SC VI. 16	**R 336.1205, 40 CFR 52.21**
22. Benzo(a) pyrene	0.005 pounds per hour[1]	Test Protocol*	EUBOILER	SC V.1	**R 336.1225(1)**
23. Arsenic	0.02 pounds per hour[1]	Test Protocol*	EUBOILER	SC V.1	**R 336.1225(1)**
24. Cadmium	0.012 pounds per hour[1]	Test Protocol*	EUBOILER	SC V.1	**R 336.1225(1)**
25. Chromium (total)	0.012 pounds per hour[1]	Test Protocol*	EUBOILER	SC V.1	**R 336.1225(1)**
26. Manganese	0.061 pounds per hour[1]	Test Protocol*	EUBOILER	SC V.1	**R 336.1225(1)**
27. Zinc Oxide, measured as Zinc	9.5 pounds per hour[1]	Test Protocol*	EUBOILER	SC V.1	**R 336.1225(1)**

* Test Protocol shall specify the averaging time period.

[a] In accordance with Rule 213(2) and Rule 213(6), compliance with this streamlined particulate limit shall be considered compliance with the particulate limit established by **40 CFR 52.21(c),(d)&(j) and R 336.1331(1)(c);** and also compliance with the particulate limit in **40 CFR 60.43b(c)(1),** an additional applicable requirement that has been subsumed within this condition.

[b] In accordance with Rule 213(2) and Rule 213(6), compliance with this streamlined visible emissions limit shall be

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considered compliance with the visible emissions limit established by **40 CFR 52.21(c),(d)&(j) and R 336.1301(1)(c);** and also compliance with the particulate limit in **40 CFR 60.43b(f),** an additional applicable requirement that has been subsumed within this condition.

[c] These emission rates do not include periods of startup or shutdown as defined in Condition III.3. and malfunction as defined in Rule 336.1113(a).

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Natural Gas	53,500 Standard cubic feet per hour[2]	24-hour daily average	EUBOILER	SC VI. 8	**40 CFR 60.44b(d)**
2. Tire Derived Fuel (TDF)	3,750 pounds per hour[1]	24-hour daily average	EUBOILER	SC VI. 8	**R 336.1225**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Except as allowed in the Preventative Maintenance/Malfunction Abatement Plan, the permittee shall not operate the EUBOILER unless the mechanical dust collectors, the electrostatic precipitator for removal of entrained particulates, and selective non-catalytic reduction system for NOx removal, are installed and operating properly.[2] **(R 336.1910, R 336.1911)**

2. The permittee shall begin firing the EUBOILER from a cold start on natural gas only.[2] **(R 336.1912)**

3. Startup is defined as the period of time from initiation of combustion firing until EUBOILER reaches steady state operation as measured by achieving three consecutive one hour averages of at least 25 percent of the design fuel flow rate for solid fuel. Shutdown is defined as that period of time from the initial lowering of the EUBOILER output with the intention of shutting down until the point at which the combustion process has stopped.[2] **(R 336.1201)**

4. The permittee shall conduct a biennial tune-up of EUBOILER no more than 25 months after the previous tune-up. The tune-up shall consist of the following major elements: 1) Optimize total emissions of carbon monoxide (CO), consistent with any nitrogen oxide requirement to which the unit is subject, 2) Measure the concentrations of CO (ppmv) and oxygen (O2) (Vol-%) before and after the adjustments are made, ensuring that a consistent moisture basis is used for the measurements before and after the adjustments, 3) Maintain on-site and submit, if requested, a report listing the CO and O2 concentration measurements before and after the tune-up, a description of corrective actions taken as part of the tune-up and the type and amount of fuel used over the 12-months prior to the tune-up. If the EUBOILER is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup. **(40 CFR 63.11223(b))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The span value of all CEMS and COMS shall be 2.0 times the lowest emission standard or as specified in the federal regulations.[2] **(40 CFR 60.13, 40 CFR, Part 75)**

2. The CEMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and Appendix B, 40 CFR, Part 60, or 40 CFR, Part 75, as appropriate.[2] **(40 CFR 60.13, 40 CFR Part 75, R 336.1213(3))**

3. The permittee shall monitor and record the visible emissions from the EUBOILER on a continuous basis in a manner and with instrumentation acceptable to the AQD.[2] **(40 CFR 60.13, 40 CFR 60.48b(a), 40 CFR 64.6(c)(1)(iii), 40 CFR 60.49(f))**

4. The COMS shall be calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and applicable Performance Specifications located in Appendix B, 40 CFR, Part 60.[2] **(40 CFR 60.13, 40 CFR 48b(a))**

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V. TESTING/SAMPLING

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

1. Every five years, the permittee shall conduct verification of the following air contaminant emission rates from EUBOILER when firing wood, and a mixture of wood with TDF, by testing at owner's expense.[2] **(R 336.1213(3), R 336.2001, R 336.1225, 40 CFR 60.43b, 40 CFR 60.46b)**
   a. Particulate Matter (PM)
   b. Volatile Organic Compounds (VOC)
   c. Lead
   d. Sulfuric acid mist
   e. Arsenic
   f. Cadmium
   g. Chromium (total)
   h. Manganese
   i. Zinc Oxide, measured as zinc
   j. Benzo(a)pyrene

2. Stack testing procedures and the location of stack testing ports shall be in accordance with the applicable federal Reference Methods, 40 CFR, Part 60, Appendix A or other AQD approved methodology.[2] **(40 CFR, Part 60, Appendix A, 40 CFR 60.43b, R 336.2003, R 336.2004)**

3. The permittee shall perform an annual audit of the COMS using the procedures set forth in USEPA Publication 450/4-92-010, "Performance Audits Procedures for Opacity Monitors", or a procedure acceptable to the AQD.[2] **(40 CFR 64.3(b)(3), R 336.1213(3))**

4. The permittee shall perform the quality assurance procedures of the CEMS as set forth in Appendix F of 40 CFR, Part 60 or 40 CFR, Part 75, as appropriate.[2] **(40 CFR 60.13(a) 40 CFR, Part 75, R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall monitor and record the nitrogen oxides emissions, sulfur dioxide emissions, carbon dioxide concentration and exhaust flow rate of EUBOILER on a continuous basis in accordance with 40 CFR, Part 75[2]. **(40 CFR, Part 75, 40 CFR 60.13, R 336.1213(3))**

2. The permittee shall monitor and record the carbon monoxide emission rate of the exhaust gases from EUBOILER on a continuous basis in a manner and with instrumentation acceptable to the AQD. **(R 336.1213(3), 40 CFR Part 60, Appendix B and Appendix F)**

3. The permittee shall monitor and record the amounts of TDF, wood, and natural gas fired in EUBOILER based upon a 24-hour daily average in a manner acceptable to the AQD.[2] **(R 336.1213(3)(b)(ii), 40 CFR 60.49b(d), R 336.1225)**

4. The permittee shall calculate the annual capacity factor individually for natural gas and wood. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.[2] **(40 CFR 60.49b(d), R 336.1213(3))**

5. The permittee shall calculate the annual capacity factor for tire derived fuel. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.[2] **(R 336.1213(3))**

6. The permittee shall calculate the tons of sulfur dioxide, nitrogen oxides, and carbon monoxide emissions by the last day of the calendar month, for the previous calendar month ~~within 7 days after the end of each calendar~~

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~~month~~ for the 12-month time period ending with that calendar month using data collected with the continuous emission monitors, and in a manner acceptable to the AQD.[2] **(R 336.1213(3), R 336.1205(1)(a), 40 CFR 52.21)**

7. The permittee shall calculate the emissions of sulfur dioxide (24-hour rolling average), nitrogen oxides (30-day rolling average), and carbon monoxide (24-hour rolling average) on the basis indicated for each pollutant in a manner acceptable to the AQD.[2] **(R 336.1213(3))**

8. For particulate matter, benzo-a-pyrene, Lead, Sulfuric acid mist, Arsenic, Cadmium, Chromium (total), Manganese, VOCs, and Zinc Oxide, measured as zinc, the permittee shall use emission factors from the most recent stack testing and the formula in Appendix 7 to calculate monthly emissions. The permittee shall calculate the tons of emissions by the last day of the calendar month, for the previous calendar month ~~within 7 days after the end of each calendar month~~ for the 12-month time period ending with that calendar month using the monthly calculation from Appendix 7 and in a manner acceptable to the AQD.[2] **(R 336.1213(3)(a)(ii))**

9. The permittee shall utilize COMS-recorded opacity as an indicator of the proper functioning of the ESP. The appropriate range of opacity defining proper function of the electrostatic precipitator is 0-5 percent opacity. **(40 CFR 64.6(c)(1)(i and ii))**

10. The permittee shall use the COMS to assure compliance with the PM limit. An excursion for PM shall be two consecutive 1-hour block average opacity values greater than 5 percent. This condition does not affect compliance with R 336.1301. **(40 CFR 64.6(c)(2))**

11. The permittee shall operate the COMS during all required periods when EUBOILER is operating. Data recorded during monitoring malfunctions, repair activities and QA/QC operations shall not be used for 40 CFR, Part 64 compliance. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c))**

12. In response to an excursion of more than 5 percent opacity based on 2 or more consecutive 1-hour block averages, the permittee shall restore operation of EUBOILER (including the ESP and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. The permittee shall keep records of these actions. **(40 CFR 64.7(d))**

13. The permittee shall properly maintain the COMS including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**

14. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that EUBOILER is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for the purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operating of the ESP and associated control system. A monitoring malfunction is any sudden, in frequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions." The permittee shall operate the COMS during all required periods when EUBOILER is operating. Data recorded during monitoring malfunctions, repair activities and QA/QC operations shall not be used for 40 CFR, Part 64 compliance. **(40 CFR 64.6(c)(3), 64.7(c))**

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15. The permittee shall maintain the following records: 1) A copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart JJJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status, 2) Records of the date of each boiler tune-up and the procedures followed for the tune-up (including the manufacturer's specifications to which the boiler was tuned, if applicable), 3) Records documenting that the Tire Derived Fuel fired in EUBOILER is a listed non-waste under §241.4(a), and 4) A copy of the energy assessment report. **(40 CFR 63.11225(c))**

See Appendix 7

VII. REPORTING

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

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

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. In accordance with 40 CFR, Parts 60.7(c) and (d) an excess emissions report (EER) and summary report shall be submitted in the format of Figure 1 in 40 CFR 60.7(d) within 30 days following the end of each calendar quarter for all CEMS and COMS. The EER shall include the following information:[2] **(40 CFR 60.7, 40 CFR 75.65, 40 CFR 60.49b(h), R336.1213(3))**
   a. A report of each exceedance of the opacity limit, and/or exceedance of an emission limit. This includes the date, time, magnitude, cause and corrective actions of all exceedances during the reporting period.
   b. A report of all periods of COMS and/or CEMS downtime and corrective action except for zero and span checks.
   c. A report of the total operating time of EUBOILER during the reporting period.
   d. If no exceedances or COMS and/or CEMS downtime occurred during the reporting period, the permittee shall report that fact.
   e. A report of any periods that the CEMS exceed the instrument range.

5. The permittee shall submit a complete test protocol to the AQD for approval at least 30 days prior to the anticipated test date.[2] **(40 CFR 60.7, R336.1213(3))**

6. The permittee shall notify the AQD no less than 7 days prior to the anticipated test date. **(R 336.2001(3))**

7. Following verification of emissions rates for the air contaminants listed in Condition V.1, the permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit and one to the district office, within 60 days following the last date of the test. [2] **(40 CFR 60.8, R 336.1213(3))**

8. The permittee shall submit a summary of compliance with the monthly sulfur dioxide, nitrogen oxides, and carbon monoxide emission calculations for the previous 12-month rolling time period to the District Supervisor in an acceptable format within 30 days following the end of each quarter in which the data was collected.[2] **(40 CFR 52.21, R 336.1213(3))**

9. The results of the annual audit of the COMS shall be submitted to the AQD District Supervisor within 60 days of completion.[2] **(R 336.1213(3))**

10. Each calendar quarter, for the COMS and CEMS, the permittee shall report the results of the applicable Quality Assurance Procedures as set forth in Appendix F of 40 CFR, Part 60, or 40 CFR, Part 75 Appendix B, as appropriate. Within 30 days following the end of each quarter, the permittee shall submit the results to the AQD in the format of the data assessment report (Figure 1, Appendix F).[2] **(40 CFR 60.13, 40 CFR, Part 60, Appendix F, 40 CFR 75, R 336.1213(3))**

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60.7(c)(3) 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 the system repairs or adjustments.

11. Each semiannual report of monitoring and deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. **(40 CFR 64.9(a)(2)(i))**

12. Each semiannual report of monitoring and deviations shall include summary information on COM downtime. If there were no periods of COM downtime in the reporting period, then this report shall include a statement that there were no periods of COM downtime. **(40 CFR 64.9(a)(2)(ii))**

13. By March 1 of each year, the permittee shall prepare, and submit upon request, an annual compliance certification report for the previous calendar year containing the following information: 1) Company name and address, 2) Statement by a responsible official (with the official's name, title, phone number, email address and signature) certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all of the relevant standards and other requirements of 40 CFR Part 63, Subpart JJJJJJ. The notification must include the following certification statements: a) "This facility complies with the requirements of §63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler." b) ""No secondary materials that are solid waste were combusted in any affected unit." This report must be submitted by March 15 if there were any deviations from the applicable requirements during the reporting period, and the report must also include a description of the deviations, the time periods during which the deviations occurred, and the corrective actions which were taken. As an alternative, this report may be prepared on a biennial basis as opposed to annual basis. **(40 CFR 63.11225(b))**

See Appendix 8

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. SV89C36	94[2]	220[2]	**40 CFR 52.21(c)&(d)**

IX. OTHER REQUIREMENT(S)

1. The permittee shall not use wood or wood waste containing creosote, pentachlorophenol, or copper chromium arsenate as fuel.[1] **(R 336.1225)**

2. The permittee shall promptly notify AQD for the need to modify the Compliance Assurance Monitoring Plan if the existing plan is found to be inadequate and shall submit a proposed modification to the ROP. **(40 CFR 64.7(e))**

3. The permittee shall comply with all applicable requirements of 40 CFR, Part 64. **(40 CFR, Part 64)**

4. The permittee shall comply with the provisions of the Cross State Air Pollution Rule~~Transport Rule~~ NOX Annual Trading Program, as specified in 40 CFR, Part 97 Subpart AAAAA, and identified in Appendix 9. **(40 CFR Part 97 Subpart AAAAA)**

5. The permittee shall comply with the provisions of the Cross State Air Pollution~~Transport~~ Rule NOX Ozone Season Group 2 Trading Program, as specified in 40 CFR, Part 97 Subpart ~~BBBBB~~EEEEE, and identified in Appendix 9. **(40 CFR Part 97 Subpart ~~BBBBB~~EEEEE)**

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Commented [RB4]: Update and replace (40 CFR Part 97, Subpart BBBBB) with (40 CFR Part 97, Subpart EEEEE) to reflect the update to Part 97.

6. The permittee shall comply with the provisions of the Cross State Air PollutionTransport Rule SO2 Group 1 Trading Program, as specified in 40 CFR, Part 97 Subpart CCCCC, and identified in Appendix 9. **(40 CFR Part 97 Subpart CCCCC)**

7. The permittee shall comply with all applicable provisions of the National Emissions Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subparts A and JJJJJJ, for Industrial, Commercial and Institutional Boilers located at Area Sources of HAP Emissions. **(40 CFR, Part 63, Subparts A and JJJJJJ)**

8. The permittee shall comply with all applicable provisions of the Standards of Performance for Industrial, Commercial and Institutional Boilers, as specified in 40 CFR, Part 60, Subparts A and Db. **(40 CFR, Part 63, Subparts A and Db)**

9. The permittee shall comply with all applicable provisions of the National Emissions Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subparts A and JJJJJJ, for Industrial, Commercial and Institutional Boilers located at Area Sources of HAP Emissions. **(40 CFR Part 63, Subparts A and JJJJJJ)**

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

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EUEMERGENERATOR
EMISSION UNIT CONDITIONS

DESCRIPTION

The emission unit consists of one diesel-fired reciprocating internal combustion engine. The unit is standby diesel fired emergency generator used to provide electricity to the facility on an emergency basis.

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
NA	NA	NA	NA	NA	NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Distillate Oil (Diesel Fuel)	Only use No. 1 or No. 2 distillate oil in the diesel generator[2]	NA	EUEMERGENERATOR	SC VI.1	**R 336.1401, R 336.1301(1)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep records on each shipment of diesel fuel as to which grade of diesel was received. **(R 336.1213(3))**

ROP No: MI-ROP-

~~N2388~~N2388~~N2388~~N2388-2014a

Expiration Date: September 4, 2019
PTI No.: MI-PTI-

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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))**

See Appendix 8

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

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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
FGMATLHDLG	This flexible consists of ash and wood handling.	EUASH-HDLG, EURAWMATL-HDLG
FGCIRICEMACT	This flexible group consists of existing emergency compression ignition engines which are subject to 40 CFR, Part 63, Subpart ZZZZ.	EUEMERGENERATOR, EUFIREPUMP

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FGMATHLHDLG
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

This flexible group consists of raw material fuel handling including the wood fuel pile and the wood conveying system, and the equipment responsible for getting the raw material fuel from the storage piles and into the boiler by use of conveyors. This flexible group also consists of ash handling equipment including the conveyors that are used in handling the ash coming from the boiler and the ash storage building.

Emission Units: EURAWMATL-HDLG, EUASH-HDLG

POLLUTION CONTROL EQUIPMENT

Ash Storage Building, Ash Wetting System.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Visible emissions	5 percent opacity[2]	6-minute average	EURAWMATL-HDLG, EUASH-HDLG	SC VI.1	**R 336.1301(1)(c)**

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)

1. The applicant shall not operate the ash handling system unless the wetting system is operating properly.[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))**

NA

VI. MONITORING/RECORDKEEPING

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

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1. Personnel shall observe ash-handling equipment and wood handling equipment at least once daily. If there are any visible emissions coming from these equipment personnel shall document and notify supervision. Repairs or remedial action are to be initiated within 24 hours and completed as expeditiously as possible.

   Records of visible emissions observations, repairs, and remedial actions shall be kept and made available to the AQD upon request. **(R 336.1213(3))**

2. The permittee shall keep records of weekly inspections of equipment for FGMATLHDLG. These records shall include the corrective measures taken, if any, on the inspected equipment. These records shall be kept and maintained on site and be made available to the AQD staff upon request. **(R 336.1213(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))**

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

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FGCIRICEMACT
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

This flexible group includes emergency stationary compression ignition (CI) reciprocating internal combustion engines (RICE) located at an area source of hazardous air pollutants (HAPs) which were installed or reconstructed before June 12, 2006 (i.e., existing CI RICE).

Emission Units: EUEMERGENERATOR, EUFIREPUMP

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S):

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall limit operation of each stationary emergency RICE as follows:
   a. Emergency stationary RICE may be operated for the purposes of maintenance checks, readiness testing and emergency demand response for up to 100 hours per year. **(40 CFR 63.6640(f))**
   b. Emergency stationary RICE may be operated up to 50 hours per year in non-emergency situations, but those hours are to be counted towards the 100 hours per year for maintenance, testing and emergency demand response. These 50 hours per year for non-emergency situations cannot be used for peak-shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. Any use of the engines for purposes of emergency demand response are to be counted towards the 100 hours per year for maintenance, testing and emergency demand response and must comply with 63.6640(f)(2)(ii) and (iii). **(40 CFR 63.6640(f))**

2. The permittee shall operate and maintain existing emergency stationary RICE according to the manufacturer's emission-related operation and maintenance instructions or a plan developed by the facility that provides for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 63.6625(e) and 40 CFR 63.6640(a) and Table 6(9)(a))**

3. The permittee shall operate and maintain engine manufacturer installed after treatment control device(s) on existing emergency stationary RICE according to the manufacturer's emission-related operation and maintenance instructions or a plan developed by the facility that provides for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 63.6625(e))**

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4. For existing emergency CI RICE, the permittee shall change the oil and filter every 500 hours of operation or annually, whichever comes first. In lieu of changing the oil and filter, the permittee may implement an oil analysis program to have the oil analyzed as described in 40 CFR 63.6625(i). **(40 CFR 63.6602, 40 CFR 63.6603(a) and Table 2d(4)(a))**

5. For existing emergency CI RICE, the permittee shall inspect the air cleaner every 1000 hours of operation or annually, whichever comes first. **(40 CFR 63.6602, 40 CFR 63.6603(a) and Table 2d(4)(b))**

6. If the analytical results of the oil analysis program for emergency stationary CI engines indicate any of the following limits are exceeded, the permittee shall change the oil within 2 days of receiving the results of the analysis. If the engine is not in operation when the results of the analysis are received, the permittee shall change the oil within 2 days or before commencing operation, whichever is later. **(40 CFR 63.6625(i))**
   a. Total Base Number is less than 30 percent of the Total Base Number of the oil when new.
   b. Viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new.
   c. Percent water content (by volume) is greater than 0.5.

7. For existing emergency CI RICE, the permittee shall inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. **(40 CFR 63.6602, 40 CFR 63.6603(a) and Table 2d(4)(c))**

8. The permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission standards apply. **(40 CFR 63.6625(h) & 40 CFR 63.6640(a))**

10. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Conditions III.4-7, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.
    (40 CFR, Part 63, Subpart ZZZZ, Table 2d, Footnote 2)

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. For existing emergency RICE with a site rating of 500 brake HP or less, the permittee shall install a non-resettable hour meter by May 3, 2013. **(40 CFR 63.6600(a), 40 CFR 63.6625(f), 40 CFR 63.6640)**

V. TESTING/SAMPLING

1. For the optional oil analysis program for emergency stationary CI engines, the permittee shall at a minimum analyze the oil for the following three parameters: **(40 CFR 63.6625(i))**
   a. Total Base Number
   b. Viscosity
   c. Percent water content.

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R336.1213(3)(b)(ii))**

1. The permittee shall maintain a copy of each notification and report submitted, including supporting documentation. **(40 CFR 63.6655(a)(1))**

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2. The permittee shall maintain a record of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. **(40 CFR 63.6655(a)(2))**

3. The permittee shall maintain a record of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. **(40 CFR 63.6655(a)(5))**

4. The permittee shall maintain a record of all required maintenance performed on the air pollution control and monitoring equipment. **(40 CFR 63.6655(a)(4))**

5 The permittee shall maintain records of the maintenance conducted on the stationary RICE in order to demonstrate that the stationary RICE and after-treatment control device (if any) was operated and maintained according to the facility maintenance plan. **(40 CFR 63.6655(e)(3))**

6. For existing emergency stationary RICE that do not meet the emission standards applicable to non-emergency stationary RICE, permittee shall maintain records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The records must document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for emergency demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the date, start time and end time the engine was operated as part of emergency demand response. **(40 CFR 63.6655(f))**

7. For the oil analysis program, the permittee shall keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. **(40 CFR 63.6625(i&j))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R336.1213(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. **(R336.1213(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. **(R336.1213(4)(c))**

4. Sources must report any failure to perform the management practice (i.e., oil and filter changes, air filter inspections, hoses and belt inspections) on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable. **(40 CFR, Part 63, Subpart ZZZZ, Table 2d, Footnote 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
NA	NA	NA	NA

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IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emissions Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subparts A and ZZZZ, for Stationary Reciprocating Internal Combustion Engines. **(40 CFR 63.6595(a)(1), 40 CFR, Part 63, Subparts A and ZZZZ)**

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2]This 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 the requirements identified in the table below are not applicable to the specified emission unit(s) and/or flexible group(s). This determination is incorporated into the permit shield provisions set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii). If the permittee makes a change that affects the basis of the non-applicability determination, the permit shield established as a result of that non-applicability decision is no longer valid for that emission unit or flexible group.

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APPENDICES

Appendix 1: Abbreviations and Acronyms

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

AQD	Air Quality Division	MM	Million
acfm	Actual cubic feet per minute	MSDS	Material Safety Data Sheet
BACT	Best Available Control Technology	MW	Megawatts
BTU	British Thermal Unit	NA	Not Applicable
°C	Degrees Celsius	NAAQS	National Ambient Air Quality Standards
CAA	Federal Clean Air Act	NESHAP	National Emission Standard for Hazardous Air Pollutants
CAM	Compliance Assurance Monitoring	NMOC	Non-methane Organic Compounds
CEM	Continuous Emission Monitoring	NOx	Oxides of Nitrogen
CFR	Code of Federal Regulations	NSPS	New Source Performance Standards
CO	Carbon Monoxide	NSR	New Source Review
COM	Continuous Opacity Monitoring	PM	Particulate Matter
department	Michigan Department of Environmental Quality	PM-10	Particulate Matter less than 10 microns in diameter
dscf	Dry standard cubic foot	pph	Pound per hour
dscm	Dry standard cubic meter	ppm	Parts per million
EPA	United States Environmental Protection Agency	ppmv	Parts per million by volume
EU	Emission Unit	ppmw	Parts per million by weight
°F	Degrees Fahrenheit	PS	Performance Specification
FG	Flexible Group	PSD	Prevention of Significant Deterioration
GACS	Gallon of Applied Coating Solids	psia	Pounds per square inch absolute
GC	General Condition	psig	Pounds per square inch gauge
gr	Grains	PeTE	Permanent Total Enclosure
HAP	Hazardous Air Pollutant	PTI	Permit to Install
Hg	Mercury	RACT	Reasonable Available Control Technology
hr	Hour	ROP	Renewable Operating Permit
HP	Horsepower	SC	Special Condition
H_2S	Hydrogen Sulfide	scf	Standard cubic feet
HVLP	High Volume Low Pressure *	sec	Seconds
ID	Identification (Number)	SCR	Selective Catalytic Reduction
IRSL	Initial Risk Screening Level	SO_2	Sulfur Dioxide
ITSL	Initial Threshold Screening Level	SRN	State Registration Number
LAER	Lowest Achievable Emission Rate	TAC	Toxic Air Contaminant
lb	Pound	Temp	Temperature
m	Meter	THC	Total Hydrocarbons
MACT	Maximum Achievable Control Technology	tpy	Tons per year
MAERS	Michigan Air Emissions Reporting System	µg	Microgram
MAP	Malfunction Abatement Plan	VE	Visible Emissions
MDEQ	Michigan Department of Environmental Quality	VOC	Volatile Organic Compounds
mg	Milligram	yr	Year

mm	Millimeter

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

Appendix 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. 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. 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. 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. 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-N2388-2008a. 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-N2388-2008a is being reissued as Source-Wide PTI No. MI-PTI-N2388-2014.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
NA	200900024	Reopening to include requirements of the Clean Air Interstate Rule (CAIR) Annual Sulfur Dioxide Permit, CAIR Annual Nitrogen Oxide Budget Permit, and CAIR Ozone Nitrogen Oxide Budget Permit	EUBOILER

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The following ROP amendments or modifications were issued after the effective date of ROP No. MI-ROP-N2388-2014.

Permit to Install Number	ROP Revision Application Number/Issuance Date	Description of Change	Corresponding Emission Unit(s) or Flexible Group(s)
NA	201500158/ June 16, 2016	Reopening to update from CAIR to CSAPR.	FGCOMBTURB

Appendix 7. Emission Calculations

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 EUBOILER.

For all pollutants **not** monitored by CEMS or COMS, the following formula shall be used to calculate emissions:

$$\text{Feed (calculated)} \times \frac{\text{Emissions (test)*}}{\text{Feed (test)*}} = \textbf{Emissions (calculated)}$$ Where:

Emissions (test) - is the final result of pollutant emissions in the appropriate units (ie. #/MMBtu, lb/hr, ppmv, etc)
Feed (test) - is the feed rate achieved during testing
Feed (calculated) - is the feed rate achieved during the reporting period in question
*value taken from the most recent valid stack testing data

All other specific emission calculations to be used with monitoring, testing or recordkeeping data are detailed in the appropriate Requirement Tables.

Appendix 8. 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.

Appendix 9. ~~Transport Rule (TR)~~ Cross State Air Pollution Rule (CSAPR)Trading Program Title V Requirements

Description of TR Monitoring Provisions

The CSAPR~~TR~~ subject unit, and the unit-specific monitoring provisions, at this source is identified in the following table. This unit is subject to the requirements for the ~~TR NO~~CSAPR NO_x Annual Trading Program, ~~TR NO~~CSAPR NO_x Ozone Season Group 2 Trading Program, and CSAPR~~TR~~ SO_2 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~~NOX~~ monitoring)
- Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D
- Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR part 75, appendix E
- Low Mass Emissions excepted monitoring (LME) requirements for gas- and oil-fired units pursuant to 40 CFR 75.19
- EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E

Unit ID: 1	
Parameter	Monitoring Methodology
SO_2	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR part 75, subpart B
NOx	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR part 75, subpart H
Heat Input	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR part 75, subpart B (for SO2 monitoring) and 40 CFR part 75, subpart H (for NOX monitoring)

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~~CSAPR NO_x Annual Trading Program), 97.~~530~~ 830 through 97.~~535~~ 835 (~~TR NO~~CSAPR NO_x Ozone Season Group 2 Trading Program), and 97.630 through 97.635 (TR SO_2 Group 1 Trading Program). The monitoring, recordkeeping and reporting requirements applicable to each unit are included below in the standard conditions for the applicable CSAPR~~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~~CSAPR NO_x Annual Trading Program), 97.~~535~~ 835 (~~TR NO~~CSAPR NO_x Ozone Season Group 2 Trading Program), and/or 97.635 (TR SO_2 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~~CSAPR NO_x Annual Trading Program), 97.~~530~~ 830 through 97.~~534~~ 834 (~~TR NO~~CSAPR NO_x Ozone Season Group 2 Trading Program), and/or 97.630 through 97.634 (~~TR~~ CSAPR SO_2 Group 1 Trading Program) must submit to the Administrator a petition requesting approval of the alternative in

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accordance with 40 CFR 75.66 and 97.435 (~~TR NO~~CSAPR NO_X Annual Trading Program), 97.~~535~~ 835 (~~TR NO~~CSAPR NO_X Ozone Season Group 2 Trading Program), and/or 97.635 (TR SO_2 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~~CSAPR NO_X Annual Trading Program), 97.~~530~~ 830 through 97.~~534~~ 834 (~~TR NO~~CSAPR NO_X Ozone Season Group 2 Trading Program), and 97.630 through 97.634 (TR SO_2 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~~CSAPR NO_X Annual Trading Program requirements (40 CFR 97.406)

(a) Designated representative requirements.

The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.413 through 97.418.

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

(1) The owners and operators, and the designated representative, of each ~~TR NO~~CSAPR NO_X Annual source and each ~~TR NO~~CSAPR NO_X Annual unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.430 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.431 (initial monitoring system certification and recertification procedures), 97.432 (monitoring system out-of-control periods), 97.433 (notifications concerning monitoring), 97.434 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.435 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

(2) The emissions data determined in accordance with 40 CFR 97.430 through 97.435 shall be used to calculate allocations of ~~TR NO~~CSAPR NO_X Annual allowances under 40 CFR 97.411(a)(2) and (b) and 97.412 and to determine compliance with the ~~TR NO~~CSAPR NO_X Annual emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.430 through 97.435 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

(c) NO_X emissions requirements.

(1) ~~TR NO~~CSAPR NO_X Annual emissions limitation.

(i). As of the allowance transfer deadline for a control period in a given year, the owners and operators of each ~~TR NO~~CSAPR NO_X Annual source and each ~~TR NO~~CSAPR NO_X Annual unit at the source shall hold, in the source's compliance account, ~~TR NO~~CSAPR NO_X Annual allowances available for deduction for such control period under 40 CFR 97.424(a) in an amount not less than the tons of total NO_X emissions for such control period from all ~~TR NO~~CSAPR 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~~CSAPR NO_X Annual units at a ~~TR NO~~CSAPR NO_X Annual source are in excess of the ~~TR NO~~CSAPR NO_X Annual emissions limitation set forth in paragraph (c)(1)(i) above, then:

(A). The owners and operators of the source and each ~~TR NO~~CSAPR NO_X Annual unit at the source shall hold the ~~TR NO~~CSAPR NO_X Annual allowances required for deduction under 40 CFR 97.424(d); and

(B). The owners and operators of the source and each ~~TR NO~~CSAPR NO_X Annual unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart AAAAA and the Clean Air Act.

(2) ~~TR NO~~CSAPR NO_X Annual assurance provisions.

(i). If total NO_X emissions during a control period in a given year from all ~~TR NO~~CSAPR NO_X Annual units at ~~TR NO~~CSAPR NO_X Annual sources in the state and Indian country within the borders of such State exceed the state assurance level, then the owners and operators of such sources and units in

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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 NOCSAPR 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 NOCSAPR NO_X Annual units at TR NOCSAPR 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 NOCSAPR 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 NOCSAPR NO_X Annual units at TR NOCSAPR 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 NOCSAPR NO_X Annual units at TR NOCSAPR 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 NOCSAPR NO_X Annual units at TR NOCSAPR 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 NOCSAPR 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 NOCSAPR NO_X Annual allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart AAAAA and the Clean Air Act.

(3) Compliance periods.

(i). A TR NOCSAPR 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 NOCSAPR 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 NOCSAPR 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 NOCSAPR NO_X Annual allowance that was allocated for such control period or a control period in a prior year.

(ii). A TR NOCSAPR 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 NOCSAPR 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.

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(5) Allowance Management System requirements. Each ~~TR NO~~CSAPR NO_x Annual allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart AAAAA.

(6) Limited authorization. A ~~TR NO~~CSAPR NO_x Annual allowance is a limited authorization to emit one ton of NO_x during the control period in one year. Such authorization is limited in its use and duration as follows:

(i). Such authorization shall only be used in accordance with the ~~TR NO~~CSAPR NO_x Annual Trading Program; and

(ii). Notwithstanding any other provision of 40 CFR part 97, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.

(7) Property right. A ~~TR NO~~CSAPR NO_x Annual allowance does not constitute a property right.

(d) Title V permit revision requirements.

(1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of ~~TR NO~~CSAPR NO_x Annual allowances in accordance with 40 CFR part 97, subpart AAAAA.

(2) This permit incorporates the ~~TR~~ CSAPR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.430 through 97.435, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of ~~TR~~ CSAPR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.406(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).

(e) Additional recordkeeping and reporting requirements.

(1) Unless otherwise provided, the owners and operators of each ~~TR NO~~CSAPR NO_x Annual source and each ~~TR NO~~CSAPR NO_x Annual unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.

(i). The certificate of representation under 40 CFR 97.416 for the designated representative for the source and each ~~TR NO~~CSAPR NO_x Annual unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.416 changing the designated representative.

(ii). All emissions monitoring information, in accordance with 40 CFR part 97, subpart AAAAA.

(iii). Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the ~~TR NO~~CSAPR NO_x Annual Trading Program.

(2) The designated representative of a ~~TR NO~~CSAPR NO_x Annual source and each ~~TR NO~~CSAPR NO_x Annual unit at the source shall make all submissions required under the ~~TR NO~~CSAPR NO_x Annual Trading Program, except as provided in 40 CFR 97.418. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71.

(f) Liability.

(1) Any provision of the ~~TR NO~~CSAPR NO_x Annual Trading Program that applies to a ~~TR NO~~CSAPR NO_x Annual source or the designated representative of a ~~TR NO~~CSAPR NO_x Annual source shall also apply to the owners and operators of such source and of the ~~TR NO~~CSAPR NO_x Annual units at the source.

(2) Any provision of the ~~TR NO~~CSAPR NO_x Annual Trading Program that applies to a ~~TR NO~~CSAPR NO_x Annual unit or the designated representative of a ~~TR NO~~CSAPR NO_x Annual unit shall also apply to the owners and operators of such unit.

(g) Effect on other authorities.

No provision of the ~~TR NO~~CSAPR NO_x Annual Trading Program or exemption under 40 CFR 97.405 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a ~~TR NO~~CSAPR NO_x Annual source or ~~TR NO~~CSAPR NO_x Annual unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

(h) Effect on units in Indian country.
Notwithstanding the provisions of paragraphs (a) through (g) above, paragraphs (a) through (g) shall be deemed not to impose any requirements on any source or unit, or any owner, operator, or designated representative with regard to any source or unit, in Indian country within the borders of the state.

SECTION II: ~~TR NO~~CSAPR NO_x Ozone Season Group 2 Trading Program Requirements (40 CFR 97.~~506~~806)

(a) Designated representative requirements.
The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.~~513~~ 813 through 97.~~518~~818.

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

(1) The owners and operators, and the designated representative, of each ~~TR NO~~CSAPR NO_x Ozone Season Group 2 source and each ~~TR NO~~CSAPR NO_x Ozone Season Group 2 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.~~530~~ 830 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.~~531~~ 831 (initial monitoring system certification and recertification procedures), 97.~~532~~ 832 (monitoring system out-of-control periods), 97.~~533~~ 833 (notifications concerning monitoring), 97.~~534~~ 834 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.~~535~~ 835 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

(2) The emissions data determined in accordance with 40 CFR 97.~~530~~ 830 through 97.~~535~~ 835 shall be used to calculate allocations of ~~TR NO~~CSAPR NO_x Ozone Season Group 2 allowances under 40 CFR 97.~~511~~811(a)(2) and (b) and 97.~~512~~ 812 and to determine compliance with the ~~TR NO~~CSAPR NO_x Ozone Season Group 2 emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.~~530~~ 830 through 97.~~535~~ 835 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

(c) NO_x emissions requirements.

(1) ~~TR NO~~CSAPR NO_x Ozone Season Group 2 emissions limitation.

(i). As of the allowance transfer deadline for a control period in a given year, the owners and operators of each ~~TR NO~~CSAPR NO_x Ozone Season Group 2 source and each ~~TR NO~~CSAPR NO_x Ozone Season Group 2 unit at the source shall hold, in the source's compliance account, ~~TR NO~~CSAPR NO_x Ozone Season Group 2 allowances available for deduction for such control period under 40 CFR 97.~~524~~824(a) in an amount not less than the tons of total NO_x emissions for such control period from all ~~TR NO~~CSAPR NO_x Ozone Season Group 2 units at the source.

(ii). If total NO_x emissions during a control period in a given year from the ~~TR NO~~CSAPR NO_x Ozone Season Group 2 units at a ~~TR NO~~CSAPR NO_x Ozone Season Group 2 source are in excess of the ~~TR NO~~CSAPR NO_x Ozone Season Group 2 emissions limitation set forth in paragraph (c)(1)(i) above, then:

(A). The owners and operators of the source and each ~~TR NO~~CSAPR NO_x Ozone Season Group 2 unit at the source shall hold the ~~TR NO~~CSAPR NO_x Ozone Season Group 2 allowances required for deduction under 40 CFR 97.~~524~~824(d); and

(B). The owners and operators of the source and each ~~TR NO~~CSAPR NO_x Ozone Season Group 2 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of ~~40 CFR part 97, subpart BBBBB~~ 40 CFR Part 97, Subpart EEEEE and the Clean Air Act.

(2) ~~TR NO~~CSAPR NO_x Ozone Season Group 2 assurance provisions.

(i). If total NO_x emissions during a control period in a given year from all ~~TR NO~~CSAPR NO_x Ozone Season Group 2 units at ~~TR NO~~CSAPR NO_x Ozone Season Group 2 sources in the state and Indian country within the borders of such state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_x emissions during such control period exceeds the common

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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 NOCSAPR NO_x Ozone Season Group 2 allowances available for deduction for such control period under 40 CFR 97.525825(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 97.525825(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 NOCSAPR NO_x Ozone Season Group 2 units at TR NOCSAPR NO_x Ozone Season Group 2 sources in the state and Indian country within the borders of such state for such control period exceed the state assurance level.

(ii). The owners and operators shall hold the TR NOCSAPR NO_x Ozone Season Group 2 allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.

(iii). Total NO_x emissions from all TR NOCSAPR NO_x Ozone Season Group 2 units at TR NOCSAPR NO_x Ozone Season Group 2 sources in the state and Indian country within the borders of such state during a control period in a given year exceed the state assurance level if such total NO_x emissions exceed the sum, for such control period, of the State NO_x Ozone Season Group 2 trading budget under 40 CFR 97.510810(a) and the state's variability limit under 40 CFR 97.510810(b).

(iv). It shall not be a violation of 40 CFR part 97, subpart BBBBB40 CFR Part 97, Subpart EEEEE or of the Clean Air Act if total NO_x emissions from all TR NOCSAPR NO_x Ozone Season Group 2 units at TR NOCSAPR NO_x Ozone Season Group 2 sources in the state and Indian country within the borders of such state during a control period exceed the state assurance level or if a common designated representative's share of total NO_x emissions from the TR NOCSAPR NO_x Ozone Season Group 2 units at TR NOCSAPR NO_x Ozone Season Group 2 sources in the state and Indian country within the borders of such state during a control period exceeds the common designated representative's assurance level.

(v). To the extent the owners and operators fail to hold TR NOCSAPR NO_x Ozone Season Group 2 allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,

(A). The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and

(B). Each TR NOCSAPR NO_x Ozone Season Group 2 allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart BBBBB 40 CFR Part 97, Subpart EEEEE and the Clean Air Act.

(3) Compliance periods.

(i). A TR NO_xCSAPR NO_x Ozone Season Group 2 unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of May 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.530830(b) and for each control period thereafter.

(ii). A TR CSAPR NO_x Ozone Season Group 2 unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of May 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.530830(b) and for each control period thereafter.

(4) Vintage of allowances held for compliance.

(i). A TR NOCSAPR NO_x Ozone Season Group 2 allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR NOCSAPR NO_x Ozone Season Group 2 allowance that was allocated for such control period or a control period in a prior year.

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(ii). A ~~TR NO~~CSAPR NO_X Ozone Season Group 2 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~~CSAPR NO_X Ozone Season Group 2 allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.

(5) Allowance Management System requirements. Each ~~TR NO~~CSAPR NO_X Ozone Season Group 2 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with ~~40 CFR part 97, subpart BBBBB~~ 40 CFR Part 97, Subpart EEEEE.

(6) Limited authorization. A ~~TR NO~~CSAPR NO_X Ozone Season Group 2 allowance is a limited authorization to emit one ton of NO_X during the control period in one year. Such authorization is limited in its use and duration as follows:

(i). Such authorization shall only be used in accordance with the ~~TR NO~~CSAPR NO_X Ozone Season Group 2 Trading Program; and

(ii). Notwithstanding any other provision of ~~40 CFR part 97, subpart BBBBB,~~ 40 CFR Part 97, Subpart EEEEE, ~~the~~ 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~~CSAPR NO_X Ozone Season Group 2 allowance does not constitute a property right.

(d) Title V permit revision requirements.

(1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of ~~TR NO~~CSAPR NO_X Ozone Season Group 2 allowances in accordance with 40 CFR Part 97, Subpart EEEEE~~40 CFR part 97, subpart BBBBB~~.

(2) This permit incorporates the ~~TR~~ CSAPR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.~~530~~ 830 through 97.~~535~~835, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of ~~TR~~ CSAPR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.~~506~~806(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).

(e) Additional recordkeeping and reporting requirements.

(1) Unless otherwise provided, the owners and operators of each ~~TR NO~~CSAPR NO_X Ozone Season Group 2 source and each ~~TR NO~~CSAPR NO_X Ozone Season Group 2 unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.

(i). The certificate of representation under 40 CFR 97.~~516~~ 816 for the designated representative for the source and each ~~TR NO~~CSAPR NO_X Ozone Season Group 2 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.~~516~~ 816 changing the designated representative.

(ii). All emissions monitoring information, in accordance with ~~40 CFR part 97, subpart BBBBB~~ 40 CFR Part 97, Subpart EEEEE.

(iii). Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the ~~TR NO~~CSAPR NO_X Ozone Season Group 2 Trading Program.

(2) The designated representative of a ~~TR NO~~CSAPR NO_X Ozone Season Group 2 source and each ~~TR NO~~CSAPR NO_X Ozone Season Group 2 unit at the source shall make all submissions required under the ~~TR NO~~CSAPR NO_X Ozone Season Group 2 Trading Program, except as provided in 40 CFR 97.~~518~~818. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71.

(f) Liability.

(1) Any provision of the ~~TR NO~~CSAPR NO_X Ozone Season Group 2 Trading Program that applies to a ~~TR NO~~CSAPR NO_X Ozone Season Group 2 source or the designated representative of a ~~TR NO~~CSAPR NO_X

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Ozone Season Group 2 source shall also apply to the owners and operators of such source and of the ~~TR NO~~CSAPR NO_x Ozone Season Group 2 units at the source.

(2) Any provision of the ~~TR NO~~CSAPR NO_x Ozone Season Group 2 Trading Program that applies to a ~~TR NO~~CSAPR NO_x Ozone Season Group 2 unit or the designated representative of a ~~TR NO~~CSAPR NO_x Ozone Season Group 2 unit shall also apply to the owners and operators of such unit.

(g) Effect on other authorities.

No provision of the ~~TR NO~~CSAPR NO_x Ozone Season Group 2 Trading Program or exemption under 40 CFR 97.~~505~~ 805 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a ~~TR NO~~CSAPR NO_x Ozone Season Group 2 source or ~~TR NO~~CSAPR NO_x Ozone Season Group 2 unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

(h) Effect on units in Indian country.

Notwithstanding the provisions of paragraphs (a) through (g) above, paragraphs (a) through (g) shall be deemed not to impose any requirements on any source or unit, or any owner, operator, or designated representative with regard to any source or unit, in Indian country within the borders of the state.

SECTION III: ~~TR~~ CSAPR SO_2 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~~ CSAPR SO_2 Group 1 source and each ~~TR~~ CSAPR SO_2 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~~ CSAPR SO_2 Group 1 allowances under 40 CFR 97.611(a)(2) and (b) and 97.612 and to determine compliance with the ~~TR~~ CSAPR SO_2 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) SO_2 emissions requirements.

(1) ~~TR~~ CSAPR SO_2 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~~ CSAPR SO_2 Group 1 source and each ~~TR~~ TCSAPR SO2 Group 1 unit at the source shall hold, in the source's compliance account, ~~TR~~ CSAPR SO_2 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 SO_2 emissions for such control period from all TR SO_2 Group 1 units at the source.

(ii). If total SO_2 emissions during a control period in a given year from the ~~TR~~ CSAPR SO_2 Group 1 units at a ~~TR~~ CSAPR SO_2 Group 1 source are in excess of the ~~TR~~ CSAPR SO_2 Group 1 emissions limitation set forth in paragraph (c)(1)(i) above, then:

(A). The owners and operators of the source and each ~~TR~~ CSAPR SO_2 Group 1 unit at the source shall hold the ~~TR~~ CSAPR SO_2 Group 1 allowances required for deduction under 40 CFR 97.624(d); and

(B). The owners and operators of the source and each ~~TR~~ CSAPR SO_2 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.

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(2) ~~TR~~ CSAPR SO_2 Group 1 assurance provisions.
  (i). If total SO_2 emissions during a control period in a given year from all ~~TR~~ CSAPR SO_2 Group 1 units at ~~TR~~ CSAPR SO_2 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 SO_2 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~~ CSAPR SO_2 Group 1 allowances available for deduction for such control period under 40 CFR 97.625(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.625(b), of multiplying—
    (A). The quotient of the amount by which the common designated representative's share of such SO_2 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 SO_2 emissions exceeds the respective common designated representative's assurance level; and
    (B). The amount by which total SO_2 emissions from all ~~TR~~ CSAPR SO_2 Group 1 units at ~~TR~~ CSAPR SO_2 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~~ CSAPR SO_2 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 SO_2 emissions from all ~~TR~~ CSAPR SO_2 Group 1 units at ~~TR~~ CSAPR SO_2 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 SO_2 emissions exceed the sum, for such control period, of the state SO_2 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 SO_2 emissions from all ~~TR~~ CSAPR SO_2 Group 1 units at ~~TR~~ CSAPR SO_2 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 SO_2 emissions from the ~~TR~~ CSAPR SO_2 Group 1 units at ~~TR~~ CSAPR SO_2 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~~ CSAPR SO_2 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~~ CSAPR SO_2 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~~ CSAPR SO_2 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~~ CSAPR SO_2 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~~ CSAPR SO_2 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~~ CSAPR SO_2 Group 1 allowance that was allocated for such control period or a control period in a prior year.

(ii). A ~~TR~~ TCSAPR SO_2 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~~ TCSAPR SO_2 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~~ CSAPR SO_2 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~~ CSAPR SO_2 Group 1 allowance is a limited authorization to emit one ton of SO_2 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~~ CSAPR SO_2 Group 1 Trading Program; and

(ii). Notwithstanding any other provision of 40 CFR part 97, subpart CCCCC, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.

(7) Property right. A ~~TR~~ CSAPR SO_2 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~~ CSAPR SO_2 Group 1 allowances in accordance with 40 CFR part 97, subpart CCCCC.

(2) This permit incorporates the ~~TR~~ CSAPR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.630 through 97.635, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR part 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E), Therefore, the Description of ~~TR~~ CSAPR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.606(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).

(e) Additional recordkeeping and reporting requirements.

(1) Unless otherwise provided, the owners and operators of each ~~TR~~ CSAPR SO_2 Group 1 source and each ~~TR~~ CSAPR SO_2 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~~ TCSAPR SO_2 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~~ CSAPR SO_2 Group 1 Trading Program.

(2) The designated representative of a ~~TR~~ CSAPR SO_2 Group 1 source and each ~~TR~~CSAPR SO_2 Group 1 unit at the source shall make all submissions required under the ~~TR~~ CSAPR SO_2 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~~ CSAPR SO_2 Group 1 Trading Program that applies to a ~~TR~~ CSAPR SO_2 Group 1 source or the designated representative of a ~~TR~~ CSAPR SO_2 Group 1 source shall also apply to the owners and operators of such source and of the ~~TR~~ CSAPR SO_2 Group 1 units at the source.

(2) Any provision of the ~~TR~~ TCSAPR SO_2 Group 1 Trading Program that applies to a ~~TR~~ CSAPR SO_2 Group 1 unit or the designated representative of a ~~TR~~ CSAPR SO_2 Group 1 unit shall also apply to the owners and operators of such unit.

(g) Effect on other authorities.

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No provision of the ~~TR~~ TCSAPR SO_2 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~~ CSAPR SO_2 Group 1 source or ~~TR~~ CSAPR SO_2 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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APPENDIX B

// Compliance Assurance Monitoring Plan

Compliance Assurance Monitoring Plan

Grayling Generating Station

4400 West Four Mile Road
Grayling, Michigan

NTH Project No. 74-180061-02
January 25, 2019

NTH Consultants, Ltd.
608 S. Washington Ave.
Lansing, MI 48933

Table of Contents

1.0 INTRODUCTION

Grayling Generating Station (GGS) operates a biomass-fired boiler (EUBOILER) for production of steam sent to a steam turbine generating up to 36 Megawatts (MW) of electricity. GGS is located at 4400 West 4 Mile Road in Grayling, Michigan and operates in accordance with Renewable Operating Permit (ROP) No. MI-ROP-N2388-2014a. EUBOILER is a spreader-stoker boiler rated at 523 million British thermal units per hour (MMBtu/hr) that fires wood and tire derived fuel (TDF) as primary fuels, with natural gas-fired auxiliary burners. The boiler is equipped with a multi-cyclone dust collector and electrostatic precipitator (ESP) for control of particulate matter (PM) emissions.

GGS' ROP contains requirements to prepare and maintain a Compliance Assurance Monitoring (CAM) Plan as specified in Special Condition (SC) IX.2 for EUBOILER. Pursuant to 40 CFR Part 64, CAM must be implemented for emission units meeting applicability criteria under 40 CFR §64.2(a), and does not apply to emissions units exempt pursuant to 40 CFR §64.2(b). EUBOILER is subject to CAM for emissions of particulate matter (PM); therefore, GGS has established indicator ranges for reasonable assurance of compliance with the PM limits contained in the ROP:

1. EUBOILER SC I.1: 0.03 pounds PM per million British thermal units (lb/MMBtu)
2. EUBOILER SC I.2: 12.0 pounds PM per hour (lb/hr)
3. EUBOILER SC I.3: 25.2 tons PM per year (tpy)

EUBOILER is equipped with a continuous opacity monitoring system (COMS). The COMS is properly maintained and spare parts are kept at the facility for routine repair of the monitoring equipment, as specified by EUBOILER SC VI.13.

2.0 COMPLIANCE ASSURANCE MONITORING

EUBOILER includes a multi-cyclone dust collector and ESP to control emissions of PM; potential emissions of PM (pre-control) are greater than the major source threshold. Pursuant to 40 CFR §64.3, the CAM Plan specifies monitoring of performance indicators to provide reasonable assurance of compliance with the PM limits listed as EUBOILER SC I.1, I.2, and I.3 in the ROP:

1. EUBOILER SC I.1: 0.03 lb PM/MMBtu
2. EUBOILER SC I.2: 12.0 lb PM/hr
3. EUBOILER SC I.3: 25.2 PM tpy

The CAM Plan specifies monitoring of parameters indicative of the multi-cyclone dust collector and ESP performance at a certain frequency to provide reasonable assurance of compliance with the PM limits as outlined in the following sections.

Control Technology

PM is emitted as result of the combustion of solid fuels (wood and TDF) in the form of ash, typically referred to as fly ash. With proper operation of the multi-cyclone dust collector and ESP, the boiler can achieve the PM emission rates listed in the ROP. The multi-cyclone dust collector captures fly ash and char from the flue gas stream; ash is sifted and char is re-injected into the boiler. The flue gas is then routed to the ESP to further reduce PM emissions. The ESP applies a positive charge to particles within the flue gas via electrodes, and routes the flue gas over a negatively charged plate that collects the negatively charged particles. As particles build up on the plates, solenoid rappers are used to remove ash build up to maintain effectiveness of the unit.

Monitoring Approach and Performance Criteria

PM suspended within the flue gas is typically opaque, and can be visually observed as “visible emissions” or monitored as opacity by a COMS. GGS operates the COMS as required by the ROP and pursuant to the applicable requirements of 40 CFR Part 60. The COMS provides continuous opacity monitoring and is used to indicate proper performance of the multi-cyclone dust collector and ESP. The COMS is the primary monitor used to provide reasonable assurance of compliance with the PM limits. The monitoring and performance criteria of the COMS are provided in Table 2-1.

Table 2-1: Multi-cyclone Dust Collector and ESP Monitoring and Performance Criteria

Parameter	CAM Criteria
Indicator	Opacity emissions monitored continuously at EUBOILER COMS
Indicator Range	An excursion is defined by the ROP as two or more consecutive 1-hour block averages where opacity exceeds 5% (EUBOILER SC VI.10). The duration of each excursion is determined as the number of hours, following the first hour, where the 1-hour block averages opacity is greater than 5%. Excursions trigger an inspection to identify cause, and a corrective action.
Data Representativeness	The multi-clone dust collector and ESP are necessary to reduce of PM emissions resulting from combustion of solid fuels. Opacity data is indicative of performance of the multi-cyclone dust collector and ESP.
Verification of Operational Status	Proper operation of the COMS was verified through the initial performance evaluation conducted in accordance with PS-1 of 40 CFR 60, Appendix B.
QA/QC Practices and Criteria	The COMS will be calibrated, maintained, and operated in accordance with the procedures of 40 CFR §60.13 and applicable Performance Specifications in Appendix B to 40 CFR Part 60.
Monitoring Frequency	The opacity of the exhaust gases will be monitored continuously.
Data Collection	The data acquisition and handling system (DAHS) retains opacity readings taken at 10-second intervals and calculates hourly block average opacity data.
Averaging Period	The opacity readings are used to calculate the 1-hour block average opacity values. Two or more consecutive 1-hour block averages are compared to the indicator range.

Upon detecting an excursion or exceedance as outlined by performance indicators included in Table 2-1 and permit limits, GGS will investigate the cause and initiate corrective action to the multi-cyclone dust collector or ESP, if needed, as expeditiously as practicable and in accordance with good air pollution control practices for minimizing emissions.

Justification of Monitoring Approach and Performance Criteria

The ROP establishes COMS as the means to assure compliance with the PM limits, pursuant to EUBOILER SC VI.10. The COMS, required by the ROP and operated according to the monitoring requirements of 40 CFR §60.13 and Appendix B to 40 CFR Part 60, satisfies the design criteria of CAM, pursuant to 40 CFR §64.3(d)(2)(ii):

> *(d) Special criteria for the use of continuous emission, opacity or predictive monitoring systems. (1) If a continuous emission monitoring system (CEMS),*

continuous opacity monitoring system (COMS) or predictive emission monitoring system (PEMS) is required pursuant to other authority under the Act or state or local law, the owner or operator shall use such system to satisfy the requirements of this part.
(2) The use of a CEMS, COMS, or PEMS that satisfies any of the following monitoring requirements shall be deemed to satisfy the general design criteria in paragraphs (a) and (b) of this section, provided that a COMS may be subject to the criteria for establishing indicator ranges under paragraph (a) of this section:
(ii) Section 60.13 and appendix B of part 60 of this chapter

Pursuant to 40 CFR §64.4(b), performance specifications for CAM must be justified in how each satisfies requirements contained in 40 CFR §64.3. Justification for the appropriateness of the monitoring may be based on presumptively acceptable monitoring. If presumptively justified, no further justification is necessary. 40 CFR §64.4(b)(2) specifies:

Presumptively acceptable monitoring includes:
(2) Continuous emission, opacity or predictive emission monitoring systems that satisfy applicable monitoring requirements and performance specifications as specified in §64.3(d)

The COMS satisfies the requirements and performance specifications of 40 CFR §64.3(d), and is considered "presumptively acceptable" pursuant to 40 CFR §64.4(b)(2).

3.0 RECORDKEEPING AND REPORTING

The following sections detail the applicable recordkeeping and reporting requirements pursuant to 40 CFR Part 64.

3.1 Recordkeeping Requirements

Pursuant to 40 CFR §64.9(b), GGS maintains records of COMS monitoring data, monitor performance data, corrective actions taken, and other supporting information required to provide reasonable assurance of compliance with the PM emissions limits (such as data used to document the adequacy of monitoring, or records of monitoring, maintenance, or corrective actions).

3.2 Reporting Requirements

Pursuant to 40 CFR §64.9(a), GGS submits semiannual CAM reports of excursions, exceedances, and monitoring downtime to the Michigan Department of Environmental Quality (MDEQ). Each CAM report will include summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action(s) taken. Additionally, the report will include summary information on the number, duration, and cause for monitor downtime. When there are no excursions, exceedances, or monitor downtime events in the reporting period, the CAM report will include a statement that no excursions, exceedances, or downtime events occurred.

4.0 PLAN REVISIONS

The CAM Plan will be revised to address reasonable revision requests by MDEQ or as GGS determines necessary. Revisions may be necessary if it is determined that the CAM plan does not adequately address compliance monitoring for reasonable assurance of compliance with applicable emission rates.

APPENDIX C

// Fugitive Dust Plan

GRAYLING GENERATING STATION
FUGITIVE DUST CONTROL PROGRAM

A. Unpaved Roads and Parking Areas
There are no unpaved roads or parking areas at this facility.

B. Paved Roads and Parking Areas
Applicant shall periodically wash down all paved roads and parking areas as necessary to minimize fugitive dust generation.

C. Traffic Signs
Vehicular traffic on all Plant roadways shall be limited to a maximum speed of 25 miles per hour and posted near the Plant entrance.

D. Waste Wood Piles
Any sawdust received shall be mixed with, and covered by wood chips within 24 hours of being unloaded at the Plant.

E. Loading and Unloading Operations
All conveyors that handle waste wood shall be covered. All waste wood handling equipment shall utilize minimum drop heights.

F. Ash Handling
Ash from the ash collecting system shall be loaded into dumpsters in the ash shed. The dumpsters will be covered with a tarp before the ash is transported to a licensed landfill for disposal. Spillage will be cleaned up as necessary.

APPENDIX D

// Preventative Maintenance/Malfunction Abatement Plan

N2388 Grayling Gen
01/25/2019
Boiler

Preventative Maintenance, and Malfunction Abatement Plan, EU BOILER-includes, Mechanical Dust Collector, Selective Non-Catalytic Reduction System (SNCR), & Precipitator; and Start up / Shut Down Plan

Responsible supervisory personnel for overseeing the inspection, maintenance, and repair programs of air-cleaning devices; and for approval of non-routine repairs: Plant Manager.

Responsible supervisory personnel for on-going maintenance and repair of air-cleaning devices: O&M Supervisor.

Responsible supervisory personnel for overseeing regular inspections: O&M Supervisor, and PO2's.

Responsible supervisory personnel for overseeing non-routine repair: Plant Manager.

A. Preventative Maintenance Program

Emission Units (Source): EU BOILER

Item to be inspected	Frequency of Inspections or repairs	Record keeping Method
Grates, including drives and related equipment.	Annually when the boiler is off line.	Operations outage work list or Outage report.
Fire Box	Annually when the boiler is off line.	Operations outage work list or Outage report.
Fuel Distribution Plates & Pulsation dampers	Annually when the boiler is off line.	Operations outage work list or Outage report.
Fuel Distribution Fan	Annually when the boiler is off line.	Operations outage work list or Outage report.
OFA fan motor, housing & dampers.	Annually when the boiler is off line.	Operations outage work list or Outage report.
FD fan motor, housing & damper.	Annually when the boiler is off line.	Operations outage work list or Outage report.
Superheater, Generating & Economizer tube bank.	Annually when the boiler is off line.	Operations outage work list or Outage report.
Dust Collector, including collector tubes, lip seals, & ducting.	Annually when the boiler is off line.	Operations outage work list or Outage report.
ID fan motor, housing, and dampers.	Annually when the boiler is off line.	Operations outage work list or Outage report.
Precipitator	Annually when the boiler is off line.	Operations outage work list or Outage report.
Fuel Feeders and drive units	Annually when the boiler is off line.	Operations outage work list or Outage report.
CO analyzer & associated equipment.	Annual RATA test performed. Along with routine maintenance performed once per year during scheduled outages.	Annual RATA report & CEM log

Item to be inspected	Frequency of Inspections or repairs	Record keeping Method
SO2 analyzer & associated equipment	Annual RATA test performed. Along with routine maintenance performed once per year during scheduled outages.	Annual RATA report & CEM log
NOx analyzer & associated equipment	Annual RATA test performed. Along with routine maintenance performed once per year during scheduled outages.	Annual RATA report & CEM log
CO2 analyzer & associated equipment	Annual RATA test performed. Along with routine maintenance performed once per year during scheduled outages.	Annual RATA report & CEM log
Stack Flow analyzer & associated equipment	Annual RATA test performed. Along with routine maintenance performed once per year during scheduled outages.	Annual RATA report & CEM log
Opacity Analyzer	Annual COMS audit performed. Along with routine maintenance performed once per year during scheduled outages.	Annual RATA report & CEM log
Fuel Train Belt Scales	Monthly calibrations are performed. Inspections and repairs are performed whenever a discrepancy is found.	Preventative Maintenance System
TDF Belt Scales	Monthly calibrations are performed. Inspections and repairs are performed whenever a discrepancy is found.	Preventative Maintenance System
Combustion controls related to flue gas temperatures, boiler draft indicators, steam pressures and temperatures, & air flows	Equipment is inspected and repaired whenever there is a discrepancy.	PO2 log books
Drum level transmitters	Equipment is inspected and repaired whenever there is a discrepancy.	PO2 log books

Air Cleaning Device: Mechanical Dust Collector

Item to be inspected	Frequency of Inspections or repairs	Record keeping Method
Condition of Rotary valves for dust collectors	Annually when the boiler is off line.	Operations outage work list or Outage report
Condition of venturi's for dust collector re-injection.	Annually when the boiler is off line.	Operations outage work list or Outage report

Air Cleaning Device: Electrostatic Precipitator

Item to be inspected	Frequency of Inspections or repairs	Record keeping Method
Rappers for curtains and electrodes	Rappers are inspected and repaired as needed.	PO1 & PO2 log books, Operations outage work list or work orders
High voltage electrodes and curtains are all secured and clearances are maintained.	Annually when the boiler is off line.	Operations outage work list or Outage report
Ventilation compartment fans	Annually when the boiler is off line.	Operations outage work list or Outage report

Air Cleaning Device: SNCR

Item to be inspected	Frequency of Inspections or repairs	Record keeping Method
Urea circulation, & metering skids operation.	Urea systems have back ups. So the equipment for the urea system is inspected and repaired as needed.	PO1 & PO2 log books, Operations outage work list or Outage report and the PM system.

Spare parts list for:

Emission Units (Source): EU BOILER
Based on the manufacture's recommendations, and plant operating experience, we typically store spare parts on-site. We use an electronic inventory to verify that spare parts are available to mitigate the risk of long-term equipment downtime.

Air Cleaning Device: Mechanical Dust Collector
Based on the manufacture's recommendations, and plant operating experience, we typically store spare parts on-site. We use an electronic inventory to verify that spare parts are available to mitigate the risk of long-term equipment downtime.

Air Cleaning Device: Electrostatic Precipitator
Based on the manufacture's recommendations, and plant operating experience, we typically store spare parts on-site. We use an electronic inventory to verify that spare parts are available to mitigate the risk of long-term equipment downtime.

Air Cleaning Device: SNCR
Based on the manufacture's recommendations, and plant operating experience, we would typically store spare parts on-site. We use an electronic inventory to verify that spare parts are available to mitigate the risk of long-term equipment downtime.

Stack Monitoring: CEM

Based on the manufacture’s recommendations, and plant operating experience, we typically store spare parts on-site. We use an electronic inventory to verify that spare parts are available to mitigate the risk of long-term equipment downtime.

B. Emission Unit (Source) and Air Cleaning Device Operating Variables to be monitored

Emission Units (Source): EU BOILER

Operating Variable	Normal Range of the Operating Variable	Frequency & method of monitoring and type of record keeping
Steam flow	85 KPPH – 350 KPPH depending on plant load.	Control system records this
Fuel feeder speeds	5% - 80% depending on fuel and plant load.	Control system records this
Grate speed	0-120hz depending on fuel and plant load.	PO1 log – every day
Steam drum water level	6 inches above to 6 inches below the middle of drum.	PO1 log – every day
Steam soot blowers	Soot blowers are blown as necessary to clean boiler tubes.	PO2 log – every day
Excess O2	1.0% - 4.0% PO2 is constantly adjusting his Excess O2 to control his emissions.	PO2 monitors and adjusts continually.
TDF burn rate	TDF screw speed is adjusted between 0 – 100% to control TDF tonnage being burnt.	PO2 monitors tonnage and adjust to feed a maximum of 1.875 tons per hour or 45 tons per day. Daily tonnage is recorded in CEMS & Ops log.

Air Cleaning Device: Mechanical Dust Collector

Operating Variable to be monitored	Normal Range of the Operating Variable	Frequency & method of monitoring malfunction and type of record keeping
Re-injection air for re-injecting char from dust collector.	Supply air -- >10 inches of water.	PO1 log – every day

Air Cleaning Device: Electrostatic Precipitator

Operating Variable to be monitored	Normal Range of the Operating Variable	Frequency & method of monitoring malfunction and type of record keeping
Opacity	0 – 5%	COMS – 1 hour block averages
Controls for transformer - rectifier sets.	Primary voltage on TR sets are above 50 volts	PO1 & PO2 logs – every day
Ventilation compartment air pressure.	Air pressure is above low compartment ventilation air pressure setting.	PO1 & PO2 logs – every day

Air Cleaning Device: SNCR

Operating Variable to be monitored	Normal Range of the Operating Variable	Frequency & method of monitoring malfunction and type of record keeping
Urea circulating skid operation.	Pump discharge pressure is between 6-40 PSI and discharge temperature is >65 degrees F.	PO1 & PO2 logs – every day
Urea distribution panels.	Urea pressure between 40 – 95 psi.	PO1 checks pressure every shift. Cleans the urea lines quarterly IAW a quarterly PM.

C. Corrective Procedures or Operational Changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limit.

Emission Units (Source): EU BOILER

Malfunction or Failure	Corrective Procedure
Fuel feeder speeds	If the feeders are overfeeding wood, we will put feeders in manual to control them and limit the fuel feed to control our emissions.
Grate speed	If there are problems with the grates, we will use air lances and rakes to move the fuel/ash around and control our emissions.
Steam drum water level	If we are having problems maintaining our drum level, the load will be reduced until we are able to maintain our drum level and correct the problem.
Steam soot blowers	If the soot blowers are not operating correctly they will be repaired and then put back in service.
TDF burn rate	If something was to happen and we lost control of our TDF feed, the system will be run in manual or shutoff until the problem is corrected.

Air Cleaning Device: Mechanical Dust Collector

Malfunction or Failure	Corrective Procedure
The rotary valves, sand classifier conveyor, or sand classifier vibrator for the dust collectors are not operating.	Correct the problem and restore the equipment. If it's been down for a while and we cannot control our emissions, then it will be determined how long the repairs will take. If the repair takes less time than a normal boiler shutdown and startup, then we may run out of compliance until it is repaired. If it is going to take more time than a normal shutdown and startup then we will shutdown and make repairs.

Re-injection air pressure for re-injecting char from dust collector is low.	Correct the problem and restore air pressure. If it's been down for a while and we cannot control our emissions, then it will be determined how long the repairs will take. If the repair takes less time than a normal boiler shutdown and startup, then we may run out of compliance until it is repaired. If it's going to take more time than a normal shutdown and startup then we will shutdown and make necessary repairs.

Air Cleaning Device: Electrostatic Precipitator

Malfunction or Failure	Corrective Procedure
Opacity averages greater than 5% for over 2 hours.	Trouble shoot the problem. If the problem can be corrected quickly by making some online repairs / adjustments, it will be repaired / adjusted. If the problems cannot be repaired on line we will either drop load to maintain emissions or shutdown and make repairs.
One or more section (cell) of the precipitator is off line.	Trouble shoot the problem. If the problem can be corrected quickly by making some online repairs / adjustments, it will be repaired / adjusted. If the problems cannot be repaired on line we will either drop load to maintain emissions or shutdown and make repairs.
Controls for transformer - rectifier sets & rapper controls are not functioning satisfactorily.	Trouble shoot the problem. If the problem can be corrected quickly by making some online repairs it will be repaired. If the problems cannot be repaired on line we will either drop load to maintain emissions or shutdown and make repairs.
If we loose the ventilation compartment air pressure.	Correct the problem and get the air pressure back up. If it's been down for a while and we cannot control our emissions, then it will be determined how long the repairs will take. If the repair takes less time than a normal boiler shutdown and startup, then we may run out of compliance until it is repaired. If it is going to take more time than a normal shutdown and startup then we will shutdown and make necessary repairs.

Ash conveyors, hopper heaters, and high level probes.	Correct the problem and get the equipment running again. If it's been down for a while and we cannot control our emissions, then it will be determined how long the repairs will take. If the repair takes less time than a normal boiler shutdown and startup, then we may run out of compliance until it is repaired. If it is going to take more time than a normal shutdown and startup then we will shutdown and make necessary repairs.

Air Cleaning Device: SNCR

Malfunction or Failure	Corrective Procedure
Urea circulating pump fails.	Put on the standby pump. If both pumps go down maintain emissions with metering pumps until you can get the circulating pumps back in operation. If we cannot maintain our emission limits with the metering pumps, then we will reduce load until we can.
Urea distribution panels are leaking or plugged.	Trouble shoot and correct the problem. If we cannot maintain our emission limits, then reduce load until we can.

Air Cleaning Device: CEM

Malfunction or Failure	Corrective Procedure
Opacity analyzer failure	Contact the maintenance dept for repair. If necessary contact the outside vendor. In the meantime the operation of the Precipitator will be checked every 2 hours and the following parameters will be recorded if the Opacity Monitor is down for >2 hours. Readings will be considered "Abnormal" if they fall outside the range of the previous 7 day's readings for that parameter, at that load level by more than 10%. Abnormal readings will be investigated and resolved. • Secondary Voltage on all fields • Secondary Current on all fields • Spark rate on all fields • Rapper system is Operating.
CO, NOx, SO2, CO2 or Stack Flow analyzer failure.	Contact the maintenance dept for repair. The following steps will be taken. • Based on the stable operation of the boiler and being in compliance with the required emissions levels at the time of the malfunction, continue to operate the boiler within normal parameters, and start repairs of the CEM immediately.

	• Should it be determined that replacement is required in lieu of repairs, continue to operate the boiler within normal parameters and start to replace the equipment immediately. • Should it be determined that replacement of equipment is going to take an excessive length of time, continue to operate the boiler within normal parameters and arrange for rental of CEM equipment in the interim period. • Should it be determined that rental of CEM equipment is not possible, continue to run the boiler at loads where extensive operating experience has demonstrated that the plant always complied with the emissions levels, & continue to correct the problem. • Should all of the above efforts not be acceptable, as a last resort, shut down the boiler until the CEM equipment can be placed in service.

Boiler Start Up and Shut Down Plan

The shutdown and cool down of the boiler takes about 12 hours. Starting the plant up from a cold start takes about 6 hours. The total process takes about 18 hours.

Boiler Start up

- Prior to the introduction of fuel into the boiler, the following checks will be made by the boiler operator and shift engineer via physical inspection and/or confirmed by the control system:
    1. All lockout/tagouts have been removed and all man ways are closed.
    2. The fans, valves, gas burner, stoker feed, grate systems and controls are operational.
    3. There is proper water level in the steam drum.

- The operator confirms that the CEM system is operating. The natural gas burner is started to gradually warm up the boiler. Only natural gas is fired in the boiler for the first 2-3 hours or so to slowly warm up the boiler. Somewhere between 250 – 300 psi steam pressure, wood will gradually be introduced. It takes about 6 hours to get the steam pressure and temperature up to the turbines minimum operating limits from a cold start.

B. PLANNED BOILER SHUTDOWN PROCEDURES

Boiler shut down

- Load is reduced on the unit until we are down to minimum load. The MFR for the boiler is tripped and the turbine is tripped on reverse power. The boiler is then cooled down according to the boiler curves.
- We cool the boiler down by pulling in outside air with the ID fan. It takes about 12 hours to get the temperature in the boiler down low enough so you can enter the boiler and complete any necessary repairs.

N2388 Grayling Gen
01/25/2019
Boiler

Preventative Maintenance, and Malfunction Abatement Plan, EU BOILER-includes, Mechanical Dust Collector, Selective Non-Catalytic Reduction System (SNCR), & Precipitator; and Start up / Shut Down Plan

Responsible supervisory personnel for overseeing the inspection, maintenance, and repair programs of air-cleaning devices; and for approval of non-routine repairs: Plant Manager.

Responsible supervisory personnel for on-going maintenance and repair of air-cleaning devices: O&M Supervisor.

Responsible supervisory personnel for overseeing regular inspections: O&M Supervisor, and PO2's.

Responsible supervisory personnel for overseeing non-routine repair: Plant Manager.

A. Preventative Maintenance Program

Emission Units (Source): EU BOILER

Item to be inspected	Frequency of Inspections or repairs	Record keeping Method
Grates, including drives and related equipment.	Annually when the boiler is off line.	Operations outage work list or Outage report.
Fire Box	Annually when the boiler is off line.	Operations outage work list or Outage report.
Fuel Distribution Plates & Pulsation dampers	Annually when the boiler is off line.	Operations outage work list or Outage report.
Fuel Distribution Fan	Annually when the boiler is off line.	Operations outage work list or Outage report.
OFA fan motor, housing & dampers.	Annually when the boiler is off line.	Operations outage work list or Outage report.
FD fan motor, housing & damper.	Annually when the boiler is off line.	Operations outage work list or Outage report.
Superheater, Generating & Economizer tube bank.	Annually when the boiler is off line.	Operations outage work list or Outage report.
Dust Collector, including collector tubes, lip seals, & ducting.	Annually when the boiler is off line.	Operations outage work list or Outage report.
ID fan motor, housing, and dampers.	Annually when the boiler is off line.	Operations outage work list or Outage report.
Precipitator	Annually when the boiler is off line.	Operations outage work list or Outage report.
Fuel Feeders and drive units	Annually when the boiler is off line.	Operations outage work list or Outage report.
CO analyzer & associated equipment.	Annual RATA test performed. Along with routine maintenance performed once per year during scheduled outages.	Annual RATA report & CEM log

Item to be inspected	Frequency of Inspections or repairs	Record keeping Method
SO2 analyzer & associated equipment	Annual RATA test performed. Along with routine maintenance performed once per year during scheduled outages.	Annual RATA report & CEM log
NOx analyzer & associated equipment	Annual RATA test performed. Along with routine maintenance performed once per year during scheduled outages.	Annual RATA report & CEM log
CO2 analyzer & associated equipment	Annual RATA test performed. Along with routine maintenance performed once per year during scheduled outages.	Annual RATA report & CEM log
Stack Flow analyzer & associated equipment	Annual RATA test performed. Along with routine maintenance performed once per year during scheduled outages.	Annual RATA report & CEM log
Opacity Analyzer	Annual COMS audit performed. Along with routine maintenance performed once per year during scheduled outages.	Annual RATA report & CEM log
Fuel Train Belt Scales	Monthly calibrations are performed. Inspections and repairs are performed whenever a discrepancy is found.	Preventative Maintenance System
TDF Belt Scales	Monthly calibrations are performed. Inspections and repairs are performed whenever a discrepancy is found.	Preventative Maintenance System
Combustion controls related to flue gas temperatures, boiler draft indicators, steam pressures and temperatures, & air flows	Equipment is inspected and repaired whenever there is a discrepancy.	PO2 log books
Drum level transmitters	Equipment is inspected and repaired whenever there is a discrepancy.	PO2 log books

Air Cleaning Device: Mechanical Dust Collector

Item to be inspected	Frequency of Inspections or repairs	Record keeping Method
Condition of Rotary valves for dust collectors	Annually when the boiler is off line.	Operations outage work list or Outage report
Condition of venturi's for dust collector re-injection.	Annually when the boiler is off line.	Operations outage work list or Outage report

Air Cleaning Device: Electrostatic Precipitator

Item to be inspected	Frequency of Inspections or repairs	Record keeping Method
Rappers for curtains and electrodes	Rappers are inspected and repaired as needed.	PO1 & PO2 log books, Operations outage work list or work orders
High voltage electrodes and curtains are all secured and clearances are maintained.	Annually when the boiler is off line.	Operations outage work list or Outage report
Ventilation compartment fans	Annually when the boiler is off line.	Operations outage work list or Outage report

Air Cleaning Device: SNCR

Item to be inspected	Frequency of Inspections or repairs	Record keeping Method
Urea circulation, & metering skids operation.	Urea systems have back ups. So the equipment for the urea system is inspected and repaired as needed.	PO1 & PO2 log books, Operations outage work list or Outage report and the PM system.

Spare parts list for:

Emission Units (Source): EU BOILER
Based on the manufacture's recommendations, and plant operating experience, we typically store spare parts on-site. We use an electronic inventory to verify that spare parts are available to mitigate the risk of long-term equipment downtime.

Air Cleaning Device: Mechanical Dust Collector
Based on the manufacture's recommendations, and plant operating experience, we typically store spare parts on-site. We use an electronic inventory to verify that spare parts are available to mitigate the risk of long-term equipment downtime.

Air Cleaning Device: Electrostatic Precipitator
Based on the manufacture's recommendations, and plant operating experience, we typically store spare parts on-site. We use an electronic inventory to verify that spare parts are available to mitigate the risk of long-term equipment downtime.

Air Cleaning Device: SNCR
Based on the manufacture's recommendations, and plant operating experience, we would typically store spare parts on-site. We use an electronic inventory to verify that spare parts are available to mitigate the risk of long-term equipment downtime.

Stack Monitoring: CEM

Based on the manufacture’s recommendations, and plant operating experience, we typically store spare parts on-site. We use an electronic inventory to verify that spare parts are available to mitigate the risk of long-term equipment downtime.

B. Emission Unit (Source) and Air Cleaning Device Operating Variables to be monitored

Emission Units (Source): EU BOILER

Operating Variable	Normal Range of the Operating Variable	Frequency & method of monitoring and type of record keeping
Steam flow	85 KPPH – 350 KPPH depending on plant load.	Control system records this
Fuel feeder speeds	5% - 80% depending on fuel and plant load.	Control system records this
Grate speed	0-120hz depending on fuel and plant load.	PO1 log – every day
Steam drum water level	6 inches above to 6 inches below the middle of drum.	PO1 log – every day
Steam soot blowers	Soot blowers are blown as necessary to clean boiler tubes.	PO2 log – every day
Excess O2	1.0% - 4.0% PO2 is constantly adjusting his Excess O2 to control his emissions.	PO2 monitors and adjusts continually.
TDF burn rate	TDF screw speed is adjusted between 0 – 100% to control TDF tonnage being burnt.	PO2 monitors tonnage and adjust to feed a maximum of 1.875 tons per hour or 45 tons per day. Daily tonnage is recorded in CEMS & Ops log.

Air Cleaning Device: Mechanical Dust Collector

Operating Variable to be monitored	Normal Range of the Operating Variable	Frequency & method of monitoring malfunction and type of record keeping
Re-injection air for re-injecting char from dust collector.	Supply air -- >10 inches of water.	PO1 log – every day

Air Cleaning Device: Electrostatic Precipitator

Operating Variable to be monitored	Normal Range of the Operating Variable	Frequency & method of monitoring malfunction and type of record keeping
Opacity	0 – 5%	COMS – 1 hour block averages
Controls for transformer - rectifier sets.	Primary voltage on TR sets are above 50 volts	PO1 & PO2 logs – every day
Ventilation compartment air pressure.	Air pressure is above low compartment ventilation air pressure setting.	PO1 & PO2 logs – every day

Air Cleaning Device: SNCR

Operating Variable to be monitored	Normal Range of the Operating Variable	Frequency & method of monitoring malfunction and type of record keeping
Urea circulating skid operation.	Pump discharge pressure is between 6-40 PSI and discharge temperature is >65 degrees F.	PO1 & PO2 logs – every day
Urea distribution panels.	Urea pressure between 40 – 95 psi.	PO1 checks pressure every shift. Cleans the urea lines quarterly IAW a quarterly PM.

C. Corrective Procedures or Operational Changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limit.

Emission Units (Source): EU BOILER

Malfunction or Failure	Corrective Procedure
Fuel feeder speeds	If the feeders are overfeeding wood, we will put feeders in manual to control them and limit the fuel feed to control our emissions.
Grate speed	If there are problems with the grates, we will use air lances and rakes to move the fuel/ash around and control our emissions.
Steam drum water level	If we are having problems maintaining our drum level, the load will be reduced until we are able to maintain our drum level and correct the problem.
Steam soot blowers	If the soot blowers are not operating correctly they will be repaired and then put back in service.
TDF burn rate	If something was to happen and we lost control of our TDF feed, the system will be run in manual or shutoff until the problem is corrected.

Air Cleaning Device: Mechanical Dust Collector

Malfunction or Failure	Corrective Procedure
The rotary valves, sand classifier conveyor, or sand classifier vibrator for the dust collectors are not operating.	Correct the problem and restore the equipment. If it's been down for a while and we cannot control our emissions, then it will be determined how long the repairs will take. If the repair takes less time than a normal boiler shutdown and startup, then we may run out of compliance until it is repaired. If it is going to take more time than a normal shutdown and startup then we will shutdown and make repairs.

Re-injection air pressure for re-injecting char from dust collector is low.	Correct the problem and restore air pressure. If it's been down for a while and we cannot control our emissions, then it will be determined how long the repairs will take. If the repair takes less time than a normal boiler shutdown and startup, then we may run out of compliance until it is repaired. If it's going to take more time than a normal shutdown and startup then we will shutdown and make necessary repairs.

Air Cleaning Device: Electrostatic Precipitator

Malfunction or Failure	Corrective Procedure
Opacity averages greater than 5% for over 2 hours.	Trouble shoot the problem. If the problem can be corrected quickly by making some online repairs / adjustments, it will be repaired / adjusted. If the problems cannot be repaired on line we will either drop load to maintain emissions or shutdown and make repairs.
One or more section (cell) of the precipitator is off line.	Trouble shoot the problem. If the problem can be corrected quickly by making some online repairs / adjustments, it will be repaired / adjusted. If the problems cannot be repaired on line we will either drop load to maintain emissions or shutdown and make repairs.
Controls for transformer - rectifier sets & rapper controls are not functioning satisfactorily.	Trouble shoot the problem. If the problem can be corrected quickly by making some online repairs it will be repaired. If the problems cannot be repaired on line we will either drop load to maintain emissions or shutdown and make repairs.
If we loose the ventilation compartment air pressure.	Correct the problem and get the air pressure back up. If it's been down for a while and we cannot control our emissions, then it will be determined how long the repairs will take. If the repair takes less time than a normal boiler shutdown and startup, then we may run out of compliance until it is repaired. If it is going to take more time than a normal shutdown and startup then we will shutdown and make necessary repairs.

Ash conveyors, hopper heaters, and high level probes.	Correct the problem and get the equipment running again. If it's been down for a while and we cannot control our emissions, then it will be determined how long the repairs will take. If the repair takes less time than a normal boiler shutdown and startup, then we may run out of compliance until it is repaired. If it is going to take more time than a normal shutdown and startup then we will shutdown and make necessary repairs.

Air Cleaning Device: SNCR

Malfunction or Failure	Corrective Procedure
Urea circulating pump fails.	Put on the standby pump. If both pumps go down maintain emissions with metering pumps until you can get the circulating pumps back in operation. If we cannot maintain our emission limits with the metering pumps, then we will reduce load until we can.
Urea distribution panels are leaking or plugged.	Trouble shoot and correct the problem. If we cannot maintain our emission limits, then reduce load until we can.

Air Cleaning Device: CEM

Malfunction or Failure	Corrective Procedure
Opacity analyzer failure	Contact the maintenance dept for repair. If necessary contact the outside vendor. In the meantime the operation of the Precipitator will be checked every 2 hours and the following parameters will be recorded if the Opacity Monitor is down for >2 hours. Readings will be considered "Abnormal" if they fall outside the range of the previous 7 day's readings for that parameter, at that load level by more than 10%. Abnormal readings will be investigated and resolved. • Secondary Voltage on all fields • Secondary Current on all fields • Spark rate on all fields • Rapper system is Operating.
CO, NOx, SO2, CO2 or Stack Flow analyzer failure.	Contact the maintenance dept for repair. The following steps will be taken. • Based on the stable operation of the boiler and being in compliance with the required emissions levels at the time of the malfunction, continue to operate the boiler within normal parameters, and start repairs of the CEM immediately.

	• Should it be determined that replacement is required in lieu of repairs, continue to operate the boiler within normal parameters and start to replace the equipment immediately. • Should it be determined that replacement of equipment is going to take an excessive length of time, continue to operate the boiler within normal parameters and arrange for rental of CEM equipment in the interim period. • Should it be determined that rental of CEM equipment is not possible, continue to run the boiler at loads where extensive operating experience has demonstrated that the plant always complied with the emissions levels, & continue to correct the problem. • Should all of the above efforts not be acceptable, as a last resort, shut down the boiler until the CEM equipment can be placed in service.

Boiler Start Up and Shut Down Plan

The shutdown and cool down of the boiler takes about 12 hours. Starting the plant up from a cold start takes about 6 hours. The total process takes about 18 hours.

Boiler Start up

- Prior to the introduction of fuel into the boiler, the following checks will be made by the boiler operator and shift engineer via physical inspection and/or confirmed by the control system:
    1. All lockout/tagouts have been removed and all man ways are closed.
    2. The fans, valves, gas burner, stoker feed, grate systems and controls are operational.
    3. There is proper water level in the steam drum.

- The operator confirms that the CEM system is operating. The natural gas burner is started to gradually warm up the boiler. Only natural gas is fired in the boiler for the first 2-3 hours or so to slowly warm up the boiler. Somewhere between 250 – 300 psi steam pressure, wood will gradually be introduced. It takes about 6 hours to get the steam pressure and temperature up to the turbines minimum operating limits from a cold start.

B. PLANNED BOILER SHUTDOWN PROCEDURES

Boiler shut down

- Load is reduced on the unit until we are down to minimum load. The MFR for the boiler is tripped and the turbine is tripped on reverse power. The boiler is then cooled down according to the boiler curves.
- We cool the boiler down by pulling in outside air with the ID fan. It takes about 12 hours to get the temperature in the boiler down low enough so you can enter the boiler and complete any necessary repairs.