

Ms. Wilhemina McLemore  
MDEQ – Air Quality Division  
Detroit District Office  
Cadillac Place, Suite 2-300  
3058 West Grand Blvd.  
Detroit, MI 48202-6058

August 31, 2016

Dear Ms. McLemore:

Dearborn Industrial Generation, L.L.C. (DIG) is submitting the attached Renewable Operating Permit (ROP) Renewal Application for their facility (SRN N6631) located at 2400 Miller Road, Dearborn, MI.

The facility is currently operating under ROP No. MI-ROP-N6631-2012a that was issued on March 28, 2012, and revised on June 28, 2016. As required by the State of Michigan Air Pollution Control Rule R 336.1210(8), 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 existing ROP. As the existing ROP expires March 28, 2017, the ROP renewal application must be submitted and deemed administratively complete by September 28, 2016. In addition, the ROP application is being submitted electronically to allow 15 days for an administrative completeness determination pursuant to Rule 210(2)(a)(i)(B).

The ROP application certification form (C-001) for the ROP is attached. Also attached are supporting documents for the renewal application:

- Maximum potential Greenhouse Gas (GHG) emission calculations;
- A mark-up copy (in “track changes”) of the existing ROP No. MI-ROP-N6631-2012a with proposed revisions;
- An Acid Rain Permit renewal application;
- Facility compliance protocol and monitoring plan;
- Turbine startup, shutdown, and malfunction plan (SSMP); and
- Emergency engine preventative maintenance plan.

If there are any questions regarding this ROP renewal application, please call me at 313-336-7189, or Mr. Christopher Occhipinti of NTH Consultants, Ltd. at 517-702-2952.

Sincerely,



Mr. Thomas Andreski  
EHS & Compliance Coordinator

cc: Jim Chong, Dearborn Industrial Generation, L.L.C.  
Christopher Occhipinti, NTH Consultants, Ltd.



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 N6631
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Stationary Source Name Dearborn Industrial Generation, L.L.C.	
City Dearborn	County Wayne

<b>SUBMITTAL CERTIFICATION INFORMATION</b>	
1. Type of Submittal <i>Check only one box.</i>	
<input type="checkbox"/> Initial Application (Rule 210)	<input type="checkbox"/> Notification / Administrative Amendment / Modification (Rules 215/216)
<input checked="" type="checkbox"/> Renewal (Rule 210)	<input type="checkbox"/> Other, describe on AI-001
2. If this ROP has more than one Section, list the Section(s) that this Certification applies to <u>NA</u>	
3. Submittal Media <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> FTP <input type="checkbox"/> Disk <input checked="" type="checkbox"/> 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 <u>GHG</u>	

<b>CONTACT INFORMATION</b>	
Contact Name Thomas Andreski	Title EHS & Compliance Coordinator
Phone number 313-336-7189	E-mail address Thomas.andreski@cmsenergy.com

<b>This form must be signed and dated by a Responsible Official.</b>				
Responsible Official Name Jim Chong			Title Commercial Director	
Mailing address 2400 Miller Road				
City Dearborn	State MI	ZIP Code 48121	County Wayne	Country USA
<b>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.</b>				
 <hr/> Signature of Responsible Official			<u>8/31/06</u> <hr/> Date	



## 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 [www.michigan.gov/deq](http://www.michigan.gov/deq).

### PART A: GENERAL INFORMATION

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

#### SOURCE INFORMATION

SRN N6631	SIC Code 4911	NAICS Code 221112	Existing ROP Number MI-ROP-N6631-2012a	Section Number (if applicable) NA
Source Name Dearborn Industrial Generation, L.L.C.				
Street Address 2400 Miller Road				
City Dearborn	State MI	ZIP Code 48121	County Wayne	
Section/Town/Range (if address not available) NA				
Source Description DIG operates three (3) natural gas-fired turbines, three (3) boilers capable of combusting natural gas or a combination of natural gas and blast furnace gas (BFG), two (2) open flares, and two (2) diesel fuel-fired emergency generators. The flares combust excess BFG not burned in the boilers. One (1) of DIG's existing turbines (EUCTG1) is a simple-cycle combustion peaking unit used exclusively during times of high energy demand. The other two (2) turbines (EUCTG2 and EUCTG3) are identical combined-cycle combustion turbines. The three (3) boilers are designed to fire a mixture of up to 95% BFG and 5% natural gas (by heat input) or 100% natural gas. DIG receives BFG from AK Steel Corporation as a by-product of their iron and steel making operations. Steam generated by the combined-cycle turbines and boilers is diverted to a steam turbine, which generates electricity that is sold to a third party energy management company.				
<input type="checkbox"/> Check here if any of the above information is different than what appears in the existing ROP. Identify any changes on the marked-up copy of your existing ROP.				

#### OWNER INFORMATION

Owner Name CMS Energy Corporation	Section Number (if applicable) NA			
Mailing address ( <input type="checkbox"/> check if same as source address) One Energy Plaza				
City Jackson	State MI	ZIP Code 49201	County Jackson	Country USA

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

SRN: N6631

Section Number (if applicable): NA

**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 Thomas Andreski		Title EHS & Compliance Coordinator		
Mailing address ( <input checked="" type="checkbox"/> check if same as source address)				
City	State	ZIP Code	County	Country
Phone number 313-336-7189		E-mail address Thomas.andreski@cmsenergy.com		

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

**RESPONSIBLE OFFICIAL INFORMATION**

Responsible Official 1 Name Jim Chong		Title Commercial Director		
Mailing address ( <input checked="" type="checkbox"/> check if same as source address)				
City	State	ZIP Code	County	Country
Phone number 313-336-7189		E-mail address Jim.chong@cmsenergy.com		

Responsible Official 2 Name (optional)		Title		
Mailing address ( <input type="checkbox"/> 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:

**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	
<input checked="" type="checkbox"/> Completed ROP Renewal Application Form (required)	<input type="checkbox"/> Compliance Plan/Schedule of Compliance:
<input checked="" type="checkbox"/> Mark-up copy of existing ROP (required)	<input type="checkbox"/> Compliance Assurance Monitoring (CAM) Plan
<input type="checkbox"/> Copies of all Permit(s) to Install that have not been incorporated into existing ROP (required)	<input checked="" type="checkbox"/> Acid Rain Permit Initial/Renewal Application
<input checked="" type="checkbox"/> Additional Information (AI-001) Forms	<input type="checkbox"/> Clean Air Interstate Rule (CAIR) Permit Initial/Renewal Application(s)
<input type="checkbox"/> MAERS Forms (to report emissions not previously submitted)	<input type="checkbox"/> Confidential Information
<input checked="" type="checkbox"/> Greenhouse Gas Emissions information (if applicable)	<input type="checkbox"/> Copies of all Consent Order/Consent Judgments that have not been incorporated into existing ROP
<input type="checkbox"/> Stack information	<input checked="" type="checkbox"/> Other, explain: SSM plan for EUCTG1, EUCTG2 & EUCTG3; Continuous Compliance Plan (CCP) for FGTURBINES and FGBOILERS; PEMS Monitoring Plan for FGTURBINES and FGBOILERS (included in Attachment 3 of the CCP). MP for FGEMERGENCYGENS. See Appendices D, E & F.
<input checked="" type="checkbox"/> Paper copy of all documentation provided (required)	<input checked="" type="checkbox"/> Electronic documents provided

**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.

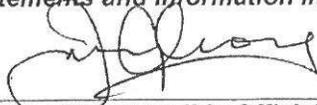
**Name and Title of the Responsible Official (Print or Type)**

Jim Chong

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

Signature of Responsible Official

Date



8/31/16

**PART C: SOURCE REQUIREMENT INFORMATION**

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

<p>C1. Actual emissions and associated data from <b>all</b> 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 <b>not</b> been reported in MAERS for the most recent emissions reporting year? If Yes, identify the emission unit(s) that was not reported in MAERS in the comments field below or on an AI-001 form. Applicable MAERS form(s) for unreported emission units must be included with this application.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>C2. Is this source subject to the federal regulations on ozone-depleting substances? (40 CFR Part 82)</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>C3. Is this source subject to the federal Prevention of Accidental Releases regulations? (Section 112(r) of the Clean Air Act Amendments, 40 CFR Part 68)</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>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?</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>C4. Does this stationary source have the potential to emit 100,000 tons per year or more of CO<sub>2</sub>e and 100 tons per year or more of greenhouse gases on a mass basis?</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>If Yes, provide emissions information on an AI-001 form. <i>See instructions</i></p>	
<p>C5. Are any emission units subject to the Clean Air Interstate Rule (CAIR)? If Yes, identify the specific emission unit(s) subject to CAIR in the comments area below or on an AI-001 form.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>Is a CAIR Permit Renewal Application included with this application?</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>C6. 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 in the comments field or on an AI-001 form.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>Is an Acid Rain Permit Renewal Application included with this application?</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>C7. 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?</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>If "Yes", then a copy must be submitted as part of the ROP renewal application.</p>	
<p>Comments:</p>	
<p><b>Question C5:</b> CAIR has been replaced by CSAPR, and therefore a CAIR permit renewal application has not be included with this ROP renewal application. CAIR requirements have been removed and replaced with CSAPR requirements for the turbines and the boilers (EUCTG1, EUCTG2, EUCTG3, EUBOILER1, EUBOILER2, and EUBOILER3). See Appendix B with the ROP in "Track-Changes" incorporating the applicable requirements of CSAPR.</p>	
<p><b>Question C6:</b> EUCTG1, EUCTG2, EUCTG3 are subject to the Acid Rain Program. See Appendix C for the Acid Rain Permit renewal application.</p>	
<p><input checked="" type="checkbox"/> Check here if an AI-001 form is attached to provide more information for Part C. Enter AI-001 form ID: <b>GHG</b></p>	



**PART E: EXISTING ROP INFORMATION**

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

<p>E1. Does the source propose to make any additions, changes or deletions to terms, conditions and underlying applicable requirements as they appear in the existing ROP? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If Yes, identify changes and additions on Part F, Part G and/or Part H.</p>
<p>E2. For each emission unit(s) identified in the existing ROP, <u>all</u> stacks with applicable requirements are to be reported in MAERS. Are there any stacks with applicable requirements for emission unit(s) identified in the existing ROP that were <u>not</u> reported in the most recent MAERS reporting year? If Yes, identify the stack(s) that were not reported on applicable MAERS form(s). <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p>
<p>E3. Are any emission units identified in the existing ROP subject to compliance assurance monitoring (CAM)? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes, identify the specific emission unit(s) subject to CAM in the comment area below or 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.</p> <p>Is a CAM plan included with this application? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p>
<p>E4. Do any emission units identified in the existing ROP emit regulated fugitive emissions? If Yes, identify the specific emission unit(s) in the comment area below or on an AI-001 form. <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p>
<p>E5. Have any emission units identified in the existing ROP been modified or reconstructed that would have required a PTI? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes, complete Part F with the appropriate information.</p>
<p>E6. 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. <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p>
<p>Comments:</p> <p><b>Question E1:</b> Requirements from 40 CFR Part 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines have been added for EU3516GEN1 and EU3516GEN2 under FGMACTZZZZ. Additionally, CAIR requirements have been removed and replaced with CSAPR requirements for the turbines and the boilers (EUCTG1, EUCTG2, EUCTG3, EUBOILER1, EUBOILER2, and EUBOILER3). Finally, cold cleaner requirements have been added for EUPARTSWASHER. See Appendix B with the ROP in "Track Changes" incorporating the applicable requirements.</p>
<p><input type="checkbox"/> Check here if an AI-001 form is attached to provide more information for Part E. Enter AI-001 form ID:</p>

**PART F: PERMIT TO INSTALL INFORMATION**

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

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

Permit to Install Number	Emission Units/Flexible Group ID(s)	Description ( <i>Include Process Equipment and Control Devices</i> )	Date of Installation/Modification/Reconstruction

F2. Do/Does the PTI(s) 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  
 If No, then all terms/conditions for new emission units/flexible groups from the PTI(s) above will be incorporated into the ROP.

F3. Are there any stacks with applicable requirements for emission unit(s) identified in the PTIs listed above that were not reported in MAERS for the most recent emissions reporting year? If Yes, identify the stack(s) that were not reported on the applicable MAERS form(s).  Yes  No

F4. Are any emission units in the PTI(s) subject to compliance assurance monitoring (CAM)?  
 If Yes, identify the specific emission unit(s) subject to CAM in the comments area below or on an AI-001 form. A CAM plan must be submitted as part of the ROP renewal application on an AI-001 form.  Yes  No

F5. Do any of the emission units in the PTI(s) listed above emit regulated fugitive emissions? If Yes, identify the specific emission unit(s) in the comments area below or on an AI-001 form.  Yes  No

F6. Are there any proposed administrative changes to any of the emission unit names, descriptions or control devices in the PTIs? 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:

**PART G: EMISSION UNITS MEETING THE CRITERIA OF RULES 281(h), 285(r)(iv), 287(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(h), 285(r)(iv), 287(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 date for each.*

Origin of Applicable Requirements	Emission Unit Description – Provide Emission Unit ID and process equipment/control device descriptions	Installation Date(s)
<input checked="" type="checkbox"/> Rule 281(h) or 285(r)(iv) cleaning operation	EUPARTSWASHER is a Safety Kleen Parts Washer with an air/vapor interface of less than 10 square feet	1/1/2002
<input type="checkbox"/> Rule 287(c) surface coating line		
<input type="checkbox"/> Rule 290 process with limited emissions		

Comments:  
 Cold cleaner requirements have been added for EUPARTSWASHER. See Appendix B with the ROP in "Track Changes" incorporating the applicable requirements.

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

**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.

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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
H2. Are there any proposed administrative changes to any of the existing emission unit names, descriptions or control devices in the ROP? If Yes, describe the changes in a mark-up of the Emission Unit Summary Table in the existing ROP.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
H3. Does the source propose to add a new emission unit or flexible group to the ROP not previously identified in parts F or G? If Yes, identify and describe the emission unit names, process description, and control device(s) in a mark-up of the Emission Unit Summary Table in the existing ROP.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
H4. Does the source propose to make any additions, changes or deletions to terms, conditions and underlying applicable requirements in the existing ROP?  If Yes, identify each emission unit/flexible group subject to the addition, change or deletion and identify the high level citation for each state or federal underlying applicable requirement that the emission unit/flexible group is subject to. FGTURBINES and FGBOILERS are subject to CSAPR requirements under 40 CFR Part 97, Subparts AAAAA, BBBBB and CCCCC. EU3516GEN1 and EU3516GEN2 are subject to RICE MACT requirements under 40 CFR Part 63, Subpart ZZZZ. See Appendix B with the ROP in "Track Changes" incorporating the applicable requirements.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
H5. Has a Consent Order/Consent Judgment (CO/CJ) been issued where the requirements were not cited in the existing ROP? If Yes, list the CO/CJ number(s) below and add, change and/or delete the applicable requirements in the mark-up of the existing ROP.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
H6. Does the source propose to add, change and/or delete <b>source-wide</b> requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
H7. Does the source propose to add, change and/or delete <b>emission limit</b> requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
H8. Does the source propose to add, change and/or delete <b>material limit</b> requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

<p>H9. Does the source propose to add, change and/or delete <b>process/operational restriction</b> requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.</p> <p>RICE MACT process/operational restriction requirements have been added for EU3516GEN1 and EU3516GEN2. See Appendix B with the ROP in “Track Changes” incorporating the applicable requirements.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>H10. Does the source propose to add, change and/or delete <b>design/equipment parameter</b> requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.</p> <p>RICE MACT design/equipment parameter requirements have been added for EU3516GEN1 and EU3516GEN2. See Appendix B with the ROP in “Track Changes” incorporating the applicable requirements.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>H11. Does the source propose to add, change and/or delete <b>testing/sampling</b> requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.</p> <p>RICE MACT testing/sampling requirements have been added for EU3516GEN1 and EU3516GEN2. See Appendix B with the ROP in “Track Changes” incorporating the applicable requirements.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>H12. Does the source propose to add, change and/or delete <b>monitoring/recordkeeping</b> requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.</p> <p>RICE MACT monitoring/recordkeeping requirements have been added for EU3516GEN1 and EU3516GEN2. See Appendix B with the ROP in “Track Changes” incorporating the applicable requirements.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>H13. Does the source propose to add, change and/or delete <b>reporting</b> requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.</p> <p>RICE MACT reporting requirements have been added for EU3516GEN1 and EU3516GEN2. See Appendix B with the ROP in “Track Changes” incorporating the applicable requirements.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>H14. Does the source propose to add, change and/or delete <b>stack/vent restrictions</b>? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>H15. 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.</p> <p>CSAPR requirements have been added for FGTURBINES and FGBOILERS. See Appendix B with the ROP in “Track Changes” incorporating the applicable requirements.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Check here if an AI-001 form is attached to provide more information for Part H. Enter AI-001 form ID:	

Michigan Department of Environmental Quality - Air Quality Division



## 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.

Form Type <b>AI-001</b>	SRN N6631
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1. Operator's Additional Information ID <b>AI GHG</b>
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Additional Information
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2. Is This Information Confidential? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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3. Narrative <b>Part C, question C4:</b> See Appendix A, Tables 1 and 2 for potential Greenhouse Gas (GHG) emission calculations for emission units at DIG.
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**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

EFFECTIVE DATE: March 28, 2012

REVISION DATE: June 28, 2016

ISSUED TO

**DEARBORN INDUSTRIAL GENERATION, L.L.C.**

State Registration Number (SRN): N6631

LOCATED AT

2400 Miller Road, Dearborn, Wayne County, Michigan 48121

**RENEWABLE OPERATING PERMIT**

Permit Number: MI-ROP-~~N6631~~N6631-2012a

Expiration Date: March 28, 2017

Administratively Complete ROP Renewal Application due between  
September 28, 2015 and September 28, 2016

This Renewable Operating Permit (ROP) is issued in accordance with and subject to Section 5506(3) of Article II, Chapter 1, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. 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 PA 451 and the federal Clean Air Act.

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**SOURCE-WIDE PERMIT TO INSTALL**

Permit Number: MI-PTI-N6631-2012a

This Permit to Install (PTI) is issued in accordance with and subject to Section 5505(5) of Article II, Chapter 1, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. 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 PA 451 and the federal Clean Air Act.

Michigan Department of Environmental Quality

Wilhemina McLemore, Detroit 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.

## 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 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

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by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

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

### Equipment & Design

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(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. Except as provided in Subrules 2, 3, and 4 of Rule 301, states in part; "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 Rule 301(1)(a) or (b) unless otherwise specified in this ROP." The grading of visible emissions shall be determined in accordance with Rule 303. **(R 336.1301(1) in pertinent part):**
  - 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.
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.<sup>1</sup> **(R 336.1901(a))**
  - b. Unreasonable interference with the comfortable enjoyment of life and property.<sup>1</sup> **(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(4))**

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### Monitoring/Recordkeeping

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

### Certification & Reporting

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

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- a. Submitting a certification by a responsible official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
  - 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:
- Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
  - Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
  - 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))**
  - Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
  - 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(9))**
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:
- 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))**
  - If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
  - 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))**
  - 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(7))**

## 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 reclaiming, 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):
- June 21, 1999,
  - Three years after the date on which a regulated substance is first listed under 40 CFR, Part 68.130, or
  - The date on which a regulated substance is first present above a threshold quantity in a process.
40. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR, Part 68.
41. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c). **(40 CFR, Part 68)**

## Emission Trading

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

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#### Permit To Install (PTI)

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.<sup>2</sup> **(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.<sup>2</sup> **(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.<sup>2</sup> **(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, or has been interrupted for 18 months, the applicable terms and conditions from that PTI 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.<sup>2</sup> **(R 336.1201(4))**

#### Footnotes:

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

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

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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

### DESCRIPTION

The source consists of one simple cycle combustion turbine, two combined cycle combustion turbines, three natural gas/blast furnace gas boilers, two blast furnace gas flares, and two emergency generators. A detailed description of each emission unit is contained in the Emission Unit Summary Table, Part C.

### POLLUTION CONTROL EQUIPMENT

All three combustion turbines are equipped with dry low NOx combustors.

#### I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Formaldehyde	9.9 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month	FGPLANT	<del>GC 13</del> , SC VI.1	R 336.1205(1)(a)

Comment [MM1]: Propose to remove GC 13 due to EPA's recent comment that this condition does not represent continuous compliance.

#### II. MATERIAL LIMIT(S)

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

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

NA

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

NA

#### V. TESTING/SAMPLING

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

1. Testing shall be conducted within 180 days of the issuance of this permit if an acceptable emissions test has not been conducted within 5 years prior to the issuance of the RO permit, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. (R 336.1213(3), R 336.2003, R 336.2004)
2. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. (R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)

See Appendix 5

#### VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

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1. The permittee shall keep records of monthly and previous 12-month formaldehyde emission calculations for each boiler and turbine included in FGPLANT, consistent with the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP-MI-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under condition VI.2.<sup>2</sup> (R 336.1205(1)(a))
2. If it becomes necessary to revise, modify or update the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP-MI-N6631-2004" dated May 31, 2011, the permittee shall resubmit the document to the District Supervisor for review and written approval before implementing such revisions, modifications, or updates.<sup>2</sup> (R 336.1205(1)(a))

**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. Report shall be received by 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. Report shall be received by 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:**

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

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

### 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
EUCTG1	One simple cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1,586 MM Btu per hour. The rated output capacity of the unit is approximately 170 megawatts.	6/01/1999 8/12/2015	FGTURBINES
EUCTG2	One combined cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1,626 MM Btu per hour. The heated and pressurized exhaust gases from the turbine are utilized to power an electric generator shaft and are then sent to an unfired heat recovery steam generator. The rated output capacity of the unit is approximately 179 megawatts.	7/23/2001 8/12/2015	FGTURBINES FGNSPSK KKK
EUCTG3	One combined cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1,626 MM Btu per hour. The heated and pressurized exhaust gases from the turbine are utilized to power an electric generator shaft and are then sent to an unfired heat recovery steam generator. The rated output capacity of the unit is approximately 179 megawatts.	7/9/2001 8/12/2015	FGTURBINES FGNSPSK KKK

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Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/Modification Date	Flexible Group ID
EUBOILER1	One boiler capable of firing either natural gas or a combination of natural gas and blast furnace gas (BFG). When exclusively firing natural gas, the boiler is rated at a design heat input of 763 MM Btu per hour, and while firing natural gas and BFG, the boiler is rated at a design heat input of 746 MM Btu per hour. While operating on either fuel, the boiler has a design output capacity of 500,000 pounds of steam per hour.	8/7/2001	FGBOILERS
EUBOILER2	One boiler capable of firing either natural gas or a combination of natural gas and blast furnace gas (BFG). When exclusively firing natural gas, the boiler is rated at a design heat input of 763 MM Btu per hour, and while firing natural gas and BFG, the boiler is rated at a design heat input of 746 MM Btu per hour. While operating on either fuel, the boiler has a design output capacity of 500,000 pounds of steam per hour.	8/7/2001	FGBOILERS
EUBOILER3	One boiler capable of firing either natural gas or a combination of natural gas and blast furnace gas (BFG). When exclusively firing natural gas, the boiler is rated at a design heat input of 763 MM Btu per hour, and while firing natural gas and BFG, the boiler is rated at a design heat input of 746 MM Btu per hour. While operating on either fuel, the boiler has a design output capacity of 500,000 pounds of steam per hour.	8/7/2001	FGBOILERS
EUBFGFLARE1	One blast furnace gas flare equipped with a natural gas pilot flame. This flare is fired exclusively with blast furnace gas and is designed to operate when the blast furnace gas/natural gas boilers are not operating. The flare is rated at an approximate heat input of 480 MM Btu/hour.	3/1/1999	FGBFGFLARES
EUBFGFLARE2	One blast furnace gas flare equipped with a natural gas pilot flame. This flare is fired exclusively with blast furnace gas and is designed to operate when the blast furnace gas/natural gas boilers are not operating. The flare is rated at an approximate heat input of 1292 MM Btu/hour.	5/1/1999	FGBFGFLARES
EU3516GEN1	Caterpillar model 3516 reciprocating engine – 1.7 megawatts and 14.4 MMBtu/hour heat input.	10/1/2003	FGEMERGENCYGENS <del>FGMACTZZZZ</del>
EU3516GEN2	Caterpillar model 3516 reciprocating engine – 1.7 megawatts and 14.4 MMBtu/hour heat input.	10/1/2003	FGEMERGENCYGENS <del>FGMACTZZZZ</del>

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Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUPARTSWAS HER	Safety Kleen Parts Washer with an air/vapor interface of less than 10 square feet.	1/1/2002	NA

**EUCTG1**  
**EMISSION UNIT CONDITIONS**

**DESCRIPTION**

One simple cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1,586 MM Btu per hour. The rated output capacity of the unit is approximately 170 megawatts.

Flexible Group ID: FGTURBINES

**POLLUTION CONTROL EQUIPMENT**

Dry low NOx combustor

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx as NO <sub>2</sub>	9 ppmv at 15% O <sub>2</sub> on a dry basis <sup>2</sup>	Test Protocol*	EUCTG1	SC VI.2, <del>GC-13</del>	R 336.1205(1)(a), R 336.2802(4), 40 CFR Part 60 Subpart GG
2. NOx as NO <sub>2</sub>	72 pph	720-hour rolling average as determined at the end of each hour that the unit operates	EUCTG1	SC VI.2, SC VI.4, <del>GC-13</del>	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)
3. CO	9 ppmv at 15% O <sub>2</sub> on a dry basis <sup>2</sup>	Test Protocol*	EUCTG1	SC VI.3, <del>GC-13</del>	R 336.1205(1)(a), R 336.2802(4)
4. CO	30 pph <sup>2</sup>	720-hour rolling average as determined at the end of each hour that the unit operates	EUCTG1	SC VI.3, SC VI.4, <del>GC-13</del>	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(d)
5. VOC	2.8 pph <sup>2</sup>	Test Protocol*	EUCTG1	SC V.1, SC VI.1	R 336.1205(1)(a), R 336.2802(4)
6. PM10	9 pph <sup>2</sup>	Test Protocol*	EUCTG1	SC V.1, SC VI.1	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)

\*Test Protocol shall specify averaging time.

Comment [MM2]: Propose to remove GC 13 due to EPA's recent comment that this condition does not represent continuous compliance.

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**II. MATERIAL LIMIT(S)**

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

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

NA

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

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

1. Testing to verify PM10 and VOC emission limits shall be conducted within five years of the most recent valid performance test, and thereafter every five years, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. (R 336.1213(3), R 336.2003, R 336.2004)

See Appendix 5

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the natural gas usage rate in EUCTG1 on an hourly and monthly basis. The heating value of the natural gas in Btu per cubic foot shall be determined on a monthly basis from one sample taken from the main gas pipeline into the facility on the permittee's property. Upon request, the AQD District Supervisor may authorize a different sampling method and/or sampling schedule.<sup>2</sup> (40 CFR Part 75, Appendix D, R 336.1205(1)(a))
2. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner, a device to monitor and record the NOx (as NO<sub>2</sub>) emissions from EUCTG1 on a continuous basis. Installation and operation of the continuous emission monitoring system (CEMS) or equivalent Predictive Emissions Monitoring System (PEMS) shall meet the timelines, requirements, and reporting detailed in 40 CFR Part 60 Appendix F. If the permittee chooses to use a PEMS in lieu of a CEMS to monitor NOx emissions, the permittee shall follow the protocol as approved by the Environmental Protection Agency (EPA). (R 336.1213(3), 40 CFR Part 60 Subpart GG, 40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))
3. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner, a device to monitor and record the CO emissions from EUCTG1 on a continuous basis. Installation and operation of the CEMS or equivalent PEMS shall meet the timelines, requirements, and reporting detailed in 40 CFR Part 60 Appendix F. If the permittee chooses to use a PEMS in lieu of a CEMS to monitor CO emissions, the permittee shall follow the protocol as approved by the EPA. (R 336.1213(3), 40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))
4. The permittee shall maintain the following records:<sup>2</sup> (40 CFR Part 75, R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d))
  - a. Hourly NOx emission rate, in pph.
  - b. Hourly CO emission rate, in pph.
  - c. 720-hour rolling average NOx emission rate in pph, based on actual hours of turbine operation.

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- d. 720-hour rolling average CO emission rate in pph, based on actual hours of turbine operation.
  - e. Monthly hours of turbine operation including startup and shutdown.
  - f. Total monthly PM10 emission rate in tons per month.
  - g. Total monthly VOC emission rate in tons per month.
5. The permittee shall verify compliance with the emission limitations for EUCTG1 by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.6.<sup>2</sup> (R 336.1205(1)(a))
  6. If it becomes necessary to revise, modify or update the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, the permittee shall submit the revised document to the District Supervisor for review and written approval before implementing such revisions, modifications, or updates.<sup>2</sup> (R 336.1205(1)(a))

**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. Report shall be received by 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. Report shall be received by appropriate AQD district office by March 15 for the previous calendar year. (R 336.1213(4)(c))
4. The permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall include test program summary, test schedule, and the quality assurance measures to be applied. (R 336.1213(3), R 336.2001(3))
5. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. (R 336.1213(3), R 336.2001(4))
6. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. (R 336.1213(3), R 336.2001(5))

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 Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVCGT1	213 <sup>2</sup>	60 <sup>2</sup>	R 336.1225 and 40 CFR 52.21(c) and (d)

**IX. OTHER REQUIREMENT(S)**

1. If the permittee chooses to use a PEMS to monitor NOx emissions, the permittee shall follow the protocol delineated in the EPA April 5, 2006, approval letter for GTP1. (40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))

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2. If the permittee chooses to use a PEMS to monitor CO emissions, the permittee shall follow the protocol delineated in Performance Specification 16 in Appendix B of 40 CFR Part 60. **(40 CFR Part 60 Appendix B).**
3. The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subpart A and Subpart GG. **(40 CFR Part 60 Subparts A & GG)**

**Footnotes:**

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

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

**EUCTG2  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

One combined cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1,626 MM Btu per hour. The heated and pressurized exhaust gases from the turbine are utilized to power an electric generator shaft and are then sent to an unfired heat recovery steam generator. The rated output capacity of the unit is approximately 179 megawatts.

**Flexible Group IDs:** FGTURBINES, FGNPSK

**POLLUTION CONTROL EQUIPMENT**

Dry low NOx combustor

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx as NO <sub>2</sub>	9 ppmv at 15% O <sub>2</sub> on a dry basis.	Test Protocol*	EUCTG2	SC VI.2, <del>GC-13</del>	R 336.1205(1)(a), R 336.2802(4)
2. NOx as NO <sub>2</sub>	71 pph	720-hour rolling average as determined at the end of each hour that the unit operates	EUCTG2	SC VI.2, SC VI.5, <del>GC-13</del>	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)
3. CO	9 ppmv at 15% O <sub>2</sub> on a dry basis	Test Protocol*	EUCTG2	SC VI.3, <del>GC-13</del>	R 336.1205(1)(a), R 336.2802(4)
4. CO	31 pph	720-hour rolling average as determined at the end of each hour that the unit operates	EUCTG2	SC VI.3, SC VI.5, <del>GC-13</del>	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(d)
5. VOC	2.8 pph	Test Protocol*	EUCTG2	SC V.1, SC VI.1	R 336.1205(1)(a), R 336.2802(4)
6. PM10	9 pph	Test Protocol*	EUCTG2	SC V.1, SC VI.1	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)

\*Test Protocol shall specify averaging time.

**II. MATERIAL LIMIT(S)**

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

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### 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 5 years. (R 336.1213(3)(b)(ii))

1. Testing to verify PM10 and VOC emission limits shall be conducted within five years of the most recent valid performance test, and thereafter every five years, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. (R 336.1213(3), R 336.2003, R 336.2004)

See Appendix 5

### VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

1. The permittee shall install calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the natural gas usage rate in EUCTG2 on an hourly and monthly basis. The heating value of the natural gas in Btu per cubic foot shall be determined on a monthly basis from samples taken from the main gas pipeline into the facility on the permittee's property. Upon request, the AQD District Supervisor may authorize a different sampling method and/or sampling schedule.<sup>2</sup> (R 336.1205(1)(a))
2. The permittee shall install calibrate, maintain and operate in a satisfactory manner a device to monitor and record the NO<sub>x</sub> (as NO<sub>2</sub>) emissions from EUCTG2 on a continuous basis. Installation and operation of the CEMS or equivalent PEMS shall meet the timelines, requirements and reporting detailed in 40 CFR Part 60 Appendix F. If the permittee chooses to use a PEMS in lieu of a CEMS to monitor NO<sub>x</sub> emissions, the permittee shall follow the protocol delineated in the EPA September 6, 2006, approval letter for GT2100. (R 336.1213(3), 40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))
3. The permittee shall install calibrate, maintain and operate in a satisfactory manner a device to monitor and record the CO emissions from EUCTG2 on a continuous basis. Installation and operation of the CEMS or equivalent PEMS shall meet the timelines, requirements and reporting detailed in 40 CFR Part 60 Appendix F. If the permittee chooses to use a CEMS to monitor CO emissions, the permittee shall follow the protocol as approved by the EPA. (R 336.1213(3), 40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))
4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the O<sub>2</sub> concentration of the stack gases on a continuous basis.<sup>2</sup> (R 336.1205(1)(a))
5. The permittee shall maintain the following records:<sup>2</sup> (R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d))
  - a. Hourly NO<sub>x</sub> emission rate, in pph.
  - b. Hourly CO emission rate, in pph.
  - c. 720-hour rolling average NO<sub>x</sub> emission rate in pph, based on actual hours of turbine operation.
  - d. 720-hour rolling average CO emission rate in pph, based on actual hours of turbine operation.
  - e. Monthly hours of turbine operation including startup and shutdown.
  - f. Total monthly PM10 emission rate in tons per month.
  - g. Total monthly VOC emission rate in tons per month.
6. The permittee shall verify compliance with the emission limitations for EUCTG2 by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the

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Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.7.<sup>2</sup> (R 336.1205(1)(a))

7. If it becomes necessary to revise, modify or update the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, the permittee shall submit the revised document to the District Supervisor for review and written approval before implementing such revisions, modifications, or updates.<sup>2</sup> (R 336.1205(1)(a))

**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. Report shall be received by 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. Report shall be received by appropriate AQD district office by March 15 for the previous calendar year. (R 336.1213(4)(c))
4. The permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall include test program summary, test schedule, and the quality assurance measures to be applied. (R 336.1213(3), R 336.2001(3))
5. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. (R 336.1213(3), R 336.2001(4))
6. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. (R 336.1213(3), R 336.2001(5))

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 Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVCGT2	210 <sup>2</sup>	150 <sup>2</sup>	R 336.1225 and 40 CFR 52.21(c) and (d)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

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

**EUCTG3  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

One combined cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1,626 MM Btu per hour. The heated and pressurized exhaust gases from the turbine are utilized to power an electric generator shaft and are then sent to an unfired heat recovery steam generator. The rated output capacity of the unit is approximately 179 megawatts.

**Flexible Group IDs:** FGTURBINES, FGNSPSK KKK

**POLLUTION CONTROL EQUIPMENT**

Dry low NOx combustor

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx as NO <sub>2</sub>	9 ppmv at 15% O <sub>2</sub> on a dry basis.	Test Protocol*	EUCTG3	SC VI.2, <del>GC-13</del>	R 336.1205(1)(a), R 336.2802(4)
2. NOx as NO <sub>2</sub>	71 pph	720-hour rolling average as determined at the end of each hour that the unit operates	EUCTG3	SC VI.2, SC VI.5, <del>GC-13</del>	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)
3. CO	9 ppmv at 15% O <sub>2</sub> on a dry basis	Test Protocol*	EUCTG3	SC VI.3, <del>GC-13</del>	R 336.1205(1)(a), R 336.2802(4)
4. CO	31 pph	720-hour rolling average as determined at the end of each hour that the unit operates	EUCTG3	SC VI.3, SC VI.5, <del>GC-13</del>	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(d)
5. VOC	2.8 pph	Test Protocol*	EUCTG3	SC V.1, SC VI.1	R 336.1205(1)(a), R 336.2802(4)
6. PM10	9 pph	Test Protocol*	EUCTG3	SC V.1, SC VI.1	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)

\*Test Protocol shall specify averaging time.

**II. MATERIAL LIMIT(S)**

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

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### 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 5 years. (R 336.1213(3)(b)(ii))

1. Testing to verify PM10 and VOC emission limits shall be conducted within five years of the most recent valid performance test, and thereafter every five years, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. (R 336.1213(3), R 336.2003, R 336.2004)

See Appendix 5

### VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

1. The permittee shall install calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the natural gas usage rate in EUCTG3, on an hourly and monthly basis. The heating value of the natural gas in Btu per cubic foot shall be determined on a monthly basis from samples taken from the main gas pipeline into the facility on the permittee's property. Upon request, the AQD District Supervisor may authorize a different sampling method and/or sampling schedule.<sup>2</sup> (R 336.1205(1)(a))
2. The permittee shall install calibrate, maintain and operate in a satisfactory manner a device to monitor and record the NO<sub>x</sub> (as NO<sub>2</sub>) emissions from EUCTG3 on a continuous basis. Installation and operation of the CEMS or equivalent PEMS, shall meet the timelines, requirements and reporting detailed in 40 CFR Part 60 Appendix F. If the permittee chooses to use a PEMS in lieu of a CEMS to monitor NO<sub>x</sub> emissions, the permittee shall follow the protocol delineated in the EPA September 6, 2006, approval letter for GTP3100. (R336.1213(3), 40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))
3. The permittee shall install calibrate, maintain and operate in a satisfactory manner a device to monitor and record the CO emissions from EUCTG3 on a continuous basis. Installation and operation of the CEMS shall meet the timelines, requirements and reporting detailed in 40 CFR Part 60 Appendix F. If the permittee chooses to use a PEMS in lieu of a CEMS to monitor CO emissions, the permittee shall follow the protocol as approved by the EPA.<sup>2</sup> (R336.1213(3), 40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))
4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the O<sub>2</sub> concentration of the stack gases on a continuous basis.<sup>2</sup> (R 336.1205(1)(a))
5. The permittee shall maintain the following records:<sup>2</sup> (R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d))
  - a. Hourly NO<sub>x</sub> emission rate, in pph.
  - b. Hourly CO emission rate, in pph.
  - c. 720-hour rolling average NO<sub>x</sub> emission rate in pph, based on actual hours of turbine operation.
  - d. 720-hour rolling average CO emission rate in pph, based on actual hours of turbine operation.
  - e. Monthly hours of turbine operation including startup and shutdown.
  - f. Total monthly PM10 emission rate in tons per month.
  - g. Total monthly VOC emission rate in tons per month.
6. The permittee shall verify compliance with the emission limitations for EUCTG3 by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the

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Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.7.<sup>2</sup> (R 336.1205(1)(a))

7. If it becomes necessary to revise, modify or update the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, the permittee shall submit the revised document to the District Supervisor for review and written approval before implementing such revisions, modifications, or updates.<sup>2</sup> (R 336.1205(1)(a))

**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. Report shall be received by 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. Report shall be received by appropriate AQD district office by March 15 for the previous calendar year. (R 336.1213(4)(c))
4. The permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall include test program summary, test schedule, and the quality assurance measures to be applied. (R 336.1213(3), R 336.2001(3))
5. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. (R 336.1213(3), R 336.2001(4))
6. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. (R 336.1213(3), R 336.2001(5))

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 Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVCGT3	210 <sup>2</sup>	150 <sup>2</sup>	R 336.1225 and 40 CFR 52.21(c) and (d)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

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

**EUPARTSWASHER**  
**EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Safety Klean Parts Washer with an air/vapor interface of less than 10 square feet. It is exempt from Rule 201 pursuant to Rule 278 and Rule 281(h), and was placed into operation after July 1, 1979.

Flexible Group IDs: NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

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

**II. MATERIAL LIMIT(S)**

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

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

1. Cleaned parts shall be drained for no less than 15 seconds or until dripping ceases. (R 336.1611(2)(b), R 336.1707(3)(b))

2. The permittee shall perform routine maintenance on each cold cleaner as recommended by the manufacturer. (R 336.1213(3))

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

1. The cold cleaner must meet one of the following design requirements:

a. The air/vapor interface of the cold cleaner is no more than ten square feet. (R 336.1281(h))

b. The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment. (R 336.1285(r)(iv))

2. The cold cleaner shall be equipped with a device for draining cleaned parts. (R 336.1611(2)(b), R 336.1707(3)(b))

3. All new and existing cold cleaners shall be equipped with a cover and the cover shall be closed whenever parts are not being handled in the cold cleaner. (R 336.1611(2)(a), R 336.1707(3)(a))

4. The cover of a new cold cleaner shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia or if the solvent is agitated or heated. (R 336.1707(3)(a))

5. If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia; or, if any solvent used in a new cold cleaner is heated above 120 degrees Fahrenheit, then the cold cleaner must comply with at least one of the following provisions:

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

#### **V. TESTING/SAMPLING**

NA

#### **VI. MONITORING/RECORDKEEPING**

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

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

#### **VII. REPORTING**

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

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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)**

NA

**IX. OTHER REQUIREMENT(S)**

NA

## D. FLEXIBLE GROUP CONDITIONS

Part D outlines 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
FGTURBINES	This emission group consists of the simple cycle combustion turbine, and two combined cycle turbines	EUCTG1, EUCTG2, and EUCTG3
FGNSPSK K K K K	This flexible group consists of the two combined cycle turbines which are subject to NSPS K K K K.	EUCTG2 and EUCTG3
FGBOILERS	This emission group consists of three natural gas and blast furnace gas fired boilers.	EUBOILER1, EUBOILER2, and EUBOILER3
FGBFGFLARES	This emission group consists of two blast furnace gas fired flares	EUBFGFLARE1 and EUBFGFLARE2
FGPLANT	This emission group contains three turbines, and three boilers	FGTURBINES and FGBOILERS
FGBFG	This emission group consists of any emission unit which combusts, or has the capability of combusting, blast furnace gas.	EUBOILER1, EUBOILER2, EUBOILER3, EUBFGFLARE1, and EUBFGFLARE2
FGEMERGENCYGENS	This emission group consists of two oil fired emergency electrical generators.	EU3516GEN1 and EU3516GEN2
<u>FGMACTZZZZ</u>	<u>This flexible group consists of two emergency CI RICE located at an area source of HAP that commenced construction before June 12, 2006. The CI RICE are subject to NESHAP ZZZZ.</u>	<u>EU3516GEN1 and EU3516GEN2</u>

**FGTURBINES  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

This emission group consists of the simple cycle combustion turbine, and two combined cycle turbines

**Emission Units:** EUCTG1, EUCTG2, AND EUCTG3

**POLLUTION CONTROL EQUIPMENT**

Dry low NOx combustors.

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx as NO <sub>2</sub>	815 tpy	12-month rolling time period as determined at the end of each calendar month	FGTURBINES	SC VI.1	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)
2. CO	403 tpy	12-month rolling time period as determined at the end of each calendar month	FGTURBINES	SC VI.1	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)
3. VOC	36 tpy	12-month rolling time period as determined at the end of each calendar month	FGTURBINES	SC VI.1	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)
4. PM10	118 tpy	12-month rolling time period as determined at the end of each calendar month	FGTURBINES	SC VI.1	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)

\*Test Protocol shall specify averaging time.

**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)**

- The turbines shall not be fired with any fuel other than pipeline quality natural gas. Natural gas is defined in 40 CFR Part 72 Section 72.2.<sup>2</sup> (R 336.1205(1)(a))

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2. The permittee shall submit to the AQD District Supervisor and maintain on file, a plan that describes how emissions will be minimized during startup and shutdown within 60 days of completion of modifications to FGTURBINES. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. If it becomes necessary to revise, modify or update the plan, the permittee shall submit the revised plan to the District Supervisor for review and written approval before implementing such revisions, modifications, or updates. Unless notified by the AQD District Supervisor within 30 business days after plan submittal, the plan shall be deemed approved. **(R 336.1205(1)(a) & (b), R 336.1911, R 336.1912)**

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

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

See testing requirements for each emission unit.

See Appendix 5

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall maintain the following records for FGTURBINES<sup>2</sup> **(R 336.1205(1)(a), R 336.2802(4))**
  - a. PM10 emission rate, in tons/month, and tons per 12 month rolling time period as determined at the end of each calendar month.
  - b. CO emission rate, in tons/month, and tons per 12 month rolling time period as determined at the end of each calendar month.
  - c. VOC emission rate, in tons/month, and tons per 12 month rolling time period as determined at the end of each calendar month.
  - d. NOx (as NO<sub>2</sub>) emission rate, in tons/month, and tons per 12 month rolling time period as determined at the end of each calendar month.
2. The permittee shall verify compliance with the emission limitations for FGTURBINES by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP-MI-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.3.<sup>2</sup> **(R 336.1205(1)(a))**
3. If it becomes necessary to revise, modify or update the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP-MI-N6631-2004" dated May 31, 2011, the permittee shall submit the revised document to the District Supervisor for review and written approval before implementing such revisions, modifications, or updates.<sup>2</sup> **(R 336.1205(1)(a))**

**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. Report shall be received by 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. Report shall be received by appropriate AQD district office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

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

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. See tables for each emission unit	See tables for each emission unit	See tables for each emission unit	See tables for each emission unit

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall not allow the emission of an air pollutant to exceed the amount of any emission allowances that an affected source lawfully holds as of the allowance transfer deadline pursuant to Rule 299(d) and 40 CFR Part 72.9(c)(1)(i). **(R 336.1213(10))**
2. The permittee shall comply with the acid rain permitting provisions of 40 CFR 72.1 to 72.94 as outlined in a complete Phase II Acid Rain Permit issued by the AQD. The Phase II Acid Rain Permit No. MI-AR-55088-2012 is hereby incorporated into this ROP as Appendix 9. **(R 336.1299(2)(a))**
3. ~~The permittee shall comply with the provisions of the Transport Rule NO<sub>x</sub> Annual Trading Program, as specified in 40 CFR, Part 97 Subpart AAAAA, and identified in Appendix 10. (40 CFR Part 97 Subpart AAAAA) The permittee shall comply with the CAIR SO<sub>2</sub> Trading Program provisions of 40 CFR Part 97.201 through 97.288, as adopted and modified by R 336.1420, and as outlined in any complete CAIR SO<sub>2</sub> permit issued by the AQD. CAIR SO<sub>2</sub> Permit No. SO2-55088-2012 is hereby incorporated into this ROP as Appendix 10. (R 336.1420)~~
4. ~~The permittee shall comply with the provisions of the Transport Rule NO<sub>x</sub> Ozone Trading Program, as specified in 40 CFR, Part 97 Subpart BBBBB, and identified in Appendix 10. (40 CFR Part 97 Subpart BBBBB) The permittee shall hold allowances for compliance deductions in the source's compliance account as of the allowance transfer deadline in an amount not less than the total SO<sub>2</sub> emissions for the control period from the source pursuant to 40 CFR Part 97.254. (40 CFR Part 97.254)~~
5. ~~The permittee shall comply with the provisions of the Transport Rule SO<sub>2</sub> Group 1 Trading Program, as specified in 40 CFR, Part 97 Subpart CCCCC, and identified in Appendix 10. (40 CFR Part 97 Subpart CCCCC) The permittee shall comply with the CAIR NO<sub>x</sub> Annual Trading Program provisions of 40 CFR Part 97.101 through 97.188, as adopted and modified by R 336.1802a, R 336.1803, R 336.1821, and R 336.1830 through R 336.1834, and as outlined in any complete CAIR NO<sub>x</sub> Annual permit issued by the AQD. CAIR NO<sub>x</sub> Annual Permit No. NOO-55088-2012 is hereby incorporated into this ROP as Appendix 11. (R 336.1821)~~
6. ~~The permittee shall hold allowances for compliance deductions in the source's compliance account as of the allowance transfer deadline in an amount not less than the total NO<sub>x</sub> emissions for the control period from the source pursuant to 40 CFR Part 97.154. (40 CFR Part 97.154)~~
7. ~~The permittee shall comply with the CAIR NO<sub>x</sub> Ozone Trading Program provisions of 40 CFR Part 97.301 through 97.388, as adopted and modified by R 336.1802a, R 336.1803, and R 336.1821 through R 336.1826, and as outlined in any complete CAIR NO<sub>x</sub> Ozone permit issued by the AQD. CAIR NO<sub>x</sub> Ozone Permit No. NOO-55088-2012 is hereby incorporated into this ROP as Appendix 12. (R 336.1821)~~
8. ~~The permittee shall hold allowances for compliance deductions in the source's compliance account as of the allowance transfer deadline in an amount not less than the total NO<sub>x</sub> emissions for the control period from the source pursuant to 40 CFR Part 97.354. (40 CFR Part 97.354)~~

**Footnotes:**

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

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

**FGNSPSKKKK  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

This flexible group consists of the two combined cycle turbines which are subject to NSPS KKKK.

**Emission Units:** EUCTG2 and EUCTG3

**POLLUTION CONTROL EQUIPMENT**

Dry Low NOx Combustors

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	42 ppm at 15 percent O <sub>2</sub> <sup>2</sup> or 290 ng/Joules of useful output (2.3 lb/MWh) <sup>2</sup>	30-day rolling average (when using a CEMS or equivalent)	EUCTG2 and EUCTG3	SC V.1, SC VI.1, SC VI.2	<b>40 CFR 60.4320(a)</b>

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Fuel	Total potential sulfur emissions less than or equal 26 ng SO <sub>2</sub> /Joules (0.060 lb SO <sub>2</sub> /MMBtu) heat input <sup>2</sup>	NA	EUCTG2 and EUCTG3	SC VI.3, SC VI.4	<b>40 CFR Part 60.4330(a)(2)</b>

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

1. The permittee shall operate and maintain the stationary combustion turbines, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.<sup>2</sup> **(40 CFR 60.4333(a))**

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

NA

**V. TESTING/SAMPLING**

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

1. If the permittee does not use the continuous emissions monitoring allowance as specified in SC VI.1, then within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup, federal Standards of Performance for New Stationary Sources require verification of NO<sub>x</sub> emission rates from each turbine included in FGNSPSKSKK, by testing at owner's expense, in accordance with 40 CFR Parts 60.8 and 60.4400.<sup>2</sup> **(40 CFR 60.4400)**
  - a. The permittee shall conduct three separate test runs, at least 20 minutes each, at ambient temperatures greater than 0 °F, and at any load condition within ±25 percent of 100 percent peak load.
  - b. Testing must be conducted annually (at least every 14 calendar months).
  - c. If the stack test result is less than or equal to 75 percent of the NO<sub>x</sub> limits in SC I.1, the test plan can be changed to once every two years (at least every 26 calendar months). If subsequent test results yield NO<sub>x</sub> emissions greater than 75 percent of the NO<sub>x</sub> limit in SC I.1, annual testing must be resumed.
  - d. Subsequent stack testing is not required if the permittee shows continuous compliance with the NO<sub>x</sub> emission limits with a CEMS or equivalent PEMS pursuant to 40 CFR 60.4340(b)(ii), as specified in SC VI.1.
  - e. 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.

See Appendix 5

## **VI. MONITORING/RECORDKEEPING**

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

1. In lieu of the stack testing required in SC V.1, the permittee may instead install, calibrate, maintain and operate one of the following continuous monitoring systems:<sup>2</sup> **(40 CFR 60.4340(b))**
  - a. Continuous emission monitoring as described in §60.4335(b) and 60.4345, or
  - b. Continuous parameter monitoring as follows:
    - (i) For a diffusion flame turbine without add-on selective catalytic reduction (SCR) controls, the permittee shall define parameters indicative of the unit's NO<sub>x</sub> formation characteristics, and monitor these parameters continuously.
    - (ii) For any lean premix stationary combustion turbine, the permittee shall continuously monitor the appropriate parameters to determine whether the unit is operating in low-NO<sub>x</sub> mode.
    - (iii) For any turbine that uses SCR to reduce NO<sub>x</sub> emissions, the permittee shall continuously monitor appropriate parameters to verify the proper operation of the emission controls.
    - (iv) For affected units that are also regulated under 40 CFR Part 75, with state approval the permittee may monitor the NO<sub>x</sub> emission rate using the methodology in Appendix E to 40 CFR Part 75, or the low mass emissions methodology in §75.19, the requirements of this condition may be met by performing the parametric monitoring described in Section 2.3 of 40 CFR Part 75 Appendix E or in §75.19(c)(1)(iv)(H).
2. In lieu of the subsequent stack test requirements listed in SC V.1, the permittee may instead continuously monitor appropriate parameters to determine that each turbine is operating in low-NO<sub>x</sub> mode. The parameters must be continuously monitored and recorded during the initial performance test to establish acceptable values and ranges. The permittee must develop and keep on-site a parameter monitoring plan pursuant to 40 CFR 60.4355 (a)(1) through (6).<sup>2</sup> **(40 CFR 60.4340(b)(ii), 40 CFR 60.4355, 40 CFR 60.4410)**
3. The permittee shall monitor the sulfur content in the fuel once per turbine operating day, using the methods described in 40 CFR 60.4415, or alternate methods as described in 40 CFR 60.4360. The permittee may use a custom monitoring schedule pursuant to 40 CFR 60.4370(c) if the schedule has been approved by the EPA Administrator. Sulfur in fuel monitoring is not required if it is demonstrated that the potential sulfur emissions do not exceed 26 ng SO<sub>2</sub>/Joules (0.060 lb SO<sub>2</sub>/MMBtu) heat input. The demonstration shall include one of the following:<sup>2</sup> **(40 CFR 60.4360, 40 CFR 60.4370)**
  - a. The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content is 20 grains of sulfur per 100 standard cubic feet or less; or

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- b. Representative fuel sampling data, as specified in 40 CFR Part 75, Appendix D, Section 2.3.1.4 or 2.3.2.4, shows that the sulfur content does not exceed 26 ng SO<sub>2</sub>/Joules (0.060 lb SO<sub>2</sub>/MMBtu) heat input.
4. The permittee shall keep, in a satisfactory manner, records of the sulfur content of the fuel once each operating day for FGNSPSK KKK, as required by SC VI.3. This condition does not apply if it is demonstrated that the potential sulfur emissions do not exceed 26 ng SO<sub>2</sub>/Joules (0.060 lb SO<sub>2</sub>/MMBtu) per MMBtu heat input pursuant to 40 CFR 60.4365. The permittee shall keep all records on file and make them available to the Department upon request.<sup>2</sup> **(40 CFR 60.4370)**

## VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. If any of the turbines in FGNSPSK KKK contain a continuous parameter monitoring system to determine continuous compliance with the NO<sub>x</sub> emission limits pursuant to SC VI.2, the permittee shall submit excess emissions and monitor downtime in accordance with 40 CFR 60.7(c) and 40 CFR 60.4380(c). An excess emission is a 4-hour rolling operating hour average for each turbine in which any monitored parameter does not achieve the target value or is outside the acceptable range defined in the monitoring plan. Monitor downtime is any turbine operating hour in which any of the required parametric data are either not recorded or invalid. All reports must be postmarked by the 30<sup>th</sup> day following the end of each 6-month period.<sup>2</sup> **(40 CFR 60.4375(a), 40 CFR 60.4380(c), 40 CFR 60.4395)**
5. If the permittee is required to monitor the sulfur content in the fuel pursuant to SC VI.3 and 40 CFR 60.4360, the permittee shall submit excess emissions and monitor downtime in accordance with 40 CFR 60.7(c) and 60.4385. An excess emission is each turbine operating hour beginning on the date and hour that any sample shows an exceedance in the applicable sulfur limit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit. Monitor downtime begins when a required sample is not taken by its due date or the date and hour that invalid results are obtained. Monitor downtime ends on the date and hour of the next valid sample. All reports must be postmarked by the 30<sup>th</sup> day following the end of each 6-month period.<sup>2</sup> **(40 CFR 60.4375(a), 40 CFR 60.4385, 40 CFR 60.4395)**
6. If the permittee demonstrates compliance with stack testing under SC V.1, the permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall include test program summary, test schedule, and the quality assurance measures to be applied. **(R 336.1213(3), R 336.2001(3))**
7. If the permittee demonstrates compliance with stack testing under SC V.1, the permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.1213(3), R 336.2001(4))**
8. If the permittee demonstrates compliance with stack testing under SC V.1, the permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001(5))**

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

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

### IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subpart A and Subpart KKKK, as they apply to FGNSPSKKKK.<sup>2</sup> **(40 CFR Part 60 Subparts A & KKKK)**

**Footnotes:**

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

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

**FGBOILERS  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

This emission group consists of three natural gas and blast furnace gas fired boilers.

**Emission Units:** EUBOILER1, EUBOILER2, and EUBOILER3

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM <sub>10</sub>	22.3 pph <sup>2</sup>	Monthly average	FGBOILERS	SC VI.1	R 336.1205(1)(a)
2. NO <sub>x</sub>	0.10 lb/MMBtu <sup>2</sup>	30-day rolling average	FGBOILERS	<del>GC-13,</del> SC VI.1	R 336.1205(1)(a), 40 CFR 60 Subpart Db
3. NO <sub>x</sub>	76.3 pph <sup>2</sup>	30-day rolling average	FGBOILERS	SC VI.1	R 336.1205(1)(a)
4. SO <sub>2</sub>	420 pph <sup>2</sup>	Daily average	FGBOILERS	SC VI.1	R 336.1205(1)(a),
5. SO <sub>2</sub>	1839.6 tpy <sup>2</sup>	12-month rolling time period	FGBOILERS	SC VI.1	R 336.1205(3),
6. CO	64.1 pph <sup>2</sup>	30-day rolling average	FGBOILERS	SC VI.1	R 336.1205(1)(a)
7. VOC	7.5 pph <sup>2</sup>	Monthly average	FGBOILERS	SC VI.1	R 336.1205(1)(a), R 336.1702(a)
8. VOC	84 tpy <sup>2</sup>	12-month rolling time period	FGBOILERS	SC VI.1	R 336.1205(3)

Notes:

- Items 1, 2, 3, 6 and 7 above are applicable to each boiler in FGBOILERS
- Items 4, 5, and 8 above apply to the combined total of all three boilers in FGBOILERS

**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)**

- The boilers in FGBOILERS shall not be fired with any fuel other than pipeline natural gas (NG) or a mixture of natural gas and blast furnace gas (BFG).<sup>2</sup> (R 336.1205(1)(a))

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

NA

**V. TESTING/SAMPLING**

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Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

1. Testing shall be conducted within 180 days of the issuance of this permit if an acceptable emissions test has not been conducted within 5 years prior to the issuance of the RO permit, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1213(3), R 336.2003, R 336.2004)**. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) in lieu of a stack test to monitor CO emissions, the permittee shall follow the protocol delineated in Performance Specification 16 in Appendix B of 40 CFR Part 60. **(40 CFR Part 60 Appendix B)**
2. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

See Appendix 5

## VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall verify compliance with the emission limitations for FGBOILERS by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP MI-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.10.<sup>2</sup> **(R 336.1205(1)(a))**
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the NO<sub>x</sub> emissions from each boiler in FGBOILERS on a continuous basis. Installation and operation of each continuous emission monitoring system (CEMS) shall meet the timelines, requirements and reporting detailed in 40 CFR Part 60 Appendix F.<sup>2</sup> **(40 CFR 60, Subparts A and Db)**. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) in lieu of a Continuous Emissions Monitor System (CEMS) to monitor NO<sub>x</sub> emissions, the permittee shall follow the protocol as approved by the Environmental Protection Agency. **(40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))**
3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the CO emissions from each boiler in FGBOILERS on a continuous basis. Installation and operation of each continuous emission monitoring system (CEMS) shall meet the timelines, requirements and reporting detailed in 40 CFR Part 60 Appendix F.<sup>2</sup> **(R336.1213(3))**. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) in lieu of a Continuous Emissions Monitoring System (CEMS) to monitor CO emissions, the permittee shall follow the protocol as approved by the Environmental Protection Agency. **(40 CFR Part 60 Appendix B)**
4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the SO<sub>2</sub> emissions from each boiler in FGBOILERS on a continuous basis. Installation and operation of each continuous emission monitoring system (CEMS) shall meet the timelines, requirements and reporting detailed in 40 CFR Part 60 Appendix F.<sup>2</sup> **(R336.1205(1)(a))**. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) in lieu of a Continuous Emissions Monitoring System (CEMS) to monitor SO<sub>2</sub> emissions, the permittee shall follow the protocol delineated in Performance Specification 16 in Appendix B of 40 CFR Part 60. **(40 CFR Part 60 Appendix B)**
5. The permittee shall compile hourly and daily sulfur dioxide emission rate calculations and make these emission rate calculations available to the AQD for inspection. **(R 336.1213(3))**
6. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the O<sub>2</sub> concentration of each stack gas on a continuous basis.<sup>2</sup> **(40 CFR 60, Subparts A and Db)**

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7. The permittee shall install calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the natural gas usage rate of each boiler in FGBOILERS on a daily basis in cubic feet per day. The heating value of the natural gas in Btu per cubic foot shall be determined on a monthly basis from samples taken at a point in the pipeline to FGBOILERS on the permittee's property. Upon request, the AQD District Supervisor may authorize a different method and/or sampling schedule.<sup>2</sup> **(R 336.1205(1)(a))**
8. The permittee shall install calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the blast furnace gas usage rate of each boiler in FGBOILERS on a daily basis in cubic feet per day. The heating value of the blast furnace gas in Btu per cubic foot shall be determined on a monthly basis from samples taken at a point in the pipeline to FGBOILERS on the permittee's or the BFG supplier's property. Upon request, the AQD District Supervisor may authorize a different method and/or sampling schedule.<sup>2</sup> **(R 336.1205(1)(a))**
9. The permittee shall maintain the following records:<sup>2</sup>
  - Hourly NO<sub>x</sub> and SO<sub>2</sub> emission rates from each boiler, lb/MMBtu and lbs/hr.
  - 30-day rolling average NO<sub>x</sub> emission rates (lb/MMBtu and lb/hr) from each boiler as determined at the end of each steam generating unit operating day.
  - Total daily NO<sub>x</sub> and SO<sub>2</sub> emissions (lbs/day) at the end of each day.
  - Total monthly NO<sub>x</sub> and SO<sub>2</sub> emissions (lbs) at the end of each calendar month.
  - Annual NO<sub>x</sub> and SO<sub>2</sub> emission rate (tons/year), based on a 12-month rolling time period as determined at the end of each calendar month.
  - Hours each boiler operated on natural gas only on a monthly basis.
  - Hours each boiler operated on a mixture of natural gas and blast furnace gas on a monthly basis.
  - Caloric value of natural gas (Btu/cubic foot) on a monthly basis.
  - Caloric value of blast furnace gas (Btu/cubic foot) on a monthly basis.
  - Amount of natural gas consumed in each boiler in cubic feet on a monthly basis.
  - Amount of blast furnace gas consumed in each boiler in cubic feet on a monthly basis.
  - Calculated PM<sub>10</sub> emission rate, lbs/hour, based upon a monthly averaging period.
  - Calculated CO emission rate, lbs/hour, based upon a monthly averaging period.
  - Calculated VOC emission rate, lbs/hour, based upon a monthly averaging period.
  - Calculated PM10 emission rate, tons/year, based upon a 12-month rolling time period, as determined at the end of each month.
  - Calculated CO emission rate, tons/year, based upon a 12-month rolling time period, as determined at the end of each month.
  - Calculated VOC emission rate, tons/year, based upon a 12-month rolling time period, as determined at the end of each month.**(40 CFR 60 Subparts A and Db, R 336.1205(1)(a))**
10. If it becomes necessary to revise, modify or update the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP MI-N6631-2004" dated May 31, 2011, the permittee shall re-submit the document to the District Supervisor for review and written approval before implementing such revisions, modifications, or updates.<sup>2</sup> **(R 336.1205(1)(a))**

See Appendices 3 and 4

## 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. Report shall be received by 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. Report shall be received by appropriate AQD district office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

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- All source emissions data and operating data required to be submitted under 40 CFR Part 60, Subparts A and Db shall be submitted to the District Supervisor in an acceptable format within 30 days following the end of the calendar quarter in which the data were collected.<sup>2</sup> **(40 CFR Part 60, Subparts A and Db)**

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 Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBOILER1	126 <sup>2</sup>	185 <sup>2</sup>	R 336.1225 and 40 CFR 52.21(c) and (d)
2. SVBOILER2	126 <sup>2</sup>	185 <sup>2</sup>	R 336.1225 and 40 CFR 52.21(c) and (d)
3. SVBOILER3	126 <sup>2</sup>	185 <sup>2</sup>	R 336.1225 and 40 CFR 52.21(c) and (d)

**IX. OTHER REQUIREMENT(S)**

- ~~The permittee shall comply with the provisions of the Transport Rule NO<sub>x</sub> Annual Trading Program, as specified in 40 CFR, Part 97 Subpart AAAAA, and identified in Appendix 10. (40 CFR Part 97 Subpart AAAAA) The permittee shall comply with the CAIR SO<sub>2</sub> Trading Program provisions of 40 CFR Part 97.201 through 97.288, as adopted and modified by R 336.1420, and as outlined in any complete CAIR SO<sub>2</sub> permit issued by the AQD. CAIR SO<sub>2</sub> Permit No. SO2-55088-2012 is hereby incorporated into this ROP as Appendix 10. (R 336.1420)~~
- ~~The permittee shall comply with the provisions of the Transport Rule NO<sub>x</sub> Ozone Trading Program, as specified in 40 CFR, Part 97 Subpart BBBBB, and identified in Appendix 10. (40 CFR Part 97 Subpart BBBBB) The permittee shall hold allowances for compliance deductions in the source's compliance account as of the allowance transfer deadline in an amount not less than the total SO<sub>2</sub> emissions for the control period from the source pursuant to 40 CFR Part 97.254. (40 CFR Part 97.254)~~
- ~~The permittee shall comply with the provisions of the Transport Rule SO<sub>2</sub> Group 1 Trading Program, as specified in 40 CFR, Part 97 Subpart CCCCC, and identified in Appendix 10. (40 CFR Part 97 Subpart CCCCC) The permittee shall comply with the CAIR NO<sub>x</sub> Annual Trading Program provisions of 40 CFR Part 97.101 through 97.188, as adopted and modified by R 336.1802a, R 336.1803, R 336.1821, and R 336.1830 through R 336.1834, and as outlined in any complete CAIR NO<sub>x</sub> Annual permit issued by the AQD. CAIR NO<sub>x</sub> Annual Permit No. NOO-55088-2012 is hereby incorporated into this ROP as Appendix 11. (R 336.1821)~~
- ~~The permittee shall hold allowances for compliance deductions in the source's compliance account as of the allowance transfer deadline in an amount not less than the total NO<sub>x</sub> emissions for the control period from the source pursuant to 40 CFR Part 97.154. (40 CFR Part 97.154)~~
- ~~The permittee shall comply with the CAIR NO<sub>x</sub> Ozone Trading Program provisions of 40 CFR Part 97.301 through 97.388, as adopted and modified by R 336.1802a, R 336.1803, and R 336.1821 through R 336.1826, and as outlined in any complete CAIR NO<sub>x</sub> Ozone permit issued by the AQD. CAIR NO<sub>x</sub> Ozone Permit No. NOO-55088-2012 is hereby incorporated into this ROP as Appendix 12. (R 336.1821)~~
- ~~The permittee shall hold allowances for compliance deductions in the source's compliance account as of the allowance transfer deadline in an amount not less than the total NO<sub>x</sub> emissions for the control period from the source pursuant to 40 CFR Part 97.354. (40 CFR Part 97.354)~~

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**Footnotes:**

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

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

**FGBFGFLARES  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

This emission group consists of two blast furnace gas fired flares.

**Emission Units:** EUBFGFLARE1, EUBFGFLARE2

**POLLUTION CONTROL EQUIPMENT**

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. CO	301.2 pph <sup>2</sup>	Monthly average	FGBFGFLARES	SC VI.2, SC VI.4	R 336.1205(1(a))
2. NOx	96.6 pph <sup>2</sup>	Monthly average	FGBFGFLARES	SC VI.2, SC VI.4	R 336.1205(1(a))
3. PM	7.4 pph <sup>2</sup>	Monthly average	FGBFGFLARES	SC VI.2, SC VI.4	R 336.1205(1(a))

**II. MATERIAL LIMIT(S)**

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

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

NA

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

- Both flares in FGBFGFLARES shall be equipped with automatic ignition systems consisting of a thermocouple, or other device approved by the Department. The automatic ignition systems for the flares in FGBFGFLARES shall be operated and maintained such that the blast furnace gas is continuously combusted whenever blast furnace gas is sent to the blast furnace gas flare.<sup>2</sup> (R 336.1910)

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

NA

See Appendix 5

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

- The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the blast furnace gas usage rate of each flare in FGBFGFLARES on a daily basis in cubic feet per day. The heating value of the blast furnace gas in Btu per cubic foot shall be determined on a monthly basis from samples taken at a point in the pipeline to FGBFGFLARES on the permittee's or the BFG supplier's property. Upon request, the AQD District Supervisor may authorize a different method and/or sampling schedule.<sup>2</sup> (R 336.1205(1)(a))

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2. The permittee shall verify compliance with the emission limitations for FGBFGFLARES by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP MI-ROP-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.5.<sup>2</sup> (R 336.1205(1)(a))
3. The permittee shall keep monthly records for each blast furnace gas flare included in FGBFGFLARES of the amount of blast furnace gas consumed in million cubic feet.<sup>2</sup> (R 336.1205(1)(a))
4. The permittee shall keep records for each blast furnace gas flare included in FGBFGFLARES of the monthly average NO<sub>x</sub>, CO and PM emission calculations consistent with the calculation methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP MI-ROP-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.5. All records are for the purpose of compliance demonstration and shall be kept on file for a period of at least five years and made available to the Department upon request.<sup>2</sup> (R 336.1205(1)(a))
5. If it becomes necessary to revise, modify or update the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP MI-ROP-N6631-2004" dated May 31, 2011, the permittee shall re-submit the document to the District Supervisor for review and written approval before implementing such revisions, modifications, or updates.<sup>2</sup> (R 336.1205(1)(a))

See Appendices 3 and 4

**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. Report shall be received by 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. Report shall be received by 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:**

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

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

**FGBFG  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

This emission group consists of any emission unit which combusts, or has the capability of combusting, blast furnace gas.

**Emission Units:** EUBFGFLARE1, EUBFGFLARE2, EUBOILER1, EUBOILER2, and EUBOILER3

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	1087.1 tpy <sup>2</sup>	12-month rolling time period	FGBFG	SC VI.1, SC VI.2	R 336.1205(1)(a)
2. CO	1798 tpy <sup>2</sup>	12-month rolling time period	FGBFG	SC VI.1, SC VI.2	R 336.1205(1)(a)
3. PM	237.1 tpy <sup>2</sup>	12-month rolling time period	FGBFG	SC VI.1, SC VI.2	R 336.1205(1)(a)
4. SO2	673 pph <sup>2,3</sup>	Daily average	FGBFG	SC VI.1, SC VI.2	R 336.1205(1)(a), 40 CFR 52.21 (c) and (d)
5. SO2	2947.7 tpy <sup>2</sup>	12-month rolling time period	FGBFG	SC VI.1, SC VI.2	R 336.1205(1)(a)

NOTE:  
\* Does not apply during periods of startup, shutdown and malfunction(s).

**II. MATERIAL LIMIT(S)**

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

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

NA

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

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

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1. The permittee shall verify compliance with the emission limitations for FGBFG by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP MI-ROP-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.3.<sup>2</sup> **(R 336.1205(1)(a))**
2. The permittee shall maintain the following records<sup>2</sup>
  - Calculated PM emission rate, tons/year, based upon a 12-month rolling time period, as determined at the end of each month.
  - Calculated CO emission rate, tons/year, based upon a 12-month rolling time period, as determined at the end of each month.
  - Calculated NO<sub>x</sub> emission rate, tons/year, based upon a 12-month rolling time period, as determined at the end of each month.
  - Calculated SO<sub>2</sub> emission rate, tons/year, based upon a 12-month rolling time period, as determined at the end of each month.
  - Calculated SO<sub>2</sub> emission rate, lbs/hour, based upon a daily averaging period.**(R 336.1205(1)(a))**
3. If it becomes necessary to revise, modify or update the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP MI-ROP-N6631-2004" dated May 31, 2011, the permittee shall re-submit the document to the District Supervisor for review and written approval before implementing such revisions modifications, or updates.<sup>2</sup> **(R 336.1205(1)(a))**

See Appendices 3 and 4

**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. Report shall be received by 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. Report shall be received by 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
See tables for each emission unit	See tables for each emission unit	See tables for each emission unit	See tables for each emission unit

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

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

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**FGEMERGENCYGENS  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Two Caterpillar model 3516 reciprocating engine emergency generators. Each generator is rated at 1.7 megawatts generating capacity and 14.8 MMBtu/hour heat input.

Emission Units: EU3516GEN1 and EU3516GEN2

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
<del>1. NOx</del>	<del>0.0369 pounds per kW-Hr (each generator)<sup>2</sup></del>	<del>Test Protocol</del>	FGEMERGENCYGENS	GC 13	<del>R 336.1201(3)</del>
2. NOx	63.1 pounds per hour (each generator) <sup>2</sup>	Hourly	FGEMERGENCYGENS	SC VI.2	R 336.1201(3)
<del>3. CO</del>	<del>0.009 pounds per kW-Hr (each generator)<sup>2</sup></del>	<del>Test Protocol</del>	FGEMERGENCYGENS	GC 13	<del>R 336.1201(3)</del>
4. CO	15.3 pounds per hour (each generator) <sup>2</sup>	Hourly	FGEMERGENCYGENS	SC VI.3	R 336.1201(3)
5. SO2	120 parts per million by volume at 50% excess air (each generator)	As determined averaged over a three-hour time period otherwise determined by the testing protocol agreed upon by AQD	FGEMERGENCYGENS	<del>GC 13</del>	<del>R 336.1401(1)</del>

**Comment [MM3]:** Propose to remove this limit with corresponding GC 13 condition. Also, this limit is an emission factor to calculate the NOx lb/hr limit, so it doesn't appear to be necessary.

**Comment [MM4]:** Propose to remove this limit with corresponding GC 13 condition. Also, this limit is an emission factor to calculate the CO lb/hr limit, so it doesn't appear to be necessary.

**Comment [MM5]:** Propose to remove this limit with corresponding GC 13 condition. It is assumed that the sulfur material limit in SC II.1 is sufficient and can be used as a surrogate for this SO2 limit.

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**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Fuel sulfur content	0.05% by weight (each generator) <sup>2</sup>	Instantaneous	FGEMERGENCYGENS	SC VI.4	R 336.1201(3)

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

1. The permittee shall not operate FGEMERGENCYGENS for more than 1,000 generator-hours per year. Generator-hour is defined as the sum of the total hours each generator operates during a calendar year including startup and shutdown.<sup>2</sup> (R336.1201(3))

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

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

NA

See Appendix 5

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

1. The permittee shall monitor and record the daily electrical output (KW-hr) and hours of operation of each emission unit during each calendar day in which the emission unit(s) operated.<sup>2</sup> (R 336.1201(3))
2. The permittee shall calculate and record the daily NO<sub>x</sub> emissions (lbs) by multiplying the daily electrical output (kW-hr) of each emission unit by the maximum emission ~~limit factor of (0.0369 lb/kW-hr) specified in special condition I.1~~ for each calendar day in which the emission unit(s) operated. The permittee shall calculate the hourly NO<sub>x</sub> emission rate (lbs/hr) for each emission unit by dividing the associated total daily NO<sub>x</sub> emissions (lbs) by the hours of operation.<sup>2</sup> (R 336.1205(1)(a) and R 336.1205(3))
3. The permittee shall calculate and record the daily CO emissions (lbs) by multiplying the daily electrical output (kW-hr) of each emission unit by the maximum emission ~~limit factor of (0.009 lb/kW-hr) specified in special condition I.3~~ for each calendar in which the emission unit(s) operated. The permittee shall calculate the hourly CO emission rate (lbs/hr) for each emission unit by dividing the associated total daily CO emissions (lbs) by the hours of operation.<sup>2</sup> (R 336.1205(1)(a) and R 336.1205(3))
4. The permittee shall keep a complete record of fuel oil specifications or fuel oil analysis, indicating the sulfur content, for each delivery of fuel oil.<sup>2</sup> (R 336.201(3))

See Appendices 3 and 4

**VII. REPORTING**

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

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2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. Report shall be received by 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. Report shall be received by 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 Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV351601	14 <sup>2</sup>	23.4 <sup>2</sup>	R 336.1201(3), 40 CFR paragraphs (c) and (d), R 336.1224, R 336.1225
2. SV351602	14 <sup>2</sup>	23.4 <sup>2</sup>	R 336.1201(3), 40 CFR paragraphs (c) and (d), R 336.1224, R 336.1225

### IX. OTHER REQUIREMENT(S)

1. The permittee shall maintain and operate FGEMERGENCYGENS according to the procedures outlined in the preventative maintenance plan recommended by the generator manufacturer.<sup>2</sup> **(R 336.1213(3))**

#### Footnotes:

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

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

**FGMACTZZZZ**  
**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

This flexible group consists of two emergency CI RICE located at an area source of HAP that commenced construction before June 12, 2006. The CI RICE are subject to NESHAP ZZZZ.

Emission Units: EU3516GEN1 and EU3516GEN2

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

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

**II. MATERIAL LIMIT(S)**

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

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

1. The permittee shall change oil and filter every 500 hours of operation or annually, whichever comes first. The permittee has the option to utilize an oil analysis program as described in 40 CFR 63.6625(i). (40 CFR 63.6603, 40 CFR Part 63, Subpart ZZZZ, Table 2d.4)
2. The permittee shall inspect air cleaners every 1,000 hours of operation or annually, whichever comes first. (40 CFR 63.6603, 40 CFR Part 63, Subpart ZZZZ, Table 2d.4)
3. The permittee shall inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. (40 CFR 63.6603, 40 CFR Part 63, Subpart ZZZZ, Table 2d.4)
4. If an 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 SC III.1 – 3, 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. (40 CFR 63.6603, 40 CFR Part 63, Subpart ZZZZ, Table 2d.4)
5. If the permittee operates EU3516GEN1 and EU3516GEN2 according to SC III.10.b.ii & iii and SC III.10.c.i, then the permittee shall use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel

fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted. (40 CFR 63.6604(b))

6. The permittee shall at all times be in compliance with the applicable requirements in 40 CFR Part 63, Subpart ZZZZ and operate and maintain EU3516GEN1 and EU3516GEN2 in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by 40 CFR Part 63, Subpart ZZZZ have been achieved (if applicable). Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. (40 CFR 63.6605)
7. The permittee shall operate and maintain EU3516GEN1 and EU3516GEN2 according to the manufacturer's emission-related written instructions, or develop a maintenance plan which must provide to the extent practicable 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))
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 and safe loading of the engine, not to exceed 30 minutes. (40 CFR 63.6625(h))
9. The permittee may utilize an oil analysis program in order to extend the specified oil change requirement. The oil analysis must be performed at the same frequency as oil changes are required. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee must change the oil within 2 business 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 must change the oil within 2 business days or before commencing operation, whichever is later. (40 CFR 63.6625(i))
10. Any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in SC III.10.a - c, is prohibited. (40 CFR 63.6640(f))
  - a. There is no time limit on the use of EU3516GEN1 and EU3516GEN2 in emergency situations.
  - b. EU3516GEN1 and EU3516GEN2 may each be operated for any combination of the purposes specified below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by SC III.10.c below counts as part of the 100 hours per calendar year.
    - i. EU3516GEN1 and EU3516GEN2 may each be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
    - ii. EU3516GEN1 and EU3516GEN2 may each be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the

- Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
- iii. EU3516GEN1 and EU3516GEN2 may each be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- c. EU3516GEN1 and EU3516GEN2 may each be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response. Except as provided in SC III.10.c.i below, the 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 an electric grid or otherwise supply power as part of a financial arrangement with another entity
- i. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
1. The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
  2. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
  3. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
  4. The power is provided only to the facility itself or to support the local transmission and distribution system.
  5. The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the permittee.

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

1. The permittee must install a non-resettable hour meter on EU3516GEN1 and EU3516GEN2 to track the number of hours the engines operate. (40 CFR 63.6625(f))

#### **V. TESTING/SAMPLING**

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

NA

#### **VI. MONITORING/RECORDKEEPING**

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

1. If the permittee utilizes an oil analysis program as described in SC III.9, the permittee must 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))
2. The permittee shall keep a copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirement in §63.10(b)(2)(xiv). (40 CFR 63.6655(a)(1))
3. The permittee shall keep records of the occurrence and duration of each malfunction of operation of EU3516GEN1 and EU3516GEN2. (40 CFR 63.6655(a)(2))

4. The permittee shall keep records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore EU3516GEN1 and EU3516GEN2 to their normal or usual manner of operation. (40 CFR 63.6655(a)(5))
5. The permittee shall keep in a satisfactory manner, records to demonstrate continuous compliance with operating limitations in SC III.7. (40 CFR 63.6655(d))
6. The permittee shall keep records of the maintenance conducted on EU3516GEN1 and EU3516GEN2 in order to demonstrate that the permittee operated and maintained the engines according to the maintenance plan. (40 CFR 63.6655(e))
7. If the permittee shall keep records of the hours of operation of EU3516GEN1 and EU3516GEN2 that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for the purposes specified in SC III.10.b.ii & iii or SC III.10.c.i, the permittee shall keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. (40 CFR 63.6655(f))

## **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
4. If the permittee operates EU3516GEN1 and EU3516GEN2 according to SC III.4, then the permittee shall report any failure to perform the management practice and the federal, state or local law under which the risk was deemed unacceptable. (40 CFR 63.6603, 40 CFR Part 63, Subpart ZZZZ, Table 2d.4)
5. If the permittee operates EU3516GEN1 and EU3516GEN2 according to SC III.10.b.ii & iii and SC III.10.c.i, then the permittee shall submit an annual report according to the following:
  - a. The report must contain the following information:
    - i. Company name and address where the engine is located.
    - ii. Date of the report and beginning and ending dates of the reporting period.
    - iii. Engine site rating and model year.
    - iv. Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
    - v. Hours operated for the purposes specified in SC III.10.b.ii & iii, including the date, start time, and end time for engine operation for the purposes specified in SC III.10.b.ii & iii.
    - vi. Number of hours the engine is contractually obligated to be available for the purposes specified in SC III.10.b.ii & iii.
    - vii. Hours spent for operation for the purpose specified in SC III.10.c.i, including the date, start time, and end time for engine operation for the purposes specified in SC III.10.c.i. The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.
    - viii. If there were no deviations from the fuel requirements in SC III.5, a statement that there were no deviations from the fuel requirements during the reporting period.

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- ix. If there were deviations from the fuel requirements in SC III.5, information on the number, duration, and cause of deviations, and the corrective action taken.
- b. The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.
- c. The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §63.13.

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

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

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**E. NON-APPLICABLE REQUIREMENTS**

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

## APPENDICES

### Appendix 1. Abbreviations & 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
gr	Grains	psig	Pounds per square inch gauge
HAP	Hazardous Air Pollutant	PeTE	Permanent Total Enclosure
Hg	Mercury	PTI	Permit to Install
hr	Hour	RACT	Reasonable Available Control Technology
HP	Horsepower	ROP	Renewable Operating Permit
H <sub>2</sub> S	Hydrogen Sulfide	SC	Special Condition
HVLP	High Volume Low Pressure *	scf	Standard cubic feet
ID	Identification (Number)	sec	Seconds
IRSL	Initial Risk Screening Level	SCR	Selective Catalytic Reduction
ITSL	Initial Threshold Screening Level	SO <sub>2</sub>	Sulfur Dioxide
LAER	Lowest Achievable Emission Rate	SRN	State Registration Number
lb	Pound	TAC	Toxic Air Contaminant
m	Meter	Temp	Temperature
MACT	Maximum Achievable Control Technology	THC	Total Hydrocarbons
MAERS	Michigan Air Emissions Reporting System	tpy	Tons per year
MAP	Malfunction Abatement Plan	µg	Microgram
MDEQ	Michigan Department of Environmental Quality	VE	Visible Emissions
mg	Milligram	VOC	Volatile Organic Compounds
mm	Millimeter	yr	Year

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

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**Appendix 2. Schedule of Compliance**

**Comment [MM6]:** Consent Order AQD No. 31-2003 for FGBOILERS has been closed and is no longer applicable. The Schedule of Compliance is no longer necessary.

~~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))~~

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

~~The permittee shall adhere to this schedule of compliance and submit the required certified progress reports accordingly.~~

**Compliance Plan**

~~The permittee outlined the details of achieving compliance in a narrative compliance plan. The details of the compliance plan are outlined below.~~

**Schedule of Compliance**

~~The following schedule of compliance conforms with the provisions of Rule 119(a) and Rule 213(4).~~

~~The permittee shall continue to comply with the requirements set forth in Consent Order AQD No. 31-2003 and as specified in FGBOILERS, Parts I and V.~~

**Progress Reports**

~~The permittee shall submit certified Progress Reports to the appropriate District Supervisor of the AQD using the MDEQ Report Certification form (EQP 5736). Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(e)(i), respectively, and be approved by the AQD District Supervisor. (R 336.1213(4)(b))~~

~~Progress reports shall contain the following information:~~

~~The projected dates for achieving scheduled activities, milestones or compliance as required in the schedule of compliance. (R 336.1213(4)(b)(i))~~

~~The actual dates that the activities, milestones, or compliance are achieved. (R 336.1213(4)(b)(i))~~

~~An explanation of why any dates in the schedule of compliance were not or will not be met. (R 336.1213(4)(b)(ii))~~

~~A description of any preventative or corrective measures adopted in order to ensure that the schedule of compliance is met. (R 336.1213(4)(b)(ii))~~

**Appendix 3. Monitoring Requirements**

Monitoring procedures, methods, and/or specifications for showing compliance with all of the emission limits contained in this permit are contained in the Continuous Compliance Plan which was submitted under permit 253-02. This document is entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP No. MI-ROP-N6631-2004" dated May 31, 2011.

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**Appendix 4. Recordkeeping**

Recordkeeping parameters, frequency of recordkeeping, and recordkeeping methodologies are contained in the Continuous Compliance Plan entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP No. MI-ROP-N6631-2004," dated May 31, 2011.

**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 since the effective date of previously issued ROP No. MI-ROP-N6631N6631-2004: **This includes any PTI that were incorporated into the Source-wide PTI No MI-PTI-N6631N6631-2004 through amendments or modifications and any PTI that remained off-permit until this ROP renewal.**

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

The following ROP amendments or modifications were issued after the effective date of ROP No. MI-ROP-N6631-2012.

Permit to Install Number	ROP Revision Application Number/Issuance Date	Description of Change	Corresponding Emission Unit(s) or Flexible Group(s)
72-15	201600065/June 28, 2016	Incorporate PTI 72-15, which upgrades three existing natural gas fired combustion turbines, (EUCTG1, EUCTG2, and EUCTG3). Included are upgrades to both hardware and software of the turbines, which will improve performance of EUCTG2 and EUCTG3 in terms of capacity, heat rate, and maintenance schedule. The upgrades will improve performance of EUCTG1 in terms of heat rate and capacity during warm weather conditions only (i.e., heat rate and capacity will not exceed maximum during cold weather). These modifications also triggered the applicability of NSPS KKKK for the combustion turbines EUCTG2 and EUCTG3 due to the increase in the hourly emission rate and hardware upgrades. EUCTG1 is a simple cycle combustion turbine used as a peaking unit. EUCTG2 and EUCTG3 are combined cycle combustion turbines that operate as base load units.	EUCTG1 EUCTG2 EUCTG3 FGTURBINES FGNSPSK KKKK

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## Appendix 7. Emission Calculations

Procedures and methodology for showing compliance with the emission limits contained in this permit are contained in the Continuous Compliance Plan entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of Permit No. 253-02" dated February 18, 2003.

## Appendix 8. Reporting

### A. Annual, Semi-annual, and Deviation Certification Reporting

The permittee shall use the MDEQ Report Certification form (EQP 5736) and MDEQ Deviation Report form (EQP 5737) for the annual, semi-annual and deviation certification reporting referenced in the Reporting section of the source-wide, emission unit and/or flexible group special conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

### B. Other Reporting

The permittee shall use the following approved formats and procedures for the reporting requirements referenced in Part A or the appropriate source-wide, emission unit and/or flexible group special conditions, Therefore, Part B of this appendix is not applicable.

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## Appendix 9. Acid Rain Permit

Comment [MM7]: See Acid Rain Permit renewal application in Appendix C of the ROP renewal application package.



Michigan Department Of Environmental Quality  
Air Quality Division

### PHASE II ACID RAIN PERMIT Permit No. MI-AR-55088-2012

Permittee	Dearborn Industrial Generation
Address	2400 Miller Rd., Dearborn, MI
SRN	N6631
ORIS code	55088
Issue Date	March 28, 2012
Effective:	Issuance date of this facility's Renewable Operating Permit at the facility in accordance with 40 CFR 72.73.
Expiration	This permit shall expire when the facility's Renewable Operating Permit expires, in accordance with 40 CFR 72.73.
ROP No.	MI-ROP-N6631-2012

#### The Acid Rain Permit Contents

1. A statement of basis prepared by the Air Quality Division (AQD) containing:  
  
References to statutory and regulatory authorities, and with comments, notes, and justification that apply to the source in general;
2. Terms and conditions including:  
  
A table of sulfur dioxide allowances to be allocated during the term of the permit, if applicable, authorized by this permit during Phase II. Unless they are subject to sections 405(g)(2) or (3) of the Clean Air Act, new units are not allocated allowances in 40 CFR part 73 and must obtain allowances by other means (sec. 403(e) of the Clean Air Act).;  
  
Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements; and,  
  
Any applicable nitrogen oxides compliance plan. Unless they are coal fired utility units regulated pursuant to sections 404, 405, or 409 of the Clean Air Act, new units are not subject to the acid rain nitrogen oxides requirements [40 CFR 76.1(a)].
3. The permit application that this source submitted, as corrected by the AQD. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the application.

## **Statement of Basis**

### **Statutory and Regulatory Authorities**

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

For further information contact:

Brian Carley  
Environmental Quality Specialist  
Michigan Department of Environmental Quality  
Air Quality Division  
301 Louis Glick Highway  
Jackson, Michigan 49201  
Telephone: (517) 780-7843  
Facsimile: (517) 780-7437

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

**Terms and Conditions:**

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

		2011	2012	2013	2014	2015
Unit EUCTG 1	SO <sub>2</sub> allowances	This affected unit shall hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under § 73.34(c) of this chapter) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and comply with the applicable Acid Rain emissions limitation for sulfur dioxide in accordance with 40 CFR 72.9 (c).				

		2011	2012	2013	2014	2015
Unit EUCTG 2	SO <sub>2</sub> allowances	This affected unit shall hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under § 73.34(c) of this chapter) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and comply with the applicable Acid Rain emissions limitation for sulfur dioxide in accordance with 40 CFR 72.9 (c).				

		2011	2012	2013	2014	2015
Unit EUCTG 3	SO <sub>2</sub> allowances	This affected unit shall hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under § 73.34(c) of this chapter) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and comply with the applicable Acid Rain emissions limitation for sulfur dioxide in accordance with 40 CFR 72.9 (c).				

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

**Permit Application:** (attached)

*Acid Rain Permit Application submitted February 25, 2011*



### Permit Requirements

- STEP 3**  
Read the standard requirements.
- (1) The designated representative of each affected source and each affected unit at the source shall:
    - (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
    - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
  - (2) The owners and operators of each affected source and each affected unit at the source shall:
    - (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
    - (ii) Have an Acid Rain Permit.

### Monitoring Requirements

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

### Sulfur Dioxide Requirements

- (1) The owners and operators of each source and each affected unit at the source shall:
  - (i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and
  - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
  - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
  - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).

### Sulfur Dioxide Requirements, Cont'd.

- STEP 3, Cont'd.
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
  - (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
  - (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
  - (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

#### **Nitrogen Oxides Requirements**

The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

#### **Excess Emissions Requirements**

- (1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an affected source that has excess emissions in any calendar year shall:
  - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
  - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

#### **Recordkeeping and Reporting Requirements**

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
  - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;

#### **Recordkeeping and Reporting Requirements, Cont'd.**

- STEP 3, Cont'd.
- (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
  - (iii) Copies of all reports, compliance certifications, and other submissions

and all records made or required under the Acid Rain Program; and,  
(iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.  
(2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

#### Liability

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.  
(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.  
(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.  
(4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.  
(5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.  
(6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.  
(7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

#### Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:  
(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating

#### Effect on Other Authorities, Cont'd.

to applicable National Ambient Air Quality Standards or State Implementation Plans;  
(2) Limiting the number of allowances a source can hold; *provided*, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;  
(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements

STEP 3, Cont'd.

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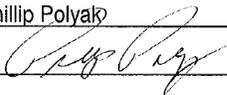
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under such State law;  
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,  
(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

**Certification**

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

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Phillip Polyak	
Signature 	Date Feb 22, 2011

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

**Description of TR Monitoring Program**

The TR subject unit(s), and the unit-specific monitoring provisions at this source, are identified in the following table(s). These unit(s) are subject to the requirements for the TR NO<sub>x</sub> Annual Trading Program, TR NO<sub>x</sub> Ozone Season Trading Program, and the TR SO<sub>2</sub> 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 SO<sub>2</sub> monitoring) and 40 CFR part 75, subpart H (for NO<sub>x</sub> 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

<u>Unit ID: EUCTG1</u>	
<u>Parameter</u>	<u>Monitoring Methodology</u>
<u>SO<sub>2</sub></u>	<u>Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D</u>
<u>NO<sub>x</sub></u>	<u>EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E</u>
<u>Heat Input</u>	<u>Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D</u>

<u>Unit ID: EUCTG2</u>	
<u>Parameter</u>	<u>Monitoring Methodology</u>
<u>SO<sub>2</sub></u>	<u>Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D</u>
<u>NO<sub>x</sub></u>	<u>EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E</u>
<u>Heat Input</u>	<u>Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D</u>

<u>Unit ID: EUCTG3</u>	
<u>Parameter</u>	<u>Monitoring Methodology</u>
<u>SO<sub>2</sub></u>	<u>Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D</u>
<u>NO<sub>x</sub></u>	<u>EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E</u>
<u>Heat Input</u>	<u>Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D</u>

<u>Unit ID: EUBOILER1</u>	
<u>Parameter</u>	<u>Monitoring Methodology</u>
<u>SO<sub>2</sub></u>	<u>EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75,</u>

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	<u>subpart E</u>
<u>NOx</u>	<u>EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E</u>
<u>Heat Input</u>	<u>Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D</u>

<u>Unit ID: EUBOILER2</u>	
<u>Parameter</u>	<u>Monitoring Methodology</u>
<u>SO<sub>2</sub></u>	<u>EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E</u>
<u>NOx</u>	<u>EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E</u>
<u>Heat Input</u>	<u>Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D</u>

<u>Unit ID: EUBOILER3</u>	
<u>Parameter</u>	<u>Monitoring Methodology</u>
<u>SO<sub>2</sub></u>	<u>EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E</u>
<u>NOx</u>	<u>EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E</u>
<u>Heat Input</u>	<u>Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D</u>

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<sub>x</sub> Annual Trading Program), 97.530 through 97.535 (TR NO<sub>x</sub> Ozone Season Trading Program), and 97.630 through 97.635 (TR SO<sub>2</sub> Group 1 Trading Program). The monitoring, recordkeeping and reporting requirements applicable to each unit are included below in the standard conditions for the applicable TR trading programs.

2. Owners and operators must submit to the Administrator a monitoring plan for each unit in accordance with 40 CFR 75.53, 75.62 and 75.73, as applicable. The monitoring plan for each unit is available at the EPA's website at <http://www.epa.gov/airmarkets/emissions/monitoringplans.html>.

3. Owners and operators that want to use an alternative monitoring system must submit to the Administrator a petition requesting approval of the alternative monitoring system in accordance with 40 CFR part 75, subpart E and 40 CFR 75.66 and 97.435 (TR NO<sub>x</sub> Annual Trading Program), 97.535 (TR NO<sub>x</sub> Ozone Season Trading Program), and/or 97.635 (TR SO<sub>2</sub> 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<sub>x</sub> Annual Trading Program), 97.530 through 97.534 (TR NO<sub>x</sub> Ozone Season Trading Program), and/or 97.630 through 97.634 (TR SO<sub>2</sub> Group 1 Trading Program) must submit to the Administrator a petition requesting approval of the alternative in accordance with 40 CFR 75.66 and 97.435 (TR NO<sub>x</sub> Annual Trading Program), 97.535 (TR NO<sub>x</sub> Ozone Season Trading Program), and/or 97.635 (TR SO<sub>2</sub> 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<sub>x</sub> Annual Trading Program), 97.530 through 97.534 (TR NO<sub>x</sub> Ozone Season Trading Program), and 97.630 through 97.634 (TR SO<sub>2</sub> 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<sub>x</sub> 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<sub>x</sub> Annual source and each TR NO<sub>x</sub> 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<sub>x</sub> Annual allowances under 40 CFR 97.411(a)(2) and (b) and 97.412 and to determine compliance with the TR NO<sub>x</sub> 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<sub>x</sub> emissions requirements.**

**(1) TR NO<sub>x</sub> 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<sub>x</sub> Annual source and each TR NO<sub>x</sub> Annual unit at the source shall hold, in the source's compliance account, TR NO<sub>x</sub> 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<sub>x</sub> emissions for such control period from all TR NO<sub>x</sub> Annual units at the source.

(ii). If total NO<sub>x</sub> emissions during a control period in a given year from the TR NO<sub>x</sub> Annual units at a TR NO<sub>x</sub> Annual source are in excess of the TR NO<sub>x</sub> Annual emissions limitation set forth in paragraph (c)(1)(i) above, then:

(A). The owners and operators of the source and each TR NO<sub>x</sub> Annual unit at the source shall hold the TR NO<sub>x</sub> Annual allowances required for deduction under 40 CFR 97.424(d); and

(B). The owners and operators of the source and each TR NO<sub>x</sub> 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<sub>x</sub> Annual assurance provisions.**

(i). If total NO<sub>x</sub> emissions during a control period in a given year from all TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> Annual sources in the state and Indian country within the borders of such State exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO<sub>x</sub> emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) TR NO<sub>x</sub> 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<sub>x</sub> 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

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- which each common designated representative's share of such NO<sub>x</sub> emissions exceeds the respective common designated representative's assurance level; and (B) The amount by which total NO<sub>x</sub> emissions from all TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> Annual sources in the state and Indian country within the borders of such state for such control period exceed the state assurance level.
- (ii). The owners and operators shall hold the TR NO<sub>x</sub> 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<sub>x</sub> emissions from all TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> 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<sub>x</sub> emissions exceed the sum, for such control period, of the state NO<sub>x</sub> 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<sub>x</sub> emissions from all TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> 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<sub>x</sub> emissions from the TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> Annual sources in the state and Indian country within the borders of such state during a control period exceeds the common designated representative's assurance level.
- (v). To the extent the owners and operators fail to hold TR NO<sub>x</sub> Annual allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,  
(A). The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and  
(B). Each TR NO<sub>x</sub> 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 NO<sub>x</sub> Annual unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of January 1, 2015, or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.430(b) and for each control period thereafter.  
(ii). A TR NO<sub>x</sub> Annual unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.430(b) and for each control period thereafter.
- (4) Vintage of allowances held for compliance.  
(i). A TR NO<sub>x</sub> Annual allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR NO<sub>x</sub> Annual allowance that was allocated for such control period or a control period in a prior year.  
(ii). A TR NO<sub>x</sub> Annual allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a TR NO<sub>x</sub> Annual allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
- (5) Allowance Management System requirements. Each TR NO<sub>x</sub> 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<sub>x</sub> Annual allowance is a limited authorization to emit one ton of NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> Annual allowance does not constitute a property right.
- (d) Title V permit revision requirements.**

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- (1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR NO<sub>x</sub> Annual allowances in accordance with 40 CFR part 97, subpart AAAAA.
- (2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.430 through 97.435, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.406(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).
- (e) Additional recordkeeping and reporting requirements.**
- (1) Unless otherwise provided, the owners and operators of each TR NO<sub>x</sub> Annual source and each TR NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> Annual Trading Program.
- (2) The designated representative of a TR NO<sub>x</sub> Annual source and each TR NO<sub>x</sub> Annual unit at the source shall make all submissions required under the TR NO<sub>x</sub> 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<sub>x</sub> Annual Trading Program that applies to a TR NO<sub>x</sub> Annual source or the designated representative of a TR NO<sub>x</sub> Annual source shall also apply to the owners and operators of such source and of the TR NO<sub>x</sub> Annual units at the source.
- (2) Any provision of the TR NO<sub>x</sub> Annual Trading Program that applies to a TR NO<sub>x</sub> Annual unit or the designated representative of a TR NO<sub>x</sub> Annual unit shall also apply to the owners and operators of such unit.
- (g) Effect on other authorities.**
- No provision of the TR NO<sub>x</sub> 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<sub>x</sub> Annual source or TR NO<sub>x</sub> 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<sub>x</sub> Ozone Season Trading Program Requirements (40 CFR 97.506)**
- (a) Designated representative requirements.**
- The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.513 through 97.518.
- (b) Emissions monitoring, reporting, and recordkeeping requirements.**
- (1) The owners and operators, and the designated representative, of each TR NO<sub>x</sub> Ozone Season source and each TR NO<sub>x</sub> Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.530 (general requirements, including installation, certification,

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and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.531 (initial monitoring system certification and recertification procedures), 97.532 (monitoring system out-of-control periods), 97.533 (notifications concerning monitoring), 97.534 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.535 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

(2) The emissions data determined in accordance with 40 CFR 97.530 through 97.535 shall be used to calculate allocations of TR NO<sub>x</sub> Ozone Season allowances under 40 CFR 97.511(a)(2) and (b) and 97.512 and to determine compliance with the TR NO<sub>x</sub> Ozone Season emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.530 through 97.535 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

**(c) NO<sub>x</sub> emissions requirements.**

**(1) TR NO<sub>x</sub> Ozone Season emissions limitation.**

(i). As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NO<sub>x</sub> Ozone Season source and each TR NO<sub>x</sub> Ozone Season unit at the source shall hold, in the source's compliance account, TR NO<sub>x</sub> Ozone Season allowances available for deduction for such control period under 40 CFR 97.524(a) in an amount not less than the tons of total NO<sub>x</sub> emissions for such control period from all TR NO<sub>x</sub> Ozone Season units at the source.

(ii). If total NO<sub>x</sub> emissions during a control period in a given year from the TR NO<sub>x</sub> Ozone Season units at a TR NO<sub>x</sub> Ozone Season source are in excess of the TR NO<sub>x</sub> Ozone Season emissions limitation set forth in paragraph (c)(1)(i) above, then:

(A). The owners and operators of the source and each TR NO<sub>x</sub> Ozone Season unit at the source shall hold the TR NO<sub>x</sub> Ozone Season allowances required for deduction under 40 CFR 97.524(d); and

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

**(2) TR NO<sub>x</sub> Ozone Season assurance provisions.**

(i). If total NO<sub>x</sub> emissions during a control period in a given year from all TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> Ozone Season sources in the state and Indian country within the borders of such state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO<sub>x</sub> emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) TR NO<sub>x</sub> Ozone Season allowances available for deduction for such control period under 40 CFR 97.525(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.525(b), of multiplying—

(A). The quotient of the amount by which the common designated representative's share of such NO<sub>x</sub> 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<sub>x</sub> emissions exceeds the respective common designated representative's assurance level; and

(B). The amount by which total NO<sub>x</sub> emissions from all TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> Ozone Season sources in the state and Indian country within the borders of such state for such control period exceed the state assurance level.

(ii). The owners and operators shall hold the TR NO<sub>x</sub> Ozone Season allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the

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- first business day thereafter (if November 1 is not a business day), in the calendar year immediately after such control period.
- (iii). Total NO<sub>x</sub> emissions from all TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> Ozone Season sources in the state and Indian country within the borders of such state during a control period in a given year exceed the state assurance level if such total NO<sub>x</sub> emissions exceed the sum, for such control period, of the State NO<sub>x</sub> Ozone Season trading budget under 40 CFR 97.510(a) and the state's variability limit under 40 CFR 97.510(b).
- (iv). It shall not be a violation of 40 CFR part 97, subpart BBBBB or of the Clean Air Act if total NO<sub>x</sub> emissions from all TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> Ozone Season sources in the state and Indian country within the borders of such state during a control period exceed the state assurance level or if a common designated representative's share of total NO<sub>x</sub> emissions from the TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> Ozone Season sources in the state and Indian country within the borders of such state during a control period exceeds the common designated representative's assurance level.
- (v). To the extent the owners and operators fail to hold TR NO<sub>x</sub> Ozone Season allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
- (A). The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
- (B). Each TR NO<sub>x</sub> Ozone Season allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart BBBBB and the Clean Air Act.
- (3) Compliance periods.
- (i). A TR NO<sub>x</sub> Ozone Season unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of May 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.530(b) and for each control period thereafter.
- (ii). A TR NO<sub>x</sub> Ozone Season unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of May 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.530(b) and for each control period thereafter.
- (4) Vintage of allowances held for compliance.
- (i). A TR NO<sub>x</sub> Ozone Season allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR NO<sub>x</sub> Ozone Season allowance that was allocated for such control period or a control period in a prior year.
- (ii). A TR NO<sub>x</sub> Ozone Season allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a TR NO<sub>x</sub> Ozone Season allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
- (5) Allowance Management System requirements. Each TR NO<sub>x</sub> Ozone Season allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart BBBBB.
- (6) Limited authorization. A TR NO<sub>x</sub> Ozone Season allowance is a limited authorization to emit one ton of NO<sub>x</sub> 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<sub>x</sub> Ozone Season Trading Program; and
- (ii). Notwithstanding any other provision of 40 CFR part 97, subpart BBBBB, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
- (7) Property right. A TR NO<sub>x</sub> Ozone Season allowance does not constitute a property right.
- (d) Title V permit revision requirements.**
- (1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR NO<sub>x</sub> Ozone Season allowances in accordance with 40 CFR part 97, subpart BBBBB.
- (2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.530 through 97.535, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40

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CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.506(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).

**(e) Additional recordkeeping and reporting requirements.**

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

(i). The certificate of representation under 40 CFR 97.516 for the designated representative for the source and each TR NO<sub>x</sub> Ozone Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.516 changing the designated representative.

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

(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<sub>x</sub> Ozone Season Trading Program.

(2) The designated representative of a TR NO<sub>x</sub> Ozone Season source and each TR NO<sub>x</sub> Ozone Season unit at the source shall make all submissions required under the TR NO<sub>x</sub> Ozone Season Trading Program, except as provided in 40 CFR 97.518. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71.

**(f) Liability.**

(1) Any provision of the TR NO<sub>x</sub> Ozone Season Trading Program that applies to a TR NO<sub>x</sub> Ozone Season source or the designated representative of a TR NO<sub>x</sub> Ozone Season source shall also apply to the owners and operators of such source and of the TR NO<sub>x</sub> Ozone Season units at the source.

(2) Any provision of the TR NO<sub>x</sub> Ozone Season Trading Program that applies to a TR NO<sub>x</sub> Ozone Season unit or the designated representative of a TR NO<sub>x</sub> Ozone Season unit shall also apply to the owners and operators of such unit.

**(g) Effect on other authorities.**

No provision of the TR NO<sub>x</sub> Ozone Season Trading Program or exemption under 40 CFR 97.505 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a TR NO<sub>x</sub> Ozone Season source or TR NO<sub>x</sub> Ozone Season unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

**(h) Effect on units in Indian country.**

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

**SECTION III: TR SO<sub>2</sub> 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 SO<sub>2</sub> Group 1 source and each TR SO<sub>2</sub> 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

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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 SO<sub>2</sub> Group 1 allowances under 40 CFR 97.611(a)(2) and (b) and 97.612 and to determine compliance with the TR SO<sub>2</sub> 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<sub>2</sub> emissions requirements.**

(1) TR SO<sub>2</sub> 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 SO<sub>2</sub> Group 1 source and each TR SO<sub>2</sub> Group 1 unit at the source shall hold, in the source's compliance account, TR SO<sub>2</sub> 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<sub>2</sub> emissions for such control period from all TR SO<sub>2</sub> Group 1 units at the source.
- (ii). If total SO<sub>2</sub> emissions during a control period in a given year from the TR SO<sub>2</sub> Group 1 units at a TR SO<sub>2</sub> Group 1 source are in excess of the TR SO<sub>2</sub> Group 1 emissions limitation set forth in paragraph (c)(1)(i) above, then:
- (A). The owners and operators of the source and each TR SO<sub>2</sub> Group 1 unit at the source shall hold the TR SO<sub>2</sub> Group 1 allowances required for deduction under 40 CFR 97.624(d); and
- (B). The owners and operators of the source and each TR SO<sub>2</sub> Group 1 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation 40 CFR part 97, subpart CCCCC and the Clean Air Act.

(2) TR SO<sub>2</sub> Group 1 assurance provisions.

- (i). If total SO<sub>2</sub> emissions during a control period in a given year from all TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> 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<sub>2</sub> 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 SO<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> emissions exceeds the respective common designated representative's assurance level; and
- (B). The amount by which total SO<sub>2</sub> emissions from all TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> 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 SO<sub>2</sub> 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<sub>2</sub> emissions from all TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> 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<sub>2</sub> emissions exceed the sum, for such control period, of the

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Dearborn Industrial Generation, L.L.C.  
2012a

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- state SO<sub>2</sub> 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<sub>2</sub> emissions from all TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> 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<sub>2</sub> emissions from the TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> Group 1 allowance that was allocated for such control period or a control period in a prior year.
- (ii). A TR SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> Group 1 allowance is a limited authorization to emit one ton of SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> Group 1 allowances in accordance with 40 CFR part 97, subpart CCCCC.
- (2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.630 through 97.635, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR part 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.606(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).
- (e) Additional recordkeeping and reporting requirements.**

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(1) Unless otherwise provided, the owners and operators of each TR SO<sub>2</sub> Group 1 source and each TR SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> Group 1 Trading Program.

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

(2) Any provision of the TR SO<sub>2</sub> Group 1 Trading Program that applies to a TR SO<sub>2</sub> Group 1 unit or the designated representative of a TR SO<sub>2</sub> Group 1 unit shall also apply to the owners and operators of such unit.

**(g) Effect on other authorities.**

No provision of the TR SO<sub>2</sub> 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 SO<sub>2</sub> Group 1 source or TR SO<sub>2</sub> 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.

**CAIR Sulfur Dioxide Budget Permit**



Michigan Department Of Environmental Quality  
Air Quality Division

**CAIR Sulfur Dioxide Budget Permit  
Permit No. MI-SO2-55088-2012**

Permittee Dearborn Industrial Generation  
Address 2400 Miller Rd., Dearborn, MI  
SRN N6634  
ORIS code 55088  
Issue Date March 28, 2012  
Expiration This permit shall expire when the facility's Renewable Operating Permit (ROP) expires in accordance with 40 CFR 97.221(b).

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Dearborn Industrial Generation, L.L.C.  
2012a

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~~This permit incorporates automatically the definitions of terms under Air Pollution Control Rule 336.1420.~~

~~This permit incorporates automatically, upon recordation by the EPA Administrator in accordance with 40 CFR part 97 subpart FFF, GGG, or III every allocation, transfer, or deduction of a SO2 allowance to or from the compliance accounts of the CAIR SO2 unit(s) covered by the permit.~~

~~The owners and operators of the source must comply with the standard requirements and special provisions set forth in this permit.~~

~~This permit incorporates any attached comments, notes or justifications regarding permit decisions and changes made to the permit application forms during the review process.~~

**Units covered under this permit**

AQD Unit ID	Unit Type			
EU00001	<input type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input checked="" type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00002	<input type="checkbox"/> Stationary Boiler	<input checked="" type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00003	<input type="checkbox"/> Stationary Boiler	<input checked="" type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00004	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00005	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00006	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other

**Permit Application:**

~~CAIR SO2 Annual Permit application submitted February 25, 2011~~

## Standard requirements

### (a) Permit requirements.

~~(1) The CAIR designated representative of each CAIR SO<sub>2</sub> source required to have a ROP and each CAIR SO<sub>2</sub> unit required to have a ROP at the source shall:~~

- ~~\_\_\_\_\_ (i) Submit to the permitting authority a complete CAIR permit application under § 97.222 in accordance with the deadlines specified in § 97.224; and~~
- ~~\_\_\_\_\_ (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review a CAIR permit application and issue or deny a CAIR permit.~~

~~(2) The owners and operators of each CAIR SO<sub>2</sub> source required to have a ROP and each CAIR SO<sub>2</sub> unit required to have a ROP at the source shall have a CAIR permit issued by the permitting authority under subpart CCC of 40 CFR part 97 for the source and operate the source and the unit in compliance with such CAIR permit.~~

### (b) Monitoring, Reporting, and Recordkeeping Requirements.

~~(1) The owners and operators, and the CAIR designated representative, of each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of subpart HHH of 40 CFR part 97.~~

~~(2) The emissions measurements recorded and reported in accordance with subpart HHH of 40 CFR part 97 shall be used to determine compliance by each CAIR SO<sub>2</sub> source with the CAIR SO<sub>2</sub> emissions limitation under paragraph (c) of this permit.~~

### (c) Sulfur Dioxide Emission Requirements.

~~(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall hold, in the source's compliance account, a tonnage equivalent in CAIR SO<sub>2</sub> allowances available for compliance deductions for the control period, as determined in accordance with § 97.254(a) and (b), not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO<sub>2</sub> units at the source, as determined in accordance with subpart HHH of 40 CFR part 97.~~

~~(2) A CAIR SO<sub>2</sub> unit shall be subject to the requirements under paragraph (c)(1) of this section for the control period starting on the later of January 1, 2010 or the deadline for meeting the unit(s) monitor certification requirements under § 97.270(b)(1),(2), or (5) and for each control period thereafter.~~

~~(3) A CAIR SO<sub>2</sub> allowance shall not be deducted, for compliance with the requirements under paragraph (c)(1) of this section, for a control period in a calendar year before the year for which the CAIR SO<sub>2</sub> allowance was allocated.~~

~~(4) CAIR SO<sub>2</sub> allowances shall be held in, deducted from, or transferred into or among CAIR SO<sub>2</sub> Allowance Tracking System accounts in accordance with subparts FFF, GGG, and III of 40 CFR part 97.~~

~~(5) A CAIR SO<sub>2</sub> allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO<sub>2</sub> Trading Program. No provision of the CAIR SO<sub>2</sub> Trading Program, the CAIR permit application, the CAIR permit, or an exemption under § 97.205 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.~~

~~(6) A CAIR SO<sub>2</sub> allowance does not constitute a property right.~~

~~(7) Upon recordation by the Administrator under subpart FFF, GGG, or III of 40 CFR part 97, every allocation, transfer, or deduction of a CAIR SO<sub>2</sub> allowance to or from a CAIR SO<sub>2</sub> source's compliance account is incorporated automatically in any CAIR permit of the source.~~

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**(d) Excess emissions requirements.**

~~If a CAIR SO<sub>2</sub> source emits sulfur dioxide during any control period in excess of the CAIR SO<sub>2</sub> emissions limitation, then:~~

- ~~(1) The owners and operators of the source and each CAIR SO<sub>2</sub> unit at the source shall surrender the CAIR SO<sub>2</sub> allowances required for deduction under § 97.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and~~
- ~~(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of this subpart, the Clean Air Act, and applicable State law.~~

**(e) Recordkeeping and Reporting Requirements.**

~~(1) Unless otherwise provided, the owners and operators of the CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the permitting authority or the Administrator.~~

- ~~(i) The certificate of representation under § 97.213 for the CAIR designated representative for the source and each CAIR SO<sub>2</sub> 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 documents are superseded because of the submission of a new certificate of representation under § 97.213 changing the CAIR designated representative.~~
- ~~(ii) All emissions monitoring information, in accordance with subpart HHH of 40 CFR part 97, provided that to the extent that subpart HHH of 40 CFR part 97 provides for a 3-year period for recordkeeping, the 3-year period shall apply.~~
- ~~(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR SO<sub>2</sub> Trading Program.~~
- ~~h. (iv) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR SO<sub>2</sub> Trading Program or to demonstrate compliance with the requirements of the CAIR SO<sub>2</sub> Trading Program.~~

~~(2) The CAIR designated representative of a CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall submit the reports required under the CAIR SO<sub>2</sub> Trading Program, including those under subpart HHH of 40 CFR part 97.~~

**(f) Liability.**

~~(1) Each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit shall meet the requirements of the CAIR SO<sub>2</sub> Trading Program.~~

~~(2) Any provision of the CAIR SO<sub>2</sub> Trading Program that applies to a CAIR SO<sub>2</sub> source or the CAIR designated representative of a CAIR SO<sub>2</sub> source shall also apply to the owners and operators of such source and of the CAIR SO<sub>2</sub> units at the source.~~

~~(3) Any provision of the CAIR SO<sub>2</sub> Trading Program that applies to a CAIR SO<sub>2</sub> unit or the CAIR designated representative of a CAIR SO<sub>2</sub> unit shall also apply to the owners and operators of such unit.~~

**(g) Effect On Other Authorities.**

~~No provision of the CAIR SO<sub>2</sub> Trading Program, a CAIR permit application, a CAIR permit, or an exemption under § 97.205 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR SO<sub>2</sub> source or CAIR SO<sub>2</sub> unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.~~

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2012a

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**Appendix 11. CAIR Annual Nitrogen Oxide Budget Permit**



Michigan Department Of Environmental Quality  
Air Quality Division

**CAIR Annual Nitrogen Oxide Budget Permit  
Permit No. MI-NOA-55088-2012**

Permittee: Dearborn Industrial Generation  
Address: 2400 Miller Rd., Dearborn, MI  
SRN: N6631  
ORIS code: 55088  
Issue Date: March 28, 2012  
Expiration: This permit shall expire when the facility's Renewable Operating Permit expires in accordance with Air Pollution Control Rule 336.1821.  
ROP No.: MI-ROP-N6631-2012

This permit incorporates automatically the definitions of terms under Air Pollution Control Rule 336.1803.

This permit incorporates automatically, upon recordation by the EPA Administrator in accordance with Air Pollution Control Rule 336.1830, 336.1831 and 336.1834 every allocation, transfer, or deduction of a NOx allowance to or from the compliance accounts of the NOx Budget unit(s) covered by the permit.

The owners and operators of the source must comply with the standard requirements and special provisions set forth in this permit.

This permit incorporates any attached comments, notes or justifications regarding permit decisions and changes made to the permit application forms during the review process.

**Units covered under this permit**

AQD Unit ID	Unit Type			
EU00001	<input type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input checked="" type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00002	<input type="checkbox"/> Stationary Boiler	<input checked="" type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00003	<input type="checkbox"/> Stationary Boiler	<input checked="" type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00004	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00005	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00006	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other

**Permit Application:**

CAIR NOx Annual Permit application submitted February 25, 2011

### Standard Requirements

#### (a) Permit Requirements.

~~(1) The CAIR designated representative of each CAIR NOX source required to have a Renewable Operating Permit (ROP) and each CAIR NOX unit required to have a ROP at the source shall:~~

- ~~(i) Submit to the Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) a complete CAIR permit application under R-336.1821(3) in accordance with the deadlines specified in 40 CFR 97.121; and~~
- ~~(ii) Submit in a timely manner any supplemental information that the MDEQ-AQD determines is necessary in order to review a CAIR permit application and issue or deny a CAIR permit.~~

~~(2) The owners and operators of each CAIR NOX source required to have a ROP and each CAIR NOX unit required to have a ROP at the source shall have a CAIR permit issued by the MDEQ-AQD under subpart CC of 40 CFR part 97 for the source and operate the source and the unit in compliance with such CAIR permit.~~

#### (b) Monitoring, Reporting, and Recordkeeping Requirements.

~~(1) The owners and operators, and the CAIR designated representative, of each CAIR NOX source and each CAIR NOX unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of subpart HH of 40 CFR part 97.~~

~~(2) The emissions measurements recorded and reported in accordance with subpart HH of 40 CFR part 97 shall be used to determine compliance by each CAIR NOX source with the CAIR NOX emissions limitation under paragraph (c) of this permit.~~

#### (c) Nitrogen Oxides Emission Requirements.

~~(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NOX source and each CAIR NOX unit at the source shall hold, in the source's compliance account, CAIR NOX allowances available for compliance deductions for the control period under 40 CFR 97.154(a) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NOX units at the source, as determined in accordance with subpart HH of 40 CFR part 97.~~

~~(2) A CAIR NOX unit shall be subject to the requirements under paragraph (c)(1) for the control period starting on the later of January 1, 2009 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.170(b)(1), (2), or (5) and for each control period thereafter.~~

~~(3) A CAIR NOX allowance shall not be deducted, for compliance with the requirements under paragraph (c)(1) of this section, for a control period in a calendar year before the year for which the CAIR NOX allowance was allocated.~~

~~(4) CAIR NOX allowances shall be held in, deducted from, or transferred into or among CAIR NOX Allowance Tracking System accounts in accordance with subparts EE, FF, GG, or II of 40 CFR part 97.~~

~~(5) A CAIR NOX Ozone Season allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NOX Ozone Season Trading Program. No provision of the CAIR NOX Ozone Season Trading Program, the CAIR permit application, the CAIR permit, or an exemption under § 97.105 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.~~

~~(6) A CAIR NOX allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NOX Annual Trading Program. No provision of the CAIR NOX Annual Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 40 CFR 97.105 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.~~

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~~(7) A CAIR NOX allowance does not constitute a property right.~~

~~(8) Upon recordation by the Administrator under subpart EE, FF, GG, or II of 40 CFR part 97, every allocation, transfer, or deduction of a CAIR NOX allowance to or from a CAIR NOX source's compliance account is incorporated automatically in any CAIR permit of the source.~~

~~(d) Excess Emissions Requirements.~~

~~If a CAIR NOX source emits nitrogen oxides during any control period in excess of the CAIR NOX emissions limitation, then:~~

~~(1) The owners and operators of the source and each CAIR NOX unit at the source shall surrender the CAIR NOX allowances required for deduction under 40 CFR 97.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and~~

~~(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, the Clean Air Act, and applicable State rules.~~

~~(e) Recordkeeping and Reporting Requirements.~~

~~(1) Unless otherwise provided, the owners and operators of the CAIR NOX source and each CAIR NOX unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the MDEQ-AQD or the Administrator.~~

~~(i) The certificate of representation under § 97.113 for the CAIR designated representative for the source and each CAIR NOX 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 documents are superseded because of the submission of a new certificate of representation under § 97.113 changing the CAIR designated representative.~~

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

~~(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NOX Annual Trading Program.~~

~~(iv) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NOX Annual Trading Program or to demonstrate compliance with the requirements of the CAIR NOX Annual Trading Program.~~

~~(2) The CAIR designated representative of a CAIR NOX source and each CAIR NOX unit at the source shall submit the reports required under the CAIR NOX Annual Trading Program, including those under subpart HH of 40 CFR part 97.~~

~~(f) Liability.~~

~~(1) Each CAIR NOX source and each CAIR NOX unit shall meet the requirements of the CAIR NOX Annual Trading Program.~~

~~(2) Any provision of the CAIR NOX Annual Trading Program that applies to a CAIR NOX source or the CAIR designated representative of a CAIR NOX source shall also apply to the owners and operators of such source and of the CAIR NOX units at the source.~~

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~~(3) Any provision of the CAIR NOX Annual Trading Program that applies to a CAIR NOX unit or the CAIR designated representative of a CAIR NOX unit shall also apply to the owners and operators of such unit.~~

**(g) Effect on Other Authorities.**

~~No provision of the CAIR NOX Annual Trading Program, a CAIR permit application, a CAIR permit, or an exemption under § 97.105 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NOX source or CAIR NOX unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.~~

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**Appendix 12. CAIR Ozone Nitrogen Oxide Budget Permit**



Michigan Department Of Environmental Quality  
Air Quality Division

**CAIR Ozone Nitrogen Oxide Budget Permit  
Permit No. MI-NOO-55088-2012**

Permittee Dearborn Industrial Generation  
Address 2400 Miller Rd., Dearborn, MI  
SRN N6631  
ORIS code 55088  
Issue Date March 28, 2012  
Expiration This permit shall expire when the facility's Renewable Operating Permit expires in accordance with Air Pollution Control Rule 336.1821.  
ROP No. MI-ROP-N6631-2012

~~This permit incorporates automatically the definitions of terms under Air Pollution Control Rule 336.1803.~~

~~This permit incorporates automatically, upon recordation by the EPA Administrator in accordance with Air Pollution Control Rule 336.1822, 336.1823 and 336.1834 every allocation, transfer, or deduction of a NOx allowance to or from the compliance accounts of the NOx Budget unit(s) covered by the permit.~~

~~The owners and operators of the source must comply with the standard requirements and special provisions set forth in this permit.~~

~~This permit incorporates any attached comments, notes or justifications regarding permit decisions and changes made to the permit application forms during the review process.~~

**Units covered under this permit**

AQD Unit ID	Unit Type			
EU00001	<input type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input checked="" type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00002	<input type="checkbox"/> Stationary Boiler	<input checked="" type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00003	<input type="checkbox"/> Stationary Boiler	<input checked="" type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00004	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00005	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00006	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other

**Permit Application:**

~~CAIR NOx Ozone Season Permit application submitted February 25, 2011~~

### Standard Requirements

#### (a) Permit Requirements.

~~(1) The CAIR designated representative of each CAIR NOX source required to have a Renewable Operating Permit (ROP) and each CAIR NOX unit required to have a ROP at the source shall:~~

- ~~(i) Submit to the Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) a complete CAIR permit application under R-336.1821(3) in accordance with the deadlines specified in 40 CFR 97.321; and~~
- ~~(ii) Submit in a timely manner any supplemental information that the MDEQ-AQD determines is necessary in order to review a CAIR permit application and issue or deny a CAIR permit.~~

~~(2) The owners and operators of each CAIR NOX source required to have a ROP and each CAIR NOX unit required to have a ROP at the source shall have a CAIR permit issued by the MDEQ-AQD under subpart CCCC of 40 CFR part 97 for the source and operate the source and the unit in compliance with such CAIR permit.~~

#### (b) Monitoring, Reporting, and Recordkeeping Requirements.

~~(1) The owners and operators, and the CAIR designated representative, of each CAIR NOX source and each CAIR NOX unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of subpart HHHH of 40 CFR part 97.~~

~~(2) The emissions measurements recorded and reported in accordance with subpart HHHH of 40 CFR part 97 shall be used to determine compliance by each CAIR NOX source with the CAIR NOX emissions limitation under paragraph (c) of this permit.~~

#### (c) Nitrogen Oxides Emission Requirements.

~~(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NOX source and each CAIR NOX unit at the source shall hold, in the source's compliance account, CAIR NOX allowances available for compliance deductions for the control period under 40 CFR 97.354(a) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NOX units at the source, as determined in accordance with subpart HHHH of 40 CFR part 97.~~

~~(2) A CAIR NOX unit shall be subject to the requirements under paragraph (c)(1) for the control period starting on the later of January 1, 2009 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.370(b)(1), (2), (3) or (7) and for each control period thereafter.~~

~~(3) A CAIR NOX allowance shall not be deducted, for compliance with the requirements under paragraph (c)(1) of this permit, for a control period in a calendar year before the year for which the CAIR NOX allowance was allocated.~~

~~(4) CAIR NOX allowances shall be held in, deducted from, or transferred into or among CAIR NOX Allowance Tracking System accounts in accordance with subparts EEEE, FFFF, GGGG, or HHHH of 40 CFR part 97.~~

~~(5) A CAIR NOX Ozone Season allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NOX Ozone Season Trading Program. No provision of the CAIR NOX Ozone Season Trading Program, the CAIR permit application, the CAIR permit, or an exemption under § 97.305 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.~~

~~(6) A CAIR NOX allowance does not constitute a property right.~~

~~(7) Upon recordation by the Administrator under subpart EEEE, FFFF, GGGG, or IIII of 40 CFR part 97, every allocation, transfer, or deduction of a CAIR-NOX allowance to or from a CAIR-NOX source's compliance account is incorporated automatically in any CAIR permit of the source.~~

~~(d) Excess Emissions Requirements.~~

~~If a CAIR-NOX source emits nitrogen oxides during any control period in excess of the CAIR-NOX emissions limitation, then:~~

~~(1) The owners and operators of the source and each CAIR-NOX unit at the source shall surrender the CAIR-NOX allowances required for deduction under 40 CFR 97.354(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and~~

~~(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, the Clean Air Act, and applicable State rules.~~

~~(e) Recordkeeping and Reporting Requirements.~~

~~(1) Unless otherwise provided, the owners and operators of the CAIR-NOX source and each CAIR-NOX unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the MDEQ-AQD or the Administrator.~~

~~(i) The certificate of representation under § 97.313 for the CAIR designated representative for the source and each CAIR-NOX 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 documents are superseded because of the submission of a new certificate of representation under § 97.313 changing the CAIR designated representative.~~

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

~~(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR-NOX Ozone Trading Program.~~

~~(iv) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR-NOX Ozone Trading Program or to demonstrate compliance with the requirements of the CAIR-NOX Ozone Trading Program.~~

~~(2) The CAIR designated representative of a CAIR-NOX source and each CAIR-NOX unit at the source shall submit the reports required under the CAIR-NOX Ozone Trading Program, including those under subpart HHHH of 40 CFR part 97.~~

~~(f) Liability.~~

~~(1) Each CAIR-NOX source and each CAIR-NOX unit shall meet the requirements of the CAIR-NOX Ozone Trading Program.~~

~~(2) Any provision of the CAIR-NOX Ozone Trading Program that applies to a CAIR-NOX source or the CAIR designated representative of a CAIR-NOX source shall also apply to the owners and operators of such source and of the CAIR-NOX units at the source.~~

~~(3) Any provision of the CAIR-NOX Ozone Trading Program that applies to a CAIR-NOX unit or the CAIR designated representative of a CAIR-NOX 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 CAIR-NOX Ozone Trading Program, a CAIR permit application, a CAIR permit, or an exemption under § 97.305 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR-NOX source or CAIR-NOX unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.~~

# **APPENDIX A**

## **MAXIMUM POTENTIAL GREENHOUSE GAS (GHG) EMISSIONS**



**Appendix A**  
**Dearborn Industrial Generation, L.L.C.**  
 Maximum Potential Greenhouse Gas (GHG) Emission Calculations

**Table 1. Emission Factors and Global Warming Potentials (GWPs)**

GHG	Fuel	Emission Factors	Emission Factor Unit	EF Basis	GWP	Max Hrs/yr
CO <sub>2</sub>	Natural Gas	53.06	kg/MMBtu	Subpart C of Part 98, Table C-1	1	8,760
	Blast Furnace Gas	274.32	kg/MMBtu	Subpart C of Part 98, Table C-1		
	Diesel	73.96	kg/MMBtu	Subpart C of Part 98, Table C-1		
CH <sub>4</sub>	Natural Gas	1.0E-03	kg/MMBtu	Subpart C of Part 98, Table C-2	25	
	Blast Furnace Gas	2.2E-05	kg/MMBtu	Subpart C of Part 98, Table C-2		
	Diesel	3.0E-03	kg/MMBtu	Subpart C of Part 98, Table C-2		
N <sub>2</sub> O	Natural Gas	1.0E-04	kg/MMBtu	Subpart C of Part 98, Table C-2	298	
	Blast Furnace Gas	1.0E-04	kg/MMBtu	Subpart C of Part 98, Table C-2		
	Diesel	6.0E-04	kg/MMBtu	Subpart C of Part 98, Table C-2		

**Table 2. GHG Emission Calculations**

Emission Unit(s)	Fuel Combusted	Heat Input Rating (MMBtu/hr)	CO <sub>2</sub> (tpy)	CH <sub>4</sub> (tpy)	N <sub>2</sub> O (tpy)	CO <sub>2</sub> e (tpy)
EUCTG1	Natural Gas	1,586	812,603	14.21	1.42	813,382
EUCTG2	Natural Gas	1,626	833,098	14.57	1.46	833,896
EUCTG3	Natural Gas	1,626	833,098	14.57	1.46	833,896
EUBOILER1 <sup>1</sup>	Natural Gas + Blast Furnace Gas	746	1,896,387	0.51	0.72	1,896,615
EUBOILER2 <sup>1</sup>	Natural Gas + Blast Furnace Gas	746	1,896,387	0.51	0.72	1,896,615
EUBOILER3 <sup>1</sup>	Natural Gas + Blast Furnace Gas	746	1,896,387	0.51	0.72	1,896,615
EUBFGFLARE1	Blast Furnace Gas	480	1,271,472	9.46E-02	0.43	1,271,603
EUBFGFLARE2	Blast Furnace Gas	1,292	3,422,380	0.25	1.16	3,422,731
EU3516GEN1	Diesel	14.4	10,284	0.39	7.74E-02	10,317
EU3516GEN2	Diesel	14.4	10,284	0.39	7.74E-02	10,317
		<b>TOTALS</b>	<b>12,882,381</b>	<b>46</b>	<b>8</b>	<b>12,885,987</b>

<sup>1</sup> Potential emissions of GHGs for EUBOILER1, EUBOILER2 and EUBOILER3 are calculated based on firing approximately 5 percent natural gas and 95 percent blast furnace gas on an annual basis in each boiler.

tpy: short tons per year

# **APPENDIX B**

**DRAFT ROP IN “TRACK CHANGES”**

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

EFFECTIVE DATE: March 28, 2012

REVISION DATE: June 28, 2016

ISSUED TO

**DEARBORN INDUSTRIAL GENERATION, L.L.C.**

State Registration Number (SRN): N6631

LOCATED AT

2400 Miller Road, Dearborn, Wayne County, Michigan 48121

**RENEWABLE OPERATING PERMIT**

Permit Number: MI-ROP-~~N6631~~~~N6631~~-2012a

Expiration Date: March 28, 2017

Administratively Complete ROP Renewal Application due between  
September 28, 2015 and September 28, 2016

This Renewable Operating Permit (ROP) is issued in accordance with and subject to Section 5506(3) of Article II, Chapter 1, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. 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 PA 451 and the federal Clean Air Act.

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**SOURCE-WIDE PERMIT TO INSTALL**

Permit Number: MI-PTI-N6631-2012a

This Permit to Install (PTI) is issued in accordance with and subject to Section 5505(5) of Article II, Chapter 1, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. 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 PA 451 and the federal Clean Air Act.

Michigan Department of Environmental Quality

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Wilhemina McLemore, Detroit 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 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

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by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

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

### Equipment & Design

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(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. Except as provided in Subrules 2, 3, and 4 of Rule 301, states in part; "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 Rule 301(1)(a) or (b) unless otherwise specified in this ROP." The grading of visible emissions shall be determined in accordance with Rule 303. **(R 336.1301(1) in pertinent part):**
  - 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.
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.<sup>1</sup> **(R 336.1901(a))**
  - b. Unreasonable interference with the comfortable enjoyment of life and property.<sup>1</sup> **(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(4))**

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### Monitoring/Recordkeeping

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

### Certification & Reporting

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

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- a. Submitting a certification by a responsible official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
  - 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:
- Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
  - Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
  - 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))**
  - Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
  - 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(9))**
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:
- 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))**
  - If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
  - 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))**
  - 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(7))**

### 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 reclaiming, 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):
- June 21, 1999,
  - Three years after the date on which a regulated substance is first listed under 40 CFR, Part 68.130, or
  - The date on which a regulated substance is first present above a threshold quantity in a process.
40. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR, Part 68.
41. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c). **(40 CFR, Part 68)**

### Emission Trading

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

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#### Permit To Install (PTI)

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.<sup>2</sup> **(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.<sup>2</sup> **(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.<sup>2</sup> **(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, or has been interrupted for 18 months, the applicable terms and conditions from that PTI 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.<sup>2</sup> **(R 336.1201(4))**

#### Footnotes:

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

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

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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

### DESCRIPTION

The source consists of one simple cycle combustion turbine, two combined cycle combustion turbines, three natural gas/blast furnace gas boilers, two blast furnace gas flares, and two emergency generators. A detailed description of each emission unit is contained in the Emission Unit Summary Table, Part C.

### POLLUTION CONTROL EQUIPMENT

All three combustion turbines are equipped with dry low NOx combustors.

#### I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Formaldehyde	9.9 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month	FGPLANT	<del>GC-13</del> , SC VI.1	R 336.1205(1)(a)

Commented [MM1]: Propose to remove GC 13 due to EPA's recent comment that this condition does not represent continuous compliance.

#### II. MATERIAL LIMIT(S)

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

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

NA

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

NA

#### V. TESTING/SAMPLING

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

- Testing shall be conducted within 180 days of the issuance of this permit if an acceptable emissions test has not been conducted within 5 years prior to the issuance of the RO permit, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. (R 336.1213(3), R 336.2003, R 336.2004)
- No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. (R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)

See Appendix 5

#### VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

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1. The permittee shall keep records of monthly and previous 12-month formaldehyde emission calculations for each boiler and turbine included in FGPLANT, consistent with the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP-MI-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under condition VI.2.<sup>2</sup> (R 336.1205(1)(a))
2. If it becomes necessary to revise, modify or update the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP-MI-N6631-2004" dated May 31, 2011, the permittee shall resubmit the document to the District Supervisor for review and written approval before implementing such revisions, modifications, or updates.<sup>2</sup> (R 336.1205(1)(a))

**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. Report shall be received by 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. Report shall be received by 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:**

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

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

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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
EUCTG1	One simple cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1,586 MM Btu per hour. The rated output capacity of the unit is approximately 170 megawatts.	6/01/1999 8/12/2015	FGTURBINES
EUCTG2	One combined cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1,626 MM Btu per hour. The heated and pressurized exhaust gases from the turbine are utilized to power an electric generator shaft and are then sent to an unfired heat recovery steam generator. The rated output capacity of the unit is approximately 179 megawatts.	7/23/2001 8/12/2015	FGTURBINES FGNSPSKXXX
EUCTG3	One combined cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1,626 MM Btu per hour. The heated and pressurized exhaust gases from the turbine are utilized to power an electric generator shaft and are then sent to an unfired heat recovery steam generator. The rated output capacity of the unit is approximately 179 megawatts.	7/9/2001 8/12/2015	FGTURBINES FGNSPSKXXX

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Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/Modification Date	Flexible Group ID
EUBOILER1	One boiler capable of firing either natural gas or a combination of natural gas and blast furnace gas (BFG). When exclusively firing natural gas, the boiler is rated at a design heat input of 763 MM Btu per hour, and while firing natural gas and BFG, the boiler is rated at a design heat input of 746 MM Btu per hour. While operating on either fuel, the boiler has a design output capacity of 500,000 pounds of steam per hour.	8/7/2001	FGBOILERS
EUBOILER2	One boiler capable of firing either natural gas or a combination of natural gas and blast furnace gas (BFG). When exclusively firing natural gas, the boiler is rated at a design heat input of 763 MM Btu per hour, and while firing natural gas and BFG, the boiler is rated at a design heat input of 746 MM Btu per hour. While operating on either fuel, the boiler has a design output capacity of 500,000 pounds of steam per hour.	8/7/2001	FGBOILERS
EUBOILER3	One boiler capable of firing either natural gas or a combination of natural gas and blast furnace gas (BFG). When exclusively firing natural gas, the boiler is rated at a design heat input of 763 MM Btu per hour, and while firing natural gas and BFG, the boiler is rated at a design heat input of 746 MM Btu per hour. While operating on either fuel, the boiler has a design output capacity of 500,000 pounds of steam per hour.	8/7/2001	FGBOILERS
EUBFGFLARE1	One blast furnace gas flare equipped with a natural gas pilot flame. This flare is fired exclusively with blast furnace gas and is designed to operate when the blast furnace gas/natural gas boilers are not operating. The flare is rated at an approximate heat input of 480 MM Btu/hour.	3/1/1999	FGBFGFLARES
EUBFGFLARE2	One blast furnace gas flare equipped with a natural gas pilot flame. This flare is fired exclusively with blast furnace gas and is designed to operate when the blast furnace gas/natural gas boilers are not operating. The flare is rated at an approximate heat input of 1292 MM Btu/hour.	5/1/1999	FGBFGFLARES
EU3516GEN1	Caterpillar model 3516 reciprocating engine – 1.7 megawatts and 14.4 MMBtu/hour heat input.	10/1/2003	FGEMERGENCYGENS <del>FGMACTZZZZ</del>
EU3516GEN2	Caterpillar model 3516 reciprocating engine – 1.7 megawatts and 14.4 MMBtu/hour heat input.	10/1/2003	FGEMERGENCYGENS <del>FGMACTZZZZ</del>

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Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/Modification Date	Flexible Group ID
EUPARTSWAS HER	Safety Kleen Parts Washer with an air/vapor interface of less than 10 square feet.	1/1/2002	NA

**EUCTG1**  
**EMISSION UNIT CONDITIONS**

**DESCRIPTION**

One simple cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1,586 MM Btu per hour. The rated output capacity of the unit is approximately 170 megawatts.

Flexible Group ID: FGTURBINES

**POLLUTION CONTROL EQUIPMENT**

Dry low NOx combustor

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx as NO <sub>2</sub>	9 ppmv at 15% O <sub>2</sub> on a dry basis <sup>2</sup>	Test Protocol*	EUCTG1	SC VI.2, <del>GC 13</del>	R 336.1205(1)(a), R 336.2802(4), 40 CFR Part 60 Subpart GG
2. NOx as NO <sub>2</sub>	72 pph	720-hour rolling average as determined at the end of each hour that the unit operates	EUCTG1	SC VI.2, SC VI.4, <del>GC 13</del>	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)
3. CO	9 ppmv at 15% O <sub>2</sub> on a dry basis <sup>2</sup>	Test Protocol*	EUCTG1	SC VI.3, <del>GC 13</del>	R 336.1205(1)(a), R 336.2802(4)
4. CO	30 pph <sup>2</sup>	720-hour rolling average as determined at the end of each hour that the unit operates	EUCTG1	SC VI.3, SC VI.4, <del>GC 13</del>	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(d)
5. VOC	2.8 pph <sup>2</sup>	Test Protocol*	EUCTG1	SC V.1, SC VI.1	R 336.1205(1)(a), R 336.2802(4)
6. PM10	9 pph <sup>2</sup>	Test Protocol*	EUCTG1	SC V.1, SC VI.1	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)

\*Test Protocol shall specify averaging time.

Commented [MM2]: Propose to remove GC 13 due to EPA's recent comment that this condition does not represent continuous compliance.

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**II. MATERIAL LIMIT(S)**

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

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

NA

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

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

1. Testing to verify PM10 and VOC emission limits shall be conducted within five years of the most recent valid performance test, and thereafter every five years, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. (R 336.1213(3), R 336.2003, R 336.2004)

See Appendix 5

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the natural gas usage rate in EUCTG1 on an hourly and monthly basis. The heating value of the natural gas in Btu per cubic foot shall be determined on a monthly basis from one sample taken from the main gas pipeline into the facility on the permittee's property. Upon request, the AQD District Supervisor may authorize a different sampling method and/or sampling schedule.<sup>2</sup> (40 CFR Part 75, Appendix D, R 336.1205(1)(a))
2. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner, a device to monitor and record the NOx (as NO<sub>2</sub>) emissions from EUCTG1 on a continuous basis. Installation and operation of the continuous emission monitoring system (CEMS) or equivalent Predictive Emissions Monitoring System (PEMS) shall meet the timelines, requirements, and reporting detailed in 40 CFR Part 60 Appendix F. If the permittee chooses to use a PEMS in lieu of a CEMS to monitor NOx emissions, the permittee shall follow the protocol as approved by the Environmental Protection Agency (EPA). (R 336.1213(3), 40 CFR Part 60 Subpart GG, 40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))
3. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner, a device to monitor and record the CO emissions from EUCTG1 on a continuous basis. Installation and operation of the CEMS or equivalent PEMS shall meet the timelines, requirements, and reporting detailed in 40 CFR Part 60 Appendix F. If the permittee chooses to use a PEMS in lieu of a CEMS to monitor CO emissions, the permittee shall follow the protocol as approved by the EPA. (R 336.1213(3), 40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))
4. The permittee shall maintain the following records:<sup>2</sup> (40 CFR Part 75, R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d))
  - a. Hourly NOx emission rate, in pph.
  - b. Hourly CO emission rate, in pph.
  - c. 720-hour rolling average NOx emission rate in pph, based on actual hours of turbine operation.

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- d. 720-hour rolling average CO emission rate in pph, based on actual hours of turbine operation.
  - e. Monthly hours of turbine operation including startup and shutdown.
  - f. Total monthly PM10 emission rate in tons per month.
  - g. Total monthly VOC emission rate in tons per month.
5. The permittee shall verify compliance with the emission limitations for EUCTG1 by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.6.<sup>2</sup> (R 336.1205(1)(a))
  6. If it becomes necessary to revise, modify or update the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, the permittee shall submit the revised document to the District Supervisor for review and written approval before implementing such revisions, modifications, or updates.<sup>2</sup> (R 336.1205(1)(a))

**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. Report shall be received by 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. Report shall be received by appropriate AQD district office by March 15 for the previous calendar year. (R 336.1213(4)(c))
4. The permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall include test program summary, test schedule, and the quality assurance measures to be applied. (R 336.1213(3), R 336.2001(3))
5. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. (R 336.1213(3), R 336.2001(4))
6. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. (R 336.1213(3), R 336.2001(5))

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 Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVCCT1	213 <sup>2</sup>	60 <sup>2</sup>	R 336.1225 and 40 CFR 52.21(c) and (d)

**IX. OTHER REQUIREMENT(S)**

1. If the permittee chooses to use a PEMS to monitor NOx emissions, the permittee shall follow the protocol delineated in the EPA April 5, 2006, approval letter for GTP1. (40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))

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2. If the permittee chooses to use a PEMS to monitor CO emissions, the permittee shall follow the protocol delineated in Performance Specification 16 in Appendix B of 40 CFR Part 60. **(40 CFR Part 60 Appendix B)**.
3. The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subpart A and Subpart GG. **(40 CFR Part 60 Subparts A & GG)**

**Footnotes:**

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

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

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**EUCTG2  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

One combined cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1,626 MM Btu per hour. The heated and pressurized exhaust gases from the turbine are utilized to power an electric generator shaft and are then sent to an unfired heat recovery steam generator. The rated output capacity of the unit is approximately 179 megawatts.

Flexible Group IDs: FGTURBINES, FGNSPSKXXX

**POLLUTION CONTROL EQUIPMENT**

Dry low NOx combustor

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx as NO <sub>2</sub>	9 ppmv at 15% O <sub>2</sub> on a dry basis.	Test Protocol*	EUCTG2	SC VI.2, <del>GC-13</del>	R 336.1205(1)(a), R 336.2802(4)
2. NOx as NO <sub>2</sub>	71 pph	720-hour rolling average as determined at the end of each hour that the unit operates	EUCTG2	SC VI.2, SC VI.5, <del>GC-13</del>	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)
3. CO	9 ppmv at 15% O <sub>2</sub> on a dry basis	Test Protocol*	EUCTG2	SC VI.3, <del>GC-13</del>	R 336.1205(1)(a), R 336.2802(4)
4. CO	31 pph	720-hour rolling average as determined at the end of each hour that the unit operates	EUCTG2	SC VI.3, SC VI.5, <del>GC-13</del>	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(d)
5. VOC	2.8 pph	Test Protocol*	EUCTG2	SC V.1, SC VI.1	R 336.1205(1)(a), R 336.2802(4)
6. PM10	9 pph	Test Protocol*	EUCTG2	SC V.1, SC VI.1	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)

\*Test Protocol shall specify averaging time.

**II. MATERIAL LIMIT(S)**

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

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### 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 5 years. (R 336.1213(3)(b)(ii))

1. Testing to verify PM10 and VOC emission limits shall be conducted within five years of the most recent valid performance test, and thereafter every five years, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. (R 336.1213(3), R 336.2003, R 336.2004)

See Appendix 5

### VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

1. The permittee shall install calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the natural gas usage rate in EUCTG2 on an hourly and monthly basis. The heating value of the natural gas in Btu per cubic foot shall be determined on a monthly basis from samples taken from the main gas pipeline into the facility on the permittee's property. Upon request, the AQD District Supervisor may authorize a different sampling method and/or sampling schedule.<sup>2</sup> (R 336.1205(1)(a))
2. The permittee shall install calibrate, maintain and operate in a satisfactory manner a device to monitor and record the NO<sub>x</sub> (as NO<sub>2</sub>) emissions from EUCTG2 on a continuous basis. Installation and operation of the CEMS or equivalent PEMS shall meet the timelines, requirements and reporting detailed in 40 CFR Part 60 Appendix F. If the permittee chooses to use a PEMS in lieu of a CEMS to monitor NO<sub>x</sub> emissions, the permittee shall follow the protocol delineated in the EPA September 6, 2006, approval letter for GT2100. (R 336.1213(3), 40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))
3. The permittee shall install calibrate, maintain and operate in a satisfactory manner a device to monitor and record the CO emissions from EUCTG2 on a continuous basis. Installation and operation of the CEMS or equivalent PEMS shall meet the timelines, requirements and reporting detailed in 40 CFR Part 60 Appendix F. If the permittee chooses to use a PEMS in lieu of a CEMS to monitor CO emissions, the permittee shall follow the protocol as approved by the EPA. (R 336.1213(3), 40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))
4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the O<sub>2</sub> concentration of the stack gases on a continuous basis.<sup>2</sup> (R 336.1205(1)(a))
5. The permittee shall maintain the following records:<sup>2</sup> (R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d))
  - a. Hourly NO<sub>x</sub> emission rate, in pph.
  - b. Hourly CO emission rate, in pph.
  - c. 720-hour rolling average NO<sub>x</sub> emission rate in pph, based on actual hours of turbine operation.
  - d. 720-hour rolling average CO emission rate in pph, based on actual hours of turbine operation.
  - e. Monthly hours of turbine operation including startup and shutdown.
  - f. Total monthly PM10 emission rate in tons per month.
  - g. Total monthly VOC emission rate in tons per month.
6. The permittee shall verify compliance with the emission limitations for EUCTG2 by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the

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Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.7.<sup>2</sup> (R 336.1205(1)(a))

- 7. If it becomes necessary to revise, modify or update the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, the permittee shall submit the revised document to the District Supervisor for review and written approval before implementing such revisions, modifications, or updates.<sup>2</sup> (R 336.1205(1)(a))

**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. Report shall be received by 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. Report shall be received by appropriate AQD district office by March 15 for the previous calendar year. (R 336.1213(4)(c))
- 4. The permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall include test program summary, test schedule, and the quality assurance measures to be applied. (R 336.1213(3), R 336.2001(3))
- 5. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. (R 336.1213(3), R 336.2001(4))
- 6. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. (R 336.1213(3), R 336.2001(5))

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 Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVCGT2	210 <sup>2</sup>	150 <sup>2</sup>	R 336.1225 and 40 CFR 52.21(c) and (d)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

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

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**EUCTG3  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

One combined cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1,626 MM Btu per hour. The heated and pressurized exhaust gases from the turbine are utilized to power an electric generator shaft and are then sent to an unfired heat recovery steam generator. The rated output capacity of the unit is approximately 179 megawatts.

**Flexible Group IDs:** FGTURBINES, FGNSPSKKKK

**POLLUTION CONTROL EQUIPMENT**

Dry low NOx combustor

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx as NO <sub>2</sub>	9 ppmv at 15% O <sub>2</sub> on a dry basis.	Test Protocol*	EUCTG3	SC VI.2, <del>GC-13</del>	R 336.1205(1)(a), R 336.2802(4)
2. NOx as NO <sub>2</sub>	71 pph	720-hour rolling average as determined at the end of each hour that the unit operates	EUCTG3	SC VI.2, SC VI.5, <del>GC-13</del>	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)
3. CO	9 ppmv at 15% O <sub>2</sub> on a dry basis	Test Protocol*	EUCTG3	SC VI.3, <del>GC-13</del>	R 336.1205(1)(a), R 336.2802(4)
4. CO	31 pph	720-hour rolling average as determined at the end of each hour that the unit operates	EUCTG3	SC VI.3, SC VI.5, <del>GC-13</del>	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(d)
5. VOC	2.8 pph	Test Protocol*	EUCTG3	SC V.1, SC VI.1	R 336.1205(1)(a), R 336.2802(4)
6. PM10	9 pph	Test Protocol*	EUCTG3	SC V.1, SC VI.1	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)

\*Test Protocol shall specify averaging time.

**II. MATERIAL LIMIT(S)**

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

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### 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 5 years. (R 336.1213(3)(b)(ii))

1. Testing to verify PM10 and VOC emission limits shall be conducted within five years of the most recent valid performance test, and thereafter every five years, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. (R 336.1213(3), R 336.2003, R 336.2004)

See Appendix 5

### VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

1. The permittee shall install calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the natural gas usage rate in EUCTG3, on an hourly and monthly basis. The heating value of the natural gas in Btu per cubic foot shall be determined on a monthly basis from samples taken from the main gas pipeline into the facility on the permittee's property. Upon request, the AQD District Supervisor may authorize a different sampling method and/or sampling schedule.<sup>2</sup> (R 336.1205(1)(a))
2. The permittee shall install calibrate, maintain and operate in a satisfactory manner a device to monitor and record the NO<sub>x</sub> (as NO<sub>2</sub>) emissions from EUCTG3 on a continuous basis. Installation and operation of the CEMS or equivalent PEMS, shall meet the timelines, requirements and reporting detailed in 40 CFR Part 60 Appendix F. If the permittee chooses to use a PEMS in lieu of a CEMS to monitor NO<sub>x</sub> emissions, the permittee shall follow the protocol delineated in the EPA September 6, 2006, approval letter for GTP3100. (R336.1213(3), 40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))
3. The permittee shall install calibrate, maintain and operate in a satisfactory manner a device to monitor and record the CO emissions from EUCTG3 on a continuous basis. Installation and operation of the CEMS shall meet the timelines, requirements and reporting detailed in 40 CFR Part 60 Appendix F. If the permittee chooses to use a PEMS in lieu of a CEMS to monitor CO emissions, the permittee shall follow the protocol as approved by the EPA.<sup>2</sup> (R336.1213(3), 40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))
4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the O<sub>2</sub> concentration of the stack gases on a continuous basis.<sup>2</sup> (R 336.1205(1)(a))
5. The permittee shall maintain the following records:<sup>2</sup> (R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d))
  - a. Hourly NO<sub>x</sub> emission rate, in pph.
  - b. Hourly CO emission rate, in pph.
  - c. 720-hour rolling average NO<sub>x</sub> emission rate in pph, based on actual hours of turbine operation.
  - d. 720-hour rolling average CO emission rate in pph, based on actual hours of turbine operation.
  - e. Monthly hours of turbine operation including startup and shutdown.
  - f. Total monthly PM10 emission rate in tons per month.
  - g. Total monthly VOC emission rate in tons per month.
6. The permittee shall verify compliance with the emission limitations for EUCTG3 by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the

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Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.7.<sup>2</sup> (R 336.1205(1)(a))

- 7. If it becomes necessary to revise, modify or update the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, the permittee shall submit the revised document to the District Supervisor for review and written approval before implementing such revisions, modifications, or updates.<sup>2</sup> (R 336.1205(1)(a))

**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. Report shall be received by 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. Report shall be received by appropriate AQD district office by March 15 for the previous calendar year. (R 336.1213(4)(c))
- 4. The permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall include test program summary, test schedule, and the quality assurance measures to be applied. (R 336.1213(3), R 336.2001(3))
- 5. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. (R 336.1213(3), R 336.2001(4))
- 6. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. (R 336.1213(3), R 336.2001(5))

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 Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVCCT3	210 <sup>2</sup>	150 <sup>2</sup>	R 336.1225 and 40 CFR 52.21(c) and (d)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

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

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**EUPARTSWASHER**  
**EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Safety Kleen Parts Washer with an air/vapor interface of less than 10 square feet. It is exempt from Rule 201 pursuant to Rule 278 and Rule 281(h), and was placed into operation after July 1, 1979.

Flexible Group IDs: NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

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

**II. MATERIAL LIMIT(S)**

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

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

1. Cleaned parts shall be drained for no less than 15 seconds or until dripping ceases. (R 336.1611(2)(b), R 336.1707(3)(b))

2. The permittee shall perform routine maintenance on each cold cleaner as recommended by the manufacturer. (R 336.1213(3))

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

1. The cold cleaner must meet one of the following design requirements:

a. The air/vapor interface of the cold cleaner is no more than ten square feet. (R 336.1281(h))

b. The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment. (R 336.1285(r)(iv))

2. The cold cleaner shall be equipped with a device for draining cleaned parts. (R 336.1611(2)(b), R 336.1707(3)(b))

3. All new and existing cold cleaners shall be equipped with a cover and the cover shall be closed whenever parts are not being handled in the cold cleaner. (R 336.1611(2)(a), R 336.1707(3)(a))

4. The cover of a new cold cleaner shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia or if the solvent is agitated or heated. (R 336.1707(3)(a))

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5. If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia; or, if any solvent used in a new cold cleaner is heated above 120 degrees Fahrenheit, then the cold cleaner must comply with at least one of the following provisions:

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

#### **V. TESTING/SAMPLING**

NA

#### **VI. MONITORING/RECORDKEEPING**

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

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

#### **VII. REPORTING**

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

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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)**

NA

**IX. OTHER REQUIREMENT(S)**

NA

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## D. FLEXIBLE GROUP CONDITIONS

Part D outlines 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
FGTURBINES	This emission group consists of the simple cycle combustion turbine, and two combined cycle turbines	EUCTG1, EUCTG2, and EUCTG3
FGNSPSK K K K K	This flexible group consists of the two combined cycle turbines which are subject to NSPS K K K K.	EUCTG2 and EUCTG3
FGBOILERS	This emission group consists of three natural gas and blast furnace gas fired boilers.	EUBOILER1, EUBOILER2, and EUBOILER3
FGBFGFLARES	This emission group consists of two blast furnace gas fired flares	EUBFGFLARE1 and EUBFGFLARE2
FGPLANT	This emission group contains three turbines, and three boilers	FGTURBINES and FGBOILERS
FGBFG	This emission group consists of any emission unit which combusts, or has the capability of combusting, blast furnace gas.	EUBOILER1, EUBOILER2, EUBOILER3, EUBFGFLARE1, and EUBFGFLARE2
FGEMERGENCYGENS	This emission group consists of two oil fired emergency electrical generators.	EU3516GEN1 and EU3516GEN2
<u>FGMACTZZZZ</u>	<u>This flexible group consists of two emergency CI RICE located at an area source of HAP that commenced construction before June 12, 2006. The CI RICE are subject to NESHAP ZZZZ.</u>	<u>EU3516GEN1 and EU3516GEN2</u>

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**FGTURBINES  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

This emission group consists of the simple cycle combustion turbine, and two combined cycle turbines

**Emission Units:** EUCTG1, EUCTG2, AND EUCTG3

**POLLUTION CONTROL EQUIPMENT**

Dry low NOx combustors.

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx as NO <sub>2</sub>	815 tpy	12-month rolling time period as determined at the end of each calendar month	FGTURBINES	SC VI.1	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)
2. CO	403 tpy	12-month rolling time period as determined at the end of each calendar month	FGTURBINES	SC VI.1	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)
3. VOC	36 tpy	12-month rolling time period as determined at the end of each calendar month	FGTURBINES	SC VI.1	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)
4. PM10	118 tpy	12-month rolling time period as determined at the end of each calendar month	FGTURBINES	SC VI.1	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)

\*Test Protocol shall specify averaging time.

**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)**

- The turbines shall not be fired with any fuel other than pipeline quality natural gas. Natural gas is defined in 40 CFR Part 72 Section 72.2.2 (R 336.1205(1)(a))

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2. The permittee shall submit to the AQD District Supervisor and maintain on file, a plan that describes how emissions will be minimized during startup and shutdown within 60 days of completion of modifications to FGTURBINES. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. If it becomes necessary to revise, modify or update the plan, the permittee shall submit the revised plan to the District Supervisor for review and written approval before implementing such revisions, modifications, or updates. Unless notified by the AQD District Supervisor within 30 business days after plan submittal, the plan shall be deemed approved. **(R 336.1205(1)(a) & (b), R 336.1911, R 336.1912)**

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

NA

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

See testing requirements for each emission unit.

See Appendix 5

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall maintain the following records for FGTURBINES<sup>2</sup> **(R 336.1205(1)(a), R 336.2802(4))**
  - a. PM10 emission rate, in tons/month, and tons per 12 month rolling time period as determined at the end of each calendar month.
  - b. CO emission rate, in tons/month, and tons per 12 month rolling time period as determined at the end of each calendar month.
  - c. VOC emission rate, in tons/month, and tons per 12 month rolling time period as determined at the end of each calendar month.
  - d. NOx (as NO<sub>2</sub>) emission rate, in tons/month, and tons per 12 month rolling time period as determined at the end of each calendar month.
2. The permittee shall verify compliance with the emission limitations for FGTURBINES by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP-MI-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.3.<sup>2</sup> **(R 336.1205(1)(a))**
3. If it becomes necessary to revise, modify or update the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP-MI-N6631-2004" dated May 31, 2011, the permittee shall submit the revised document to the District Supervisor for review and written approval before implementing such revisions, modifications, or updates.<sup>2</sup> **(R 336.1205(1)(a))**

#### **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. Report shall be received by 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. Report shall be received by appropriate AQD district office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

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

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. See tables for each emission unit	See tables for each emission unit	See tables for each emission unit	See tables for each emission unit

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall not allow the emission of an air pollutant to exceed the amount of any emission allowances that an affected source lawfully holds as of the allowance transfer deadline pursuant to Rule 299(d) and 40 CFR Part 72.9(c)(1)(i). **(R 336.1213(10))**
2. The permittee shall comply with the acid rain permitting provisions of 40 CFR 72.1 to 72.94 as outlined in a complete Phase II Acid Rain Permit issued by the AQD. The Phase II Acid Rain Permit No. MI-AR-55088-2012 is hereby incorporated into this ROP as Appendix 9. **(R 336.1299(2)(a))**
3. ~~The permittee shall comply with the provisions of the Transport Rule NO<sub>x</sub> Annual Trading Program, as specified in 40 CFR, Part 97 Subpart AAAAA, and identified in Appendix 10. (40 CFR Part 97 Subpart AAAAA) The permittee shall comply with the CAIR SO<sub>2</sub> Trading Program provisions of 40 CFR Part 97.201 through 97.288, as adopted and modified by R 336.1420, and as outlined in any complete CAIR SO<sub>2</sub> permit issued by the AQD. CAIR SO<sub>2</sub> Permit No. SO<sub>2</sub>-55088-2012 is hereby incorporated into this ROP as Appendix 10. (R 336.1420)~~
4. ~~The permittee shall comply with the provisions of the Transport Rule NO<sub>x</sub> Ozone Trading Program, as specified in 40 CFR, Part 97 Subpart BBBB, and identified in Appendix 10. (40 CFR Part 97 Subpart BBBB) The permittee shall hold allowances for compliance deductions in the source's compliance account as of the allowance transfer deadline in an amount not less than the total SO<sub>2</sub> emissions for the control period from the source pursuant to 40 CFR Part 97.254. (40 CFR Part 97.254)~~
5. ~~The permittee shall comply with the provisions of the Transport Rule SO<sub>2</sub> Group 1 Trading Program, as specified in 40 CFR, Part 97 Subpart CCCCC, and identified in Appendix 10. (40 CFR Part 97 Subpart CCCCC) The permittee shall comply with the CAIR NO<sub>x</sub> Annual Trading Program provisions of 40 CFR Part 97.101 through 97.188, as adopted and modified by R 336.1802a, R 336.1803, R 336.1821, and R 336.1830 through R 336.1834, and as outlined in any complete CAIR NO<sub>x</sub> Annual permit issued by the AQD. CAIR NO<sub>x</sub> Annual Permit No. NO<sub>x</sub>-55088-2012 is hereby incorporated into this ROP as Appendix 11. (R 336.1821)~~
6. ~~The permittee shall hold allowances for compliance deductions in the source's compliance account as of the allowance transfer deadline in an amount not less than the total NO<sub>x</sub> emissions for the control period from the source pursuant to 40 CFR Part 97.154. (40 CFR Part 97.154)~~
7. ~~The permittee shall comply with the CAIR NO<sub>x</sub> Ozone Trading Program provisions of 40 CFR Part 97.301 through 97.388, as adopted and modified by R 336.1802a, R 336.1803, and R 336.1821 through R 336.1826, and as outlined in any complete CAIR NO<sub>x</sub> Ozone permit issued by the AQD. CAIR NO<sub>x</sub> Ozone Permit No. NO<sub>x</sub>-55088-2012 is hereby incorporated into this ROP as Appendix 12. (R 336.1821)~~
8. ~~The permittee shall hold allowances for compliance deductions in the source's compliance account as of the allowance transfer deadline in an amount not less than the total NO<sub>x</sub> emissions for the control period from the source pursuant to 40 CFR Part 97.354. (40 CFR Part 97.354)~~

**Footnotes:**

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

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

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**FGNSPSK K K K K**  
**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

This flexible group consists of the two combined cycle turbines which are subject to NSPS K K K K.

**Emission Units:** EUCTG2 and EUCTG3

**POLLUTION CONTROL EQUIPMENT**

Dry Low NOx Combustors

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	42 ppm at 15 percent O <sub>2</sub> <sup>2</sup> or 290 ng/Joules of useful output (2.3 lb/MWh) <sup>2</sup>	30-day rolling average (when using a CEMS or equivalent)	EUCTG2 and EUCTG3	SC V.1, SC VI.1, SC VI.2	<b>40 CFR 60.4320(a)</b>

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Fuel	Total potential sulfur emissions less than or equal 26 ng SO <sub>2</sub> /Joules (0.060 lb SO <sub>2</sub> /MMBtu) heat input <sup>2</sup>	NA	EUCTG2 and EUCTG3	SC VI.3, SC VI.4	<b>40 CFR Part 60.4330(a)(2)</b>

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

1. The permittee shall operate and maintain the stationary combustion turbines, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.<sup>2</sup> **(40 CFR 60.4333(a))**

**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))**

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1. If the permittee does not use the continuous emissions monitoring allowance as specified in SC VI.1, then within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup, federal Standards of Performance for New Stationary Sources require verification of NO<sub>x</sub> emission rates from each turbine included in FGNSPSK~~KKK~~, by testing at owner's expense, in accordance with 40 CFR Parts 60.8 and 60.4400.<sup>2</sup> **(40 CFR 60.4400)**
  - a. The permittee shall conduct three separate test runs, at least 20 minutes each, at ambient temperatures greater than 0 °F, and at any load condition within ±25 percent of 100 percent peak load.
  - b. Testing must be conducted annually (at least every 14 calendar months).
  - c. If the stack test result is less than or equal to 75 percent of the NO<sub>x</sub> limits in SC I.1, the test plan can be changed to once every two years (at least every 26 calendar months). If subsequent test results yield NO<sub>x</sub> emissions greater than 75 percent of the NO<sub>x</sub> limit in SC I.1, annual testing must be resumed.
  - d. Subsequent stack testing is not required if the permittee shows continuous compliance with the NO<sub>x</sub> emission limits with a CEMS or equivalent PEMS pursuant to 40 CFR 60.4340(b)(ii), as specified in SC VI.1.
  - e. 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.

See Appendix 5

#### **VI. MONITORING/RECORDKEEPING**

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

1. In lieu of the stack testing required in SC V.1, the permittee may instead install, calibrate, maintain and operate one of the following continuous monitoring systems:<sup>2</sup> **(40 CFR 60.4340(b))**
  - a. Continuous emission monitoring as described in §60.4335(b) and 60.4345, or
  - b. Continuous parameter monitoring as follows:
    - (i) For a diffusion flame turbine without add-on selective catalytic reduction (SCR) controls, the permittee shall define parameters indicative of the unit's NO<sub>x</sub> formation characteristics, and monitor these parameters continuously.
    - (ii) For any lean pre-mix stationary combustion turbine, the permittee shall continuously monitor the appropriate parameters to determine whether the unit is operating in low-NO<sub>x</sub> mode.
    - (iii) For any turbine that uses SCR to reduce NO<sub>x</sub> emissions, the permittee shall continuously monitor appropriate parameters to verify the proper operation of the emission controls.
    - (iv) For affected units that are also regulated under 40 CFR Part 75, with state approval the permittee may monitor the NO<sub>x</sub> emission rate using the methodology in Appendix E to 40 CFR Part 75, or the low mass emissions methodology in §75.19, the requirements of this condition may be met by performing the parametric monitoring described in Section 2.3 of 40 CFR Part 75 Appendix E or in §75.19(c)(1)(iv)(H).
2. In lieu of the subsequent stack test requirements listed in SC V.1, the permittee may instead continuously monitor appropriate parameters to determine that each turbine is operating in low-NO<sub>x</sub> mode. The parameters must be continuously monitored and recorded during the initial performance test to establish acceptable values and ranges. The permittee must develop and keep on-site a parameter monitoring plan pursuant to 40 CFR 60.4355 (a)(1) through (6).<sup>2</sup> **(40 CFR 60.4340(b)(ii), 40 CFR 60.4355, 40 CFR 60.4410)**
3. The permittee shall monitor the sulfur content in the fuel once per turbine operating day, using the methods described in 40 CFR 60.4415, or alternate methods as described in 40 CFR 60.4360. The permittee may use a custom monitoring schedule pursuant to 40 CFR 60.4370(c) if the schedule has been approved by the EPA Administrator. Sulfur in fuel monitoring is not required if it is demonstrated that the potential sulfur emissions do not exceed 26 ng SO<sub>2</sub>/Joules (0.060 lb SO<sub>2</sub>/MMBtu) heat input. The demonstration shall include one of the following:<sup>2</sup> **(40 CFR 60.4360, 40 CFR 60.4370)**
  - a. The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content is 20 grains of sulfur per 100 standard cubic feet or less; or

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- b. Representative fuel sampling data, as specified in 40 CFR Part 75, Appendix D, Section 2.3.1.4 or 2.3.2.4, shows that the sulfur content does not exceed 26 ng SO<sub>2</sub>/Joules (0.060 lb SO<sub>2</sub>/MMBtu) heat input.
4. The permittee shall keep, in a satisfactory manner, records of the sulfur content of the fuel once each operating day for FGNSPSK KKK, as required by SC VI.3. This condition does not apply if it is demonstrated that the potential sulfur emissions do not exceed 26 ng SO<sub>2</sub>/Joules (0.060 lb SO<sub>2</sub>/MMBtu) per MMBtu heat input pursuant to 40 CFR 60.4365. The permittee shall keep all records on file and make them available to the Department upon request.<sup>2</sup> **(40 CFR 60.4370)**

## VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. If any of the turbines in FGNSPSK KKK contain a continuous parameter monitoring system to determine continuous compliance with the NO<sub>x</sub> emission limits pursuant to SC VI.2, the permittee shall submit excess emissions and monitor downtime in accordance with 40 CFR 60.7(c) and 40 CFR 60.4380(c). An excess emission is a 4-hour rolling operating hour average for each turbine in which any monitored parameter does not achieve the target value or is outside the acceptable range defined in the monitoring plan. Monitor downtime is any turbine operating hour in which any of the required parametric data are either not recorded or invalid. All reports must be postmarked by the 30<sup>th</sup> day following the end of each 6-month period.<sup>2</sup> **(40 CFR 60.4375(a), 40 CFR 60.4380(c), 40 CFR 60.4395)**
5. If the permittee is required to monitor the sulfur content in the fuel pursuant to SC VI.3 and 40 CFR 60.4360, the permittee shall submit excess emissions and monitor downtime in accordance with 40 CFR 60.7(c) and 60.4385. An excess emission is each turbine operating hour beginning on the date and hour that any sample shows an exceedance in the applicable sulfur limit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit. Monitor downtime begins when a required sample is not taken by its due date or the date and hour that invalid results are obtained. Monitor downtime ends on the date and hour of the next valid sample. All reports must be postmarked by the 30<sup>th</sup> day following the end of each 6-month period.<sup>2</sup> **(40 CFR 60.4375(a), 40 CFR 60.4385, 40 CFR 60.4395)**
6. If the permittee demonstrates compliance with stack testing under SC V.1, the permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall include test program summary, test schedule, and the quality assurance measures to be applied. **(R 336.1213(3), R 336.2001(3))**
7. If the permittee demonstrates compliance with stack testing under SC V.1, the permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.1213(3), R 336.2001(4))**
8. If the permittee demonstrates compliance with stack testing under SC V.1, the permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001(5))**

See Appendix 8

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

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subpart A and Subpart KKKK, as they apply to FGNSPSKKKK.<sup>2</sup> (40 CFR Part 60 Subparts A & KKKK)

**Footnotes:**

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

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

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**FGBOILERS  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

This emission group consists of three natural gas and blast furnace gas fired boilers.

**Emission Units:** EUBOILER1, EUBOILER2, and EUBOILER3

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM <sub>10</sub>	22.3 pph <sup>2</sup>	Monthly average	FGBOILERS	SC VI.1	R 336.1205(1)(a)
2. NO <sub>x</sub>	0.10 lb/MMBtu <sup>2</sup>	30-day rolling average	FGBOILERS	<del>GC 13,</del> SC VI.1	R 336.1205(1)(a), 40 CFR 60 Subpart Db
3. NO <sub>x</sub>	76.3 pph <sup>2</sup>	30-day rolling average	FGBOILERS	SC VI.1	R 336.1205(1)(a)
4. SO <sub>2</sub>	420 pph <sup>2</sup>	Daily average	FGBOILERS	SC VI.1	R 336.1205(1)(a),
5. SO <sub>2</sub>	1839.6 tpy <sup>2</sup>	12-month rolling time period	FGBOILERS	SC VI.1	R 336.1205(3),
6. CO	64.1 pph <sup>2</sup>	30-day rolling average	FGBOILERS	SC VI.1	R 336.1205(1)(a)
7. VOC	7.5 pph <sup>2</sup>	Monthly average	FGBOILERS	SC VI.1	R 336.1205(1)(a), R 336.1702(a)
8. VOC	84 tpy <sup>2</sup>	12-month rolling time period	FGBOILERS	SC VI.1	R 336.1205(3)

Notes:

- Items 1, 2, 3, 6 and 7 above are applicable to each boiler in FGBOILERS
- Items 4, 5, and 8 above apply to the combined total of all three boilers in FGBOILERS

**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)**

- The boilers in FGBOILERS shall not be fired with any fuel other than pipeline natural gas (NG) or a mixture of natural gas and blast furnace gas (BFG).<sup>2</sup> (R 336.1205(1)(a))

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

NA

**V. TESTING/SAMPLING**

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Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

1. Testing shall be conducted within 180 days of the issuance of this permit if an acceptable emissions test has not been conducted within 5 years prior to the issuance of the RO permit, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1213(3), R 336.2003, R 336.2004)**. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) in lieu of a stack test to monitor CO emissions, the permittee shall follow the protocol delineated in Performance Specification 16 in Appendix B of 40 CFR Part 60. **(40 CFR Part 60 Appendix B)**
2. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

See Appendix 5

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall verify compliance with the emission limitations for FGBOILERS by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP MI-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.10.<sup>2</sup> **(R 336.1205(1)(a))**
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the NO<sub>x</sub> emissions from each boiler in FGBOILERS on a continuous basis. Installation and operation of each continuous emission monitoring system (CEMS) shall meet the timelines, requirements and reporting detailed in 40 CFR Part 60 Appendix F.<sup>2</sup> **(40 CFR 60, Subparts A and Db)**. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) in lieu of a Continuous Emissions Monitor System (CEMS) to monitor NO<sub>x</sub> emissions, the permittee shall follow the protocol as approved by the Environmental Protection Agency. **(40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))**
3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the CO emissions from each boiler in FGBOILERS on a continuous basis. Installation and operation of each continuous emission monitoring system (CEMS) shall meet the timelines, requirements and reporting detailed in 40 CFR Part 60 Appendix F.<sup>2</sup> **(R336.1213(3))**. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) in lieu of a Continuous Emissions Monitoring System (CEMS) to monitor CO emissions, the permittee shall follow the protocol as approved by the Environmental Protection Agency. **(40 CFR Part 60 Appendix B)**
4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the SO<sub>2</sub> emissions from each boiler in FGBOILERS on a continuous basis. Installation and operation of each continuous emission monitoring system (CEMS) shall meet the timelines, requirements and reporting detailed in 40 CFR Part 60 Appendix F.<sup>2</sup> **(R336.1205(1)(a))**. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) in lieu of a Continuous Emissions Monitoring System (CEMS) to monitor SO<sub>2</sub> emissions, the permittee shall follow the protocol delineated in Performance Specification 16 in Appendix B of 40 CFR Part 60. **(40 CFR Part 60 Appendix B)**
5. The permittee shall compile hourly and daily sulfur dioxide emission rate calculations and make these emission rate calculations available to the AQD for inspection. **(R 336.1213(3))**
6. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the O<sub>2</sub> concentration of each stack gas on a continuous basis.<sup>2</sup> **(40 CFR 60, Subparts A and Db)**

7. The permittee shall install calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the natural gas usage rate of each boiler in FGBOILERS on a daily basis in cubic feet per day. The heating value of the natural gas in Btu per cubic foot shall be determined on a monthly basis from samples taken at a point in the pipeline to FGBOILERS on the permittee's property. Upon request, the AQD District Supervisor may authorize a different method and/or sampling schedule.<sup>2</sup> **(R 336.1205(1)(a))**
8. The permittee shall install calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the blast furnace gas usage rate of each boiler in FGBOILERS on a daily basis in cubic feet per day. The heating value of the blast furnace gas in Btu per cubic foot shall be determined on a monthly basis from samples taken at a point in the pipeline to FGBOILERS on the permittee's or the BFG supplier's property. Upon request, the AQD District Supervisor may authorize a different method and/or sampling schedule.<sup>2</sup> **(R 336.1205(1)(a))**
9. The permittee shall maintain the following records:<sup>2</sup>
  - Hourly NO<sub>x</sub> and SO<sub>2</sub> emission rates from each boiler, lb/MMBtu and lbs/hr.
  - 30-day rolling average NO<sub>x</sub> emission rates (lb/MMBtu and lb/hr) from each boiler as determined at the end of each steam generating unit operating day.
  - Total daily NO<sub>x</sub> and SO<sub>2</sub> emissions (lbs/day) at the end of each day.
  - Total monthly NO<sub>x</sub> and SO<sub>2</sub> emissions (lbs) at the end of each calendar month.
  - Annual NO<sub>x</sub> and SO<sub>2</sub> emission rate (tons/year), based on a 12-month rolling time period as determined at the end of each calendar month.
  - Hours each boiler operated on natural gas only on a monthly basis.
  - Hours each boiler operated on a mixture of natural gas and blast furnace gas on a monthly basis.
  - Caloric value of natural gas (Btu/cubic foot) on a monthly basis.
  - Caloric value of blast furnace gas (Btu/cubic foot) on a monthly basis.
  - Amount of natural gas consumed in each boiler in cubic feet on a monthly basis.
  - Amount of blast furnace gas consumed in each boiler in cubic feet on a monthly basis.
  - Calculated PM<sub>10</sub> emission rate, lbs/hour, based upon a monthly averaging period.
  - Calculated CO emission rate, lbs/hour, based upon a monthly averaging period.
  - Calculated VOC emission rate, lbs/hour, based upon a monthly averaging period.
  - Calculated PM10 emission rate, tons/year, based upon a 12-month rolling time period, as determined at the end of each month.
  - Calculated CO emission rate, tons/year, based upon a 12-month rolling time period, as determined at the end of each month.
  - Calculated VOC emission rate, tons/year, based upon a 12-month rolling time period, as determined at the end of each month.**(40 CFR 60 Subparts A and Db, R 336.1205(1)(a))**
10. If it becomes necessary to revise, modify or update the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP MI-N6631-2004" dated May 31, 2011, the permittee shall re-submit the document to the District Supervisor for review and written approval before implementing such revisions, modifications, or updates.<sup>2</sup> **(R 336.1205(1)(a))**

See Appendices 3 and 4

## 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. Report shall be received by 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. Report shall be received by appropriate AQD district office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

ROP in "Track Changes"

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- All source emissions data and operating data required to be submitted under 40 CFR Part 60, Subparts A and Db shall be submitted to the District Supervisor in an acceptable format within 30 days following the end of the calendar quarter in which the data were collected.<sup>2</sup> **(40 CFR Part 60, Subparts A and Db)**

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 Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBOILER1	126 <sup>2</sup>	185 <sup>2</sup>	R 336.1225 and 40 CFR 52.21(c) and (d)
2. SVBOILER2	126 <sup>2</sup>	185 <sup>2</sup>	R 336.1225 and 40 CFR 52.21(c) and (d)
3. SVBOILER3	126 <sup>2</sup>	185 <sup>2</sup>	R 336.1225 and 40 CFR 52.21(c) and (d)

**IX. OTHER REQUIREMENT(S)**

- ~~The permittee shall comply with the provisions of the Transport Rule NO<sub>x</sub> Annual Trading Program, as specified in 40 CFR, Part 97 Subpart AAAAA, and identified in Appendix 10. (40 CFR Part 97 Subpart AAAAA) The permittee shall comply with the CAIR SO<sub>2</sub> Trading Program provisions of 40 CFR Part 97.201 through 97.288, as adopted and modified by R 336.1420, and as outlined in any complete CAIR SO<sub>2</sub> permit issued by the AQD. CAIR SO<sub>2</sub> Permit No. SO<sub>2</sub>-55088-2012 is hereby incorporated into this ROP as Appendix 10. (R 336.1420)~~
- ~~The permittee shall comply with the provisions of the Transport Rule NO<sub>x</sub> Ozone Trading Program, as specified in 40 CFR, Part 97 Subpart BBBBB, and identified in Appendix 10. (40 CFR Part 97 Subpart BBBBB) The permittee shall hold allowances for compliance deductions in the source's compliance account as of the allowance transfer deadline in an amount not less than the total SO<sub>2</sub> emissions for the control period from the source pursuant to 40 CFR Part 97.254. (40 CFR Part 97.254)~~
- ~~The permittee shall comply with the provisions of the Transport Rule SO<sub>2</sub> Group 1 Trading Program, as specified in 40 CFR, Part 97 Subpart CCCCC, and identified in Appendix 10. (40 CFR Part 97 Subpart CCCCC) The permittee shall comply with the CAIR NO<sub>x</sub> Annual Trading Program provisions of 40 CFR Part 97.101 through 97.188, as adopted and modified by R 336.1802a, R 336.1803, R 336.1821, and R 336.1830 through R 336.1834, and as outlined in any complete CAIR NO<sub>x</sub> Annual permit issued by the AQD. CAIR NO<sub>x</sub> Annual Permit No. NOO-55088-2012 is hereby incorporated into this ROP as Appendix 11. (R 336.1821)~~
- ~~The permittee shall hold allowances for compliance deductions in the source's compliance account as of the allowance transfer deadline in an amount not less than the total NO<sub>x</sub> emissions for the control period from the source pursuant to 40 CFR Part 97.154. (40 CFR Part 97.154)~~
- ~~The permittee shall comply with the CAIR NO<sub>x</sub> Ozone Trading Program provisions of 40 CFR Part 97.301 through 97.388, as adopted and modified by R 336.1802a, R 336.1803, and R 336.1821 through R 336.1826, and as outlined in any complete CAIR NO<sub>x</sub> Ozone permit issued by the AQD. CAIR NO<sub>x</sub> Ozone Permit No. NOO-55088-2012 is hereby incorporated into this ROP as Appendix 12. (R 336.1821)~~
- ~~The permittee shall hold allowances for compliance deductions in the source's compliance account as of the allowance transfer deadline in an amount not less than the total NO<sub>x</sub> emissions for the control period from the source pursuant to 40 CFR Part 97.354. (40 CFR Part 97.354)~~

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**Footnotes:**

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

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

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## FGBFGFLARES FLEXIBLE GROUP CONDITIONS

### DESCRIPTION

This emission group consists of two blast furnace gas fired flares.

Emission Units: EUBFGFLARE1, EUBFGFLARE2

### POLLUTION CONTROL EQUIPMENT

#### I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. CO	301.2 pph <sup>2</sup>	Monthly average	FGBFGFLARES	SC VI.2, SC VI.4	R 336.1205(1(a))
2. NOx	96.6 pph <sup>2</sup>	Monthly average	FGBFGFLARES	SC VI.2, SC VI.4	R 336.1205(1(a))
3. PM	7.4 pph <sup>2</sup>	Monthly average	FGBFGFLARES	SC VI.2, SC VI.4	R 336.1205(1(a))

#### II. MATERIAL LIMIT(S)

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

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

NA

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

- Both flares in FGBFGFLARES shall be equipped with automatic ignition systems consisting of a thermocouple, or other device approved by the Department. The automatic ignition systems for the flares in FGBFGFLARES shall be operated and maintained such that the blast furnace gas is continuously combusted whenever blast furnace gas is sent to the blast furnace gas flare.<sup>2</sup> (R 336.1910)

#### V. TESTING/SAMPLING

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

NA

See Appendix 5

#### VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

- The permittee shall install calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the blast furnace gas usage rate of each flare in FGBFGFLARES on a daily basis in cubic feet per day. The heating value of the blast furnace gas in Btu per cubic foot shall be determined on a monthly basis from samples taken at a point in the pipeline to FGBFGFLARES on the permittee's or the BFG supplier's property. Upon request, the AQD District Supervisor may authorize a different method and/or sampling schedule.<sup>2</sup> (R 336.1205(1)(a))

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2. The permittee shall verify compliance with the emission limitations for FGBFGFLARES by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP MI-ROP-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.5.<sup>2</sup> (R 336.1205(1)(a))
3. The permittee shall keep monthly records for each blast furnace gas flare included in FGBFGFLARES of the amount of blast furnace gas consumed in million cubic feet.<sup>2</sup> (R 336.1205(1)(a))
4. The permittee shall keep records for each blast furnace gas flare included in FGBFGFLARES of the monthly average NO<sub>x</sub>, CO and PM emission calculations consistent with the calculation methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP MI-ROP-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.5. All records are for the purpose of compliance demonstration and shall be kept on file for a period of at least five years and made available to the Department upon request.<sup>2</sup> (R 336.1205(1)(a))
5. If it becomes necessary to revise, modify or update the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP MI-ROP-N6631-2004" dated May 31, 2011, the permittee shall re-submit the document to the District Supervisor for review and written approval before implementing such revisions, modifications, or updates.<sup>2</sup> (R 336.1205(1)(a))

See Appendices 3 and 4

**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. Report shall be received by 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. Report shall be received by 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:**

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

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

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**FGBFG  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

This emission group consists of any emission unit which combusts, or has the capability of combusting, blast furnace gas.

**Emission Units:** EUBFGFLARE1, EUBFGFLARE2, EUBOILER1, EUBOILER2, and EUBOILER3

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	1087.1 tpy <sup>2</sup>	12-month rolling time period	FGBFG	SC VI.1, SC VI.2	R 336.1205(1)(a)
2. CO	1798 tpy <sup>2</sup>	12-month rolling time period	FGBFG	SC VI.1, SC VI.2	R 336.1205(1)(a)
3. PM	237.1 tpy <sup>2</sup>	12-month rolling time period	FGBFG	SC VI.1, SC VI.2	R 336.1205(1)(a)
4. SO2	673 pph <sup>2,*</sup>	Daily average	FGBFG	SC VI.1, SC VI.2	R 336.1205(1)(a), 40 CFR 52.21 (c) and (d)
5. SO2	2947.7 tpy <sup>2</sup>	12-month rolling time period	FGBFG	SC VI.1, SC VI.2	R 336.1205(1)(a)

NOTE:  
\* Does not apply during periods of startup, shutdown and malfunction(s).

**II. MATERIAL LIMIT(S)**

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

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

NA

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

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

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1. The permittee shall verify compliance with the emission limitations for FGBFG by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP MI-ROP-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.3.<sup>2</sup> **(R 336.1205(1)(a))**
2. The permittee shall maintain the following records<sup>2</sup>
  - Calculated PM emission rate, tons/year, based upon a 12-month rolling time period, as determined at the end of each month.
  - Calculated CO emission rate, tons/year, based upon a 12-month rolling time period, as determined at the end of each month.
  - Calculated NO<sub>x</sub> emission rate, tons/year, based upon a 12-month rolling time period, as determined at the end of each month.
  - Calculated SO<sub>2</sub> emission rate, tons/year, based upon a 12-month rolling time period, as determined at the end of each month.
  - Calculated SO<sub>2</sub> emission rate, lbs/hour, based upon a daily averaging period.  
**(R 336.1205(1)(a))**
3. If it becomes necessary to revise, modify or update the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP MI-ROP-N6631-2004" dated May 31, 2011, the permittee shall re-submit the document to the District Supervisor for review and written approval before implementing such revisions modifications, or updates.<sup>2</sup> **(R 336.1205(1)(a))**

See Appendices 3 and 4

**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. Report shall be received by 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. Report shall be received by 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
See tables for each emission unit	See tables for each emission unit	See tables for each emission unit	See tables for each emission unit

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

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

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**FGEMERGENCYGENS  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Two Caterpillar model 3516 reciprocating engine emergency generators. Each generator is rated at 1.7 megawatts generating capacity and 14.8 MMBtu/hour heat input.

**Emission Units:** EU3516GEN1 and EU3516GEN2

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
<del>1. NOx</del>	<del>0.0369 pounds per kW-Hr (each generator)<sup>2</sup></del>	<del>Test Protocol</del>	<del>FGEMERGENCYGENS</del>	<del>GC 13</del>	<del>R 336.1201(3)</del>
2. NOx	63.1 pounds per hour (each generator) <sup>2</sup>	Hourly	FGEMERGENCYGENS	SC VI.2	R 336.1201(3)
<del>3. CO</del>	<del>0.009 pounds per kW-Hr (each generator)<sup>2</sup></del>	<del>Test Protocol</del>	<del>FGEMERGENCYGENS</del>	<del>GC 13</del>	<del>R 336.1201(3)</del>
4. CO	15.3 pounds per hour (each generator) <sup>2</sup>	Hourly	FGEMERGENCYGENS	SC VI.3	R 336.1201(3)
<del>5. SO2</del>	<del>120 parts per million by volume at 50% excess air (each generator)</del>	<del>As determined averaged over a three-hour time period otherwise determined by the testing protocol agreed upon by AQD</del>	<del>FGEMERGENCYGENS</del>	<del>GC 13</del>	<del>R 336.1401(1)</del>

**Commented [MM3]:** Propose to remove this limit with corresponding GC 13 condition. Also, this limit is an emission factor to calculate the NOx lb/hr limit, so it doesn't appear to be necessary.

**Commented [MM4]:** Propose to remove this limit with corresponding GC 13 condition. Also, this limit is an emission factor to calculate the CO lb/hr limit, so it doesn't appear to be necessary.

**Commented [MM5]:** Propose to remove this limit with corresponding GC 13 condition. It is assumed that the sulfur material limit in SC II.1 is sufficient and can be used as a surrogate for this SO2 limit.

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**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Fuel sulfur content	0.05% by weight (each generator) <sup>2</sup>	Instantaneous	FGEMERGENCYGENS	SC VI.4	R 336.1201(3)

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

1. The permittee shall not operate FGEMERGENCYGENS for more than 1,000 generator-hours per year. Generator-hour is defined as the sum of the total hours each generator operates during a calendar year including startup and shutdown.<sup>2</sup> (R 336.1201(3))

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

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

NA

See Appendix 5

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

1. The permittee shall monitor and record the daily electrical output (KW-hr) and hours of operation of each emission unit during each calendar day in which the emission unit(s) operated.<sup>2</sup> (R 336.1201(3))
2. The permittee shall calculate and record the daily NO<sub>x</sub> emissions (lbs) by multiplying the daily electrical output (kW-hr) of each emission unit by the maximum emission ~~limit factor of {0.0369 lb/kW-hr} specified in special condition 1.1~~ for each calendar day in which the emission unit(s) operated. The permittee shall calculate the hourly NO<sub>x</sub> emission rate (lbs/hr) for each emission unit by dividing the associated total daily NO<sub>x</sub> emissions (lbs) by the hours of operation.<sup>2</sup> (R 336.1205(1)(a) and R 336.1205(3))
3. The permittee shall calculate and record the daily CO emissions (lbs) by multiplying the daily electrical output (kW-hr) of each emission unit by the maximum emission ~~limit factor of {0.009 lb/kW-hr} specified in special condition 1.3~~ for each calendar in which the emission unit(s) operated. The permittee shall calculate the hourly CO emission rate (lbs/hr) for each emission unit by dividing the associated total daily CO emissions (lbs) by the hours of operation.<sup>2</sup> (R 336.1205(1)(a) and R 336.1205(3))
4. The permittee shall keep a complete record of fuel oil specifications or fuel oil analysis, indicating the sulfur content, for each delivery of fuel oil.<sup>2</sup> (R 336.201(3))

See Appendices 3 and 4

**VII. REPORTING**

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

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2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. Report shall be received by 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. Report shall be received by 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 Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV351601	14 <sup>2</sup>	23.4 <sup>2</sup>	R 336.1201(3), 40 CFR paragraphs (c) and (d), R 336.1224, R 336.1225
2. SV351602	14 <sup>2</sup>	23.4 <sup>2</sup>	R 336.1201(3), 40 CFR paragraphs (c) and (d), R 336.1224, R 336.1225

### IX. OTHER REQUIREMENT(S)

1. The permittee shall maintain and operate FGEMERGENCYGENS according to the procedures outlined in the preventative maintenance plan recommended by the generator manufacturer.<sup>2</sup> (R 336.1213(3))

#### Footnotes:

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

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

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**FGMACTZZZZ**  
**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

This flexible group consists of two emergency CI RICE located at an area source of HAP that commenced construction before June 12, 2006. The CI RICE are subject to NESHAP ZZZZ.

Emission Units: EU3516GEN1 and EU3516GEN2

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

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

**II. MATERIAL LIMIT(S)**

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

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

1. The permittee shall change oil and filter every 500 hours of operation or annually, whichever comes first. The permittee has the option to utilize an oil analysis program as described in 40 CFR 63.6625(i). (40 CFR 63.6603, 40 CFR Part 63, Subpart ZZZZ, Table 2d.4)
2. The permittee shall inspect air cleaners every 1,000 hours of operation or annually, whichever comes first. (40 CFR 63.6603, 40 CFR Part 63, Subpart ZZZZ, Table 2d.4)
3. The permittee shall inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. (40 CFR 63.6603, 40 CFR Part 63, Subpart ZZZZ, Table 2d.4)
4. If an 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 SC III.1 – 3, 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. (40 CFR 63.6603, 40 CFR Part 63, Subpart ZZZZ, Table 2d.4)
5. If the permittee operates EU3516GEN1 and EU3516GEN2 according to SC III.10.b.ii & iii and SC III.10.c.i, then the permittee shall use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel

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fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted. (40 CFR 63.6604(b))

6. The permittee shall at all times be in compliance with the applicable requirements in 40 CFR Part 63, Subpart ZZZZ and operate and maintain EU3516GEN1 and EU3516GEN2 in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by 40 CFR Part 63, Subpart ZZZZ have been achieved (if applicable). Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. (40 CFR 63.6605)
7. The permittee shall operate and maintain EU3516GEN1 and EU3516GEN2 according to the manufacturer's emission-related written instructions, or develop a maintenance plan which must provide to the extent practicable 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))
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 and safe loading of the engine, not to exceed 30 minutes. (40 CFR 63.6625(h))
9. The permittee may utilize an oil analysis program in order to extend the specified oil change requirement. The oil analysis must be performed at the same frequency as oil changes are required. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee must change the oil within 2 business 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 must change the oil within 2 business days or before commencing operation, whichever is later. (40 CFR 63.6625(i))
10. Any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in SC III.10.a - c, is prohibited. (40 CFR 63.6640(f))
  - a. There is no time limit on the use of EU3516GEN1 and EU3516GEN2 in emergency situations.
  - b. EU3516GEN1 and EU3516GEN2 may each be operated for any combination of the purposes specified below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by SC III.10.c below counts as part of the 100 hours per calendar year.
    - i. EU3516GEN1 and EU3516GEN2 may each be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
    - ii. EU3516GEN1 and EU3516GEN2 may each be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the

- Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
- iii. EU3516GEN1 and EU3516GEN2 may each be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- c. EU3516GEN1 and EU3516GEN2 may each be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response. Except as provided in SC III.10.c.i below, the 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 an electric grid or otherwise supply power as part of a financial arrangement with another entity
- i. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
1. The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
  2. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
  3. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
  4. The power is provided only to the facility itself or to support the local transmission and distribution system.
  5. The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the permittee.

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

1. The permittee must install a non-resettable hour meter on EU3516GEN1 and EU3516GEN2 to track the number of hours the engines operate. (40 CFR 63.6625(f))

#### **V. TESTING/SAMPLING**

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

NA

#### **VI. MONITORING/RECORDKEEPING**

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

1. If the permittee utilizes an oil analysis program as described in SC III.9, the permittee must 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))
2. The permittee shall keep a copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirement in §63.10(b)(2)(xiv). (40 CFR 63.6655(a)(1))
3. The permittee shall keep records of the occurrence and duration of each malfunction of operation of EU3516GEN1 and EU3516GEN2. (40 CFR 63.6655(a)(2))

4. The permittee shall keep records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore EU3516GEN1 and EU3516GEN2 to their normal or usual manner of operation. (40 CFR 63.6655(a)(5))
5. The permittee shall keep in a satisfactory manner, records to demonstrate continuous compliance with operating limitations in SC III.7. (40 CFR 63.6655(d))
6. The permittee shall keep records of the maintenance conducted on EU3516GEN1 and EU3516GEN2 in order to demonstrate that the permittee operated and maintained the engines according to the maintenance plan. (40 CFR 63.6655(e))
7. If the permittee shall keep records of the hours of operation of EU3516GEN1 and EU3516GEN2 that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for the purposes specified in SC III.10.b.ii & iii or SC III.10.c.i, the permittee shall keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. (40 CFR 63.6655(f))

## VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
4. If the permittee operates EU3516GEN1 and EU3516GEN2 according to SC III.4, then the permittee shall report any failure to perform the management practice and the federal, state or local law under which the risk was deemed unacceptable. (40 CFR 63.6603, 40 CFR Part 63, Subpart ZZZZ, Table 2d.4)
5. If the permittee operates EU3516GEN1 and EU3516GEN2 according to SC III.10.b.ii & iii and SC III.10.c.i, then the permittee shall submit an annual report according to the following:
  - a. The report must contain the following information:
    - i. Company name and address where the engine is located.
    - ii. Date of the report and beginning and ending dates of the reporting period.
    - iii. Engine site rating and model year.
    - iv. Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
    - v. Hours operated for the purposes specified in SC III.10.b.ii & iii, including the date, start time, and end time for engine operation for the purposes specified in SC III.10.b.ii & iii.
    - vi. Number of hours the engine is contractually obligated to be available for the purposes specified in SC III.10.b.ii & iii.
    - vii. Hours spent for operation for the purpose specified in SC III.10.c.i, including the date, start time, and end time for engine operation for the purposes specified in SC III.10.c.i. The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.
    - viii. If there were no deviations from the fuel requirements in SC III.5, a statement that there were no deviations from the fuel requirements during the reporting period.

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- ix. If there were deviations from the fuel requirements in SC III.5, information on the number, duration, and cause of deviations, and the corrective action taken.
- b. The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.
- c. The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §63.13.

See Appendix 8

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

NA

#### IX. OTHER REQUIREMENT(S)

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

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## E. NON-APPLICABLE REQUIREMENTS

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

## APPENDICES

### Appendix 1. Abbreviations & 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
gr	Grains	psig	Pounds per square inch gauge
HAP	Hazardous Air Pollutant	PeTE	Permanent Total Enclosure
Hg	Mercury	PTI	Permit to Install
hr	Hour	RACT	Reasonable Available Control Technology
HP	Horsepower	ROP	Renewable Operating Permit
H <sub>2</sub> S	Hydrogen Sulfide	SC	Special Condition
HVLP	High Volume Low Pressure *	scf	Standard cubic feet
ID	Identification (Number)	sec	Seconds
IRSL	Initial Risk Screening Level	SCR	Selective Catalytic Reduction
ITSL	Initial Threshold Screening Level	SO <sub>2</sub>	Sulfur Dioxide
LAER	Lowest Achievable Emission Rate	SRN	State Registration Number
lb	Pound	TAC	Toxic Air Contaminant
m	Meter	Temp	Temperature
MACT	Maximum Achievable Control Technology	THC	Total Hydrocarbons
MAERS	Michigan Air Emissions Reporting System	tpy	Tons per year
MAP	Malfunction Abatement Plan	µg	Microgram
MDEQ	Michigan Department of Environmental Quality	VE	Visible Emissions
mg	Milligram	VOC	Volatile Organic Compounds
mm	Millimeter	yr	Year

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

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## Appendix 2. Schedule of Compliance

Commented [MM6]: Consent Order AQD No. 31-2003 for FGBOILERS has been closed and is no longer applicable. The Schedule of Compliance is no longer necessary.

~~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))~~

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

~~The permittee shall adhere to this schedule of compliance and submit the required certified progress reports accordingly.~~

### Compliance Plan

~~The permittee outlined the details of achieving compliance in a narrative compliance plan. The details of the compliance plan are outlined below.~~

### Schedule of Compliance

~~The following schedule of compliance conforms with the provisions of Rule 119(a) and Rule 213(4).~~

~~The permittee shall continue to comply with the requirements set forth in Consent Order AQD No. 31-2003 and as specified in FGBOILERS, Parts I and V.~~

### Progress Reports

~~The permittee shall submit certified Progress Reports to the appropriate District Supervisor of the AQD using the MDEQ Report Certification form (EQP 5736). Alternative formats must meet the provisions of Rule 213(4)(e) and Rule 213(3)(e)(i), respectively, and be approved by the AQD District Supervisor. (R 336.1213(4)(b))~~

~~Progress reports shall contain the following information:~~

~~The projected dates for achieving scheduled activities, milestones or compliance as required in the schedule of compliance. (R 336.1213(4)(b)(i))~~

~~The actual dates that the activities, milestones, or compliance are achieved. (R 336.1213(4)(b)(i))~~

~~An explanation of why any dates in the schedule of compliance were not or will not be met. (R 336.1213(4)(b)(ii))~~

~~A description of any preventative or corrective measures adopted in order to ensure that the schedule of compliance is met. (R 336.1213(4)(b)(iii))~~

## Appendix 3. Monitoring Requirements

Monitoring procedures, methods, and/or specifications for showing compliance with all of the emission limits contained in this permit are contained in the Continuous Compliance Plan which was submitted under permit 253-02. This document is entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP No. MI-ROP-N6631-2004" dated May 31, 2011.

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#### Appendix 4. Recordkeeping

Recordkeeping parameters, frequency of recordkeeping, and recordkeeping methodologies are contained in the Continuous Compliance Plan entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP No. MI-ROP-N6631-2004," dated May 31, 2011.

#### 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 since the effective date of previously issued ROP No. MI-ROP-~~N6631N6631~~-2004: **This includes any PTI that were incorporated into the Source-wide PTI No MI-PTI-~~N6631N6631~~-2004 through amendments or modifications and any PTI that remained off-permit until this ROP renewal.**

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

The following ROP amendments or modifications were issued after the effective date of ROP No. MI-ROP-N6631-2012.

Permit to Install Number	ROP Revision Application Number/Issuance Date	Description of Change	Corresponding Emission Unit(s) or Flexible Group(s)
72-15	201600065/June 28, 2016	Incorporate PTI 72-15, which upgrades three existing natural gas fired combustion turbines, (EUCTG1, EUCTG2, and EUCTG3). Included are upgrades to both hardware and software of the turbines, which will improve performance of EUCTG2 and EUCTG3 in terms of capacity, heat rate, and maintenance schedule. The upgrades will improve performance of EUCTG1 in terms of heat rate and capacity during warm weather conditions only (i.e., heat rate and capacity will not exceed maximum during cold weather). These modifications also triggered the applicability of NSPS KKKK for the combustion turbines EUCTG2 and EUCTG3 due to the increase in the hourly emission rate and hardware upgrades. EUCTG1 is a simple cycle combustion turbine used as a peaking unit. EUCTG2 and EUCTG3 are combined cycle combustion turbines that operate as base load units.	EUCTG1 EUCTG2 EUCTG3 FGTURBINES FGNSPSK KKKK

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## Appendix 7. Emission Calculations

Procedures and methodology for showing compliance with the emission limits contained in this permit are contained in the Continuous Compliance Plan entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of Permit No. 253-02" dated February 18, 2003.

## Appendix 8. Reporting

### A. Annual, Semi-annual, and Deviation Certification Reporting

The permittee shall use the MDEQ Report Certification form (EQP 5736) and MDEQ Deviation Report form (EQP 5737) for the annual, semi-annual and deviation certification reporting referenced in the Reporting section of the source-wide, emission unit and/or flexible group special conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

### B. Other Reporting

The permittee shall use the following approved formats and procedures for the reporting requirements referenced in Part A or the appropriate source-wide, emission unit and/or flexible group special conditions, Therefore, Part B of this appendix is not applicable.

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## Appendix 9. Acid Rain Permit

Commented [MM7]: See Acid Rain Permit renewal application in Appendix C of the ROP renewal application package.



Michigan Department Of Environmental Quality  
Air Quality Division

### PHASE II ACID RAIN PERMIT Permit No. MI-AR-55088-2012

Permittee	Dearborn Industrial Generation
Address	2400 Miller Rd., Dearborn, MI
SRN	N6631
ORIS code	55088
Issue Date	March 28, 2012
Effective:	Issuance date of this facility's Renewable Operating Permit at the facility in accordance with 40 CFR 72.73.
Expiration	This permit shall expire when the facility's Renewable Operating Permit expires, in accordance with 40 CFR 72.73.
ROP No.	MI-ROP-N6631-2012

#### The Acid Rain Permit Contents

1. A statement of basis prepared by the Air Quality Division (AQD) containing:  
References to statutory and regulatory authorities, and with comments, notes, and justification that apply to the source in general;
2. Terms and conditions including:  
A table of sulfur dioxide allowances to be allocated during the term of the permit, if applicable, authorized by this permit during Phase II. Unless they are subject to sections 405(g)(2) or (3) of the Clean Air Act, new units are not allocated allowances in 40 CFR part 73 and must obtain allowances by other means (sec. 403(e) of the Clean Air Act).;  
Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements; and,  
Any applicable nitrogen oxides compliance plan. Unless they are coal fired utility units regulated pursuant to sections 404, 405, or 409 of the Clean Air Act, new units are not subject to the acid rain nitrogen oxides requirements [40 CFR 76.1(a)].
3. The permit application that this source submitted, as corrected by the AQD. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the application.

## **Statement of Basis**

### **Statutory and Regulatory Authorities**

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

For further information contact:

Brian Carley  
Environmental Quality Specialist  
Michigan Department of Environmental Quality  
Air Quality Division  
301 Louis Glick Highway  
Jackson, Michigan 49201  
Telephone: (517) 780-7843  
Facsimile: (517) 780-7437

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

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**Terms and Conditions:**

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

		2011	2012	2013	2014	2015
Unit EUCTG 1	SO <sub>2</sub> allowances	This affected unit shall hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under § 73.34(c) of this chapter) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and comply with the applicable Acid Rain emissions limitation for sulfur dioxide in accordance with 40 CFR 72.9 (c).				

		2011	2012	2013	2014	2015
Unit EUCTG 2	SO <sub>2</sub> allowances	This affected unit shall hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under § 73.34(c) of this chapter) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and comply with the applicable Acid Rain emissions limitation for sulfur dioxide in accordance with 40 CFR 72.9 (c).				

		2011	2012	2013	2014	2015
Unit EUCTG 3	SO <sub>2</sub> allowances	This affected unit shall hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under § 73.34(c) of this chapter) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and comply with the applicable Acid Rain emissions limitation for sulfur dioxide in accordance with 40 CFR 72.9 (c).				

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

**Permit Application:** (attached)

*Acid Rain Permit Application submitted February 25, 2011*



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### **Permit Requirements**

#### **STEP 3**

Read the standard requirements.

- (1) The designated representative of each affected source and each affected unit at the source shall:
- (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
  - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each affected source and each affected unit at the source shall:
- (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
  - (ii) Have an Acid Rain Permit.

### **Monitoring Requirements**

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

### **Sulfur Dioxide Requirements**

- (1) The owners and operators of each source and each affected unit at the source shall:
- (i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and
  - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
- (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
  - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).

### **Sulfur Dioxide Requirements, Cont'd.**

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- STEP 3, Cont'd.
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
  - (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
  - (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
  - (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

**Nitrogen Oxides Requirements**

The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

**Excess Emissions Requirements**

- (1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an affected source that has excess emissions in any calendar year shall:
  - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
  - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

**Recordkeeping and Reporting Requirements**

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
  - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;

**Recordkeeping and Reporting Requirements, Cont'd.**

- STEP 3, Cont'd.
- (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
  - (iii) Copies of all reports, compliance certifications, and other submissions

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and all records made or required under the Acid Rain Program; and,  
(iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.  
(2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

#### **Liability**

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.  
(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.  
(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.  
(4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.  
(5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.  
(6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.  
(7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

#### **Effect on Other Authorities**

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

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

#### **Effect on Other Authorities, Cont'd.**

to applicable National Ambient Air Quality Standards or State Implementation Plans;

(2) Limiting the number of allowances a source can hold; *provided*, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;  
(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements

STEP 3, Cont'd.

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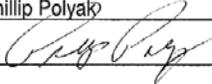
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under such State law;  
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,  
(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

**Certification**

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

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Phillip Polyak	
Signature 	Date Feb 22, 2011

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

**Description of TR Monitoring Program**

The TR subject unit(s), and the unit-specific monitoring provisions at this source, are identified in the following table(s). These unit(s) are subject to the requirements for the TR NO<sub>x</sub> Annual Trading Program, TR NO<sub>x</sub> Ozone Season Trading Program, and the TR SO<sub>2</sub> 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 SO<sub>2</sub> monitoring) and 40 CFR part 75, subpart H (for NO<sub>x</sub> 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

<u>Unit ID: EUCTG1</u>	
<u>Parameter</u>	<u>Monitoring Methodology</u>
<u>SO<sub>2</sub></u>	<u>Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D</u>
<u>NO<sub>x</sub></u>	<u>EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E</u>
<u>Heat Input</u>	<u>Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D</u>

<u>Unit ID: EUCTG2</u>	
<u>Parameter</u>	<u>Monitoring Methodology</u>
<u>SO<sub>2</sub></u>	<u>Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D</u>
<u>NO<sub>x</sub></u>	<u>EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E</u>
<u>Heat Input</u>	<u>Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D</u>

<u>Unit ID: EUCTG3</u>	
<u>Parameter</u>	<u>Monitoring Methodology</u>
<u>SO<sub>2</sub></u>	<u>Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D</u>
<u>NO<sub>x</sub></u>	<u>EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E</u>
<u>Heat Input</u>	<u>Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D</u>

<u>Unit ID: EUBOILER1</u>	
<u>Parameter</u>	<u>Monitoring Methodology</u>
<u>SO<sub>2</sub></u>	<u>EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75,</u>

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	<u>subpart E</u>
<u>NOx</u>	<u>EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E</u>
<u>Heat Input</u>	<u>Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D</u>

<u>Unit ID: EUBOILER2</u>	
<u>Parameter</u>	<u>Monitoring Methodology</u>
<u>SO<sub>2</sub></u>	<u>EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E</u>
<u>NOx</u>	<u>EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E</u>
<u>Heat Input</u>	<u>Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D</u>

<u>Unit ID: EUBOILER3</u>	
<u>Parameter</u>	<u>Monitoring Methodology</u>
<u>SO<sub>2</sub></u>	<u>EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E</u>
<u>NOx</u>	<u>EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E</u>
<u>Heat Input</u>	<u>Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D</u>

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<sub>x</sub> Annual Trading Program), 97.530 through 97.535 (TR NO<sub>x</sub> Ozone Season Trading Program), and 97.630 through 97.635 (TR SO<sub>2</sub> Group 1 Trading Program). The monitoring, recordkeeping and reporting requirements applicable to each unit are included below in the standard conditions for the applicable TR trading programs.

2. Owners and operators must submit to the Administrator a monitoring plan for each unit in accordance with 40 CFR 75.53, 75.62 and 75.73, as applicable. The monitoring plan for each unit is available at the EPA's website at <http://www.epa.gov/airmarkets/emissions/monitoringplans.html>.

3. Owners and operators that want to use an alternative monitoring system must submit to the Administrator a petition requesting approval of the alternative monitoring system in accordance with 40 CFR part 75, subpart E and 40 CFR 75.66 and 97.435 (TR NO<sub>x</sub> Annual Trading Program), 97.535 (TR NO<sub>x</sub> Ozone Season Trading Program), and/or 97.635 (TR SO<sub>2</sub> 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<sub>x</sub> Annual Trading Program), 97.530 through 97.534 (TR NO<sub>x</sub> Ozone Season Trading Program), and/or 97.630 through 97.634 (TR SO<sub>2</sub> Group 1 Trading Program) must submit to the Administrator a petition requesting approval of the alternative in accordance with 40 CFR 75.66 and 97.435 (TR NO<sub>x</sub> Annual Trading Program), 97.535 (TR NO<sub>x</sub> Ozone Season Trading Program), and/or 97.635 (TR SO<sub>2</sub> 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<sub>x</sub> Annual Trading Program), 97.530 through 97.534 (TR NO<sub>x</sub> Ozone Season Trading Program), and 97.630 through 97.634 (TR SO<sub>2</sub> Group 1 Trading Program), and therefore minor permit

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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<sub>x</sub> 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<sub>x</sub> Annual source and each TR NO<sub>x</sub> 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<sub>x</sub> Annual allowances under 40 CFR 97.411(a)(2) and (b) and 97.412 and to determine compliance with the TR NO<sub>x</sub> 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<sub>x</sub> emissions requirements.**

**(1) TR NO<sub>x</sub> 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<sub>x</sub> Annual source and each TR NO<sub>x</sub> Annual unit at the source shall hold, in the source's compliance account, TR NO<sub>x</sub> 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<sub>x</sub> emissions for such control period from all TR NO<sub>x</sub> Annual units at the source.

(ii). If total NO<sub>x</sub> emissions during a control period in a given year from the TR NO<sub>x</sub> Annual units at a TR NO<sub>x</sub> Annual source are in excess of the TR NO<sub>x</sub> Annual emissions limitation set forth in paragraph (c)(1)(i) above, then:

- (A). The owners and operators of the source and each TR NO<sub>x</sub> Annual unit at the source shall hold the TR NO<sub>x</sub> Annual allowances required for deduction under 40 CFR 97.424(d); and
- (B). The owners and operators of the source and each TR NO<sub>x</sub> 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<sub>x</sub> Annual assurance provisions.**

(i). If total NO<sub>x</sub> emissions during a control period in a given year from all TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> Annual sources in the state and Indian country within the borders of such State exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO<sub>x</sub> emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) TR NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> emissions exceeds the respective common designated representative's assurance level; and (B) The amount by which total NO<sub>x</sub> emissions from all TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> Annual sources in the state and Indian country within the borders of such state for such control period exceed the state assurance level.

(ii). The owners and operators shall hold the TR NO<sub>x</sub> 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<sub>x</sub> emissions from all TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> 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<sub>x</sub> emissions exceed the sum, for such control period, of the state NO<sub>x</sub> 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<sub>x</sub> emissions from all TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> 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<sub>x</sub> emissions from the TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> Annual sources in the state and Indian country within the borders of such state during a control period exceeds the common designated representative's assurance level.

(v). To the extent the owners and operators fail to hold TR NO<sub>x</sub> Annual allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,

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

(B). Each TR NO<sub>x</sub> 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 NO<sub>x</sub> Annual unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of January 1, 2015, or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.430(b) and for each control period thereafter.

(ii). A TR NO<sub>x</sub> Annual unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.430(b) and for each control period thereafter.

(4) Vintage of allowances held for compliance.

(i). A TR NO<sub>x</sub> Annual allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR NO<sub>x</sub> Annual allowance that was allocated for such control period or a control period in a prior year.

(ii). A TR NO<sub>x</sub> Annual allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a TR NO<sub>x</sub> Annual allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.

(5) Allowance Management System requirements. Each TR NO<sub>x</sub> 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<sub>x</sub> Annual allowance is a limited authorization to emit one ton of NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> Annual allowances in accordance with 40 CFR part 97, subpart AAAAA.
- (2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.430 through 97.435, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.406(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).

**(e) Additional recordkeeping and reporting requirements.**

- (1) Unless otherwise provided, the owners and operators of each TR NO<sub>x</sub> Annual source and each TR NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> Annual Trading Program.
- (2) The designated representative of a TR NO<sub>x</sub> Annual source and each TR NO<sub>x</sub> Annual unit at the source shall make all submissions required under the TR NO<sub>x</sub> 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<sub>x</sub> Annual Trading Program that applies to a TR NO<sub>x</sub> Annual source or the designated representative of a TR NO<sub>x</sub> Annual source shall also apply to the owners and operators of such source and of the TR NO<sub>x</sub> Annual units at the source.
- (2) Any provision of the TR NO<sub>x</sub> Annual Trading Program that applies to a TR NO<sub>x</sub> Annual unit or the designated representative of a TR NO<sub>x</sub> Annual unit shall also apply to the owners and operators of such unit.

**(g) Effect on other authorities.**

No provision of the TR NO<sub>x</sub> 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<sub>x</sub> Annual source or TR NO<sub>x</sub> 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<sub>x</sub> Ozone Season Trading Program Requirements (40 CFR 97.506)**

**(a) Designated representative requirements.**

The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.513 through 97.518.

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

- (1) The owners and operators, and the designated representative, of each TR NO<sub>x</sub> Ozone Season source and each TR NO<sub>x</sub> Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.530 (general requirements, including installation, certification,

and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.531 (initial monitoring system certification and recertification procedures), 97.532 (monitoring system out-of-control periods), 97.533 (notifications concerning monitoring), 97.534 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.535 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

- (2) The emissions data determined in accordance with 40 CFR 97.530 through 97.535 shall be used to calculate allocations of TR NO<sub>x</sub> Ozone Season allowances under 40 CFR 97.511(a)(2) and (b) and 97.512 and to determine compliance with the TR NO<sub>x</sub> Ozone Season emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.530 through 97.535 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

**(c) NO<sub>x</sub> emissions requirements.**

**(1) TR NO<sub>x</sub> Ozone Season emissions limitation.**

- (i). As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NO<sub>x</sub> Ozone Season source and each TR NO<sub>x</sub> Ozone Season unit at the source shall hold, in the source's compliance account, TR NO<sub>x</sub> Ozone Season allowances available for deduction for such control period under 40 CFR 97.524(a) in an amount not less than the tons of total NO<sub>x</sub> emissions for such control period from all TR NO<sub>x</sub> Ozone Season units at the source.
- (ii). If total NO<sub>x</sub> emissions during a control period in a given year from the TR NO<sub>x</sub> Ozone Season units at a TR NO<sub>x</sub> Ozone Season source are in excess of the TR NO<sub>x</sub> Ozone Season emissions limitation set forth in paragraph (c)(1)(i) above, then:
- (A). The owners and operators of the source and each TR NO<sub>x</sub> Ozone Season unit at the source shall hold the TR NO<sub>x</sub> Ozone Season allowances required for deduction under 40 CFR 97.524(d); and
- (B). The owners and operators of the source and each TR NO<sub>x</sub> Ozone Season unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart BBBBB and the Clean Air Act.

**(2) TR NO<sub>x</sub> Ozone Season assurance provisions.**

- (i). If total NO<sub>x</sub> emissions during a control period in a given year from all TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> Ozone Season sources in the state and Indian country within the borders of such state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO<sub>x</sub> emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) TR NO<sub>x</sub> Ozone Season allowances available for deduction for such control period under 40 CFR 97.525(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.525(b), of multiplying—
- (A). The quotient of the amount by which the common designated representative's share of such NO<sub>x</sub> 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<sub>x</sub> emissions exceeds the respective common designated representative's assurance level; and
- (B). The amount by which total NO<sub>x</sub> emissions from all TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> Ozone Season sources in the state and Indian country within the borders of such state for such control period exceed the state assurance level.
- (ii). The owners and operators shall hold the TR NO<sub>x</sub> Ozone Season allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the

first business day thereafter (if November 1 is not a business day), in the calendar year immediately after such control period.

- (iii). Total NO<sub>x</sub> emissions from all TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> Ozone Season sources in the state and Indian country within the borders of such state during a control period in a given year exceed the state assurance level if such total NO<sub>x</sub> emissions exceed the sum, for such control period, of the State NO<sub>x</sub> Ozone Season trading budget under 40 CFR 97.510(a) and the state's variability limit under 40 CFR 97.510(b).
- (iv). It shall not be a violation of 40 CFR part 97, subpart BBBBBB or of the Clean Air Act if total NO<sub>x</sub> emissions from all TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> Ozone Season sources in the state and Indian country within the borders of such state during a control period exceed the state assurance level or if a common designated representative's share of total NO<sub>x</sub> emissions from the TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> Ozone Season sources in the state and Indian country within the borders of such state during a control period exceeds the common designated representative's assurance level.
- (v). To the extent the owners and operators fail to hold TR NO<sub>x</sub> Ozone Season allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
  - (A). The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
  - (B). Each TR NO<sub>x</sub> Ozone Season allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart BBBBBB and the Clean Air Act.

(3) Compliance periods.

- (i). A TR NO<sub>x</sub> Ozone Season unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of May 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.530(b) and for each control period thereafter.
- (ii). A TR NO<sub>x</sub> Ozone Season unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of May 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.530(b) and for each control period thereafter.

(4) Vintage of allowances held for compliance.

- (i). A TR NO<sub>x</sub> Ozone Season allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR NO<sub>x</sub> Ozone Season allowance that was allocated for such control period or a control period in a prior year.
- (ii). A TR NO<sub>x</sub> Ozone Season allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a TR NO<sub>x</sub> Ozone Season allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.

(5) Allowance Management System requirements. Each TR NO<sub>x</sub> Ozone Season allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart BBBBBB.

(6) Limited authorization. A TR NO<sub>x</sub> Ozone Season allowance is a limited authorization to emit one ton of NO<sub>x</sub> 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<sub>x</sub> Ozone Season Trading Program; and
- (ii). Notwithstanding any other provision of 40 CFR part 97, subpart BBBBBB, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.

(7) Property right. A TR NO<sub>x</sub> Ozone Season allowance does not constitute a property right.

(d) Title V permit revision requirements.

- (1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR NO<sub>x</sub> Ozone Season allowances in accordance with 40 CFR part 97, subpart BBBBBB.
- (2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.530 through 97.535, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40

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CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.506(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).

**(e) Additional recordkeeping and reporting requirements.**

- (1) Unless otherwise provided, the owners and operators of each TR NO<sub>x</sub> Ozone Season source and each TR NO<sub>x</sub> Ozone Season unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
  - (i). The certificate of representation under 40 CFR 97.516 for the designated representative for the source and each TR NO<sub>x</sub> Ozone Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.516 changing the designated representative.
  - (ii). All emissions monitoring information, in accordance with 40 CFR part 97, subpart BBBB.
  - (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<sub>x</sub> Ozone Season Trading Program.
- (2) The designated representative of a TR NO<sub>x</sub> Ozone Season source and each TR NO<sub>x</sub> Ozone Season unit at the source shall make all submissions required under the TR NO<sub>x</sub> Ozone Season Trading Program, except as provided in 40 CFR 97.518. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71.

**(f) Liability.**

- (1) Any provision of the TR NO<sub>x</sub> Ozone Season Trading Program that applies to a TR NO<sub>x</sub> Ozone Season source or the designated representative of a TR NO<sub>x</sub> Ozone Season source shall also apply to the owners and operators of such source and of the TR NO<sub>x</sub> Ozone Season units at the source.
- (2) Any provision of the TR NO<sub>x</sub> Ozone Season Trading Program that applies to a TR NO<sub>x</sub> Ozone Season unit or the designated representative of a TR NO<sub>x</sub> Ozone Season unit shall also apply to the owners and operators of such unit.

**(g) Effect on other authorities.**

No provision of the TR NO<sub>x</sub> Ozone Season Trading Program or exemption under 40 CFR 97.505 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a TR NO<sub>x</sub> Ozone Season source or TR NO<sub>x</sub> Ozone Season unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

**(h) Effect on units in Indian country.**

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

**SECTION III: TR SO<sub>2</sub> 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 SO<sub>2</sub> Group 1 source and each TR SO<sub>2</sub> 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 SO<sub>2</sub> Group 1 allowances under 40 CFR 97.611(a)(2) and (b) and 97.612 and to determine compliance with the TR SO<sub>2</sub> 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<sub>2</sub> emissions requirements.**

**(1) TR SO<sub>2</sub> 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 SO<sub>2</sub> Group 1 source and each TR SO<sub>2</sub> Group 1 unit at the source shall hold, in the source's compliance account, TR SO<sub>2</sub> 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<sub>2</sub> emissions for such control period from all TR SO<sub>2</sub> Group 1 units at the source.

(ii). If total SO<sub>2</sub> emissions during a control period in a given year from the TR SO<sub>2</sub> Group 1 units at a TR SO<sub>2</sub> Group 1 source are in excess of the TR SO<sub>2</sub> Group 1 emissions limitation set forth in paragraph (c)(1)(i) above, then:

(A). The owners and operators of the source and each TR SO<sub>2</sub> Group 1 unit at the source shall hold the TR SO<sub>2</sub> Group 1 allowances required for deduction under 40 CFR 97.624(d); and

(B). The owners and operators of the source and each TR SO<sub>2</sub> Group 1 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation 40 CFR part 97, subpart CCCC and the Clean Air Act.

**(2) TR SO<sub>2</sub> Group 1 assurance provisions.**

(i). If total SO<sub>2</sub> emissions during a control period in a given year from all TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> 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<sub>2</sub> 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 SO<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> emissions exceeds the respective common designated representative's assurance level; and

(B). The amount by which total SO<sub>2</sub> emissions from all TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> 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 SO<sub>2</sub> 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<sub>2</sub> emissions from all TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> 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<sub>2</sub> emissions exceed the sum, for such control period, of the

state SO<sub>2</sub> 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 CCCC or of the Clean Air Act if total SO<sub>2</sub> emissions from all TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> 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<sub>2</sub> emissions from the TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> 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 CCCC and the Clean Air Act.

(3) Compliance periods.

- (i). A TR SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> Group 1 allowance that was allocated for such control period or a control period in a prior year.
- (ii). A TR SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> 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 CCCC.

(6) Limited authorization. A TR SO<sub>2</sub> Group 1 allowance is a limited authorization to emit one ton of SO<sub>2</sub> 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 SO<sub>2</sub> Group 1 Trading Program; and
- (ii). Notwithstanding any other provision of 40 CFR part 97, subpart CCCC, 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 SO<sub>2</sub> 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 SO<sub>2</sub> Group 1 allowances in accordance with 40 CFR part 97, subpart CCCC.
- (2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.630 through 97.635, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an exempted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions exempted monitoring methodology (pursuant to 40 CFR part 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.606(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).

(e) Additional recordkeeping and reporting requirements.

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(1) Unless otherwise provided, the owners and operators of each TR SO<sub>2</sub> Group 1 source and each TR SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> Group 1 Trading Program.

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

(2) Any provision of the TR SO<sub>2</sub> Group 1 Trading Program that applies to a TR SO<sub>2</sub> Group 1 unit or the designated representative of a TR SO<sub>2</sub> Group 1 unit shall also apply to the owners and operators of such unit.

**(g) Effect on other authorities.**

No provision of the TR SO<sub>2</sub> 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 SO<sub>2</sub> Group 1 source or TR SO<sub>2</sub> 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.

**CAIR Sulfur Dioxide Budget Permit**



Michigan Department Of Environmental Quality  
Air Quality Division

**CAIR Sulfur Dioxide Budget Permit  
Permit No. MI-SO2-55088-2012**

Permittee	Dearborn Industrial Generation
Address	2400 Miller Rd., Dearborn, MI
SRN	N6634
ORIS code	55088
Issue Date	March 28, 2012
Expiration	This permit shall expire when the facility's Renewable Operating Permit (ROP) expires in accordance with 40 CFR 97.224(b).

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2012a

ROP in "Track Changes"

ROP No.: MI-ROP-N6631N6631

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Expiration Date: March 28, 2017  
PTI No: MI-PTI-N6631-2012a

ROP No. MI-ROP-N6631-2012

~~This permit incorporates automatically the definitions of terms under Air Pollution Control Rule 336.1420.~~

~~This permit incorporates automatically, upon recordation by the EPA Administrator in accordance with 40 CFR part 97 subpart FFF, GGG, or III every allocation, transfer, or deduction of a SO2 allowance to or from the compliance accounts of the CAIR SO2 unit(s) covered by the permit.~~

~~The owners and operators of the source must comply with the standard requirements and special provisions set forth in this permit.~~

~~This permit incorporates any attached comments, notes or justifications regarding permit decisions and changes made to the permit application forms during the review process.~~

**Units covered under this permit**

<b>AQD Unit ID</b>	<b>Unit Type</b>			
EU00001	<input type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input checked="" type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00002	<input type="checkbox"/> Stationary Boiler	<input checked="" type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00003	<input type="checkbox"/> Stationary Boiler	<input checked="" type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00004	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00005	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00006	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other

**Permit Application:**

~~CAIR SO2 Annual Permit application submitted February 25, 2011~~

Dearborn Industrial Generation, L.L.C.  
2012a

ROP No.: MI-ROP-N6631N6631

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Expiration Date: March 28, 2017

PTI No: MI-PTI-N6631-2012a

## Standard requirements

### (a) Permit requirements.

(1) The CAIR designated representative of each CAIR SO<sub>2</sub> source required to have a ROP and each CAIR SO<sub>2</sub> unit required to have a ROP at the source shall:

- (i) Submit to the permitting authority a complete CAIR permit application under § 97.222 in accordance with the deadlines specified in § 97.221; and
- (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review a CAIR permit application and issue or deny a CAIR permit.

(2) The owners and operators of each CAIR SO<sub>2</sub> source required to have a ROP and each CAIR SO<sub>2</sub> unit required to have a ROP at the source shall have a CAIR permit issued by the permitting authority under subpart CCC of 40 CFR part 97 for the source and operate the source and the unit in compliance with such CAIR permit.

### (b) Monitoring, Reporting, and Recordkeeping Requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of subpart HHH of 40 CFR part 97.

(2) The emissions measurements recorded and reported in accordance with subpart HHH of 40 CFR part 97 shall be used to determine compliance by each CAIR SO<sub>2</sub> source with the CAIR SO<sub>2</sub> emissions limitation under paragraph (c) of this permit.

### (c) Sulfur Dioxide Emission Requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall hold, in the source's compliance account, a tonnage equivalent in CAIR SO<sub>2</sub> allowances available for compliance deductions for the control period, as determined in accordance with § 97.254(a) and (b), not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO<sub>2</sub> units at the source, as determined in accordance with subpart HHH of 40 CFR part 97.

(2) A CAIR SO<sub>2</sub> unit shall be subject to the requirements under paragraph (c)(1) of this section for the control period starting on the later of January 1, 2010 or the deadline for meeting the unit's monitor certification requirements under § 97.270(b)(1),(2), or (5) and for each control period thereafter.

(3) A CAIR SO<sub>2</sub> allowance shall not be deducted, for compliance with the requirements under paragraph (c)(1) of this section, for a control period in a calendar year before the year for which the CAIR SO<sub>2</sub> allowance was allocated.

(4) CAIR SO<sub>2</sub> allowances shall be held in, deducted from, or transferred into or among CAIR SO<sub>2</sub> Allowance Tracking System accounts in accordance with subparts FFF, GGG, and III of 40 CFR part 97.

(5) A CAIR SO<sub>2</sub> allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO<sub>2</sub> Trading Program. No provision of the CAIR SO<sub>2</sub> Trading Program, the CAIR permit application, the CAIR permit, or an exemption under § 97.205 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(6) A CAIR SO<sub>2</sub> allowance does not constitute a property right.

(7) Upon recordation by the Administrator under subpart FFF, GGG, or III of 40 CFR part 97, every allocation, transfer, or deduction of a CAIR SO<sub>2</sub> allowance to or from a CAIR SO<sub>2</sub> source's compliance account is incorporated automatically in any CAIR permit of the source.

Dearborn Industrial Generation, L.L.C.  
2012a

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**~~(d) Excess emissions requirements.~~**

~~If a CAIR SO<sub>2</sub> source emits sulfur dioxide during any control period in excess of the CAIR SO<sub>2</sub> emissions limitation, then:~~

- ~~(1) The owners and operators of the source and each CAIR SO<sub>2</sub> unit at the source shall surrender the CAIR SO<sub>2</sub> allowances required for deduction under § 97.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and~~  
~~(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of this subpart, the Clean Air Act, and applicable State law.~~

**~~(e) Recordkeeping and Reporting Requirements.~~**

~~(1) Unless otherwise provided, the owners and operators of the CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the permitting authority or the Administrator.~~

- ~~(i) The certificate of representation under § 97.213 for the CAIR designated representative for the source and each CAIR SO<sub>2</sub> 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 documents are superseded because of the submission of a new certificate of representation under § 97.213 changing the CAIR designated representative.~~  
~~(ii) All emissions monitoring information, in accordance with subpart HHH of 40 CFR part 97, provided that to the extent that subpart HHH of 40 CFR part 97 provides for a 3-year period for recordkeeping, the 3-year period shall apply.~~  
~~(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR SO<sub>2</sub> Trading Program.~~  
~~h. (iv) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR SO<sub>2</sub> Trading Program or to demonstrate compliance with the requirements of the CAIR SO<sub>2</sub> Trading Program.~~

~~(2) The CAIR designated representative of a CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall submit the reports required under the CAIR SO<sub>2</sub> Trading Program, including those under subpart HHH of 40 CFR part 97.~~

**~~(f) Liability.~~**

~~(1) Each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit shall meet the requirements of the CAIR SO<sub>2</sub> Trading Program.~~

~~(2) Any provision of the CAIR SO<sub>2</sub> Trading Program that applies to a CAIR SO<sub>2</sub> source or the CAIR designated representative of a CAIR SO<sub>2</sub> source shall also apply to the owners and operators of such source and of the CAIR SO<sub>2</sub> units at the source.~~

~~(3) Any provision of the CAIR SO<sub>2</sub> Trading Program that applies to a CAIR SO<sub>2</sub> unit or the CAIR designated representative of a CAIR SO<sub>2</sub> unit shall also apply to the owners and operators of such unit.~~

**~~(g) Effect On Other Authorities.~~**

~~No provision of the CAIR SO<sub>2</sub> Trading Program, a CAIR permit application, a CAIR permit, or an exemption under § 97.205 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR SO<sub>2</sub> source or CAIR SO<sub>2</sub> unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.~~

Dearborn Industrial Generation, L.L.C.  
2012a

ROP in "Track Changes"

ROP No.: MI-ROP-~~N6631~~N6631

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Expiration Date: March 28, 2017  
PTI No: MI-PTI-N6631-2012a

**Appendix 11. CAIR Annual Nitrogen Oxide Budget Permit**



Michigan Department Of Environmental Quality  
Air Quality Division

**CAIR Annual Nitrogen Oxide Budget Permit  
Permit No. MI-NOA-55088-2012**

Permittee: Dearborn Industrial Generation  
Address: 2400 Miller Rd., Dearborn, MI  
SRN: N6634  
ORIS code: 55088  
Issue Date: March 28, 2012  
Expiration: This permit shall expire when the facility's Renewable Operating Permit expires in accordance with Air Pollution Control Rule 336.1821.  
ROP No.: MI-ROP-N6631-2012

This permit incorporates automatically the definitions of terms under Air Pollution Control Rule 336.1803.

This permit incorporates automatically, upon recordation by the EPA Administrator in accordance with Air Pollution Control Rule 336.1830, 336.1831 and 336.1834 every allocation, transfer, or deduction of a NOx allowance to or from the compliance accounts of the NOx Budget unit(s) covered by the permit.

The owners and operators of the source must comply with the standard requirements and special provisions set forth in this permit.

This permit incorporates any attached comments, notes or justifications regarding permit decisions and changes made to the permit application forms during the review process.

**Units covered under this permit**

AQD Unit ID	Unit Type			
EU00001	<input type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input checked="" type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00002	<input type="checkbox"/> Stationary Boiler	<input checked="" type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00003	<input type="checkbox"/> Stationary Boiler	<input checked="" type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00004	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00005	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00006	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other

**Permit Application:**

~~CAIR NOx Annual Permit application submitted February 25, 2011~~

Dearborn Industrial Generation, L.L.C.  
2012a

ROP No.: MI-ROP-~~N6631N6631~~

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Expiration Date: March 28, 2017  
PTI No: MI-PTI-N6631-2012a

### **Standard Requirements**

#### **~~(a) Permit Requirements.~~**

~~(1) The CAIR designated representative of each CAIR NOX source required to have a Renewable Operating Permit (ROP) and each CAIR NOX unit required to have a ROP at the source shall:~~

- ~~(i) Submit to the Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) a complete CAIR permit application under R 336.1821(3) in accordance with the deadlines specified in 40 CFR 97.121; and~~
- ~~(ii) Submit in a timely manner any supplemental information that the MDEQ-AQD determines is necessary in order to review a CAIR permit application and issue or deny a CAIR permit.~~

~~(2) The owners and operators of each CAIR NOX source required to have a ROP and each CAIR NOX unit required to have a ROP at the source shall have a CAIR permit issued by the MDEQ-AQD under subpart CC of 40 CFR part 97 for the source and operate the source and the unit in compliance with such CAIR permit.~~

#### **~~(b) Monitoring, Reporting, and Recordkeeping Requirements.~~**

~~(1) The owners and operators, and the CAIR designated representative, of each CAIR NOX source and each CAIR NOX unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of subpart HH of 40 CFR part 97.~~

~~(2) The emissions measurements recorded and reported in accordance with subpart HH of 40 CFR part 97 shall be used to determine compliance by each CAIR NOX source with the CAIR NOX emissions limitation under paragraph (c) of this permit.~~

#### **~~(c) Nitrogen Oxides Emission Requirements.~~**

~~(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NOX source and each CAIR NOX unit at the source shall hold, in the source's compliance account, CAIR NOX allowances available for compliance deductions for the control period under 40 CFR 97.154(a) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NOX units at the source, as determined in accordance with subpart HH of 40 CFR part 97.~~

~~(2) A CAIR NOX unit shall be subject to the requirements under paragraph (c)(1) for the control period starting on the later of January 1, 2009 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.170(b)(1), (2), or (5) and for each control period thereafter.~~

~~(3) A CAIR NOX allowance shall not be deducted, for compliance with the requirements under paragraph (c)(1) of this section, for a control period in a calendar year before the year for which the CAIR NOX allowance was allocated.~~

~~(4) CAIR NOX allowances shall be held in, deducted from, or transferred into or among CAIR NOX Allowance Tracking System accounts in accordance with subparts EE, FF, GG, or II of 40 CFR part 97.~~

~~(5) A CAIR NOX Ozone Season allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NOX Ozone Season Trading Program. No provision of the CAIR NOX Ozone Season Trading Program, the CAIR permit application, the CAIR permit, or an exemption under § 97.105 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.~~

~~(6) A CAIR NOX allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NOX Annual Trading Program. No provision of the CAIR NOX Annual Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 40 CFR 97.105 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.~~

Dearborn Industrial Generation, L.L.C.  
2012a

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Expiration Date: March 28, 2017  
PTI No: MI-PTI-N6631-2012a

~~(7) A CAIR NOX allowance does not constitute a property right.~~

~~(8) Upon recordation by the Administrator under subpart EE, FF, GG, or II of 40 CFR part 97, every allocation, transfer, or deduction of a CAIR NOX allowance to or from a CAIR NOX source's compliance account is incorporated automatically in any CAIR permit of the source.~~

~~(d) Excess Emissions Requirements.~~

~~If a CAIR NOX source emits nitrogen oxides during any control period in excess of the CAIR NOX emissions limitation, then:~~

~~(1) The owners and operators of the source and each CAIR NOX unit at the source shall surrender the CAIR NOX allowances required for deduction under 40 CFR 97.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and~~

~~(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, the Clean Air Act, and applicable State rules.~~

~~(e) Recordkeeping and Reporting Requirements.~~

~~(1) Unless otherwise provided, the owners and operators of the CAIR NOX source and each CAIR NOX unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the MDEQ-AQD or the Administrator.~~

~~(i) The certificate of representation under § 97.113 for the CAIR designated representative for the source and each CAIR NOX 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 documents are superseded because of the submission of a new certificate of representation under § 97.113 changing the CAIR designated representative.~~

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

~~(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NOX Annual Trading Program.~~

~~(iv) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NOX Annual Trading Program or to demonstrate compliance with the requirements of the CAIR NOX Annual Trading Program.~~

~~(2) The CAIR designated representative of a CAIR NOX source and each CAIR NOX unit at the source shall submit the reports required under the CAIR NOX Annual Trading Program, including those under subpart HH of 40 CFR part 97.~~

~~(f) Liability.~~

~~(1) Each CAIR NOX source and each CAIR NOX unit shall meet the requirements of the CAIR NOX Annual Trading Program.~~

~~(2) Any provision of the CAIR NOX Annual Trading Program that applies to a CAIR NOX source or the CAIR designated representative of a CAIR NOX source shall also apply to the owners and operators of such source and of the CAIR NOX units at the source.~~

Dearborn Industrial Generation, L.L.C.  
2012a

ROP in "Track Changes"

ROP No.: MI-ROP-~~N6631~~N6631

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Expiration Date: March 28, 2017  
PTI No: MI-PTI-N6631-2012a

~~(3) Any provision of the CAIR NOX Annual Trading Program that applies to a CAIR NOX unit or the CAIR designated representative of a CAIR NOX unit shall also apply to the owners and operators of such unit.~~

**~~(g) Effect on Other Authorities.~~**

~~No provision of the CAIR NOX Annual Trading Program, a CAIR permit application, a CAIR permit, or an exemption under § 97.105 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NOX source or CAIR NOX unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.~~

Dearborn Industrial Generation, L.L.C.  
2012a

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ROP No.: MI-ROP-~~N6631~~N6631

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Expiration Date: March 28, 2017  
PTI No: MI-PTI-N6631-2012a

**Appendix 12. CAIR Ozone Nitrogen Oxide Budget Permit**



Michigan Department Of Environmental Quality  
Air Quality Division

**CAIR Ozone Nitrogen Oxide Budget Permit  
Permit No. MI-NOO-55088-2012**

Permittee: Dearborn Industrial Generation  
Address: 2400 Miller Rd., Dearborn, MI  
SRN: N6631  
ORIS code: 55088  
Issue Date: March 28, 2012  
Expiration: This permit shall expire when the facility's Renewable Operating Permit expires in accordance with Air Pollution Control Rule 336.1821.  
ROP No.: MI-ROP-N6631-2012

This permit incorporates automatically the definitions of terms under Air Pollution Control Rule 336.1803.

This permit incorporates automatically, upon recordation by the EPA Administrator in accordance with Air Pollution Control Rule 336.1822, 336.1823 and 336.1834 every allocation, transfer, or deduction of a NOx allowance to or from the compliance accounts of the NOx Budget unit(s) covered by the permit.

The owners and operators of the source must comply with the standard requirements and special provisions set forth in this permit.

This permit incorporates any attached comments, notes or justifications regarding permit decisions and changes made to the permit application forms during the review process.

**Units covered under this permit**

AQD Unit ID	Unit Type			
EU00001	<input type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input checked="" type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00002	<input type="checkbox"/> Stationary Boiler	<input checked="" type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00003	<input type="checkbox"/> Stationary Boiler	<input checked="" type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00004	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00005	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00006	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other

**Permit Application:**

~~CAIR NOx Ozone Season Permit application submitted February 25, 2011~~

Dearborn Industrial Generation, L.L.C.  
2012a

ROP No.: MI-ROP-~~N6631~~~~N6631~~

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Expiration Date: March 28, 2017

PTI No: MI-PTI-N6631-2012a

### **Standard Requirements**

#### **~~(a) Permit Requirements.~~**

~~(1) The CAIR designated representative of each CAIR-NOX source required to have a Renewable Operating Permit (ROP) and each CAIR-NOX unit required to have a ROP at the source shall:~~

- ~~(i) Submit to the Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) a complete CAIR permit application under R 336.1821(3) in accordance with the deadlines specified in 40 CFR 97.321; and~~
- ~~(ii) Submit in a timely manner any supplemental information that the MDEQ-AQD determines is necessary in order to review a CAIR permit application and issue or deny a CAIR permit.~~

~~(2) The owners and operators of each CAIR-NOX source required to have a ROP and each CAIR-NOX unit required to have a ROP at the source shall have a CAIR permit issued by the MDEQ-AQD under subpart CCCC of 40 CFR part 97 for the source and operate the source and the unit in compliance with such CAIR permit.~~

#### **~~(b) Monitoring, Reporting, and Recordkeeping Requirements.~~**

~~(1) The owners and operators, and the CAIR designated representative, of each CAIR-NOX source and each CAIR-NOX unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of subpart HHHH of 40 CFR part 97.~~

~~(2) The emissions measurements recorded and reported in accordance with subpart HHHH of 40 CFR part 97 shall be used to determine compliance by each CAIR-NOX source with the CAIR-NOX emissions limitation under paragraph (c) of this permit.~~

#### **~~(c) Nitrogen Oxides Emission Requirements.~~**

~~(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR-NOX source and each CAIR-NOX unit at the source shall hold, in the source's compliance account, CAIR-NOX allowances available for compliance deductions for the control period under 40 CFR 97.354(a) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR-NOX units at the source, as determined in accordance with subpart HHHH of 40 CFR part 97.~~

~~(2) A CAIR-NOX unit shall be subject to the requirements under paragraph (c)(1) for the control period starting on the later of January 1, 2009 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.370(b)(1), (2), (3) or (7) and for each control period thereafter.~~

~~(3) A CAIR-NOX allowance shall not be deducted, for compliance with the requirements under paragraph (c)(1) of this permit, for a control period in a calendar year before the year for which the CAIR-NOX allowance was allocated.~~

~~(4) CAIR-NOX allowances shall be held in, deducted from, or transferred into or among CAIR-NOX Allowance Tracking System accounts in accordance with subparts EEEE, FFFF, GGGG, or IIII of 40 CFR part 97.~~

~~(5) A CAIR-NOX Ozone Season allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR-NOX Ozone Season Trading Program. No provision of the CAIR-NOX Ozone Season Trading Program, the CAIR permit application, the CAIR permit, or an exemption under § 97.305 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.~~

~~(6) A CAIR-NOX allowance does not constitute a property right.~~

Dearborn Industrial Generation, L.L.C.  
2012a

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~~(7) Upon recordation by the Administrator under subpart EEEE, FFFF, GGGG, or IIII of 40 CFR part 97, every allocation, transfer, or deduction of a CAIR NOX allowance to or from a CAIR NOX source's compliance account is incorporated automatically in any CAIR permit of the source.~~

~~(d) Excess Emissions Requirements.~~

~~If a CAIR NOX source emits nitrogen oxides during any control period in excess of the CAIR NOX emissions limitation, then:~~

~~(1) The owners and operators of the source and each CAIR NOX unit at the source shall surrender the CAIR NOX allowances required for deduction under 40 CFR 97.354(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and~~

~~(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, the Clean Air Act, and applicable State rules.~~

~~(e) Recordkeeping and Reporting Requirements.~~

~~(1) Unless otherwise provided, the owners and operators of the CAIR NOX source and each CAIR NOX unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the MDEQ-AQD or the Administrator:~~

~~(i) The certificate of representation under § 97.313 for the CAIR designated representative for the source and each CAIR NOX 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 documents are superseded because of the submission of a new certificate of representation under § 97.313 changing the CAIR designated representative.~~

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

~~(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NOX Ozone Trading Program.~~

~~(iv) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NOX Ozone Trading Program or to demonstrate compliance with the requirements of the CAIR NOX Ozone Trading Program.~~

~~(2) The CAIR designated representative of a CAIR NOX source and each CAIR NOX unit at the source shall submit the reports required under the CAIR NOX Ozone Trading Program, including those under subpart HHHH of 40 CFR part 97.~~

~~(f) Liability.~~

~~(1) Each CAIR NOX source and each CAIR NOX unit shall meet the requirements of the CAIR NOX Ozone Trading Program.~~

~~(2) Any provision of the CAIR NOX Ozone Trading Program that applies to a CAIR NOX source or the CAIR designated representative of a CAIR NOX source shall also apply to the owners and operators of such source and of the CAIR NOX units at the source.~~

~~(3) Any provision of the CAIR NOX Ozone Trading Program that applies to a CAIR NOX unit or the CAIR designated representative of a CAIR NOX unit shall also apply to the owners and operators of such unit.~~

~~(g) Effect on Other Authorities.~~

Dearborn Industrial Generation, L.L.C.  
2012a

ROP No.: MI-ROP-~~N6631~~N6631-

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Expiration Date: March 28, 2017  
PTI No: MI-PTI-N6631-2012a

~~No provision of the CAIR-NOX Ozone Trading Program, a CAIR permit application, a CAIR permit, or an exemption under § 97.305 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR-NOX source or CAIR-NOX unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.~~

# **APPENDIX C**

## **ACID RAIN PERMIT RENEWAL APPLICATION**



**Permit Requirements****STEP 3**

Read the standard requirements.

- (1) The designated representative of each affected source and each affected unit at the source shall:
  - (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
  - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each affected source and each affected unit at the source shall:
  - (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
  - (ii) Have an Acid Rain Permit.

**Monitoring Requirements**

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

**Sulfur Dioxide Requirements**

- (1) The owners and operators of each source and each affected unit at the source shall:
  - (i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and
  - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
  - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
  - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).

Dearborn Industrial Generation, L.L.C.  
Facility (Source) Name (from STEP 1)

### **Sulfur Dioxide Requirements, Cont'd.**

#### **STEP 3, Cont'd.**

- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

### **Nitrogen Oxides Requirements**

The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

### **Excess Emissions Requirements**

- (1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an affected source that has excess emissions in any calendar year shall:
  - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
  - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

### **Recordkeeping and Reporting Requirements**

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
  - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission

Dearborn Industrial Generation, L.L.C.

Facility (Source) Name (from STEP 1)

of a new certificate of representation changing the designated representative;

**STEP 3, Cont'd.**

**Recordkeeping and Reporting Requirements, Cont'd.**

- (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
  - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
  - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

**Liability**

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
- (6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

**Effect on Other Authorities**

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

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

Dearborn Industrial Generation, L.L.C.
Facility (Source) Name (from STEP 1)

any other provision of the Act, including the provisions of title I of the Act relating

STEP 3, Cont'd.

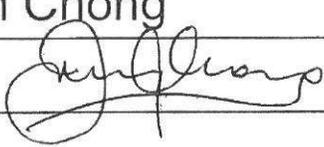
**Effect on Other Authorities, Cont'd.**

- to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a source can hold; *provided*, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;
- (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

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

**Certification**

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name <b>Jim Chong</b>	
Signature 	Date <b>8/31/16</b>

# **APPENDIX D**

## **FACILITY COMPLIANCE PROTOCOL AND PEMS MONITORING PLAN**

# Report

## *Protocol for Demonstrating Continuous Compliance with the Emission Limitations of MI-ROP-N6631-2012 and PTI No. 72-15*

**Dearborn Industrial Generation, L.L.C.  
2400 Miller Road  
Dearborn, Michigan**

**NTH Project No. 62-160007-03  
March 2, 2016  
Revised: April 12, 2016**

**NTH Consultants, Ltd.**  
608 S. Washington Avenue  
Lansing, MI 48933





**NTH Consultants, Ltd.**

Infrastructure Engineering  
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Ms. Wilhelmina McLemore  
Michigan Department of Environmental Quality (MDEQ)  
Air Quality Division  
Cadillac Place, Suite 2-300  
3058 West Grand Blvd.  
Detroit, MI 48202-6058

April 12, 2016

**RE: Revised Protocol for Demonstrating Continuous Compliance  
Dearborn Industrial Generation LLC, Dearborn, Michigan**

Dear Ms. McLemore:

On behalf of Dearborn Industrial Generation, LLC (DIG), NTH Consultants Ltd. (NTH) is submitting this Protocol for Demonstrating Continuous Compliance (protocol) for their facility, located at 2400 Miller Road, Dearborn, MI.

DIG received Permit to Install (PTI) No. 72-15 on August 12, 2015 for upgrades to the turbines. The PTI required DIG to update and submit the protocol to reflect compliance with the PTI and Renewable Operating Permit (No. MI- ROP-N6631-2012). The protocol was submitted on March 2, 2016.

A meeting was held between DIG, NTH, MDEQ, and vendor CMC Solutions, LLC on March 28, 2016 to refine and improve the description of how several permit limits were monitored. Agreement was reached, and the enclosed revised protocol reflects these discussions.

If you have any questions regarding this submittal, please contact us at (517) 484-6900.

Sincerely,

Chris O. Occhipinti  
Project Professional

Lori L. Myott  
Project Manager

COO/LLM/clm

Enclosure

cc: Thomas Andreski, Dearborn Industrial Generation  
cc: Brian Swanson, CMC Solutions, LLC.

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## ATTACHMENTS

<b>Attachment 1</b>	<b>Michigan Renewable Operating Permit No. MI- ROP-N6631-2012</b>
<b>Attachment 2</b>	<b>Michigan Permit to Install No. 72-15</b>
<b>Attachment 3</b>	<b>Predictive Emissions Monitoring System (PEMS) 40 CFR Part 75 Monitoring Plan</b>
<b>Attachment 4</b>	<b>PEMS Model Envelopes</b>





## 1.0 INTRODUCTION

Dearborn Industrial Generation, L.L.C. (“DIG” or “Permittee”) operates a cogeneration plant under Permit to Install (PTI) No. 72-15 and Renewable Operating Permit (ROP) No. MI-ROP-N6631-2012. The power plant is located at 2400 Miller Road in Dearborn, Michigan and consists of three (3) natural gas-fired combustion turbines, three (3) natural gas and blast furnace gas (BFG)-fired boilers, and two (2) BFG flares. These units are permitted to operate continuously at their maximum rated capacity. The facility also has two (2) No. 2 oil-fired emergency generators that are rated at 1.7 megawatts (MW) generating capacity and limited to 1,000 hours per year each. DIG’s ROP is presented as Attachment 1 and PTI No. 72-15 is presented as Attachment 2.

The facility was originally permitted under PTI No. 253-02 which was approved on December 19, 2002 and incorporated into the ROP shortly after. Special Condition 8.3 of PTI No. 253-02 required the permittee to submit, to the AQD District Supervisor, a Protocol for Demonstrating Continuous Compliance with the emission limits specified in the permit by February 19, 2003. Additionally, the permit allowed for re-submitting the protocol to reflect revisions, modifications, or updates. The protocol was originally submitted on February 18, 2003 and was revised in 2011 to include a Predictive Emissions Monitoring System (PEMS) as allowed by Subpart E of 40 CFR Part 75. A March 2, 2016 revision was submitted to incorporate the conditions listed in DIG’s PTI No. 72-15, which was approved on August 12, 2015 for modification to the three (3) gas-fired combustion turbines. The revision also included changes to the PEMS model for the turbines to extend the model envelope, add data, and reconfigure the PEMS with the latest software. The boiler PEMS model will also be updated, but the model envelope will not be extended; the change is simply to reconfigure the boiler PEMS model with the latest software. This revision is a slight update to the March 2, 2016 version to match methodology that was agreed upon by DIG and AQD during a meeting on March 28, 2016.

A description of each emission unit at the facility is contained in Section 2.0. The methods that are used to demonstrate continuous compliance with the boiler emission limits, turbine emission limits, flares and blast furnace emission limits, and the facility-wide emission limit are discussed in Sections 3.0, 4.0, 5.0, and 6.0, respectively.



## 2.0 FACILITY DESCRIPTION

DIG is a power and steam generator facility located at 2400 Miller Road in Dearborn, Michigan. The facility consists of one (1) simple-cycle turbine, two (2) combined-cycle turbines with unfired heat recovery steam generators (HRSG), three (3) natural gas and BFG-fired boilers, two (3) BFG flares, and two (2) No. 2 oil-fired emergency generators.

### 2.1 Simple-Cycle Turbine

The simple-cycle turbine is identified as EUCTG1 in PTI No. 72-15 and is currently operating as a peaking unit, as defined in 40 CFR §72.2. The rated output capacity of the simple-cycle gas turbine is 170 MW, and the design heat input rating is approximately 1,586 million British thermal units per hour (MMBtu/hr). The turbine is equipped with a dry low-NO<sub>x</sub> combustor and fired exclusively with pipeline quality natural gas. The simple-cycle turbine is subject to the federal Standards of Performance for Stationary Gas Turbines codified in Subparts A and GG to 40 CFR Part 60. Emission limits for the simple-cycle turbine are listed in PTI No. 72-15 under Emission Unit EUCTG1 and Flexible Group FGTURBINES.

### 2.2 Combined-Cycle Turbines

The two (2) combined-cycle turbines are identified as EUCTG2 and EUCTG3 in PTI No. 72-15 and each has a rated output capacity of 179 MW, and a design heat input rating of approximately 1,626 MMBtu/hr. The turbines are equipped with dry low-NO<sub>x</sub> combustors and are fired exclusively with pipeline quality natural gas. In addition to the electrical output associated with the combined-cycle turbines, these units are capable of producing steam through their associated HRSGs. The steam produced by the combined-cycle turbines is dispatched to an on-site steam turbine for electrical generation and/or utilized as process steam. These turbines are subject to the federal Standards of Performance for Stationary Combustion Turbines codified in Subparts A and KKKK to 40 CFR Part 60. Emission limits for the combined-cycle turbines are listed in PTI No. 72-15 under Emission Units EUCTG2 and EUCTG3 and Flexible Group FGTURBINES. Requirements for EUCTG2 and EUCTG3 pursuant to Subparts A and KKKK of 40 CFR Part 60 are listed under PTI No. 72-15 Flexible Group FGNSPSKKKK.



### 2.3 Requirements Common to Simple-Cycle and Combined-Cycle Turbines

The simple-cycle turbine and combined-cycle turbines are currently considered to be affected units under the Acid Rain Program, 40 CFR Part 72 and the Cross-State Air Pollution Rule (CSAPR), 40 CFR Part 97, and are therefore subject to the monitoring requirements specified in 40 CFR Part 75.

### 2.4 Boilers

DIG's three (3) boilers are identified as EUBOILER1, EUBOILER2, and EUBOILER3 in the ROP and are designed to burn a mixture of BFG and natural gas or just natural gas. Each boiler is rated at 763 MMBtu/hr heat input when firing natural gas and 746 MMBtu/hr heat input when firing a mixture of BFG and natural gas (at a heat input ratio of approximately 95:5 BFG to natural gas). The boilers are also equipped with low NO<sub>x</sub> burners (LNB). Each boiler is nominally rated at an output capacity of 500,000 lb/hr of superheated steam at a minimum of 1,350 pounds per square inch gauge (psig) and 960 degrees Fahrenheit (oF). The steam is dispatched to an on-site steam turbine for electrical generation and/or utilized as process steam.

Emission limits for the boilers are specified in the ROP Flexible Group FGBOILERS. The combined emissions from BFG firing in the boilers and the flares are listed under ROP Flexible Group FGBFG. The boilers are subject to the federal New Source Performance Standard (NSPS) for Industrial-Commercial-Institutional Steam Generating Units as codified in Subparts A and Db to 40 CFR Part 60. The boilers follow the monitoring requirements of 40 CFR Part 75.

### 2.5 Flares

The two (2) BFG flares are identified as EUBFGFLARE1 and EUBFGFLARE2 in the ROP and are each equipped with a natural gas pilot flame. The flares are operated when the boilers cannot use all the available BFG. EUBFGFLARE1 is rated at an approximate heat input of 480 MMBtu/hour, and EUBFGFLARE2 is rated at an approximate heat input of 1,292 MMBtu/hr. The total combined emissions from the two (2) BFG flares are limited under ROP Flexible Group FGBFGFLARES, and the combined emissions from BFG firing in the boilers and the flares are listed under ROP Flexible Group FGBFG.

The following sections outline the compliance methodology used for DIG's boilers, turbines, flares, and facility, as required under the ROP and PTI.



### 3.0 BOILER CONTINUOUS COMPLIANCE PROTOCOL

A protocol for demonstrating continuous compliance with the boiler emission limits ( $\text{NO}_x$ ,  $\text{CO}$ ,  $\text{SO}_2$ ,  $\text{PM}_{10}$ , and  $\text{VOC}$ ) specified in Flexible Group FGBOILERS of the ROP is presented in the following sub-sections.

Each boiler contains a PEMS to monitor emissions for  $\text{NO}_x$ ,  $\text{CO}$ , and  $\text{SO}_2$ . The PEMS utilizes unit-operating parameters and establishes a relationship between these parameters and the emission rates. Specifically, the PEMS predicts emissions from the boilers using several operating parameters from the unit including steam flow, gas flow, excess air, feedwater flow, combustion air flow, furnace temperature, economizer temperature, superheater temperature, fuel firing parameters, and stack temperature. The PEMS also utilizes fuel-specific information for emissions estimation and reporting including fuel type, fuel firing rate, fuel density, fuel heating value, and fuel sulfur content. Heat input is determined using a certified continuous fuel flow meter (pursuant to Appendix D of 40 CFR 75) installed on each unit and measured heating values (Btu/scf) for the natural gas and BFG. A detailed description of the boiler PEMS system is provided in Attachment 3. The PEMS input parameters are contained within the minimum and maximum values referred to as the 'PEMS Envelope' as shown in Attachment 4.

The three (3) boilers operate on a shared data acquisition and handling system (DAHS). The DAHS calculates the stoichiometric flue gas mass flow rate and the  $\text{NO}_x$ ,  $\text{CO}$ , and  $\text{SO}_2$  emission rates associated with each boiler. The DAHS is also able to generate the necessary compliance reports.

In order to ensure that the PEMS systems are calibrated and functioning properly, an initial certification test was performed in accordance with the requirements specified in 40 CFR Parts 60 and 75. Additionally, DIG performs annual Relative Accuracy Test Audits (RATA) on the PEMS system. The PEMS was recently upgraded, and recertification tests were performed to ensure that the PEMS systems are calibrated and functioning properly.

The PEMS is considered out-of-control if the unit operates without a valid set of inputs for any 15 minute segment of an hour, or if any PEMS input parameter goes below the minimum or above the maximum value of the envelope. Data is flagged as invalid when critical parameters are not in line with acceptable values,



and data substitution is used for calculation of emissions for Part 75 compliance. For calculation with permit limits, data substitution is not used. During an outage, data can be read from PEMS electronic records, and the emissions can be recorded normally for the purposes of missing data substitution.

If data is unavailable as a result of the performance of calibration, quality assurance, preventive maintenance activities pursuant to QA/QC tests, backups of data from the DAHS, or recertification tests, an hourly average may be computed from at least two valid sets of inputs. The inputs must be separated by a minimum of 15 minutes (where the unit operates for more than one quarter of an hour).

As previously discussed, the PEMS uses fuel-specific data at each boiler to estimate emissions in terms of permit limits. The boilers are equipped with a fuel flow meter that continuously measures natural gas consumption in accordance with the procedures specified in Appendix D of 40 CFR 75. The fuel flow signals are continuously recorded by the DAHS and used to determine hourly and daily fuel consumption rates as follows:

- Natural gas flow rate
- BFG flow rate

The DAHS also monitors and records the total time each boiler operates and the time each boiler operates on a mixture of BFG and natural gas, as follows:

- Total hours of operation (in any fuel mode)
- Hours that the boiler operates on a BFG and natural gas fuel mixture (dual-fired mode)

Hours of operation in natural gas only mode are determined by subtracting hours in dual-fired mode from total hours of operation (in both modes). In accordance with Appendix D of 40 CFR Part 75, a monthly fuel sample is analyzed to determine the gross calorific value (GCV) of each of the fuels combusted. This information is used by the DAHS to calculate the hourly and monthly heat input.

For non-PEMS pollutants, compliance is demonstrated through performance testing and recordkeeping. The specific compliance methodology for each pollutant and emission limit at the boilers is specified below.



### 3.1 Nitrogen Oxides (NO<sub>x</sub>)

The NO<sub>x</sub> emission rates from each boiler are limited to 0.10 lb/MMBtu heat input and 76.3 pounds per hour (lb/hr), both based on a 30-day rolling average. As noted previously, each boiler is subject to the NSPS codified at 40 CFR 60, Subparts A and Db, which restricts the lb/MMBtu from each boiler. According to 40 CFR 60.46b(a), the NO<sub>x</sub> emission limit applies during all periods of operation, including startup, shutdown, and malfunction.

The three boilers are currently using the PEMS procedures in Subpart E of 40 CFR Part 75 to demonstrate continuous compliance with the NO<sub>x</sub> emission limits of the ROP. The monitoring system measures the relevant operating parameters and transmits this data to each analyzer shelter from each boiler control system. Recorded fuel usage and unit operating hours are used by the DAHS to calculate the hourly and monthly heat input in units of MMBtu, while firing a mixture of BFG and natural gas, and while firing natural gas only. The DAHS then calculates the following for boiler NO<sub>x</sub> emissions:

- 1-hour average of NO<sub>x</sub> parts per million by volume (ppmv) concentration, corrected to 7 percent O<sub>2</sub> (on a dry basis, the average of four 15 minute samples)
- Hourly NO<sub>x</sub> emission rate (lb/MMBtu and lb/hr)
- 30-day rolling average NO<sub>x</sub> emission rates (lb/MMBtu and lb/hr) at the end of each calendar day
- Total daily NO<sub>x</sub> emission (lbs) at the end of each day
- Total monthly NO<sub>x</sub> emissions (lbs) at the end of each calendar month
- Actual annual accrued NO<sub>x</sub> emission rate (tpy), based on a 12-month rolling average at the end of each calendar month

The DAHS also generates the reports required to satisfy the requirements of 40 CFR Part 60, Subparts A and Db and the ROP Flexible Group Conditions for FGBOILERS.

### 3.2 Sulfur Dioxide (SO<sub>2</sub>)

The total combined SO<sub>2</sub> emission rates from all three (3) boilers are limited to 420 lb/hr, based on a daily average, and limited to 1,839.6 tons per year (tpy), based on a 12-month rolling average.



Similar to  $\text{NO}_x$ , continuous compliance with these emission limits is based upon PEMS data. The monitoring system measures the relevant operating parameters and transmits this data to each analyzer shelter from each boiler control system. Recorded fuel usage and unit operating hours are used by the DAHS to calculate the hourly and monthly heat input in units of MMBtu, while firing a mixture of BFG and natural gas, and while firing natural gas only. The DAHS then calculates the following:

- One hour average of  $\text{SO}_2$  concentration, ppmv on a dry basis (the average of four 15-minute samples)
- Hourly  $\text{SO}_2$  emission rates, lb/MMBtu and lb/hr
- Daily average  $\text{SO}_2$  emissions (lbs) at the end of each calendar day
- Total monthly  $\text{SO}_2$  emissions (lbs) at the end of each calendar month
- Actual annual  $\text{SO}_2$  emissions per boiler and total annual  $\text{SO}_2$  emissions from three boilers combined (tpy), based on a 12-month rolling average at the end of each calendar month.

The DAHS calculates the appropriate  $\text{SO}_2$  emission rates and generates the reports required to satisfy the ROP requirements set out under FGBOILERS.

### **3.3 Carbon Monoxide (CO)**

The CO emission rate from each boiler is limited to 64.1 lb/hr, based on a 30-day rolling average.

Similar to  $\text{NO}_x$  and  $\text{SO}_2$ , continuous compliance with these emission limits is based upon PEMS data. The monitoring system measures the relevant operating parameters and transmits this data to each analyzer shelter from each boiler control system. Recorded fuel usage and unit operating hours are used by the DAHS to calculate the hourly and monthly heat input in units of MMBtu, while firing a mixture of BFG and natural gas, and while firing natural gas only. The DAHS then calculates the following:

- One hour average of CO concentration, ppmv on a dry basis (the average of four 15-minute samples)
- Hourly CO emission rates, lb/hr
- 30-day rolling average CO emission rates (lb/hr) at the end of each calendar day
- Total monthly CO emissions (lbs) at the end of each calendar month



- Actual annual CO emissions per boiler and total annual CO emissions from three boilers combined (tpy), based on a 12-month rolling average at the end of each calendar month.

The DAHS calculates the appropriate CO emission rates and generates the reports required to satisfy the ROP requirements under FGBOILERS.

### **3.4 PM<sub>10</sub> and VOCs**

Each boiler is subject to a PM<sub>10</sub> limit of 22.3 lb/hr and a VOC limit of 7.5 lb/hr, both based upon a monthly average. Additionally, the combined boilers are subject to annual mass emission limit for VOC of 84 tpy based upon a 12-month rolling average.

Emissions tests have been conducted in accordance with the appropriate test methods of 40 CFR 60 Appendix A to establish the mass emission rates of PM<sub>10</sub> and VOCs.

Continuous compliance with the boiler PM<sub>10</sub> and VOC emission limits is demonstrated through the use of fuel flow meters and pollutant emission factors determined during the most recent compliance test. Recorded fuel usage and fuel heating values (GCV) of BFG and natural gas are used to calculate the combined monthly heat input in units of MMBtu while operating (i.e., while firing a mixture of BFG and natural gas or while firing natural gas only). At the end of each month, the total monthly heat input is multiplied by the boiler emission factors determined during the most recent emission test to calculate monthly emissions.



The following example calculations detail the methods that are utilized to determine the monthly emissions of PM<sub>10</sub> and VOC for each boiler.

Monthly Heat Input

$$HI_M = \frac{q_{BFG} GCV_{BFG}}{10^3} + \frac{q_{NG} GCV_{NG}}{10^3}$$

Where,

- HI<sub>M</sub> = total monthly heat input to the boiler while operating in either fuel mode, MMBtu
- q<sub>BFG</sub> = monthly volume of blast furnace gas consumed, Kscf
- GCV<sub>BFG</sub> = gross calorific value of the blast furnace gas, Btu/scf
- q<sub>NG</sub> = monthly volume of natural gas consumed, Kscf
- GCV<sub>NG</sub> = gross calorific value of the natural gas, Btu/scf
- 10<sup>3</sup> = conversion factor, KBtu/MMBtu

Monthly Emissions (Pounds)

$$ER_{M-LBS} = HI_M \times EF$$

Where,

- ER<sub>M-LBS</sub> = monthly pollutant emissions from the boiler while operating in either fuel mode, lb
- HI<sub>M</sub> = total monthly heat input to the boiler while operating in either fuel mode, MMBtu
- EF = pollutant emission factor for a blast furnace gas and natural gas fired boiler, lb/MMBtu

To determine compliance with the boiler VOC and PM<sub>10</sub> emission limits, the total monthly pollutant emission for both fuels is divided by each boiler’s total monthly hours of operation to obtain monthly average lb/hr emission rates for PM<sub>10</sub> and VOCs. The boiler mass emissions (in lbs) is divided by 2,000 lbs/ton to yield the total tons of emissions for the month.



The following example calculations demonstrate the method that is employed to demonstrate continuous compliance with the boiler PM<sub>10</sub> and VOC emission limits.

Hourly Emissions (on a Monthly Average Basis)

$$ER_H = ER_{M-LBS} / h_M$$

Where,

- ER<sub>H</sub> = hourly pollutant emissions from the boiler while operating in either fuel mode, lb/hr
- ER<sub>M-LBS</sub> = monthly pollutant emissions from the boiler while operating in either fuel mode, lb
- h<sub>M</sub> = total operating hours for a specific calendar month, hours

Monthly Emissions (Tons)

$$ER_{M-TONS} = \frac{ER_{M-LBS}}{2,000}$$

Where,

- ER<sub>M-TONS</sub> = monthly pollutant emissions from the boiler while operating in either fuel mode, tons
- ER<sub>M-LBS</sub> = monthly pollutant emissions from each boiler while operating in either fuel mode, lb
- 2,000 = conversion factor, lb/ton

The monthly mass emissions of PM<sub>10</sub> and VOCs for each boiler are summed to determine the total monthly tons of emissions from all boilers, which is added to the previous 11 month total emissions to calculate the 12-month rolling average emission rate (tpy) for each pollutant.



## 4.0 TURBINE CONTINUOUS COMPLIANCE PROTOCOL

A protocol for demonstrating continuous compliance with the turbine emission limits ( $\text{NO}_x$ , CO,  $\text{PM}_{10}$ , and VOC) specified in Emission Unit Conditions for EUCTG1, EUCTG2 and EUCTG3 and Flexible Group Conditions for FGTURBINES, of PTI No. 72-15, is presented in the following sub-sections.

Each turbine contains a PEMS to monitor emissions for  $\text{NO}_x$  and CO. The PEMS utilizes unit-operating parameters and establishes a relationship between these parameters and the emission rates. Specifically, the PEMS predicts emissions from the turbines using several operating parameters from the unit including load, gas flow, inlet air pressure, compressor discharge pressure, compressor pressure ratio, and generator watts. Heat input is determined using the certified continuous fuel flow meter (pursuant to Appendix D of 40 CFR 75) on each unit and measured heating values for the natural gas. A detailed description of the turbine PEMS system is provided in Attachment 3. The PEMS input parameters are contained within the minimum and maximum values referred to as the “PEMS envelope” as shown in Attachment 4.

The three (3) turbines operate on a shared DAHS system. The DAHS calculates the stoichiometric flue gas mass flow rate and the  $\text{NO}_x$  and CO emission rates associated with each turbine. The DAHS is also able to generate the necessary compliance reports.

In order to ensure that the PEMS systems are calibrated and functioning properly, an initial certification test was performed in accordance with the requirements specified in 40 CFR Parts 60 and 75. Additionally, DIG performs an annual RATA on the PEMS system. The PEMS was recently upgraded, and recertification tests were performed to ensure that the PEMS systems are calibrated and functioning properly.

The PEMS is considered out-of-control if the unit operates without a valid set of inputs for any 15 minute segment of an hour, or if any PEMS input parameter goes below the minimum or above the maximum value of the envelope. Data is flagged as invalid when critical parameters are not in line with acceptable values, and data substitution is used for calculation of emissions for Part 75 compliance. For calculation with permit limits, data substitution is not used. During an outage, data can be read from PEMS electronic records, and the emissions can be recorded normally for the purposes of missing data substitution.



If data is unavailable as a result of the performance of calibration, quality assurance, preventive maintenance activities pursuant to QA/QC tests, backups of data from the DAHS, or recertification tests, an hourly average may be computed from at least two valid sets of inputs. The inputs must be separated by a minimum of 15 minutes (where the unit operates for more than one quarter of an hour).

As previously discussed, the PEMS uses fuel-specific data (i.e., fuel flow rates) at each turbine to estimate emissions of  $\text{NO}_x$  and CO. Each turbine is equipped with a fuel flow meter that continuously measures natural gas consumption in accordance with the procedures specified in Appendix D of 40 CFR 75. The fuel flow signals are continuously recorded by the DAHS and used to determine hourly and daily fuel consumption rates.

In addition to monitoring the fuel flow, the DAHS also monitors and records the time periods during which each turbine operates.

In accordance with Appendix D of 40 CFR 75, a monthly fuel sample is analyzed to determine the GCV of the natural gas combusted. This information is used by the DAHS to calculate the hourly and monthly heat input in units of MMBtu.

For non-PEMS pollutants, compliance is demonstrated through performance testing and recordkeeping. The specific compliance methodology for each pollutant and emission limit under EUCTG1, EUCTG2, EUCTG3, and FGTURIBNES is specified below.



## 4.1 Nitrogen Oxides (NO<sub>x</sub>)

The NO<sub>x</sub> emission limits (as NO<sub>2</sub>) for the three (3) turbines based on PTI 72-15 are as follows:

Table 4.1 Turbine NO<sub>x</sub> Emission Limits

Emission Unit	NO <sub>x</sub> Emission Limit (ppmv) <sup>1</sup>	NO <sub>x</sub> Emission Limit (lb/hr) <sup>2</sup>	FGTURIBNES NO <sub>x</sub> Emission Limit (tpy) <sup>3</sup>
EUCTG1	9	72	815
EUCTG2	9	71	
EUCTG3	9	71	

<sup>1</sup> Corrected to 15% O<sub>2</sub> on a dry basis, based on test protocol. This limit applies to each unit individually, applies on an hourly basis, and is calculated only from data collected when the unit is running in Dry Low NO<sub>x</sub> (DLN) mode.

<sup>2</sup> The lb/hr limits are based on 720-operating hour rolling averages as determined at the end of each operating hour. This limit applies to each unit individually.

<sup>3</sup> This is a combined tpy limit for all three (3) turbines on a 12-month rolling time period as determined at the end of each calendar month.

The turbines are currently using the PEMS procedures in Subpart E of 40 CFR Part 75, to demonstrate continuous compliance with the NO<sub>x</sub> emission limits. The monitoring system measures the relevant operating parameters and transmits this data to each analyzer shelter from each turbine control system. The DAHS then calculates the following:

- One hour average of NO<sub>x</sub> ppmv concentration, corrected to 15% O<sub>2</sub> (on a dry basis, the average of four 15 minute samples) while the unit is in Dry Low NO<sub>x</sub> (DLN) operating mode only to determine compliance with the 9 ppm NO<sub>x</sub> limit
- A second one hour average of NO<sub>x</sub> ppmv concentration, corrected to 15% O<sub>2</sub> (on a dry basis, the average of four 15 minute samples) while the unit is in all operating modes to determine compliance with the 42 ppm limit
- Hourly NO<sub>x</sub> emission rate, lb/hr, based on all operating hours
- 720-operating hour rolling average NO<sub>x</sub> (lb/hr) based on actual hours of turbine operation
- Actual annual accrued NO<sub>x</sub> emission rate (tons/yr), based on a 12-month rolling average at the end of each calendar month
- Total monthly turbine operation (hours) including full (100%) and partial loads (including start-up and shutdown)



- Total monthly turbine NO<sub>x</sub> emissions (lbs and tons), for all operating loads, including start-up and shutdown
- Total monthly heat input, MMBtu
- Average NO<sub>x</sub> emission rate (lb/MMBtu), all loads (for Part 75)

The DAHS calculates the appropriate NO<sub>x</sub> emission rates and generates reports required to satisfy the permit requirements under EUCTG1, EUCTG2, EUCTG3, and FGTURIBNES.

#### 4.2 Carbon Monoxide (CO)

The CO emission limits for each of the three turbines based on PTI 72-15 are as follows:

**Table 4.2 Turbine CO Emission Limits**

<b>Emission Unit</b>	<b>CO Emission Limit (ppmv) <sup>1</sup></b>	<b>CO Emission Limit (lb/hr) <sup>2</sup></b>	<b>FGTURBINES CO Emission Limit (tpy) <sup>3</sup></b>
EUCTG1	9	30	403
EUCTG2	9	31	
EUCTG3	9	31	

<sup>1</sup> Corrected to 15% O<sub>2</sub> on a dry basis, based on test protocol. This limit applies to each unit individually, applies on an hourly basis, and is calculated only from data collected when the unit is running in Dry Low NOx (DLN) mode.

<sup>2</sup> The lb/hr limits are 720-operating hour rolling averages as determined at the end of each operating hour. This limit applies to each unit individually.

<sup>3</sup> This is a combined limit for all three (3) turbines on a 12-month rolling time period as determined at the end of each calendar month.

The turbines are currently using the PEMS procedures in Subpart E of 40 CFR Part 75, to demonstrate continuous compliance with the CO emission limits. The monitoring system measures the relevant operating parameters and transmits this data to each analyzer shelter from each turbine control system. The DAHS then calculates the following:

- One hour average of CO ppmv concentration, corrected to 15% O<sub>2</sub> (on a dry basis, the average of four 15 minute samples) while the unit is in DLN operating mode only to determine compliance with the 9 ppm CO limit
- Hourly CO emission rate, lb/hr , based on all operating hours



- 720-operating hour rolling average CO (lb/hr), based on actual hours of turbine operation  
Actual annual accrued CO emission rate (tons/yr), based on a 12-month rolling average at the end of each calendar month
- Total monthly turbine operation (hours) including full (100%) and partial loads (including start-up and shutdown)
- Total monthly turbine CO emissions (lbs and tons), for all operating loads, including start-up and shutdown
- Total monthly heat input, MMBtu

The DAHS calculates the appropriate CO emission rates and generates all reports required to satisfy the PTI requirements under EUCTG1, EUCTG2, EUCTG3 and FGTURIBNES.

### 4.3 PM<sub>10</sub> and VOCs

Each turbine is subject to a VOC limit of 2.8 lb/hr and a PM<sub>10</sub> limit of 9 lb/hr. Additionally, the combined turbines are subject to an annual mass emission limit of 36 tpy for VOCs and 118 tpy for PM<sub>10</sub>. The annual limits are based upon a 12-month rolling average as determined at the end of each calendar month.

Emissions tests have been conducted in accordance with the appropriate test methods of 40 CFR 60 Appendix A to establish the mass emission rates of PM<sub>10</sub> and VOCs. Continuous compliance with the lb/hr emission limits is determined from the stack test results.

Continuous compliance with the combined annual PM<sub>10</sub> and VOC emission limits for the turbines is demonstrated through the use of fuel flow meters and pollutant emission factors determined during the most recent compliance test. Recorded fuel usage and fuel heating values (GCV) are used to calculate the monthly heat input in units of MMBtu for each turbine. At the end of each month, the monthly heat input for each turbine is multiplied by pollutant emission factors determined during the most recent compliance test to calculate monthly emissions.



The following example calculations detail the methods that are utilized to determine the monthly emissions of PM<sub>10</sub> and VOC for each turbine.

### Monthly Heat Input

$$HI_M = \frac{q_{NG} GCV_{NG}}{10^3}$$

Where,

HI <sub>M</sub>	=	monthly heat input to the turbine, MMBtu
q <sub>NG</sub>	=	hourly volume of natural gas consumed, Kscf
GCV <sub>NG</sub>	=	gross calorific value of the natural gas, Btu/scf (if unavailable, a default of 1,050 Btu/scf will be assumed)
10 <sup>3</sup>	=	conversion factor, KBtu/MMBtu

### Monthly Emissions

$$ER_M = \frac{HI_M \times EF}{2,000}$$

Where,

ER <sub>M</sub>	=	monthly pollutant emissions from the turbine, tons
HI <sub>M</sub>	=	monthly heat input to the turbine, MMBtu
EF	=	pollutant emission factor for each combustion turbine, lb/MMBtu
2,000	=	conversion factor, lb/ton

To determine compliance with the combined annual turbine VOC and PM<sub>10</sub> emission limits, the monthly mass emissions of PM<sub>10</sub> and VOCs for each turbine are summed to determine the total monthly tons of emissions from all turbines. The total monthly emission rate is then added to the previous 11 months to calculate the 12-month rolling PM<sub>10</sub> and VOC emission rate (tpy) for the turbines.

## 5.0 FLARES/BOILERS CONTINUOUS COMPLIANCE PROTOCOL

A protocol for demonstrating continuous compliance with the two (2) BFG flare emission limits (listed under FGBFGFLARES in the ROP) and the emission limits associated with the firing of BFG in the boilers and flares (identified as FGBFG in the ROP), is presented in the following sub-sections.

### 5.1 FGBFGFLARES Emissions

Both BFG flares combined are subject to a CO limit of 301.2 lb/hr, a NO<sub>x</sub> limit of 96.6 lb/hr and a PM limit of 7.4 lb/hr, each based upon a monthly average.

BFG consumption is continuously monitored and recorded daily for the two (2) flares . The monthly heat input is then calculating by applying the monthly average heating value of the BFG to the monthly fuel consumption values. The heating value (in Btu/scf) is obtained from fuel sampling.

The following default emission factors are used to calculate monthly emissions:

Table 5.1 FGBFGFLARES Default Emissions Factors

Pollutant	Emission Factor (lb/MMBtu)	Emission Factor Basis
NO <sub>x</sub>	6.80E-02	Vendor Estimate Supplied by Rouge Steel
CO	2.00E-01	Historical PTI 253-02A Emission Limit
PM	2.42E-03	Stack Test



The monthly average lb/hr emissions are calculated using the following equation:

$$ER_M = \frac{\sum_{i=1}^n (HI_M \times EF)_i}{h}$$

Where,

$ER_M$	=	monthly pollutant emissions from both flares, lb
$HI_M$	=	monthly heat input to the flare, MMBtu
$EF$	=	pollutant emission factor for each flare, lb/MMBtu
$n$	=	number of flares, 2
$h$	=	hours in the month (number of days for each month x 24 hr/day)

## 5.2 FGBFG Emissions

This flexible group includes EUBFGFLARE1, EUBFGFLARE2, EUBOILER1, EUBOILER2, and EUBOILER3 and is identified in the ROP as FGBFG. The ROP contains total combined emission limits for FGBFG of 1,087.1 tpy for  $NO_x$ , 1,798 tpy for CO, 237.1 tpy for PM, and 2,947.7 tpy for  $SO_2$ . These annual emission limits are based on a 12-month rolling average and are determined at the end of each calendar month. Additionally, the ROP contains a combined daily average  $SO_2$  emission limit of 673 lb/hr for all units in FGBFG.

### **$NO_x$ , $SO_2$ , PM, and CO Annual Limits**

Monthly boiler  $NO_x$ ,  $SO_2$ , and CO emissions are based upon PEMS data, as described in Sections 3.1, 3.2, and 3.3, respectively. PM emissions from the boilers are based upon emission factors established through stack testing for  $PM_{10}$ , shown in the Table 5.2 below. The permittee continuously monitors the total fuel consumption for the two (2) flares and three (3) boilers as described in sections 3.0 and 5.1 of this document. Based on the measured heating value of the BFG and natural gas, the total heat input for the flares and the boilers is determined on a monthly basis, and monthly emissions are estimated. Monthly flare emissions are obtained as described in Section 5.1 above.



Table 5.2 Boiler PM Emission Factors

Unit	PM Emission Factor
Boiler 1	8.91E-03 lb/MMBtu
Boiler 2	8.83E-03 lb/MMBtu
Boiler 3	1.00E-02 lb/MMBtu

The mass emissions of NO<sub>x</sub>, CO, PM, and SO<sub>2</sub> determined from FGBOILERS and FGBFGFLARES for each calendar month are summed for each pollutant and converted to tons per month. These monthly emissions are then summed with the previous 11 months to obtain the 12-month rolling average emissions.

### SO<sub>2</sub> Daily Average Limit

To determine compliance with the daily SO<sub>2</sub> emission limit for FGBFG, the daily SO<sub>2</sub> emissions from the boilers are obtained from the PEMS for each boiler and the emissions are added to the daily SO<sub>2</sub> emissions from the flares. Daily flare SO<sub>2</sub> emissions are calculated based on daily BFG combusted in the flares (MMscf/day), daily heating values (Btu/scf), and an emission factor for SO<sub>2</sub> in lb/MMBtu. The SO<sub>2</sub> emission factor is calculated by the DAHS and obtained from the PEMS for BFG firing in the boilers.

## 6.0 FACILITY-WIDE EMISSION LIMITS

DIG's Source-wide ROP Conditions listed in Section B of the ROP contain a facility-wide formaldehyde limit of 9.9 tpy, based upon a 12-month rolling time period.

The monthly formaldehyde emissions from the boilers, simple-cycle turbine, and combined-cycle turbines are determined by using fuel flow meters (to derive heat input) and the formaldehyde emission factors determined during the most recent emission test. These monthly formaldehyde emissions from the various boilers and turbines are summed every month to determine total facility-wide emissions. These total monthly emissions are then used to update a 12-month rolling average emission rate (tpy) to demonstrate compliance with the facility emission limit of 9.9 tpy.

Although the emergency engines and the flares are also part of the facility, formaldehyde emissions from the emergency engines are negligible as the engines are operated very infrequently. For the flares, there is no BFG formaldehyde emission factor available for this source type, so the emissions are not quantified.



# **ATTACHMENT 1**

**ROP NO. MI-ROP-N6631-2012**

Michigan Department Of Environmental Quality  
Air Quality Division

EFFECTIVE DATE: March 28, 2012

ISSUED TO

**Dearborn Industrial Generation, L.L.C.**

State Registration Number (SRN): N6631

LOCATED AT

2400 Miller Road, Dearborn, Michigan 48121

### **RENEWABLE OPERATING PERMIT**

Permit Number: MI-ROP-N6631-2012

Expiration Date: March 28, 2017

Administratively Complete ROP Renewal Application due between  
September 28, 2015 and September 28, 2016

This Renewable Operating Permit (ROP) is issued in accordance with and subject to Section 5506(3) of Article II, Chapter 1, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. 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 PA 451 and the federal Clean Air Act.

### **SOURCE-WIDE PERMIT TO INSTALL**

Permit Number: MI-PTI-N6631-2012

This Permit to Install (PTI) is issued in accordance with and subject to Section 5505(5) of Article II, Chapter 1, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. 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 PA 451 and the federal Clean Air Act.

Michigan Department of Environmental Quality

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Wilhemina McLemore, Detroit 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.

## 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 federally enforceable Source- wide PTI No. MI-PTI-N6631-2012 pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

### General Provisions

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

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

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

### Equipment & Design

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(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. Except as provided in Subrules 2, 3, and 4 of Rule 301, states in part; “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 Rule 301(1)(a) or (b) unless otherwise specified in this ROP.” The grading of visible emissions shall be determined in accordance with Rule 303. **(R 336.1301(1) in pertinent part):**
  - 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.
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.<sup>1</sup> **(R 336.1901(a))**
  - b. Unreasonable interference with the comfortable enjoyment of life and property.<sup>1</sup> **(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(4))**

## 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.
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))**

28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
- Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
  - Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
  - 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))**
  - Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
  - 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(9))**
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:
- 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))**
  - If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
  - 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))**
  - If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

## Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(7))**

## 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 reclaiming, 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):
- June 21, 1999,
  - Three years after the date on which a regulated substance is first listed under 40 CFR, Part 68.130, or
  - The date on which a regulated substance is first present above a threshold quantity in a process.
40. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR, Part 68.
41. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR, Part 68)**

## Emission Trading

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

### Permit To Install (PTI)

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.<sup>2</sup> **(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.<sup>2</sup> **(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.<sup>2</sup> **(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, or has been interrupted for 18 months, the applicable terms and conditions from that PTI 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.<sup>2</sup> **(R 336.1201(4))**

#### **Footnotes:**

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

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

## **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.

## SOURCE-WIDE CONDITIONS

### DESCRIPTION

The source consists of one simple cycle combustion turbine, two combined cycle combustion turbines, three natural gas/blast furnace gas boilers, two blast furnace gas flares, and two emergency generators. A detailed description of each emission unit is contained in the Emission Unit Summary Table, Part C.

### POLLUTION CONTROL EQUIPMENT

All three combustion turbines are equipped with dry low NOx combustors.

#### I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Formaldehyde	9.9 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month	FGPLANT	GC 13, VI.1	<b>R 336.1205(1)(a)</b>

#### II. MATERIAL LIMIT(S)

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

#### 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 5 years. **(R 336.1213(3)(b)(ii))**

- Testing shall be conducted within 180 days of the issuance of this permit if an acceptable emissions test has not been conducted within 5 years prior to the issuance of the RO permit, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1213(3), R 336.2003, R 336.2004)**
- No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

See Appendix 5

#### VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

- The permittee shall keep records of monthly and previous 12-month formaldehyde emission calculations for each boiler and turbine included in FGPLANT, consistent with the document entitled "Protocol for Demonstrating

Continuous Compliance with the Emission Limitations of ROP-MI-N6631-2004” dated May 31, 2011, or subsequent revisions to this document as provided under condition VI.2.<sup>2</sup> (R 336.1205(1)(a))

2. If it becomes necessary to revise, modify or update the document entitled “Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP-MI-N6631-2004” dated May 31, 2011, the permittee shall resubmit the document to the District Supervisor for review and written approval before implementing such revisions, modifications, or updates.<sup>2</sup> (R 336.1205(1)(a))

**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. Report shall be received by 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. Report shall be received by 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:**

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

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

### 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
EUCTG1	One simple cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1,586 MM Btu per hour. The rated output capacity of the unit is approximately 170 megawatts.	6/01/1999	FGTURBINES
EUCTG2	One combined cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1,562 MM Btu per hour. The heated and pressurized exhaust gases from the turbine are utilized to power an electric generator shaft and are then sent to an unfired heat recovery steam generator. The rated output capacity of the unit is approximately 167 megawatts.	7/23/2001	FGTURBINES
EUCTG3	One combined cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1,562 MM Btu per hour. The heated and pressurized exhaust gases from the turbine are utilized to power an electric generator shaft and are then sent to an unfired heat recovery steam generator. The rated output capacity of the unit is approximately 167 megawatts.	7/9/2001	FGTURBINES

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUBOILER1	One boiler capable of firing either natural gas or a combination of natural gas and blast furnace gas (BFG). When exclusively firing natural gas, the boiler is rated at a design heat input of 763 MM Btu per hour, and while firing natural gas and BFG, the boiler is rated at a design heat input of 746 MM Btu per hour. While operating on either fuel, the boiler has a design output capacity of 500,000 pounds of steam per hour.	8/7/2001	FGBOILERS
EUBOILER2	One boiler capable of firing either natural gas or a combination of natural gas and blast furnace gas (BFG). When exclusively firing natural gas, the boiler is rated at a design heat input of 763 MM Btu per hour, and while firing natural gas and BFG, the boiler is rated at a design heat input of 746 MM Btu per hour. While operating on either fuel, the boiler has a design output capacity of 500,000 pounds of steam per hour.	8/7/2001	FGBOILERS
EUBOILER3	One boiler capable of firing either natural gas or a combination of natural gas and blast furnace gas (BFG). When exclusively firing natural gas, the boiler is rated at a design heat input of 763 MM Btu per hour, and while firing natural gas and BFG, the boiler is rated at a design heat input of 746 MM Btu per hour. While operating on either fuel, the boiler has a design output capacity of 500,000 pounds of steam per hour.	8/7/2001	FGBOILERS
EUBFGFLARE1	One blast furnace gas flare equipped with a natural gas pilot flame. This flare is fired exclusively with blast furnace gas and is designed to operate when the blast furnace gas/natural gas boilers are not operating. The flare is rated at an approximate heat input of 480 MM Btu/hour.	3/1/1999	FGBFGFLARES
EUBFGFLARE2	One blast furnace gas flare equipped with a natural gas pilot flame. This flare is fired exclusively with blast furnace gas and is designed to operate when the blast furnace gas/natural gas boilers are not operating. The flare is rated at an approximate heat input of 1292 MM Btu/hour.	5/1/1999	FGBFGFLARES
EU3516GEN1	Caterpillar model 3516 reciprocating engine – 1.7 megawatts and 14.4 MMBtu/hour heat input.	10/1/2003	FGEMERGENCYGENS
EU3516GEN2	Caterpillar model 3516 reciprocating engine – 1.7 megawatts and 14.4 MMBtu/hour heat input.	10/1/2003	FGEMERGENCYGENS

**EUCTG1**  
**EMISSION UNIT CONDITIONS**

**DESCRIPTION**

One simple cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1,586 MM Btu per hour. The rated output capacity of the unit is approximately 170 megawatts.

**Flexible Group IDs:** FGTURBINES, FGPLANT

**POLLUTION CONTROL EQUIPMENT**

Dry low NOx combustor

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx as NO <sub>2</sub>	9 ppmv at 15% O <sub>2</sub> on a dry basis at 100% turbine load. <sup>2</sup>	Test protocol	EUCTG1	GC 13	<b>40 CFR Part 60 Subpart GG &amp; R 336.1205(1)(a)</b>
2. NOx as NO <sub>2</sub>	60 pph at 100% turbine load. <sup>2</sup>	Monthly average	EUCTG1	VI.4, VI.5, GC 13	<b>R 336.1205(1)(a)</b>
3. CO	9 ppmv at 15% O <sub>2</sub> on a dry basis at 100% turbine load. <sup>2</sup>	Test protocol	EUCTG1	GC 13	<b>R 336.1205(1)(a)</b>
4. CO	30 pph at 100% turbine load. <sup>2</sup>	Monthly average	EUCTG1	GC 13, VI.4, VI.5	<b>R 336.1205(1)(a)</b>
5. VOC	2.8 pph <sup>2</sup>	Monthly average	EUCTG1	GC 13, VI.4, VI.5, V.1, V.2	<b>R 336.1205(1)(a)</b>
6. PM <sub>10</sub>	9 pph <sup>2</sup>	Monthly average	EUCTG1	GC 13, VI.4, VI.5, V.1, V.2	<b>R 336.1205(1)(a)</b>

**II. MATERIAL LIMIT(S)**

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

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

NA

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

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

1. Testing to verify PM10 and VOC emission limits shall be conducted within 180 days of the issuance of this permit if an acceptable emissions test has not been conducted within 5 years prior to the issuance of the RO permit, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1213(3), R 336.2003, R 336.2004)**
2. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

See Appendix 5

## **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the natural gas usage rate (hourly and daily) in EUCTG1. The heating value of the natural gas in Btu per cubic foot shall be determined on a monthly basis from samples taken at a point in the pipeline to EUCTG1 on the permittee's property. Upon request, the AQD District Supervisor may authorize a different sampling method and/or sampling schedule.<sup>2</sup> **(40 CFR Part 75, Appendix D, R 336.1205(1)(a))**
2. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner, a device to monitor and record the NO<sub>x</sub> (as NO<sub>2</sub>) emissions from EUCTG1 on a continuous basis. Installation and operation of the continuous emission monitoring system (CEMS) shall meet the timelines, requirements, and reporting detailed in 40 CFR Part 60 Appenndix F. **(R 336.1213(3))** If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) in lieu of a Continuous Emissions Monitoring System (CEMS) to monitor NO<sub>x</sub> emissions, the permittee shall follow the protocol as approved by the Environmental Protection Agency (EPA). **(40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))**
3. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner, a device to monitor and record the CO emissions from EUCTG1 on a continuous basis. Installation and operation of the continuous emission monitoring system (CEMS) shall meet the timelines, requirements, and reporting detailed in 40 CFR Part 60 Appenndix F. **(R336.1213(3))** If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) in lieu of a Continuous Emissions Monitoring System (CEMS) to monitor CO emissions, the permittee shall follow the protocol as approved by the Environmental Protection Agency (EPA). **(40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))**
4. The permittee shall maintain the following records<sup>2</sup>
  - Hourly heat input to EUCTG1, MMBtu.
  - Hourly NO<sub>x</sub> emission rate, lb/MMBtu and lb/hour.
  - Monthly turbine operation (hours) at full load (100%) and partial loads (including startup and shutdown).
  - Total monthly turbine NO<sub>x</sub> emissions (lbs and tons), for all operating loads, including start-up and shutdown.
  - Average NO<sub>x</sub> emission rate (lb/hr) at 100% load, calculated at the end of each calendar month.
  - Hourly PM10 emission rate, lbs/hour, based on a monthly averaging period.
  - Hourly CO emission rate, lbs/hour, based on a monthly averaging period.
  - Hourly VOC emission rate, lbs/hour, based on a monthly averaging period.**(40 CFR Part 75, Appendix D, R 336.1205(1)(a))**
5. The permittee shall verify compliance with the emission limitations for EUCTG1 by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.4.<sup>2</sup> **(R 336.1205(1)(a))**
6. If it becomes necessary to revise, modify or update the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, the

permittee shall re-submit the document to the District Supervisor for review and written approval before implementing such revisions, modifications, or updates.<sup>2</sup> **(R 336.1205(1)(a))**

**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. Report shall be received by 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. Report shall be received by 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 Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVCGT1	213 <sup>2</sup>	60 <sup>2</sup>	<b>R 336.1225 and 40 CFR 52.21(c) and (d)</b>

**IX. OTHER REQUIREMENT(S)**

1. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) to monitor NOx emissions, the permittee shall follow the protocol delineated in the Environmental Protection Agency's (EPA) April 5, 2006, approval letter for GTP1. **(40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))**
2. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) to monitor CO emissions, the permittee shall follow the protocol delineated in Performance Specification 16 in Appendix B of 40 CFR Part 60. **(40 CFR Part 60 Appendix B).**

**Footnotes:**

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

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

**EUCTG2  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

One combined cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1,562 MM Btu per hour. The heated and pressurized exhaust gases from the turbine are utilized to power an electric generator shaft and are then sent to an unfired heat recovery steam generator. The rated output capacity of the unit is approximately 167 megawatts.

**Flexible Group ID:** FGTURBINES, FGPLANT

**POLLUTION CONTROL EQUIPMENT**

Dry low NOx combustor

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx as NO <sub>2</sub>	9 ppmv at 15% O <sub>2</sub> on a dry basis at 100% turbine load. <sup>2</sup>	Monthly average	EUCTG2	GC 13, VI.2, VI.3	<b>40 CFR Part 60 Subpart GG &amp; R 336.1205(1)(a)</b>
2. NOx as NO <sub>2</sub>	63 pph at 100% turbine load. <sup>2</sup>	Monthly average	EUCTG2	GC 13, VI.6	<b>R 336.1205(1)(a)</b>
3. CO	9 ppmv at 15% O <sub>2</sub> on a dry basis at 100% turbine load. <sup>2</sup>	Test protocol	EUCTG2	GC 13	<b>R 336.1205(1)(a)</b>
4. CO	31 pph at 100% turbine load. <sup>2</sup>	Monthly average	EUCTG2	GC 13, VI.5, VI.6	<b>R 336.1205(1)(a)</b>
5. VOC	2.8 pph <sup>2</sup>	Monthly average	EUCTG2	GC 13, VI.1, VI.2, VI.6	<b>R 336.1205(1)(a)</b>
6. PM <sub>10</sub>	9 pph <sup>2</sup>	Monthly average	EUCTG2	GC 13, VI.1, VI.2, VI.6	<b>R 336.1205(1)(a)</b>

**II. MATERIAL LIMIT(S)**

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

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

NA

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

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

1. Testing to verify PM<sub>10</sub> and VOC emission limits shall be conducted within 180 days of the issuance of this permit if an acceptable emissions test has not been conducted within 5 years prior to the issuance of the RO permit, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R336.1213(3), R336.2003, R336.2004)**. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) in lieu of stack testing to monitor CO emissions, the permittee shall follow the protocol delineated in Performance Specification 16 in Appendix B of 40 CFR Part 60. **(40 CFR Part 60 Appendix B)**
2. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

**See Appendix 5**

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall install calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the natural gas usage rate (hourly and daily) in EUCTG2. The heating value of the natural gas in Btu per cubic foot shall be determined on a monthly basis from samples taken at a point in the pipeline to EUCTG2 on the permittee's property. Upon request, the AQD District Supervisor may authorize a different sampling method and/or sampling schedule.<sup>2</sup> **(R 336.1205(1)(a))**
2. The permittee shall install calibrate, maintain and operate in a satisfactory manner a device to monitor and record the NO<sub>x</sub> (as NO<sub>2</sub>) emissions from EUCTG2 on a continuous basis. Installation and operation of the continuous emission monitoring system (CEMS) shall meet the timelines, requirements and reporting detailed in 40 CFR Part 60 Appendix F. **(R 336.1213(a))**. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) in lieu of a Continuous Emissions Monitor System (CEMS) to monitor NO<sub>x</sub> emissions, the permittee shall follow the protocol delineated in the Environmental Protection Agency's (EPA) September 6, 2006, approval letter for GT2100. **(40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))**
3. The permittee shall install calibrate, maintain and operate in a satisfactory manner a device to monitor and record the CO emissions from EUCTG2 on a continuous basis. Installation and operation of the continuous emission monitoring system (CEMS) shall meet the timelines, requirements and reporting detailed in 40 CFR Part 60 Appendix F.<sup>2</sup> **(R336.1205(10(a))**. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) in lieu of a Continuous Emissions Monitor System (CEMS) to monitor CO emissions, the permittee shall follow the protocol as approved by the Environmental Protection Agency **(40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))**
4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the O<sub>2</sub> concentration of the stack gases on a continuous basis.<sup>2</sup> **(R 336.1205(1)(a))**
5. The permittee shall maintain the following records:<sup>2</sup>
  - Hourly NO<sub>x</sub> emission rate, lbs/hour.
  - Total daily NO<sub>x</sub> emission rate, lbs/day, calculated at the end of each calendar day.
  - Average NO<sub>x</sub> concentrations (ppmvd) and emission rate (lb/hr) occurring at 100% load, at the end of each calendar month.
  - Total monthly NO<sub>x</sub> emission (tons/month), that occur under all turbine operating loads including periods of start-up and shutdown.
  - Annual NO<sub>x</sub> emission rate (tons/year) based on a 12-month rolling time period as determined at the end of each calendar month.
  - Hourly PM<sub>10</sub> emission rate, lbs/hour, based on a monthly averaging period.
  - Hourly CO emission rate, lbs/hour, based on a monthly averaging period.
  - Hourly VOC emission rate, lbs/hour, based on a monthly averaging period.**R 336.1205(1)(a))**

6. The permittee shall verify compliance with the emission limitations for EUCTG2 by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.6.<sup>2</sup> **(R 336.1205(1)(a))**
7. If it becomes necessary to revise, modify or update the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, the permittee shall re-submit the document to the District Supervisor for review and written approval before implementing such revisions, modifications, or updates.<sup>2</sup> **(R 336.1205(1)(a))**

**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. Report shall be received by 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. Report shall be received by 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 Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVCGT2	210 <sup>2</sup>	150 <sup>2</sup>	<b>R 336.1225 and 40 CFR 52.21(c) and (d)</b>

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

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

**EUCTG3  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

One combined cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1,562 MM Btu per hour. The heated and pressurized exhaust gases from the turbine are utilized to power an electric generator shaft and are then sent to an unfired heat recovery steam generator. The rated output capacity of the unit is approximately 167 megawatts.

**Flexible Group ID:** FGTURBINES, FGPLANT

**POLLUTION CONTROL EQUIPMENT**

Dry low NOx combustor

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx as NO <sub>2</sub>	9 ppmv at 15% O <sub>2</sub> on a dry basis at 100% turbine load. <sup>2</sup>	Monthly average	EUCTG3	GC 13, VI.2, VI.4	<b>40 CFR Part 60 Subpart GG &amp; R 336.1205(1)(a)</b>
2. NOx as NO <sub>2</sub>	63 pph at 100% turbine load. <sup>2</sup>	Monthly average	EUCTG3	GC 13, VI.5, VI.6	<b>R 336.1205(1)(a)</b>
3. CO	9 ppmv at 15% O <sub>2</sub> on a dry basis at 100% turbine load. <sup>2</sup>	Test protocol	EUCTG3	GC 13	<b>R 336.1205(1)(a)</b>
4. CO	31 pph at 100% turbine load. <sup>2</sup>	Monthly average	EUCTG3	GC 13, VI.5, VI.6	<b>R 336.1205(1)(a)</b>
5. VOC	2.8 pph <sup>2</sup>	Monthly average	EUCTG3	GC 13, VI.1, VI.2, VI.5, VI.6	<b>R 336.1205(1)(a)</b>
6. PM <sub>10</sub>	9 pph <sup>2</sup>	Monthly average	EUCTG3	GC 13, VI.1, VI.2, VI.5, VI.6	<b>R 336.1205(1)(a)</b>

**II. MATERIAL LIMIT(S)**

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

**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 5 years. (R 336.1213(3)(b)(ii))

1. Testing to verify PM<sub>10</sub> and VOC emission limits shall be conducted within 180 days of the issuance of this permit if an acceptable emissions test has not been conducted within 5 years prior to the issuance of the RO permit, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R336.1213(3), R336.2003, R336.2004)**. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) to monitor CO emissions, the permittee shall follow the protocol delineated in Performance Specification 16 in Appendix B of 40 CFR Part 60. **(40 CFR Part 60 Appendix B)**
2. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

See Appendix 5

## **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall install calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the natural gas usage rate (hourly and daily) in EUCTG3. The heating value of the natural gas in Btu per cubic foot shall be determined on a monthly basis from samples taken at a point in the pipeline to EUCTG3 on the permittee's property. Upon request, the AQD District Supervisor may authorize a different sampling method and/or sampling schedule.<sup>2</sup> **(R 336.1205(1)(a))**
2. The permittee shall install calibrate, maintain and operate in a satisfactory manner a device to monitor and record the NO<sub>x</sub> (as NO<sub>2</sub>) emissions from EUCTG3 on a continuous basis. Installation and operation of the continuous emission monitoring system (CEMS) shall meet the timelines, requirements and reporting detailed in 40 CFR Part 60 Appendix F. **(R 336.1213(3))**. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) in lieu of a Continuous Emissions Monitoring System (CEMS) to monitor NO<sub>x</sub> emissions, the permittee shall follow the protocol delineated in the Environmental Protection Agency's (EPA) September 6, 2006, approval letter for GTP3100. **(40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))**
3. The permittee shall install calibrate, maintain and operate in a satisfactory manner a device to monitor and record the CO emissions from EUCTG3 on a continuous basis. Installation and operation of the continuous emission monitoring system (CEMS) shall meet the timelines, requirements and reporting detailed in 40 CFR Part 60 Appendix F.<sup>2</sup> **(R336.1205(1)(a))**. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) in lieu of a Continuous Emissions Monitor System (CEMS) to monitor CO emissions, the permittee shall follow the protocol as approved by the Environmental Protection Agency. **(40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))**
4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the O<sub>2</sub> concentration of the stack gases on a continuous basis.<sup>2</sup> **(R 336.1205(1)(a))**
5. The permittee shall maintain the following records:<sup>2</sup>
  - Hourly NO<sub>x</sub> emission rate, lbs/hour.
  - Total daily NO<sub>x</sub> emission rate, lbs/day, calculated at the end of each calendar day.
  - Average NO<sub>x</sub> concentrations (ppmvd) and emission rate (lb/hr) occurring at 100% load, at the end of each calendar month.
  - Total monthly NO<sub>x</sub> emission (tons/month), that occur under all turbine operating loads including periods of start-up and shutdown.
  - Annual NO<sub>x</sub> emission rate (tons/year) based on a 12-month rolling time period as determined at the end of each calendar month.
  - Hourly PM<sub>10</sub> emission rate, lbs/hour, based on a monthly averaging period.
  - Hourly CO emission rate, lbs/hour, based on a monthly averaging period.
  - Hourly VOC emission rate, lbs/hour, based on a monthly averaging period.**(R 336.1205(1)(a))**

6. The permittee shall verify compliance with the emission limitations for EUCTG3 by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.6.<sup>2</sup> **(R 336.1205(1)(a))**
7. If it becomes necessary to revise, modify or update the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, the permittee shall re-submit the document to the District Supervisor for review and written approval before implementing such revisions, modifications, or updates.<sup>2</sup> **(R 336.1205(1)(a))**

**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. Report shall be received by 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. Report shall be received by 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 Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVCCT3	210 <sup>2</sup>	150 <sup>2</sup>	R 336.1225 and 40 CFR 52.21(c) and (d)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

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

### D. FLEXIBLE GROUP CONDITIONS

Part D outlines 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
FGTURBINES	This emission group consists of the simple cycle combustion turbine, and two combined cycle turbines	EUCTG1, EUCTG2, and EUCTG3
FGBOILERS	This emission group consists of three natural gas and blast furnace gas fired boilers.	EUBOILER1, EUBOILER2, and EUBOILER3
FGBFGFLARES	This emission group consists of two blast furnace gas fired flares	EUBFGFLARE1 AND EUBFGFLARE2
FGPLANT	This emission group contains three turbines, and three boilers	FGTURBINES and FGBOILERS
FGBFG	This emission group consists of any emission unit which combusts, or has the capability of combusting, blast furnace gas.	EUBOILER1, EUBOILER2, EUBOILER3, EUBFGFLARE1, and EUBFGFLARE2
FGEMERGENCYGENS	This emission group consists of two oil fired emergency electrical generators.	EU3516GEN1, EU3516GEN2

**FGTURBINES  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

This emission group consists of the simple cycle combustion turbine, and two combined cycle turbines

**Emission Units:** EUCTG1, EUCTG2, AND EUCTG3

**POLLUTION CONTROL EQUIPMENT**

Dry low NOx combustors.

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario**	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NO <sub>x</sub> as NO <sub>2</sub>	815 tpy <sup>2</sup>	12 month rolling time period*	FGTURBINES	VI.2	R 336.12051)(a)
2. CO	403 tpy <sup>2</sup>	12 month rolling time period*	FGTURBINES	VI.2	R 336.12051)(a)
3. VOC	36 tpy <sup>2</sup>	12 month rolling time period*	FGTURBINES	VI.2	R 336.12051)(a)
4. PM <sub>10</sub>	118 tpy <sup>2</sup>	12 month rolling time period*	FGTURBINES	VI.2	R 336.12051)(a)

\* As determined at the end of each calendar month.

**II. MATERIAL LIMIT(S)**

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

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

- The turbines shall not be fired with any fuel other than pipeline quality natural gas. Natural gas is defined in 40 CFR Part 72 Section 72.2.<sup>2</sup> (R 336.1205(1)(a))

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

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

See testing requirements for each emission unit.

See Appendix 5

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

- The permittee shall maintain the following records for FGTURBINES<sup>2</sup>

- Annual PM<sub>10</sub> emission rate, tons/year, based on a 12 month rolling time period as determined at the end of each calendar month.
  - Annual CO emission rate, tons/year, based on a 12 month rolling time period as determined at the end of each calendar month.
  - Annual VOC emission rate, tons/year, based upon a rolling 12 month time period, as determined at the end of each calendar month.
  - Annual NO<sub>x</sub> (as NO<sub>2</sub>) emission rate, tons/year, based on a 12 month rolling time period, as determined at the end of each calendar month.
- (R 336.1205(1)(a))**

2. The permittee shall verify compliance with the emission limitations for FGTURBINES by following the procedures and methodologies contained in the document entitled “Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP-MI-N6631-2004” dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.3.<sup>2</sup> **(R 336.1205(1)(a))**
3. If it becomes necessary to revise, modify or update the document entitled “Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP-MI-N6631-2004” dated May 31, 2011, the permittee shall re-submit the document to the District Supervisor for review and written approval before implementing such revisions, modifications, or updates.<sup>2</sup> **(R 336.1205(1)(a))**

**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. Report shall be received by 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. Report shall be received by 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
1. See tables for each emission unit	See tables for each emission unit	See tables for each emission unit	<b>See tables for each emission unit</b>

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall not allow the emission of an air pollutant to exceed the amount of any emission allowances that an affected source lawfully holds as of the allowance transfer deadline pursuant to Rule 299(d) and 40 CFR Part 72.9(c)(1)(i). **(R 336.1213(10))**
2. The permittee shall comply with the acid rain permitting provisions of 40 CFR 72.1 to 72.94 as outlined in a complete Phase II Acid Rain Permit issued by the AQD. The Phase II Acid Rain Permit No. MI-AR-55088-2012 is hereby incorporated into this ROP as Appendix 9. **(R 336.1299(2)(a))**
3. The permittee shall comply with the CAIR SO<sub>2</sub> Trading Program provisions of 40 CFR Part 97.201 through 97.288, as adopted and modified by R 336.1420, and as outlined in any complete CAIR SO<sub>2</sub> permit issued by

the AQD. CAIR SO<sub>2</sub> Permit No. SO2-55088-2012 is hereby incorporated into this ROP as Appendix 10. **(R 336.1420)**

4. The permittee shall hold allowances for compliance deductions in the source's compliance account as of the allowance transfer deadline in an amount not less than the total SO<sub>2</sub> emissions for the control period from the source pursuant to 40 CFR Part 97.254. **(40 CFR Part 97.254)**
5. The permittee shall comply with the CAIR NO<sub>x</sub> Annual Trading Program provisions of 40 CFR Part 97.101 through 97.188, as adopted and modified by R 336.1802a, R 336.1803, R 336.1821, and R 336.1830 through R 336.1834, and as outlined in any complete CAIR NO<sub>x</sub> Annual permit issued by the AQD. CAIR NO<sub>x</sub> Annual Permit No. NOO-55088-2012 is hereby incorporated into this ROP as Appendix 11. **(R 336.1821)**
6. The permittee shall hold allowances for compliance deductions in the source's compliance account as of the allowance transfer deadline in an amount not less than the total NO<sub>x</sub> emissions for the control period from the source pursuant to 40 CFR Part 97.154. **(40 CFR Part 97.154)**
7. The permittee shall comply with the CAIR NO<sub>x</sub> Ozone Trading Program provisions of 40 CFR Part 97.301 through 97.388, as adopted and modified by R 336.1802a, R 336.1803, and R 336.1821 through R 336.1826, and as outlined in any complete CAIR NO<sub>x</sub> Ozone permit issued by the AQD. CAIR NO<sub>x</sub> Ozone Permit No. NOO-55088-2012 is hereby incorporated into this ROP as Appendix 12. **(R 336.1821)**
8. The permittee shall hold allowances for compliance deductions in the source's compliance account as of the allowance transfer deadline in an amount not less than the total NO<sub>x</sub> emissions for the control period from the source pursuant to 40 CFR Part 97.354. **(40 CFR Part 97.354)**

**Footnotes:**

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

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

**FGBOILERS  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

This emission group consists of three natural gas and blast furnace gas fired boilers.

**Emission Units:** EUBOILER1, EUBOILER2, and EUBOILER3

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM <sub>10</sub>	22.3 pph <sup>2</sup>	Monthly average	FGBOILERS	VI.1	R 336.1205(1)(a)
2. NO <sub>x</sub>	0.10 lb/MMBtu <sup>2</sup>	30-day rolling average	FGBOILERS	GC 13, VI.1	R 336.1205(1)(a), 40 CFR 60 Subpart Db
3. NO <sub>x</sub>	76.3 pph <sup>2</sup>	30-day rolling average	FGBOILERS	VI.1	R 336.1205(1)(a)
4. SO <sub>2</sub>	420 pph <sup>2</sup>	Daily average	FGBOILERS	VI.1	R 336.1205(1)(a),
5. SO <sub>2</sub>	1839.6 tpy <sup>2</sup>	12-month rolling time period	FGBOILERS	VI.1	R 336.1205(3),
6. CO	64.1 pph <sup>2</sup>	30-day rolling average	FGBOILERS	VI.1	R 336.1205(1)(a)
7. VOC	7.5 pph <sup>2</sup>	Monthly average	FGBOILERS	VI.1	R 336.1205(1)(a), R 336.1702(a)
8. VOC	84 tpy <sup>2</sup>	12-month rolling time period	FGBOILERS	VI.1	R 336.1205(3)

Notes:

- Items 1, 2, 3, 6 and 7 above are applicable to each boiler in FGBOILERS
- Items 4, 5, and 8 above apply to the combined total of all three boilers in FGBOILERS

**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)**

- The boilers in FGBOILERS shall not be fired with any fuel other than pipeline natural gas (NG) or a mixture of natural gas and blast furnace gas (BFG).<sup>2</sup> (R 336.1205(1)(a))

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

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

1. Testing shall be conducted within 180 days of the issuance of this permit if an acceptable emissions test has not been conducted within 5 years prior to the issuance of the RO permit, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1213(3), R 336.2003, R 336.2004)**. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) in lieu of a stack test to monitor CO emissions, the permittee shall follow the protocol delineated in Performance Specification 16 in Appendix B of 40 CFR Part 60. **(40 CFR Part 60 Appendix B)**
2. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

**See Appendix 5**

## **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall verify compliance with the emission limitations for FGBOILERS by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP MI-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.9.<sup>2</sup> **(R 336.1205(1)(a))**
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the NO<sub>x</sub> emissions from each boiler in FGBOILERS on a continuous basis. Installation and operation of each continuous emission monitoring system (CEMS) shall meet the timelines, requirements and reporting detailed in 40 CFR Part 60 Appendix F.<sup>2</sup> **(40 CFR 60, Subparts A and Db)**. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) in lieu of a Continuous Emissions Monitor System (CEMS) to monitor NO<sub>x</sub> emissions, the permittee shall follow the protocol as approved by the Environmental Protection Agency. **(40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))**
3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the CO emissions from each boiler in FGBOILERS on a continuous basis. Installation and operation of each continuous emission monitoring system (CEMS) shall meet the timelines, requirements and reporting detailed in 40 CFR Part 60 Appendix F.<sup>2</sup> **(R336.1213(3))**. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) in lieu of a Continuous Emissions Monitoring System (CEMS) to monitor CO emissions, the permittee shall follow the protocol as approved by the Environmental Protection Agency. **(40 CFR Part 60 Appendix B)**
4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the SO<sub>2</sub> emissions from each boiler in FGBOILERS on a continuous basis. Installation and operation of each continuous emission monitoring system (CEMS) shall meet the timelines, requirements and reporting detailed in 40 CFR Part 60 Appendix F.<sup>2</sup> **(R336.1205(1)(a))**. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) in lieu of a Continuous Emissions Monitoring System (CEMS) to monitor SO<sub>2</sub> emissions, the permittee shall follow the protocol delineated in Performance Specification 16 in Appendix B of 40 CFR Part 60. **(40 CFR Part 60 Appendix B)**
5. The permittee shall compile hourly and daily sulfur dioxide emission rate calculations and make these emission rate calculations available to the AQD for inspection. **(R 336.1213(3))**
6. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the O<sub>2</sub> concentration of each stack gas on a continuous basis.<sup>2</sup> **(40 CFR 60, Subparts A and Db)**
7. The permittee shall install calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the natural gas usage rate of each boiler in FGBOILERS on a daily basis in cubic feet per day. The heating value of the natural gas in Btu per cubic foot shall be determined on a monthly basis from samples taken at a point in the pipeline to FGBOILERS on the permittee's property. Upon request, the AQD District Supervisor may authorize a different method and/or sampling schedule.<sup>2</sup> **(R 336.1205(1)(a))**

8. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the blast furnace gas usage rate of each boiler in FGBOILERS on a daily basis in cubic feet per day. The heating value of the blast furnace gas in Btu per cubic foot shall be determined on a monthly basis from samples taken at a point in the pipeline to FGBOILERS on the permittee's or the BFG supplier's property. Upon request, the AQD District Supervisor may authorize a different method and/or sampling schedule.<sup>2</sup>  
**(R 336.1205(1)(a))**
9. The permittee shall maintain the following records:<sup>2</sup>
- Hourly NO<sub>x</sub> and SO<sub>2</sub> emission rates from each boiler, lb/MMBtu and lbs/hr.
  - 30-day rolling average NO<sub>x</sub> emission rates (lb/MMBtu and lb/hr) from each boiler as determined at the end of each steam generating unit operating day.
  - Total daily NO<sub>x</sub> and SO<sub>2</sub> emissions (lbs/day) at the end of each day.
  - Total monthly NO<sub>x</sub> and SO<sub>2</sub> emissions (lbs) at the end of each calendar month.
  - Annual NO<sub>x</sub> and SO<sub>2</sub> emission rate (tons/year), based on a 12-month rolling time period as determined at the end of each calendar month.
  - Hours each boiler operated on natural gas only on a monthly basis.
  - Hours each boiler operated on a mixture of natural gas and blast furnace gas on a monthly basis.
  - Caloric value of natural gas (Btu/cubic foot) on a monthly basis.
  - Caloric value of blast furnace gas (Btu/cubic foot) on a monthly basis.
  - Amount of natural gas consumed in each boiler in cubic feet on a monthly basis.
  - Amount of blast furnace gas consumed in each boiler in cubic feet on a monthly basis.
  - Calculated PM<sub>10</sub> emission rate, lbs/hour, based upon a monthly averaging period.
  - Calculated CO emission rate, lbs/hour, based upon a monthly averaging period.
  - Calculated VOC emission rate, lbs/hour, based upon a monthly averaging period.
  - Calculated PM<sub>10</sub> emission rate, tons/year, based upon a 12-month rolling time period, as determined at the end of each month.
  - Calculated CO emission rate, tons/year, based upon a 12-month rolling time period, as determined at the end of each month.
  - Calculated VOC emission rate, tons/year, based upon a 12-month rolling time period, as determined at the end of each month.
- (40 CFR 60 Subparts A and Db, R 336.1205(1)(a))**
10. If it becomes necessary to revise, modify or update the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP MI-N6631-2004" dated May 31, 2011, the permittee shall re-submit the document to the District Supervisor for review and written approval before implementing such revisions, modifications, or updates.<sup>2</sup> **(R 336.1205(1)(a))**

**See Appendices 3 and 4**

## **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. Report shall be received by 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. Report shall be received by appropriate AQD district office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. All source emissions data and operating data required to be submitted under 40 CFR Part 60, Subparts A and Db shall be submitted to the District Supervisor in an acceptable format within 30 days following the end of the calendar quarter in which the data were collected.<sup>2</sup> **(40 CFR Part 60, Subparts A and Db)**

**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 Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBOILER1	126 <sup>2</sup>	185 <sup>2</sup>	<b>R 336.1225 and 40 CFR 52.21(c) and (d)</b>
2. SVBOILER2	126 <sup>2</sup>	185 <sup>2</sup>	<b>R 336.1225 and 40 CFR 52.21(c) and (d)</b>
3. SVBOILER3	126 <sup>2</sup>	185 <sup>2</sup>	<b>R 336.1225 and 40 CFR 52.21(c) and (d)</b>

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with the CAIR SO2 Trading Program provisions of 40 CFR Part 97.201 through 97.288, as adopted and modified by R 336.1420, and as outlined in any complete CAIR SO2 permit issued by the AQD. CAIR SO2 Permit No. SO2-55088-2012 is hereby incorporated into this ROP as Appendix 10. **(R 336.1420)**
2. The permittee shall hold allowances for compliance deductions in the source’s compliance account as of the allowance transfer deadline in an amount not less than the total SO2 emissions for the control period from the source pursuant to 40 CFR Part 97.254. **(40 CFR Part 97.254)**
3. The permittee shall comply with the CAIR NOx Annual Trading Program provisions of 40 CFR Part 97.101 through 97.188, as adopted and modified by R 336.1802a, R 336.1803, R 336.1821, and R 336.1830 through R 336.1834, and as outlined in any complete CAIR NOx Annual permit issued by the AQD. CAIR NOx Annual Permit No. NOO-55088-2012 is hereby incorporated into this ROP as Appendix 11. **(R 336.1821)**
4. The permittee shall hold allowances for compliance deductions in the source’s compliance account as of the allowance transfer deadline in an amount not less than the total NOx emissions for the control period from the source pursuant to 40 CFR Part 97.154. **(40 CFR Part 97.154)**
5. The permittee shall comply with the CAIR NOx Ozone Trading Program provisions of 40 CFR Part 97.301 through 97.388, as adopted and modified by R 336.1802a, R 336.1803, and R 336.1821 through R 336.1826, and as outlined in any complete CAIR NOx Ozone permit issued by the AQD. CAIR NOx Ozone Permit No. NOO-55088-2012 is hereby incorporated into this ROP as Appendix 12. **(R 336.1821)**
6. The permittee shall hold allowances for compliance deductions in the source’s compliance account as of the allowance transfer deadline in an amount not less than the total NOx emissions for the control period from the source pursuant to 40 CFR Part 97.354. **(40 CFR Part 97.354)**

**Footnotes:**

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

**FGBFGFLARES  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

This emission group consists of two blast furnace gas fired flares.

**Emission Units:** EUBFGFLARE1, EUBFGFLARE2

**POLLUTION CONTROL EQUIPMENT**

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. CO	301.2 pph <sup>2</sup>	Monthly average	FGBFGFLARES	VI.2, VI.4	<b>R 336.1205(1(a))</b>
2. NOx	96.6 pph <sup>2</sup>	Monthly average	FGBFGFLARES	VI.2, VI.4	<b>R 336.1205(1(a))</b>
3. PM	7.4 pph <sup>2</sup>	Monthly average	FGBFGFLARES	VI.2, VI.4	<b>R 336.1205(1(a))</b>

**II. MATERIAL LIMIT(S)**

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

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

NA

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

- Both flares in FGBFGFLARES shall be equipped with automatic ignition systems consisting of a thermocouple, or other device approved by the Department. The automatic ignition systems for the flares in FGBFGFLARES shall be operated and maintained such that the blast furnace gas is continuously combusted whenever blast furnace gas is sent to the blast furnace gas flare.<sup>2</sup> **(R 336.1910)**

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

NA

**See Appendix 5**

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

- The permittee shall install calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the blast furnace gas usage rate of each flare in FGBFGFLARES on a daily basis in cubic feet per day. The heating value of the blast furnace gas in Btu per cubic foot shall be determined on a monthly basis from samples taken at a point in the pipeline to FGBFGFLARES on the permittee's or the BFG supplier's property. Upon request, the AQD District Supervisor may authorize a different method and/or sampling schedule.<sup>2</sup> **(R 336.1205(1)(a))**

2. The permittee shall verify compliance with the emission limitations for FGBFGFLARES by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP MI-ROP-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.5.<sup>2</sup> **(R 336.1205(1)(a))**
3. The permittee shall keep monthly records for each blast furnace gas flare included in FGBFGFLARES of the amount of blast furnace gas consumed in million cubic feet.<sup>2</sup> **(R 336.1205(1)(a))**
4. The permittee shall keep records for each blast furnace gas flare included in FGBFGFLARES of the monthly average NO<sub>x</sub>, CO and PM emission calculations consistent with the calculation methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP MI-ROP-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.5. All records are for the purpose of compliance demonstration and shall be kept on file for a period of at least five years and made available to the Department upon request.<sup>2</sup> **(R 336.1205(1)(a))**
5. If it becomes necessary to revise, modify or update the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP MI-ROP-N6631-2004" dated May 31, 2011, the permittee shall re-submit the document to the District Supervisor for review and written approval before implementing such revisions, modifications, or updates.<sup>2</sup> **(R 336.1205(1)(a))**

See Appendices 3 and 4

**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. Report shall be received by 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. Report shall be received by 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:**

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

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

**FGBFG  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

This emission group consists of any emission unit which combusts, or has the capability of combusting, blast furnace gas.

**Emission Units:** EUBFGFLARE1, EUBFGFLARE2, EUBOILER1, EUBOILER2, and EUBOILER3

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	1087.1 tpy <sup>2</sup>	12-month rolling time period	FGBFG	VI.1, VI.2	<b>R 336.1205(1)(a)</b>
2. CO	1798 tpy <sup>2</sup>	12-month rolling time period	FGBFG	VI.1, VI.2	<b>R 336.1205(1)(a)</b>
3. PM	237.1 tpy <sup>2</sup>	12-month rolling time period	FGBFG	VI.1, VI.2	<b>R 336.1205(1)(a)</b>
4. SO2	673 pph <sup>2*</sup>	Daily average	FGBFG	VI.1, VI.2	<b>R 336.1205(1)(a), 40 CFR 52.21 (c) and (d)</b>
5. SO2	2947.7 tpy <sup>2</sup>	12-month rolling time period	FGBFG	VI.1, VI.2	<b>R 336.1205(1)(a)</b>

NOTE:

\* Does not apply during periods of startup, shutdown and malfunction(s).

**II. MATERIAL LIMIT(S)**

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

**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 5 years. **(R 336.1213(3)(b)(ii))**

NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall verify compliance with the emission limitations for FGBFG by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the

Emission Limitations of ROP MI-ROP-N6631-2004” dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.3.<sup>2</sup> **(R 336.1205(1)(a))**

2. The permittee shall maintain the following records<sup>2</sup>
  - Calculated PM emission rate, tons/year, based upon a 12-month rolling time period, as determined at the end of each month.
  - Calculated CO emission rate, tons/year, based upon a 12-month rolling time period, as determined at the end of each month.
  - Calculated NO<sub>x</sub> emission rate, tons/year, based upon a 12-month rolling time period, as determined at the end of each month.
  - Calculated SO<sub>2</sub> emission rate, tons/year, based upon a 12-month rolling time period, as determined at the end of each month.
  - Calculated SO<sub>2</sub> emission rate, lbs/hour, based upon a daily averaging period.**(R 336.1205(1)(a))**
  
3. If it becomes necessary to revise, modify or update the document entitled “Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP MI-ROP-N6631-2004” dated May 31, 2011, the permittee shall re-submit the document to the District Supervisor for review and written approval before implementing such revisions modifications, or updates.<sup>2</sup> **(R 336.1205(1)(a))**

See Appendices 3 and 4

**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. Report shall be received by 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. Report shall be received by 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
See tables for each emission unit	See tables for each emission unit	See tables for each emission unit	<b>See tables for each emission unit</b>

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

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

**FGEMERGENCYGENS  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Two Caterpillar model 3516 reciprocating engine emergency generators. Each generator is rated at 1.7 megawatts generating capacity and 14.8 MMBtu/hour heat input.

**Emission Units:** EU3516GEN1 and EU3516GEN2

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	0.0369 pounds per kW-Hr (each generator) <sup>2</sup>	Test Protocol	FGEMERGENCYGENS	GC 13	<b>R 336.1201(3)</b>
2. NOx	63.1 pounds per hour (each generator) <sup>2</sup>	Hourly	FGEMERGENCYGENS	VI.2	<b>R 336.1201(3)</b>
3. CO	0.009 pounds per kW-Hr (each generator) <sup>2</sup>	Test Protocol	FGEMERGENCYGENS	GC 13	<b>R 336.1201(3)</b>
4. CO	15.3 pounds per hour (each generator) <sup>2</sup>	Hourly	FGEMERGENCYGENS	VI.3	<b>R 336.1201(3)</b>
5. SO2	120 parts per million by volume at 50% excess air (each generator)	As determined averaged over a three- hour time period otherwise determined by the testing protocol agreed upon by AQD	FGEMERGENCYGENS	GC 13	<b>R 336.1401(1)</b>

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Fuel sulfur content	0.05% by weight (each generator) <sup>2</sup>	Instantaneous	FGEMERGENCYGENS	VI.4	R 336.1201(3)

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

1. The permittee shall not operate FGEMERGENCYGENS for more than 1,000 generator-hours per year. Generator-hour is defined as the sum of the total hours each generator operates during a calendar year including startup and shutdown.<sup>2</sup> (R 336.1201(3))

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

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

NA

See Appendix 5

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

1. The permittee shall monitor and record the daily electrical output (KW-hr) and hours of operation of each emission unit during each calendar day in which the emission unit(s) operated.<sup>2</sup> (R 336.1201(3))
2. The permittee shall calculate and record the daily NO<sub>x</sub> emissions (lbs) by multiplying the daily electrical output (kW-hr) of each emission unit by the maximum emission limit (lb/kW-hr) specified in special condition I.1 for each calendar day in which the emission unit(s) operated. The permittee shall calculate the hourly NO<sub>x</sub> emission rate (lbs/hr) for each emission unit by dividing the associated total daily NO<sub>x</sub> emissions (lbs) by the hours of operation.<sup>2</sup> (R 336.1205(1)(a) and R 336.1205(3))
3. The permittee shall calculate and record the daily CO emissions (lbs) by multiplying the daily electrical output (kW-hr) of each emission unit by the maximum emission limit (lb/kW-hr) specified in special condition I.3 for each calendar in which the emission unit(s) operated. The permittee shall calculate the hourly CO emission rate (lbs/hr) for each emission unit by dividing the associated total daily CO emissions (lbs) by the hours of operation.<sup>2</sup> (R 336.1205(1)(a) and R 336.1205(3))
4. The permittee shall keep a complete record of fuel oil specifications or fuel oil analysis, indicating the sulfur content, for each delivery of fuel oil.<sup>2</sup> (R 336.201(3))

See Appendices 3 and 4

**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. Report shall be received by 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. Report shall be received by 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 Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV351601	14 <sup>2</sup>	23.4 <sup>2</sup>	<b>R 336.1201(3), 40 CFR paragraphs (c) and (d), R 336.1224, R 336.1225</b>
2. SV351602	14 <sup>2</sup>	23.4 <sup>2</sup>	<b>R 336.1201(3), 40 CFR paragraphs (c) and (d), R 336.1224, R 336.1225</b>

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall maintain and operate FGEMERGENCYGENS according to the procedures outlined in the preventative maintenance plan recommended by the generator manufacturer.<sup>2</sup> **(R 336.1213(3))**

**Footnotes:**

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

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

## **E. NON-APPLICABLE REQUIREMENTS**

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

## APPENDICES

### Appendix 1. Abbreviations & 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
gr	Grains	psig	Pounds per square inch gauge
HAP	Hazardous Air Pollutant	PeTE	Permanent Total Enclosure
Hg	Mercury	PTI	Permit to Install
hr	Hour	RACT	Reasonable Available Control Technology
HP	Horsepower	ROP	Renewable Operating Permit
H <sub>2</sub> S	Hydrogen Sulfide	SC	Special Condition
HVLP	High Volume Low Pressure *	scf	Standard cubic feet
ID	Identification (Number)	sec	Seconds
IRSL	Initial Risk Screening Level	SCR	Selective Catalytic Reduction
ITSL	Initial Threshold Screening Level	SO <sub>2</sub>	Sulfur Dioxide
LAER	Lowest Achievable Emission Rate	SRN	State Registration Number
lb	Pound	TAC	Toxic Air Contaminant
m	Meter	Temp	Temperature
MACT	Maximum Achievable Control Technology	THC	Total Hydrocarbons
MAERS	Michigan Air Emissions Reporting System	tpy	Tons per year
MAP	Malfunction Abatement Plan	µg	Microgram
MDEQ	Michigan Department of Environmental Quality	VE	Visible Emissions
mg	Milligram	VOC	Volatile Organic Compounds
mm	Millimeter	yr	Year

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

## **Appendix 2. Schedule of Compliance**

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

The permittee shall adhere to this schedule of compliance and submit the required certified progress reports accordingly.

### **Compliance Plan**

The permittee outlined the details of achieving compliance in a narrative compliance plan. The details of the compliance plan are outlined below.

### **Schedule of Compliance**

The following schedule of compliance conforms with the provisions of Rule 119(a) and Rule 213(4).

The permittee shall continue to comply with the requirements set forth in Consent Order AQD No. 31-2003 and as specified in FGBOILERS, Parts I and V.

### **Progress Reports**

The permittee shall submit certified Progress Reports to the appropriate District Supervisor of the AQD using the MDEQ Report Certification form (EQP 5736). 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. **(R 336.1213(4)(b))**

Progress reports shall contain the following information:

The projected dates for achieving scheduled activities, milestones or compliance as required in the schedule of compliance. **(R 336.1213(4)(b)(i))**

The actual dates that the activities, milestones, or compliance are achieved. **(R 336.1213(4)(b)(i))**

An explanation of why any dates in the schedule of compliance were not or will not be met. **(R 336.1213(4)(b)(ii))**

A description of any preventative or corrective measures adopted in order to ensure that the schedule of compliance is met. **(R 336.1213(4)(b)(ii))**

## **Appendix 3. Monitoring Requirements**

Monitoring procedures, methods, and/or specifications for showing compliance with all of the emission limits contained in this permit are contained in the Continuous Compliance Plan which was submitted under permit 253-02. This document is entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP No. MI-ROP-N6631-2004" dated May 31, 2011.

## **Appendix 4. Recordkeeping**

Recordkeeping parameters, frequency of recordkeeping, and recordkeeping methodologies are contained in the Continuous Compliance Plan entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP No. MI-ROP-N6631-2004," dated May 31, 2011.

**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 since the effective date of previously issued ROP No. MI-ROP-N6631-2004: **This includes any PTI that were incorporated into the Source-wide PTI No MI-PTI-N6631-2004 through amendments or modifications and any PTI that remained off-permit until this ROP renewal.]**

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

**Appendix 7. Emission Calculations**

Procedures and methodology for showing compliance with the emission limits contained in this permit are contained in the Continuous Compliance Plan entitled “Protocol for Demonstrating Continuous Compliance with the Emission Limitations of Permit No. 253-02” dated February 18, 2003.

**Appendix 8. Reporting**

**A. Annual, Semi-annual, and Deviation Certification Reporting**

The permittee shall use the MDEQ Report Certification form (EQP 5736) and MDEQ Deviation Report form (EQP 5737) for the annual, semi-annual and deviation certification reporting referenced in the Reporting section of the source-wide, emission unit and/or flexible group special conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

**B. Other Reporting**

The permittee shall use the following approved formats and procedures for the reporting requirements referenced 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. Acid Rain Permit**



Michigan Department Of Environmental Quality  
Air Quality Division

**PHASE II ACID RAIN PERMIT  
Permit No. MI-AR-55088-2012**

Permittee	Dearborn Industrial Generation
Address	2400 Miller Rd., Dearborn, MI
SRN	N6631
ORIS code	55088
Issue Date	March 28, 2012
Effective:	Issuance date of this facility’s Renewable Operating Permit at the facility in accordance with 40 CFR 72.73.
Expiration	This permit shall expire when the facility’s Renewable Operating Permit expires, in accordance with 40 CFR 72.73.
ROP No.	MI-ROP-N6631-2012

**The Acid Rain Permit Contents**

1. A statement of basis prepared by the Air Quality Division (AQD) containing:
  - References to statutory and regulatory authorities, and with comments, notes, and justification that apply to the source in general;
  
2. Terms and conditions including:
  - A table of sulfur dioxide allowances to be allocated during the term of the permit, if applicable, authorized by this permit during Phase II. Unless they are subject to sections 405(g)(2) or (3) of the Clean Air Act, new units are not allocated allowances in 40 CFR part 73 and must obtain allowances by other means (sec. 403(e) of the Clean Air Act).;
  - Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements; and,
  - Any applicable nitrogen oxides compliance plan. Unless they are coal fired utility units regulated pursuant to sections 404, 405, or 409 of the Clean Air Act, new units are not subject to the acid rain nitrogen oxides requirements [40 CFR 76.1(a)].
  
3. The permit application that this source submitted, as corrected by the AQD. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the application.

## **Statement of Basis**

### **Statutory and Regulatory Authorities**

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

For further information contact:

Brian Carley  
Environmental Quality Specialist  
Michigan Department of Environmental Quality  
Air Quality Division  
301 Louis Glick Highway  
Jackson, Michigan 49201  
Telephone: (517) 780-7843  
Facsimile: (517) 780-7437

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

**Terms and Conditions:**

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

		2011	2012	2013	2014	2015
Unit EUCTG 1	SO <sub>2</sub> allowances	This affected unit shall hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under § 73.34(c) of this chapter) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and comply with the applicable Acid Rain emissions limitation for sulfur dioxide in accordance with 40 CFR 72.9 (c).				

		2011	2012	2013	2014	2015
Unit EUCTG 2	SO <sub>2</sub> allowances	This affected unit shall hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under § 73.34(c) of this chapter) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and comply with the applicable Acid Rain emissions limitation for sulfur dioxide in accordance with 40 CFR 72.9 (c).				

		2011	2012	2013	2014	2015
Unit EUCTG 3	SO <sub>2</sub> allowances	This affected unit shall hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under § 73.34(c) of this chapter) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and comply with the applicable Acid Rain emissions limitation for sulfur dioxide in accordance with 40 CFR 72.9 (c).				

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

**Permit Application:** (attached)

*Acid Rain Permit Application submitted February 25, 2011*



**Permit Requirements**

**STEP 3**

Read the standard requirements.

- (1) The designated representative of each affected source and each affected unit at the source shall:
  - (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
  - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each affected source and each affected unit at the source shall:
  - (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
  - (ii) Have an Acid Rain Permit.

**Monitoring Requirements**

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

**Sulfur Dioxide Requirements**

- (1) The owners and operators of each source and each affected unit at the source shall:
  - (i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and
  - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
  - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
  - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).

**Sulfur Dioxide Requirements, Cont'd.**

- STEP 3, Cont'd.
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
  - (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
  - (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
  - (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

#### **Nitrogen Oxides Requirements**

The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

#### **Excess Emissions Requirements**

- (1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an affected source that has excess emissions in any calendar year shall:
  - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
  - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

#### **Recordkeeping and Reporting Requirements**

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
  - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;

#### **Recordkeeping and Reporting Requirements, Cont'd.**

- STEP 3, Cont'd.
- (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
  - (iii) Copies of all reports, compliance certifications, and other submissions

and all records made or required under the Acid Rain Program; and,  
(iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.  
(2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

**Liability**

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.  
(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.  
(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.  
(4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.  
(5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.  
(6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.  
(7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

**Effect on Other Authorities**

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

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

**Effect on Other Authorities, Cont'd.**

STEP 3, Cont'd.

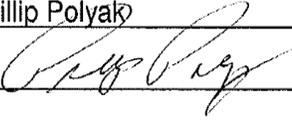
to applicable National Ambient Air Quality Standards or State Implementation Plans;  
(2) Limiting the number of allowances a source can hold; *provided*, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;  
(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements

- under such State law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
  - (5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

**Certification**

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

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Phillip Polyak	
Signature 	Date Feb 22, 2011

**Appendix 10. CAIR Sulfur Dioxide Budget Permit**



Michigan Department Of Environmental Quality  
 Air Quality Division

**CAIR Sulfur Dioxide Budget Permit  
 Permit No. MI-SO2-55088-2012**

Permittee      Dearborn Industrial Generation  
 Address        2400 Miller Rd., Dearborn, MI  
 SRN             N6631  
 ORIS code     55088  
 Issue Date     March 28, 2012  
 Expiration     This permit shall expire when the facility's Renewable  
                      Operating Permit (ROP) expires in accordance with 40 CFR  
                      97.221(b).  
 ROP No.        MI-ROP-N6631-2012

This permit incorporates automatically the definitions of terms under Air Pollution Control Rule 336.1420.

This permit incorporates automatically, upon recordation by the EPA Administrator in accordance with 40 CFR part 97 subpart FFF, GGG, or III every allocation, transfer, or deduction of a SO2 allowance to or from the compliance accounts of the CAIR SO2 unit(s) covered by the permit.

The owners and operators of the source must comply with the standard requirements and special provisions set forth in this permit.

This permit incorporates any attached comments, notes or justifications regarding permit decisions and changes made to the permit application forms during the review process.

**Units covered under this permit**

<b>AQD Unit ID</b>	<b>Unit Type</b>			
EU00001	<input type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input checked="" type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00002	<input type="checkbox"/> Stationary Boiler	<input checked="" type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00003	<input type="checkbox"/> Stationary Boiler	<input checked="" type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00004	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00005	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00006	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other

**Permit Application:**

*CAIR SO2 Annual Permit application submitted February 25, 2011*

## Standard requirements

### (a) Permit requirements.

(1) The CAIR designated representative of each CAIR SO<sub>2</sub> source required to have a ROP and each CAIR SO<sub>2</sub> unit required to have a ROP at the source shall:

(i) Submit to the permitting authority a complete CAIR permit application under § 97.222 in accordance with the deadlines specified in § 97.221; and

(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review a CAIR permit application and issue or deny a CAIR permit.

(2) The owners and operators of each CAIR SO<sub>2</sub> source required to have a ROP and each CAIR SO<sub>2</sub> unit required to have a ROP at the source shall have a CAIR permit issued by the permitting authority under subpart CCC of 40 CFR part 97 for the source and operate the source and the unit in compliance with such CAIR permit.

### (b) Monitoring, Reporting, and Recordkeeping Requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of subpart HHH of 40 CFR part 97.

(2) The emissions measurements recorded and reported in accordance with subpart HHH of 40 CFR part 97 shall be used to determine compliance by each CAIR SO<sub>2</sub> source with the CAIR SO<sub>2</sub> emissions limitation under paragraph (c) of this permit.

### (c) Sulfur Dioxide Emission Requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall hold, in the source's compliance account, a tonnage equivalent in CAIR SO<sub>2</sub> allowances available for compliance deductions for the control period, as determined in accordance with § 97.254(a) and (b), not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO<sub>2</sub> units at the source, as determined in accordance with subpart HHH of 40 CFR part 97.

(2) A CAIR SO<sub>2</sub> unit shall be subject to the requirements under paragraph (c)(1) of this section for the control period starting on the later of January 1, 2010 or the deadline for meeting the unit(s) monitor certification requirements under § 97.270(b)(1),(2), or (5) and for each control period thereafter.

(3) A CAIR SO<sub>2</sub> allowance shall not be deducted, for compliance with the requirements under paragraph (c)(1) of this section, for a control period in a calendar year before the year for which the CAIR SO<sub>2</sub> allowance was allocated.

(4) CAIR SO<sub>2</sub> allowances shall be held in, deducted from, or transferred into or among CAIR SO<sub>2</sub> Allowance Tracking System accounts in accordance with subparts FFF, GGG, and III of 40 CFR part 97.

(5) A CAIR SO<sub>2</sub> allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO<sub>2</sub> Trading Program. No provision of the CAIR SO<sub>2</sub> Trading Program, the CAIR permit application, the CAIR permit, or an exemption under § 97.205 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(6) A CAIR SO<sub>2</sub> allowance does not constitute a property right.

(7) Upon recordation by the Administrator under subpart FFF, GGG, or III of 40 CFR part 97, every allocation, transfer, or deduction of a CAIR SO<sub>2</sub> allowance to or from a CAIR SO<sub>2</sub> source's compliance account is incorporated automatically in any CAIR permit of the source.

**(d) Excess emissions requirements.**

If a CAIR SO<sub>2</sub> source emits sulfur dioxide during any control period in excess of the CAIR SO<sub>2</sub> emissions limitation, then:

- (1) The owners and operators of the source and each CAIR SO<sub>2</sub> unit at the source shall surrender the CAIR SO<sub>2</sub> allowances required for deduction under § 97.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and
- (2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of this subpart, the Clean Air Act, and applicable State law.

**(e) Recordkeeping and Reporting Requirements.**

(1) Unless otherwise provided, the owners and operators of the CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the permitting authority or the Administrator.

(i) The certificate of representation under § 97.213 for the CAIR designated representative for the source and each CAIR SO<sub>2</sub> 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 documents are superseded because of the submission of a new certificate of representation under § 97.213 changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with subpart HHH of 40 CFR part 97, provided that to the extent that subpart HHH of 40 CFR part 97 provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR SO<sub>2</sub> Trading Program.

(iv) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR SO<sub>2</sub> Trading Program or to demonstrate compliance with the requirements of the CAIR SO<sub>2</sub> Trading Program.

(2) The CAIR designated representative of a CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall submit the reports required under the CAIR SO<sub>2</sub> Trading Program, including those under subpart HHH of 40 CFR part 97.

**(f) Liability.**

(1) Each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit shall meet the requirements of the CAIR SO<sub>2</sub> Trading Program.

(2) Any provision of the CAIR SO<sub>2</sub> Trading Program that applies to a CAIR SO<sub>2</sub> source or the CAIR designated representative of a CAIR SO<sub>2</sub> source shall also apply to the owners and operators of such source and of the CAIR SO<sub>2</sub> units at the source.

(3) Any provision of the CAIR SO<sub>2</sub> Trading Program that applies to a CAIR SO<sub>2</sub> unit or the CAIR designated representative of a CAIR SO<sub>2</sub> unit shall also apply to the owners and operators of such unit.

**(g) Effect On Other Authorities.**

No provision of the CAIR SO<sub>2</sub> Trading Program, a CAIR permit application, a CAIR permit, or an exemption under § 97.205 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR SO<sub>2</sub> source or CAIR SO<sub>2</sub> unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.

**Appendix 11. CAIR Annual Nitrogen Oxide Budget Permit**



Michigan Department Of Environmental Quality  
 Air Quality Division

**CAIR Annual Nitrogen Oxide Budget Permit  
 Permit No. MI-NOA-55088-2012**

Permittee      Dearborn Industrial Generation  
 Address        2400 Miller Rd., Dearborn, MI  
 SRN             N6631  
 ORIS code     55088  
 Issue Date    March 28, 2012  
 Expiration     This permit shall expire when the facility's Renewable  
                       Operating Permit expires in accordance with Air Pollution  
                       Control Rule 336.1821.  
 ROP No.        MI-ROP-N6631-2012

This permit incorporates automatically the definitions of terms under Air Pollution Control Rule 336.1803.

This permit incorporates automatically, upon recordation by the EPA Administrator in accordance with Air Pollution Control Rule 336.1830, 336.1831 and 336.1834 every allocation, transfer, or deduction of a NOx allowance to or from the compliance accounts of the NOx Budget unit(s) covered by the permit.

The owners and operators of the source must comply with the standard requirements and special provisions set forth in this permit.

This permit incorporates any attached comments, notes or justifications regarding permit decisions and changes made to the permit application forms during the review process.

**Units covered under this permit**

<b>AQD Unit ID</b>	<b>Unit Type</b>			
EU00001	<input type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input checked="" type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00002	<input type="checkbox"/> Stationary Boiler	<input checked="" type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00003	<input type="checkbox"/> Stationary Boiler	<input checked="" type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00004	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00005	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00006	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other

**Permit Application:**

*CAIR NOx Annual Permit application submitted February 25, 2011*

## Standard Requirements

### (a) Permit Requirements.

(1) The CAIR designated representative of each CAIR NOX source required to have a Renewable Operating Permit (ROP) and each CAIR NOX unit required to have a ROP at the source shall:

- (i) Submit to the Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) a complete CAIR permit application under R 336.1821(3) in accordance with the deadlines specified in 40 CFR 97.121; and
- (ii) Submit in a timely manner any supplemental information that the MDEQ-AQD determines is necessary in order to review a CAIR permit application and issue or deny a CAIR permit.

(2) The owners and operators of each CAIR NOX source required to have a ROP and each CAIR NOX unit required to have a ROP at the source shall have a CAIR permit issued by the MDEQ-AQD under subpart CC of 40 CFR part 97 for the source and operate the source and the unit in compliance with such CAIR permit.

### (b) Monitoring, Reporting, and Recordkeeping Requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR NOX source and each CAIR NOX unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of subpart HH of 40 CFR part 97.

(2) The emissions measurements recorded and reported in accordance with subpart HH of 40 CFR part 97 shall be used to determine compliance by each CAIR NOX source with the CAIR NOX emissions limitation under paragraph (c) of this permit.

### (c) Nitrogen Oxides Emission Requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NOX source and each CAIR NOX unit at the source shall hold, in the source's compliance account, CAIR NOX allowances available for compliance deductions for the control period under 40 CFR 97.154(a) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NOX units at the source, as determined in accordance with subpart HH of 40 CFR part 97.

(2) A CAIR NOX unit shall be subject to the requirements under paragraph (c)(1) for the control period starting on the later of January 1, 2009 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.170(b)(1), (2), or (5) and for each control period thereafter.

(3) A CAIR NOX allowance shall not be deducted, for compliance with the requirements under paragraph (c)(1) of this section, for a control period in a calendar year before the year for which the CAIR NOX allowance was allocated.

(4) CAIR NOX allowances shall be held in, deducted from, or transferred into or among CAIR NOX Allowance Tracking System accounts in accordance with subparts EE, FF, GG, or II of 40 CFR part 97.

(5) A CAIR NOX Ozone Season allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NOX Ozone Season Trading Program. No provision of the CAIR NOX Ozone Season Trading Program, the CAIR permit application, the CAIR permit, or an exemption under § 97.105 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(6) A CAIR NOX allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NOX Annual Trading Program. No provision of the CAIR NOX Annual Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 40 CFR 97.105 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(7) A CAIR NOX allowance does not constitute a property right.

(8) Upon recordation by the Administrator under subpart EE, FF, GG, or II of 40 CFR part 97, every allocation, transfer, or deduction of a CAIR NOX allowance to or from a CAIR NOX source's compliance account is incorporated automatically in any CAIR permit of the source.

**(d) Excess Emissions Requirements.**

If a CAIR NOX source emits nitrogen oxides during any control period in excess of the CAIR NOX emissions limitation, then:

(1) The owners and operators of the source and each CAIR NOX unit at the source shall surrender the CAIR NOX allowances required for deduction under 40 CFR 97.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and

(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, the Clean Air Act, and applicable State rules.

**(e) Recordkeeping and Reporting Requirements.**

(1) Unless otherwise provided, the owners and operators of the CAIR NOX source and each CAIR NOX unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the MDEQ-AQD or the Administrator.

(i) The certificate of representation under § 97.113 for the CAIR designated representative for the source and each CAIR NOX 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 documents are superseded because of the submission of a new certificate of representation under § 97.113 changing the CAIR designated representative.

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

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NOX Annual Trading Program.

(iv) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NOX Annual Trading Program or to demonstrate compliance with the requirements of the CAIR NOX Annual Trading Program.

(2) The CAIR designated representative of a CAIR NOX source and each CAIR NOX unit at the source shall submit the reports required under the CAIR NOX Annual Trading Program, including those under subpart HH of 40 CFR part 97.

**(f) Liability.**

(1) Each CAIR NOX source and each CAIR NOX unit shall meet the requirements of the CAIR NOX Annual Trading Program.

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

(3) Any provision of the CAIR NOX Annual Trading Program that applies to a CAIR NOX unit or the CAIR designated representative of a CAIR NOX unit shall also apply to the owners and operators of such unit.

**(g) Effect on Other Authorities.**

No provision of the CAIR NOX Annual Trading Program, a CAIR permit application, a CAIR permit, or an exemption under § 97.105 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NOX source or CAIR NOX unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.

**Appendix 12. CAIR Ozone Nitrogen Oxide Budget Permit**



Michigan Department Of Environmental Quality  
 Air Quality Division

**CAIR Ozone Nitrogen Oxide Budget Permit  
 Permit No. MI-NOO-55088-2012**

Permittee      Dearborn Industrial Generation  
 Address        2400 Miller Rd., Dearborn, MI  
 SRN             N6631  
 ORIS code     55088  
 Issue Date     March 28, 2012  
 Expiration     This permit shall expire when the facility's Renewable  
                       Operating Permit expires in accordance with Air Pollution  
                       Control Rule 336.1821.  
 ROP No.        MI-ROP-N6631-2012

This permit incorporates automatically the definitions of terms under Air Pollution Control Rule 336.1803.

This permit incorporates automatically, upon recordation by the EPA Administrator in accordance with Air Pollution Control Rule 336.1822, 336.1823 and 336.1834 every allocation, transfer, or deduction of a NOx allowance to or from the compliance accounts of the NOx Budget unit(s) covered by the permit.

The owners and operators of the source must comply with the standard requirements and special provisions set forth in this permit.

This permit incorporates any attached comments, notes or justifications regarding permit decisions and changes made to the permit application forms during the review process.

**Units covered under this permit**

<b>AQD Unit ID</b>	<b>Unit Type</b>			
EU00001	<input type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input checked="" type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00002	<input type="checkbox"/> Stationary Boiler	<input checked="" type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00003	<input type="checkbox"/> Stationary Boiler	<input checked="" type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00004	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00005	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other
EU00006	<input checked="" type="checkbox"/> Stationary Boiler	<input type="checkbox"/> Combined Cycle System	<input type="checkbox"/> Combustion Turbine	<input type="checkbox"/> Other

**Permit Application:**

*CAIR NOx Ozone Season Permit application submitted February 25, 2011*

## Standard Requirements

### (a) Permit Requirements.

(1) The CAIR designated representative of each CAIR NOX source required to have a Renewable Operating Permit (ROP) and each CAIR NOX unit required to have a ROP at the source shall:

- (i) Submit to the Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) a complete CAIR permit application under R 336.1821(3) in accordance with the deadlines specified in 40 CFR 97.321; and
- (ii) Submit in a timely manner any supplemental information that the MDEQ-AQD determines is necessary in order to review a CAIR permit application and issue or deny a CAIR permit.

(2) The owners and operators of each CAIR NOX source required to have a ROP and each CAIR NOX unit required to have a ROP at the source shall have a CAIR permit issued by the MDEQ-AQD under subpart CCCC of 40 CFR part 97 for the source and operate the source and the unit in compliance with such CAIR permit.

### (b) Monitoring, Reporting, and Recordkeeping Requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR NOX source and each CAIR NOX unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of subpart HHHH of 40 CFR part 97.

(2) The emissions measurements recorded and reported in accordance with subpart HHHH of 40 CFR part 97 shall be used to determine compliance by each CAIR NOX source with the CAIR NOX emissions limitation under paragraph (c) of this permit.

### (c) Nitrogen Oxides Emission Requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NOX source and each CAIR NOX unit at the source shall hold, in the source's compliance account, CAIR NOX allowances available for compliance deductions for the control period under 40 CFR 97.354(a) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NOX units at the source, as determined in accordance with subpart HHHH of 40 CFR part 97.

(2) A CAIR NOX unit shall be subject to the requirements under paragraph (c)(1) for the control period starting on the later of January 1, 2009 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.370(b)(1), (2), (3) or (7) and for each control period thereafter.

(3) A CAIR NOX allowance shall not be deducted, for compliance with the requirements under paragraph (c)(1) of this permit, for a control period in a calendar year before the year for which the CAIR NOX allowance was allocated.

(4) CAIR NOX allowances shall be held in, deducted from, or transferred into or among CAIR NOX Allowance Tracking System accounts in accordance with subparts EEEE, FFFF, GGGG, or IIII of 40 CFR part 97.

(5) A CAIR NOX Ozone Season allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NOX Ozone Season Trading Program. No provision of the CAIR NOX Ozone Season Trading Program, the CAIR permit application, the CAIR permit, or an exemption under § 97.305 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(6) A CAIR NOX allowance does not constitute a property right.

(7) Upon recordation by the Administrator under subpart EEEE, FFFF, GGGG, or IIII of 40 CFR part 97, every allocation, transfer, or deduction of a CAIR NOX allowance to or from a CAIR NOX source's compliance account is incorporated automatically in any CAIR permit of the source.

**(d) Excess Emissions Requirements.**

If a CAIR NOX source emits nitrogen oxides during any control period in excess of the CAIR NOX emissions limitation, then:

- (1) The owners and operators of the source and each CAIR NOX unit at the source shall surrender the CAIR NOX allowances required for deduction under 40 CFR 97.354(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and
- (2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, the Clean Air Act, and applicable State rules.

**(e) Recordkeeping and Reporting Requirements.**

(1) Unless otherwise provided, the owners and operators of the CAIR NOX source and each CAIR NOX unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the MDEQ-AQD or the Administrator.

(i) The certificate of representation under § 97.313 for the CAIR designated representative for the source and each CAIR NOX 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 documents are superseded because of the submission of a new certificate of representation under § 97.313 changing the CAIR designated representative.

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

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NOX Ozone Trading Program.

(iv) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NOX Ozone Trading Program or to demonstrate compliance with the requirements of the CAIR NOX Ozone Trading Program.

(2) The CAIR designated representative of a CAIR NOX source and each CAIR NOX unit at the source shall submit the reports required under the CAIR NOX Ozone Trading Program, including those under subpart HHHH of 40 CFR part 97.

**(f) Liability.**

(1) Each CAIR NOX source and each CAIR NOX unit shall meet the requirements of the CAIR NOX Ozone Trading Program.

(2) Any provision of the CAIR NOX Ozone Trading Program that applies to a CAIR NOX source or the CAIR designated representative of a CAIR NOX source shall also apply to the owners and operators of such source and of the CAIR NOX units at the source.

(3) Any provision of the CAIR NOX Ozone Trading Program that applies to a CAIR NOX unit or the CAIR designated representative of a CAIR NOX unit shall also apply to the owners and operators of such unit.

**(g) Effect on Other Authorities.**

No provision of the CAIR NOX Ozone Trading Program, a CAIR permit application, a CAIR permit, or an exemption under § 97.305 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NOX source or CAIR NOX unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.



# **ATTACHMENT 2**

**PTI NO. 72-15**

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

August 12, 2015

**PERMIT TO INSTALL  
72-15**

**ISSUED TO**  
Dearborn Industrial Generation, L.L.C.

**LOCATED AT**  
2400 Miller Road  
Dearborn, Michigan

**IN THE COUNTY OF**  
Wayne

**STATE REGISTRATION NUMBER**  
N6631

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

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203:

**May 15, 2015**

DATE PERMIT TO INSTALL APPROVED:

**August 12, 2015**

SIGNATURE:

DATE PERMIT VOIDED:

SIGNATURE:

DATE PERMIT REVOKED:

SIGNATURE:

## PERMIT TO INSTALL

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### Common Abbreviations / Acronyms

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	BTU	British Thermal Unit
BACT	Best Available Control Technology	°C	Degrees Celsius
CAA	Clean Air Act	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
CO <sub>2</sub> e	Carbon Dioxide Equivalent	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	gr	Grains
EPA	Environmental Protection Agency	Hg	Mercury
EU	Emission Unit	hr	Hour
FG	Flexible Group	H <sub>2</sub> S	Hydrogen Sulfide
GACS	Gallon of Applied Coating Solids	hp	Horsepower
GC	General Condition	lb	Pound
GHGs	Greenhouse Gases	kW	Kilowatt
HAP	Hazardous Air Pollutant	m	Meter
HVLP	High Volume Low Pressure *	mg	Milligram
ID	Identification	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	NO <sub>x</sub>	Oxides of Nitrogen
MDEQ	Michigan Department of Environmental Quality (Department)	PM	Particulate Matter
MSDS	Material Safety Data Sheet	PM10	PM with aerodynamic diameter ≤10 microns
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	PM with aerodynamic diameter ≤ 2.5 microns
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR	New Source Review	ppm	Parts per million
PS	Performance Specification	ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight
PTE	Permanent Total Enclosure	psia	Pounds per square inch absolute
PTI	Permit to Install	psig	Pounds per square inch gauge
RACT	Reasonably Available Control Technology	scf	Standard cubic feet
ROP	Renewable Operating Permit	sec	Seconds
SC	Special Condition	SO <sub>2</sub>	Sulfur Dioxide
SCR	Selective Catalytic Reduction	THC	Total Hydrocarbons
SRN	State Registration Number	tpy	Tons per year
TAC	Toxic Air Contaminant	µg	Microgram
TEQ	Toxicity Equivalence Quotient	VOC	Volatile Organic Compound
VE	Visible Emissions	yr	Year

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

### GENERAL CONDITIONS

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

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
  - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
  - b) A visible emission limit specified by an applicable federal new source performance standard.
  - c) A visible emission limit specified as a condition of this Permit to Install.
  
12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). **(R 336.1370)**
  
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

**SPECIAL CONDITIONS**

**EMISSION UNIT SUMMARY TABLE**

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

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EUCTG1	One simple cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1,586 MM Btu per hour. The rated output capacity of the unit is approximately 170 megawatts.	6/01/1999 8/12/2015	FGTURBINES
EUCTG2	One combined cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1,626 MM Btu per hour. The heated and pressurized exhaust gases from the turbine are utilized to power an electric generator shaft and are then sent to an unfired heat recovery steam generator. The rated output capacity of the unit is approximately 179 megawatts.	7/23/2001 8/12/2015	FGTURBINES
EUCTG3	One combined cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1,626 MM Btu per hour. The heated and pressurized exhaust gases from the turbine are utilized to power an electric generator shaft and are then sent to an unfired heat recovery steam generator. The rated output capacity of the unit is approximately 179 megawatts.	7/9/2001 8/12/2015	FGTURBINES
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.			

**The following conditions apply to:**  
**EUCTG1**

**DESCRIPTION:** One simple cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1,586 MM Btu per hour. The rated output capacity of the unit is approximately 170 megawatts.

**Flexible Group ID:** FGTURBINES

**POLLUTION CONTROL EQUIPMENT:** Dry Low NOx Combustor

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx as NO <sub>2</sub>	9 ppmv at 15% O <sub>2</sub> on a dry basis	Test Protocol*	EUCTG1	SC VI.2, GC 13	R 336.1205(1)(a), R 336.2802(4), 40 CFR Part 60 Subpart GG
2. NOx as NO <sub>2</sub>	72 pph	720-hour rolling average as determined at the end of each hour that the unit operates	EUCTG1	SC VI.2, SC VI.4, GC 13	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)
3. CO	9 ppmv at 15% O <sub>2</sub> on a dry basis	Test Protocol*	EUCTG1	SC VI.3, GC 13	R 336.1205(1)(a), R 336.2802(4)
4. CO	30 pph	720-hour rolling average as determined at the end of each hour that the unit operates	EUCTG1	SC VI.3, SC VI.4, GC 13	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(d)
5. VOC	2.8 pph	Test Protocol*	EUCTG1	SCV.1, SC VI.1	R 336.1205(1)(a), R 336.2802(4)
6. PM10	9 pph	Test Protocol*	EUCTG1	SC V.1, SC VI.1	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)

\*Test Protocol shall specify averaging time.

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

NA

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

#### **V. TESTING/SAMPLING**

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

1. Testing to verify PM10 and VOC emission limits shall be conducted within 180 days of the issuance of this permit if an acceptable emissions test has not been conducted within 5 years prior to the issuance of the RO permit, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.2003, R 336.2004)**
2. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. **(R 336.2001, R 336.2003, R 336.2004)**

#### **VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the natural gas usage rate in EUCTG1 on an hourly and monthly basis. The heating value of the natural gas in BTU per cubic foot shall be determined on a monthly basis from one sample taken from the main gas pipeline to the facility on the permittee's property. Upon request, the AQD District Supervisor may authorize a different sampling method and/or sampling schedule. **(40 CFR Part 75, Appendix D, R 336.1205(1)(a))**
2. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner, a device to monitor and record the NO<sub>x</sub> (as NO<sub>2</sub>) emissions from EUCTG1 on a continuous basis. Installation and operation of the Continuous Emission Monitoring System (CEMS) or equivalent Predictive Emissions Monitoring System (PEMS) shall meet the timelines, requirements, and reporting detailed in 40 CFR Part 60 Appendix F. If the permittee chooses to use a PEMS in lieu of a CEMS to monitor NO<sub>x</sub> emissions, the permittee shall follow the protocol as approved by the Environmental Protection Agency (EPA). **(40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))**
3. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner, a device to monitor and record the CO emissions from EUCTG1 on a continuous basis. Installation and operation of the Continuous Emission Monitoring System (CEMS) shall meet the timelines, requirements, and reporting detailed in 40 CFR Part 60 Appendix F. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) in lieu of a CEMS to monitor CO emissions, the permittee shall follow the protocol as approved by the Environmental Protection Agency (EPA). **(40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))**
4. The permittee shall maintain the following records
  - a. Hourly NO<sub>x</sub> emission rate, in pph.
  - b. Hourly CO emission rate, in pph.
  - c. 720-hour rolling average NO<sub>x</sub> emission rate in pph, based on actual hours of turbine operation. Upon issuance of this PTI the 720-hour rolling average shall include the previous 720 hours of operation.
  - d. 720-hour rolling average CO emission rate in pph, based on actual hours of turbine operation. Upon issuance of this PTI the 720-hour rolling average shall include the previous 720 hours of operation.
  - e. Monthly hours of turbine operation including startup and shutdown.
  - f. Total monthly PM10 emission rate in tons per month.
  - g. Total monthly VOC emission rate in tons per month.**(40 CFR Part 75, R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d))**
5. The permittee shall verify compliance with the emission limitations for EUCTG1 by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under Special Condition VI.6. **(R 336.1205(1)(a))**

6. If it becomes necessary to modify the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, the permittee shall re-submit the document to the District Supervisor for review and written approval before implementing any modifications to the protocol. **(R 336.1205(1)(a))**

## **VII. REPORTING**

NA

## **VIII. STACK/VENT RESTRICTIONS**

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

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVCTG1	213	60	R 336.1225, 40 CFR 52.21(c) & (d)

## **IX. OTHER REQUIREMENTS**

1. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) to monitor NO<sub>x</sub> emissions, the permittee shall follow the protocol delineated in the Environmental Protection Agency's (EPA) April 5, 2006, approval letter for GTP1. **(40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))**
2. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) to monitor CO emissions, the permittee shall follow the protocol delineated in Performance Specification 16 in Appendix B of 40 CFR Part 60. **(40 CFR Part 60 Appendix B).**

### **Footnotes:**

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

**The following conditions apply to:**  
**EUCTG2**

**DESCRIPTION:** One combined cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1,626 MM Btu per hour. The heated and pressurized exhaust gases from the turbine are utilized to power an electric generator shaft and are then sent to an unfired heat recovery steam generator. The rated output capacity of the unit is approximately 179 megawatts.

**Flexible Group ID:** FGTURBINES

**POLLUTION CONTROL EQUIPMENT:** Dry Low NOx Combustor

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx as NO <sub>2</sub>	9 ppmv at 15% O <sub>2</sub> on a dry basis.	Test Protocol*	EUCTG2	SC VI.2, GC 13	R 336.1205(1)(a), R 336.2802(4)
2. NOx as NO <sub>2</sub>	71 pph	720-hour rolling average as determined at the end of each hour that the unit operates	EUCTG2	SC VI.2, SC VI.5, GC 13	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)
3. CO	9 ppmv at 15% O <sub>2</sub> on a dry basis	Test Protocol*	EUCTG2	SC VI.3, GC 13	R 336.1205(1)(a), R 336.2802(4)
4. CO	31 pph	720-hour rolling average as determined at the end of each hour that the unit operates	EUCTG2	SC VI.3, SC VI.5, GC 13	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(d)
5. VOC	2.8 pph	Test Protocol*	EUCTG2	SC V.1, SC VI.1	R 336.1205(1)(a), R 336.2802(4)
6. PM10	9 pph	Test Protocol*	EUCTG2	SC V.1, SC VI.1	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)

\*Test Protocol shall specify averaging time.

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

NA

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

#### **V. TESTING/SAMPLING**

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

1. Testing to verify PM10 and VOC emission limits shall be conducted within 180 days of the issuance of this permit if an acceptable emissions test has not been conducted within 5 years prior to the issuance of the RO permit, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R336.2003, R336.2004).**
2. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. **(R 336.2001, R 336.2003, R 336.2004)**

#### **VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall install calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the natural gas usage rate in EUCTG2 on an hourly and monthly basis. The heating value of the natural gas in Btu per cubic foot shall be determined on a monthly basis from one sample taken from the main gas pipeline into the facility on the permittee's property. Upon request, the AQD District Supervisor may authorize a different sampling method and/or sampling schedule. **(R 336.1205(1)(a))**
2. The permittee shall install calibrate, maintain and operate in a satisfactory manner a device to monitor and record the NO<sub>x</sub> (as NO<sub>2</sub>) emissions from EUCTG2 on a continuous basis. Installation and operation of the Continuous Emission Monitoring System (CEMS) or equivalent Predictive Emissions Monitoring System (PEMS) shall meet the timelines, requirements, and reporting detailed in 40 CFR Part 60 Appendix F. If the permittee chooses to use a PEMS in lieu of a CEMS to monitor NO<sub>x</sub> emissions, the permittee shall follow the protocol as approved by the Environmental Protection Agency's (EPA) September 6, 2006, approval letter for GT2100. **(40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))**
3. The permittee shall install calibrate, maintain and operate in a satisfactory manner a device to monitor and record the CO emissions from EUCTG2 on a continuous basis. Installation and operation of the Continuous Emission Monitoring System (CEMS) shall meet the timelines, requirements and reporting detailed in 40 CFR Part 60 Appendix F. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) in lieu of a CEMS to monitor CO emissions, the permittee shall follow the protocol as approved by the Environmental Protection Agency (EPA). **(40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d), R 336.1205(10)(a))**
4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the O<sub>2</sub> concentration of the stack gases on a continuous basis. **(R 336.1205(1)(a))**
5. The permittee shall maintain the following records
  - a. Hourly NO<sub>x</sub> emission rate, in pph.
  - b. Hourly CO emission rate, in pph.
  - c. 720-hour rolling average NO<sub>x</sub> emission rate in pph, based on actual hours of turbine operation. Upon issuance of this PTI the 720-hour rolling average shall include the previous 720 hours of operation.
  - d. 720-hour rolling average CO emission rate in pph, based on actual hours of turbine operation. Upon issuance of this PTI the 720-hour rolling average shall include the previous 720 hours of operation.
  - e. Monthly hours of turbine operation including startup and shutdown.
  - f. Total monthly PM10 emission rate in tons per month.
  - g. Total monthly VOC emission rate in tons per month.**(R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d))**
6. The permittee shall verify compliance with the emission limitations for EUCTG2 by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under Special Condition VI.7. **(R 336.1205(1)(a))**

7. If it becomes necessary to modify the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, the permittee shall submit the revised document to the District Supervisor for review and written approval before implementing any modifications to the protocol. **(R 336.1205(1)(a))**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

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

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVCGT2	210	150	R 336.1225, 40 CFR 52.21(c) & (d)

**IX. OTHER REQUIREMENTS**

NA

**Footnotes:**

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

**The following conditions apply to:**  
**EUCTG3**

**DESCRIPTION:** One combined cycle General Electric Model PG7241 combustion turbine. The turbine is fired exclusively with pipeline quality natural gas and has a design heat input rating of 1.626 MM Btu per hour. The heated and pressurized exhaust gases from the turbine are utilized to power an electric generator shaft and are then sent to an unfired heat recovery steam generator. The rated output capacity of the unit is approximately 179 megawatts.

**Flexible Group ID:** FGTURBINES

**POLLUTION CONTROL EQUIPMENT:** Dry Low NOx Combustor

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx as NO <sub>2</sub>	9 ppmv at 15% O <sub>2</sub> on a dry basis.	Test Protocol*	EUCTG3	SC VI.2, GC 13	R 336.1205(1)(a), R 336.2802(4)
2. NOx as NO <sub>2</sub>	71 pph	720-hour rolling average as determined at the end of each hour that the unit operates	EUCTG3	SC VI.2, SC VI.5, GC 13	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)
3. CO	9 ppmv at 15% O <sub>2</sub> on a dry basis	Test Protocol*	EUCTG3	SC VI.3, GC 13	R 336.1205(1)(a), R 336.2802(4)
4. CO	31 pph	720-hour rolling average as determined at the end of each hour that the unit operates	EUCTG3	SC VI.3, SC VI.5, GC 13	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(d)
5. VOC	2.8 pph	Test Protocol*	EUCTG3	SC V.1, SC VI.1	R 336.1205(1)(a), R 336.2802(4)
6. PM10	9 pph	Test Protocol*	EUCTG3	SC V.1, SC VI.1	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)

\*Test Protocol shall specify averaging time.

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

NA

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

#### **V. TESTING/SAMPLING**

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

1. Testing to verify PM10 and VOC emission limits shall be conducted within 180 days of the issuance of this permit if an acceptable emissions test has not been conducted within 5 years prior to the issuance of the RO permit, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R336.2003, R336.2004).**
2. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. **(R 336.2001, R 336.2003, R 336.2004)**

#### **VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall install calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the natural gas usage rate in EUCTG3, on an hourly and monthly basis. The heating value of the natural gas in BTU per cubic foot shall be determined on a monthly basis from one sample taken from the main gas pipeline into the facility on the permittee's property. Upon request, the AQD District Supervisor may authorize a different sampling method and/or sampling schedule. **(R 336.1205(1)(a))**
2. The permittee shall install calibrate, maintain and operate in a satisfactory manner a device to monitor and record the NO<sub>x</sub> (as NO<sub>2</sub>) emissions from EUCTG3 on a continuous basis. Installation and operation of the Continuous Emission Monitoring System (CEMS) or equivalent Predictive Emissions Monitoring System (PEMS) shall meet the timelines, requirements, and reporting detailed in 40 CFR Part 60 Appendix F. If the permittee chooses to use a PEMS in lieu of a CEMS to monitor NO<sub>x</sub> emissions, the permittee shall follow the protocol delineated in the Environmental Protection Agency's (EPA) September 6, 2006, approval letter for GTP3100. **(40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d))**
3. The permittee shall install calibrate, maintain and operate in a satisfactory manner a device to monitor and record the CO emissions from EUCTG3 on a continuous basis. Installation and operation of the Continuous Emission Monitoring System CEMS shall meet the timelines, requirements and reporting detailed in 40 CFR Part 60 Appendix F. If the permittee chooses to use a Predictive Emissions Monitoring System (PEMS) in lieu of a CEMS to monitor CO emissions, the permittee shall follow the protocol as approved by the Environmental Protection Agency. **(40 CFR Part 75 Subpart E, 40 CFR Part 75.66(d), (R336.1205(1)(a)))**
4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the O<sub>2</sub> concentration of the stack gases on a continuous basis. **(R 336.1205(1)(a))**
5. The permittee shall maintain the following records
  - a. Hourly NO<sub>x</sub> emission rate, in pph.
  - b. Hourly CO emission rate, in pph.
  - c. 720-hour rolling average NO<sub>x</sub> emission rate in pph, based on actual hours of turbine operation. Upon issuance of this PTI the 720-hour rolling average shall include the previous 720 hours of operation.
  - d. 720-hour rolling average CO emission rate in pph, based on actual hours of turbine operation. Upon issuance of this PTI the 720-hour rolling average shall include the previous 720 hours of operation.
  - e. Monthly hours of turbine operation including startup and shutdown.
  - f. Total monthly PM10 emission rate in tons per month.
  - g. Total monthly VOC emission rate in tons per month.**(R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d))**
6. The permittee shall verify compliance with the emission limitations for EUCTG3 by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.7. **(R 336.1205(1)(a))**

7. If it becomes necessary to modify the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of MI-ROP-N6631-2004" dated May 31, 2011, the permittee shall submit the revised document to the District Supervisor for review and written approval before implementing any modifications to the protocol. **(R 336.1205(1)(a))**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

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

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVCGT3	210	150	R 336.1225, 40 CFR 52.21(c) & (d)

**IX. OTHER REQUIREMENTS**

NA

**Footnotes:**

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

**FLEXIBLE GROUP SUMMARY TABLE**

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

<b>Flexible Group ID</b>	<b>Flexible Group Description</b>	<b>Associated Emission Unit IDs</b>
FGTURBINES	This emission group consists of the simple cycle combustion turbine, and two combined cycle turbines	EUCTG1, EUCTG2, and EUCTG3
FGNSPSK K K K K	This flexible group consists of the two combined cycle turbines which are subject to NSPS K K K K.	EUCTG2, EUCTG3

**The following conditions apply to:**  
**FGTURBINES**

**DESCRIPTION:** This emission group consists of the simple cycle combustion turbine, and two combined cycle turbines

**Emission Units:** EUCTG1, EUCTG2, and EUCTG3

**POLLUTION CONTROL EQUIPMENT:** Dry Low NOx Combustors

**I. EMISSION LIMITS**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period/ Operating Scenario</b>	<b>Equipment</b>	<b>Testing / Monitoring Method</b>	<b>Underlying Applicable Requirements</b>
1. NOx as NO <sub>2</sub>	815 tpy	12-month rolling time period as determined at the end of each calendar month	FGTURBINES	SC VI.2	<b>R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) &amp; (d)</b>
2. CO	403 tpy	12-month rolling time period as determined at the end of each calendar month	FGTURBINES	SC VI.2	<b>R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) &amp; (d)</b>
3. VOC	36 tpy	12-month rolling time period as determined at the end of each calendar month	FGTURBINES	SC VI.2	<b>R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) &amp; (d)</b>
4. PM10	118 tpy	12-month rolling time period as determined at the end of each calendar month	FGTURBINES	SC VI.2	<b>R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) &amp; (d)</b>

\*Test Protocol shall specify averaging time.

**II. MATERIAL LIMITS**

1. The turbines shall not be fired with any fuel other than pipeline quality natural gas. Natural gas is defined in 40 CFR Part 72 Section 72.2. **(R 336.1205(1)(a))**

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall submit to the AQD District Supervisor a plan that describes how emissions will be minimized during startup and shutdown within 60 days of completion of modifications to FGTURBINES. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. Unless notified by the AQD District Supervisor within 30 business days after plan submittal, the plan shall be deemed approved. **(R 336.1205(1)(a) & (b), R 336.1911, R 336.1912)**

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

**V. TESTING/SAMPLING**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall maintain the following records for FGTURBINES
  - a. PM10 emission rate, in tons/month, and tons per 12 month rolling time period as determined at the end of each calendar month.
  - b. CO emission rate, in tons/month, and tons per 12 month rolling time period as determined at the end of each calendar month.
  - c. VOC emission rate, in tons/month, and tons per 12 month rolling time period as determined at the end of each calendar month.
  - d. Annual NO<sub>x</sub> (as NO<sub>2</sub>) emission rate, in tons/month, and tons per 12 month rolling time period as determined at the end of each calendar month.  
**(R 336.1205(1)(a), R 336.2802(4))**
2. The permittee shall verify compliance with the emission limitations for FGTURBINES by following the procedures and methodologies contained in the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP-MI-N6631-2004" dated May 31, 2011, or subsequent revisions to this document as provided under special condition VI.3. **(R 336.1205(1)(a))**
3. If it becomes necessary to modify the document entitled "Protocol for Demonstrating Continuous Compliance with the Emission Limitations of ROP-MI-N6631-2004" dated May 31, 2011, the permittee shall submit the revised document to the District Supervisor for review and written approval before implementing such modifications to the protocol. **(R 336.1205(1)(a))**

**VII. REPORTING**

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

**VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

NA

**Footnotes:**

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

**The following conditions apply to:**  
**FGNSPSK K K K K**

**DESCRIPTION:** This flexible group consists of the two combined cycle turbines which are subject to NSPS K K K K.

**Emission Units:** EUCTG2 and EUCTG3

**POLLUTION CONTROL EQUIPMENT:** Dry Low NOx Combustors

**I. EMISSION LIMITS**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period/ Operating Scenario</b>	<b>Equipment</b>	<b>Testing / Monitoring Method</b>	<b>Underlying Applicable Requirements</b>
1. NOx	42 ppm at 15 percent O <sub>2</sub> or 290 ng/Joules of useful output (2.3 lb/MWh)	30-day rolling average (when using a CEMS or equivalent)	Each turbine in FGNSPSK K K K K	SC V.1, SC VI.4	<b>40 CFR 60.4320(a)</b>

**II. MATERIAL LIMITS**

1. The permittee shall not burn in FGNSPSK K K K K any fuel which contains total potential sulfur emissions in excess of 26 ng SO<sub>2</sub>/Joules (0.060 lb SO<sub>2</sub>/MMBtu) heat input. **(40 CFR Part 60.4330(a)(2))**

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall operate and maintain the stationary combustion turbines, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction. **(40 CFR 60.4333(a))**

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

**V. TESTING/SAMPLING**

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

1. If the permittee does not use the continuous emissions monitoring allowance as specified in SC VI.1, then within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup, federal Standards of Performance for New Stationary Sources require verification of NOx emission rates from each turbine included in FGNSPSK K K K K, by testing at owner's expense, in accordance with 40 CFR Parts 60.8 and 60.4400.
  - a. The permittee shall conduct three separate test runs, at least 20 minutes each, at ambient temperatures greater than 0 °F, and at any load condition within ±25 percent of 100 percent peak load.
  - b. Testing must be conducted annually (at least every 14 calendar months).
  - c. If the stack test result is less than or equal to 75 percent of the NOx limits in SC I.1, the test plan can be changed to once every two years (at least every 26 calendar months). If subsequent test results yield NOx emissions greater than 75 percent of the NOx limit in SC I.1, annual testing must be resumed.

- d. Subsequent stack testing is not required if the permittee shows continuous compliance with the NO<sub>x</sub> emission limits with a CEMS or equivalent PEMS pursuant to 40 CFR 60.4340(b)(ii), as specified in SC VI.1.
- e. 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.

No less than 45 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(40 CFR 60.4400)**

## **VI. MONITORING/RECORDKEEPING**

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

1. In lieu of the stack testing required in SC V.1, the permittee may instead install, calibrate, maintain and operate one of the following continuous monitoring systems:
  - a. Continuous emission monitoring as described in §60.4335(b) and 60.4345, or
  - b. Continuous parameter monitoring as follows:
    - (i) For a diffusion flame turbine without add-on selective catalytic reduction (SCR) controls, the permittee shall define parameters indicative of the unit's NO<sub>x</sub> formation characteristics, and monitor these parameters continuously.
    - (ii) For any lean premix stationary combustion turbine, the permittee shall continuously monitor the appropriate parameters to determine whether the unit is operating in low-NO<sub>x</sub> mode.
    - (iii) For any turbine that uses SCR to reduce NO<sub>x</sub> emissions, the permittee shall continuously monitor appropriate parameters to verify the proper operation of the emission controls.
    - (iv) For affected units that are also regulated under 40 CFR Part 75, with state approval the permittee may monitor the NO<sub>x</sub> emission rate using the methodology in Appendix E to 40 CFR Part 75, or the low mass emissions methodology in §75.19, the requirements of this condition may be met by performing the parametric monitoring described in Section 2.3 of 40 CFR Part 75 Appendix E or in §75.19(c)(1)(iv)(H). **(40 CFR 60.4340(b))**
2. In lieu of the subsequent stack test requirements listed in SC V.1, the permittee may instead continuously monitor appropriate parameters to determine that each turbine is operating in low-NO<sub>x</sub> mode. The parameters must be continuously monitored and recorded during the initial performance test to establish acceptable values and ranges. The permittee must develop and keep on-site a parameter monitoring plan pursuant to 40 CFR 60.4355 (a)(1) through (6). **(40 CFR 60.4340(b)(ii), 40 CFR 60.4355, 40 CFR 60.4410)**
3. The permittee shall monitor the sulfur content in the fuel once per turbine operating day, using the methods described in 40 CFR 60.4415, or alternate methods as described in 40 CFR 60.4360. The permittee may use a custom monitoring schedule pursuant to 40 CFR 60.4370(c) if the schedule has been approved by the EPA Administrator. Sulfur in fuel monitoring is not required if it is demonstrated that the potential sulfur emissions do not exceed 26 ng SO<sub>2</sub>/Joules (0.060 lb SO<sub>2</sub>/MMBtu) heat input. The demonstration shall include one of the following:
  - a. The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content is 20 grains of sulfur per 100 standard cubic feet or less; or
  - b. Representative fuel sampling data, as specified in 40 CFR Part 75, Appendix D, Section 2.3.1.4 or 2.3.2.4, shows that the sulfur content does not exceed 26 ng SO<sub>2</sub>/Joules (0.060 lb SO<sub>2</sub>/MMBtu) heat input.**(40 CFR 60.4360, 40 CFR 60.4370)**
4. The permittee shall keep, in a satisfactory manner, records of the sulfur content of the fuel once each operating day for FGNSPSK KKK, as required by SC VI.6. This condition does not apply if it is demonstrated that the potential sulfur emissions do not exceed 26 ng SO<sub>2</sub>/Joules (0.060 lb SO<sub>2</sub>/MMBtu) per MMBtu heat input pursuant to 40 CFR 60.4365. The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 60.4370)**

## **VII. REPORTING**

1. The permittee shall provide written notification of construction and operation to comply with the federal Standards of Performance for New Stationary Sources, 40 CFR 60.7. The permittee shall submit this notification to the AQD District Supervisor within the time frames specified in 40 CFR 60.7. **(40 CFR 60.7)**
2. If any of the turbines in FGNSPSK KKK contain a continuous parameter monitoring system to determine continuous compliance with the NOx emission limits pursuant to SC VI.4, the permittee shall submit excess emissions and monitor downtime in accordance with 40 CFR 60.7(c) and 40 CFR 60.4380(c). An excess emission is a 4-hour rolling operating hour average for each turbine in which any monitored parameter does not achieve the target value or is outside the acceptable range defined in the monitoring plan. Monitor downtime is any turbine operating hour in which any of the required parametric data are either not recorded or invalid. All reports must be postmarked by the 30<sup>th</sup> day following the end of each 6-month period. **(40 CFR 60.4375(a), 40 CFR 60.4380(c), 40 CFR 60.4395)**
3. If the permittee is required to monitor the sulfur content in the fuel pursuant to SC VI.3 and 40 CFR 60.4360, the permittee shall submit excess emissions and monitor downtime in accordance with 40 CFR 60.7(c) and 60.4385. An excess emission is each turbine operating hour beginning on the date and hour that any sample shows an exceedance in the applicable sulfur limit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit. Monitor downtime begins when a required sample is not taken by its due date or the date and hour that invalid results are obtained. Monitor downtime ends on the date and hour of the next valid sample. All reports must be postmarked by the 30<sup>th</sup> day following the end of each 6-month period. **(40 CFR 60.4375(a), 40 CFR 60.4385, 40 CFR 60.4395)**

## **VIII. STACK/VENT RESTRICTIONS**

NA

## **IX. OTHER REQUIREMENTS**

1. The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subpart A and Subpart KKKK, as they apply to FGNSPSK KKK. **(40 CFR Part 60 Subparts A & KKKK)**

### **Footnotes:**

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



## **ATTACHMENT 3**

**PREDICTIVE EMISSIONS MONITORING  
SYSTEM (PEMS)**

**40 CFR PART 75 MONITORING PLAN**

**AT**

**DEARBORN INDUSTRIAL**

**GENERATION, L.L.C.**

**FEBRUARY 2016**



Predictive Emissions Monitoring System (PEMS)  
40 CFR Part 75 Monitoring Plan

Dearborn Industrial Generation:

Boilers BL1100, BL2100, BL3100  
Turbines GTP1, GT2100 and GT3100

---

Date: February 2, 2016

Prepared by:

CMC Solutions, LLC  
23550 Haggerty Road  
Farmington Hills, Michigan 48335  
248-960-1632  
248-960-1622 (FAX)

Prepared for:

Dearborn Industrial Generation, LLC  
2400 Miller Rd  
Dearborn MI 48120  
(313) 336-7189

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## 1.0 Facility Description

The boilers at Dearborn Industrial Generation are designed to burn a mixture of Blast Furnace Gas (BFG) and pipeline natural gas (PNG) or PNG only. The BFG to PNG ratio will be up to 95% to 5% PNG, based upon the heat inputs of the fuels. Each boiler has a maximum heat input capacity of 746 mmBtu/hr while burning a mixture of BFG and PNG and 763 mmBtu/hr while burning natural gas only.

Each boiler is nominally rated at an output capacity of 500,000 lb/hr of superheated steam at a minimum of 1,350 psig and temperature of 960°F. The steam is dispatched to an on-site steam turbine for electrical generation and/or utilized as process steam.

The turbines are designed to fire pipeline natural gas only. The simple-cycle turbine (GTP-1) has a design heat input of 1,586 mmBtu/hr and an approximate electrical output of 170-180 MW, while the combined cycle turbines (GT2100 and GT3100) have design heat inputs of 1,626 mmBtu/hr and electrical outputs of about 180 MW. In addition to the electrical output associated with the combined-cycle turbines, these units are capable of producing steam through their associated heat recovery steam generators (HRSGs). The steam produced by the combined cycle turbines is dispatched to an on-site steam turbine for electrical generation and/or utilized as process steam.

The emissions of nitrogen oxides from the turbines are minimized through the use of dry low NOx combustors, and the emissions of CO, VOCs (including formaldehyde), and PM10 are minimized by the efficient combustion of natural gas. NOx emissions from the boilers are minimized also through use of low NOx combustors.

## 2.0 Monitoring Approach

Each turbine GTP1 is subject to the requirements of the Federal New Source Performance Standards (NSPS) for Stationary Gas Turbines, codified as 40 CFR 60, Subparts GG and A. Turbines GT 2100 and GT 3100 are subject to Subpart A and NSPS Subpart KKKK.

The three boilers and the three turbines are further subject to the monitoring requirements of the NOx SIP Call (40 CFR 75, Subpart H). The three turbines are further subject to the federal Acid Rain program codified as 40 CFR, Part 72.

The facility will utilize Predictive Emissions Monitoring (PEMS) protocols of 40 CFR 75, Subpart E to calculate and report emissions. The PEMS is provided by CMC Solutions, LLC.

The SmartCEM™ PEMS server will monitor emissions for the three gas turbines (GTP1, GT2100 and GT3100 for NOx, %O<sub>2</sub> and CO) and the three boilers (BL1100, BL2100, BL3100 for NO<sub>x</sub>, CO, %O<sub>2</sub> and SO<sub>2</sub>) per 40 CFR 60 and 40 CFR 75 as applicable.

## 2.1 Description of the PEM System

The SmartCEM™ PEMS utilizes all available unit-operating parameters and establishes relationships between any quality assured input with significant correlation to the emission rate. The SmartCEM™ statistical hybrid engine will determine the NO<sub>x</sub> emission rate with excellent accuracy in real-time based on previously collected and quality assured emission data. In addition, the engine is resilient to input failure and retains excellent accuracy across the whole range of ambient and operation conditions such as startup, shutdown, and other upset conditions (provided they are represented in the system's training dataset). This body of quality assured training data known also as the "current model" is derived directly from the USEPA reference method stack emission data.

SmartCEM™ is relatively easy to implement. The training dataset is derived from quality assured data collected from the plant through engineering tests, and is fixed prior to certification. The resulting SmartCEM™ statistical hybrid model is fundamentally bound to quality assured reference method pollutant emission data in units of the applicable standard. Providing the training dataset includes data across the full range of normal operation, the SmartCEM™ model will provide a deterministic value for the emission rate that is not dependent on any single parameter for accuracy. Additional data can be collected at any time and used to retrain the current model onsite in response to process changes, variations in ambient conditions, or changes to standard operating procedures, which were not documented during engineering tests. The flexibility of the SmartCEM™ to utilize the widest variety of process inputs and to interface directly with the process control system allows for the highest level of reliability and greater operational feedback to document the causes of and reduce emissions.

The SmartCEM™ model utilizes a statistical hybrid technology to predict NO<sub>x</sub>, CO and SO<sub>2</sub> emission rates in the applicable standard for measured and historical operating and emissions data. SmartCEM™ provides minute average NO<sub>x</sub>, CO and SO<sub>2</sub> emission rate values and operator alarms for compliance purposes along with standard 40 CFR 60 and 40 CFR 75 reporting.

The following lists critical input parameters that will be used by the PEMS:

- Feed type (natural gas, BFG)
- Firing rate (steam load)
- Fuel gas density and heating value
- Combustion reference temperature
- Fuel firing parameters
- Air inlet temperature
- Stack temperature

Raw process data is collected each minute and logged in the compliance database along with the predicted NO<sub>x</sub>, CO and SO<sub>2</sub> emission rate. The compliance database is not editable and will provide up to three years of raw minute average data as collected for compliance reporting purposes including the pollutant emission rates in the applicable units of the standard. SmartCEM™ utilizes a variety of critical process inputs to calculate the NO<sub>x</sub> emission rate in the units of the standard (lb/mmBtu).

Valid data will be collected for at least 95% of the unit operating hours. Process data recorded during PEMS outages can be read directly from electronic records into the PEMS and the resulting emissions recorded normally for the purposes of missing data substitution.

All alarms for SmartCEM™ failures will be identified as monitor downtime in the compliance summary report. All excess emissions will be identified in the facility emissions report. Conditions that cause greater than 5% monitor downtime or 5% excess emission will be identified in detail for the operating quarter in which the 5% level was exceeded. Conditions of the combustion unit being improperly operated or operated outside the training dataset of ambient or normal operating conditions will also be identified. Annual retraining will focus on some of these conditions if necessary to improve monitor availability.

## **2.2 Fuel Flowmeter Monitoring**

The Acid Rain Program requires monitoring and reporting of heat input, SO<sub>2</sub> and CO<sub>2</sub>. The NO<sub>x</sub> SIP Call requires that heat input be monitored. This is accomplished by following the alternate procedures in Part 75 Appendixes D and G. Appendixes D and F define how heat input is calculated from fuel flow meters. The heat input and fuel factors are then used to calculate the mass emissions of SO<sub>2</sub> and CO<sub>2</sub>. For the NO<sub>x</sub> SIP Call, NO<sub>x</sub> mass emissions are calculated from NO<sub>x</sub> emission and heat input rates.

Fuel flow will be monitored by certified fuel flowmeters in order to report heat input to the unit in accordance with 40 CFR 75, Appendix D. For each hour when the unit(s) are combusting fuel, the facility is required to measure and record the flow of fuel combusted by the unit with an in-line fuel flowmeter and automatically record the data. In-line fuel flowmeters are installed for each fuel type.

Signals from each unit's flowmeter, already corrected to standard pressure and temperature conditions, are sent to the Data Acquisition and Handling System (DAHS) for required recording and emission reporting.

The fuel flowmeters will be certified, in accordance with the EPA's accuracy requirement using one of the methods outlined under 40 CFR 75, Appendix D. Manufacturer, model number and serial number of each fuel flowmeter will be noted in the facility's monitoring plan.

### **2.2.1 Heat Input Monitoring**

Hourly heat input to each unit is determined using certified fuel flow meters to measure hourly pipeline natural gas and other gas flow to each unit. The fuel flow signals are routed to the SmartCEM™ and DAHS where they are sampled, averaged, and buffered. The appropriate gas heating value is manually entered into the DAHS.

## **2.2.2 SO<sub>2</sub> and CO<sub>2</sub> Monitoring**

For the Part 75 turbine reporting units, GTP1, GT 2100, and GT 3100, SO<sub>2</sub> is calculated using a constant of 0.0006 lbs (SO<sub>2</sub>)/mmBtu (for pipeline quality natural gas), or lower value if it can be documented, and the above heat input result. This constant can be adjusted in the DAHS as necessary.

CO<sub>2</sub> is calculated using the heat input and the carbon fuel factors for natural gas. This factor can be adjusted in the DAHS.

## **2.2.3 Fuel Sampling**

Sampling and analysis of as-fired "other" natural gas will be performed in accordance with 40 CFR 75, Appendix D and used to determine GCV (for the boilers) on days that the units are combusting gaseous fuel. Representative gas samples will be taken monthly using procedures as specified in 40 CFR 75, Appendix D, section 2.3.3 and section 2.3.4 as applicable. New fuel GCVs will be entered into the DAHS following sample analysis for each of the facility's reporting units as required.

The turbines will utilize pipeline natural gas as the only fuel source. The boilers will utilize a combination of pipeline natural gas and Blast Furnace Gas (BFG). The BFG will be analyzed on a monthly basis but will typically have a heat content of 80-100 Btu/ft<sup>3</sup> and a sulfur content of 80-200 ppm TRS. A default fuel factor (F<sub>d</sub>) value of 15000 will be used for BFG in required emissions calculations.

## **2.2.4 NO<sub>x</sub> Monitoring and Mass Emission Rate**

The 9 ppmv @ 15% O<sub>2</sub> permit limit for turbines applies to NO<sub>x</sub> emissions as both an instantaneous (test protocol) and hourly limit. This limit applies only to periods operated in Dry Load Emission (DLN) mode, which minimizes NO<sub>x</sub> output through combustion control. DLN operation is determined by DLN feedback signals to the DAHS. The DAHS will calculate both a continuous NO<sub>x</sub> @ 15% O<sub>2</sub> in DLN mode and a continuous NO<sub>x</sub> @ 15% O<sub>2</sub> for all data. NO<sub>x</sub> ppmv @ 15% O<sub>2</sub> and NO<sub>x</sub> ppmv @ 15% O<sub>2</sub> under DLN mode will be evaluated separately by the DAS in excess emission reports for each turbine unit.

The NO<sub>x</sub> Mass Emission Rate (MER) for the turbines will be based on the above permit limit of 9 ppmv @ 15% O<sub>2</sub>. This will yield a NO<sub>x</sub> MER of 0.033 lb/mmBtu. This also corresponds to the maximum MER measured during testing on these turbines while at load.

The NO<sub>x</sub> MER for the boilers will use the 40 CFR 60, Subpart Db limit of 0.1 lb/mmBtu. Historical data is available to demonstrate that use of this limit is appropriate.

## **2.3 Data Acquisition and Reduction**

The DAS provides PEMS automated data monitoring and management capabilities. Running on a standard Microsoft Windows platform, is used for operator interface, data storage, EDR report generation, and data display. The SmartCEM is polled periodically for data to generate and then stores averages, typically 15-minutes. The DAS system will indicate any occurrence of specification limit exceedances or PEMS operational problems. Reports are generated in the required format for submittal to the applicable regulatory agencies. Reports may be produced in either hard copy or electronic format and are available for transmission to state and local agencies.

The DAS provided is an environmental information and data collection system developed to meet the operational and emissions monitoring requirements of facilities impacted by regulations under the Clean Air Act Amendments of 1990, including Acid Rain, NOx Budget Trading, New Source Performance Standards (NSPS), Maximum Achievable Control Technology (MACT) and Periodic Monitoring for Title V. The system also provides the flexibility to meet all state and local requirements specified in site operating permits.

#### Data Collection:

- Data collection capabilities from a wide variety of instrumentation, gas analyzers, and control systems, including Allen-Bradley, GE, Modicon, Siemens, Mitsubishi, and Honeywell controllers, and most common DCS vendors.
- Direct data acquisition from plant historians via OPC.
- Full OPC server and OPC client capabilities.
- Predictive Emissions Monitoring engine - SmartCEM

#### Emissions Display

- On-line display data using both text-based and trending graphics with user selectable parameters.
- Alarm handling and logging.
- User configurable emissions display.
- Calibration trending and control.

#### Data Management

- Reason code and corrective action entry for excess emission and monitor downtime events as defined for Dearborn Industrial Generational Plant under 40 CFR 60, State, and/or local requirements.
- User-editable constants and data editing capabilities, including a batch editor option.
- Full support for all 40 CFR 75 calculations and data substitution requirements.
- Multi-level security with an audit trail of activities. Your system administrator can set security levels for individual needs.
- Robust data storage in either Oracle or MS SQL Server.
- A complete array of utilities for system and database administration.
- Data storage and archiving utilities.

#### Connectivity

- Links to plant and corporate information systems using industry standard networks.
- Modem and VPN access, allowing remote maintenance and support.

## Reporting

- A standard report suite designed for plant operations and/or regulatory review, formatted for local, state, and federal requirements.
- Multiple export formats available, including text, comma-separated, and HTML.
- 40 CFR 75 EDR report generation and viability checking for NO<sub>x</sub>, SO<sub>2</sub>, O<sub>2</sub>, CO<sub>2</sub>, Stack Flow, Fuel Flows, Heat Input, and Load.
- Utilities for maintaining the 40 CFR Part 75 Monitoring Plan records.
- Utilities for maintaining 40 CFR Part 75 Certification and QA/QC data series records.
- Automated Stack or Fuel Flow to Load QA evaluation as applicable (Part 75 sites).
- Automated Annual Range of Operation Evaluation reporting utility (Part 75 sites).

### 3.0 Certification Testing

The SmartCEM™ PEMS will be re-certified using performance specifications and test procedures as outlined in 40 CFR 60, Appendix A and in EPA proposed test method for PEMS (PS-16) under 40 CFR 60. Testing will be completed using the methods specified in CFR Part 60, Appendix A and CFR Part 60 Appendix B for NO<sub>x</sub>, O<sub>2</sub>, CO and SO<sub>2</sub>.

In addition, the PEMS is to be used for compliance with 40 CFR 75, Subpart H (NO<sub>x</sub> SIP Call) and is approved as an Alternate Monitoring System using the procedures and methods detailed in 40 CFR 75, Subpart E. NO<sub>x</sub> certification will be completed according to Part 75, Appendix A, 6.5. A NO<sub>x</sub> lb/mmBtu Bias Adjustment Factor will be calculated per Appendix A, 7.6.

After certification, facility representatives will maintain and operate the PEMS in accordance with manufacturer's recommendations as outlined in the Quality Control and Quality Assurance Plan.



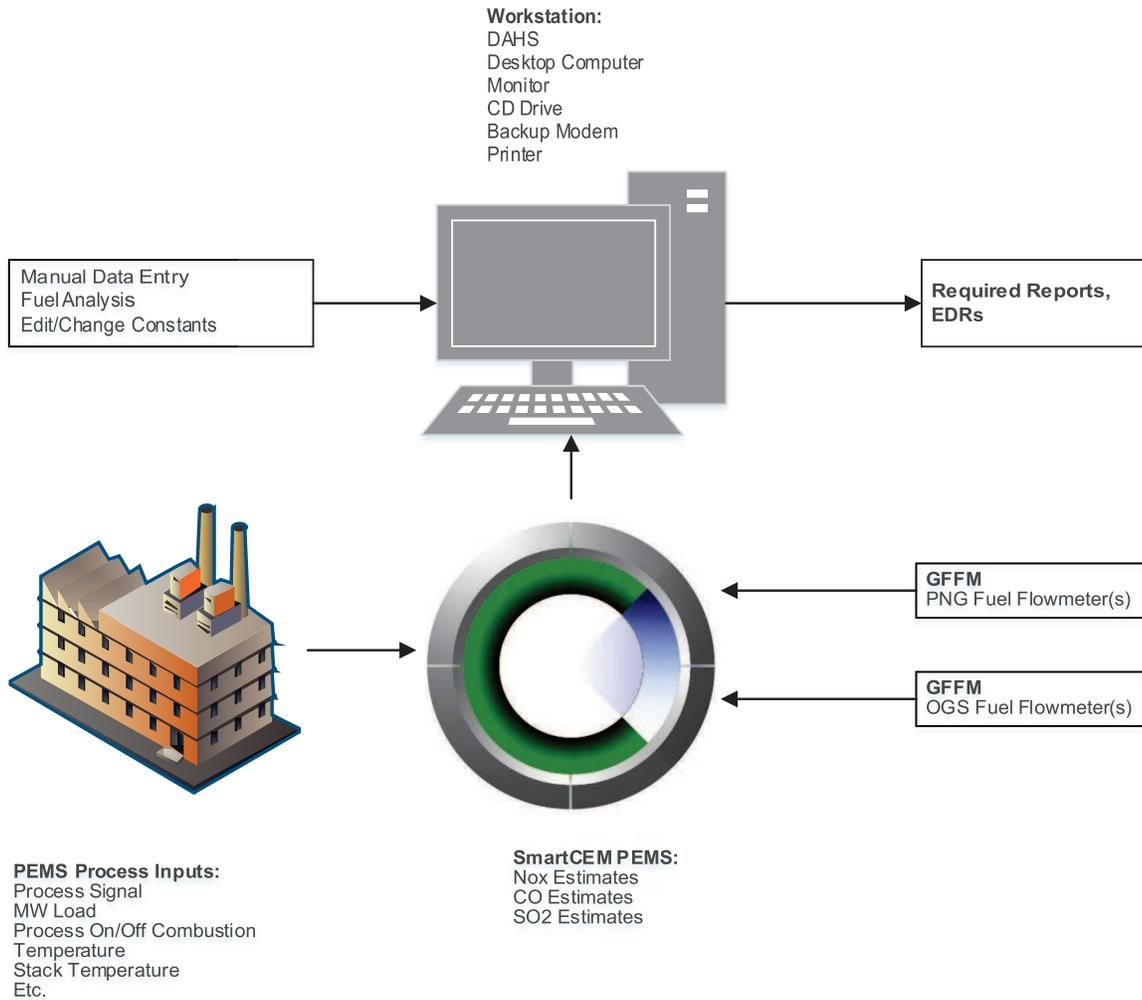
# Appendix A: Data Flow Diagram

Facility Name: Dearborn Industrial Generation

ORIS Code: 55088

Unit ID(s): GTP1, GT2100, GT3100, BL1100, BL2100, BL3100

## DATA FLOW DIAGRAM



# Appendix B: Fuel Analysis Supplier Certification

Demonstration for pipeline quality natural gas fuel designation used for the simple cycle (GTP1) Part 75 reporting unit.



**DTE Gas**  
**Laboratory Services**  
**Gas Analysis Report**

17150 Allen Road  
 Melvindale, MI 48122  
 P: (313) 389-7354 F: (313) 389-7757

Customer:  
 Dearborn Industrial Generation  
 2400 Miller Rd  
 Dearborn, MI, 48121

Date Analyzed: 1/11/2016 (313) 336-7189/thomas.andreski@cmsenergy.com

Test Report No.: GQR\_CMS DIG\_010716

LOCATION:	CMS DIG	DATE SAMPLED:	1/7/2016
REQUESTOR:	Tom Andreski	DATE RECEIVED:	1/7/2016
METER NO.:	00044	GAS TEMP. (°F):	N/A
FORMATION:	Niagaran	GAS PRESSURE (psig):	550
SAMPLE PT.:	Meter Run	SAMPLED BY:	DS

**ANALYTICAL RESULTS**

**GAS ANALYSIS**

	MOL %
Nitrogen	0.349
Methane	92.387
Carbon Dioxide	0.656
Ethane	6.310
Propane	0.244
I-Butane	0.023
N-Butane	0.023
I-Pentane	0.006
N-Pentane	0.004
Hexanes	<0.001
Heptanes	<0.001
Octanes	<0.001
Nonane	<0.001
<b>TOTAL:</b>	<b>100.000</b>

**GROSS HEATING VALUE (BTU/SCF)**

	14.65	14.73
	DRY	DRY
Calculated (Real)	1052	1058

**SPECIFIC GRAVITY**

Calculated (Real)	0.5965
-------------------	--------

**OTHER**

Hydrogen Sulfide (ppmv)		2.9
Total Sulfur	ppmw	5.7
	Wt%	0.0006
	gr/100 cu.ft.	0.180

**REMARKS:** Gas Sampling Method: GPA 2166 / API 14.1 Section 1  
 Gas Analysis Method: GPA 2286  
 Hydrogen Sulfide Content: ASTM D4810  
 Total Sulfur: ASTM D-6667 (Analysis Performed by SPL, Inc - Not ISO 17025 A2LA Accredited)

**ANALYZED BY:** D. Shafer  
**AUTHOR :** M. Morales / P. Urso  
**APPROVED BY:** *Marina Darling*  
 Marina Darling, Supervisor, Laboratory Services



Testing Cert. No. 2811.01

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## Appendix C: Certification Plan

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Dearborn Industrial Generation, i

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Figure 4 Boilers 1100, 2100, and 3100 Traverse Point Diagram

## APPENDIX

Appendix A Detailed Test Schedule

## Introduction

BT Environmental Consulting, Inc. (BTEC) was retained by Dearborn Industrial Generation, LLC (DIG) to evaluate oxides of nitrogen (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), and oxygen content (O<sub>2</sub>) from Boilers 1, 2, and 3 (EUBOILER 1, EUBOILER 2, EUBOILER 3 respectively). Turbines 2 and 3 (EUCTG2 and EUCTG3) will be tested for NO<sub>x</sub>, CO, and O<sub>2</sub> and Turbine 1 (EUCTG1) will be tested for NO<sub>x</sub> and O<sub>2</sub>. All of the sources are located at the DIG facility in Dearborn, Michigan. DIG is required by Permit No. MI-ROP-N6631-2012 to perform relative accuracy test audits (RATA) on the predictive emissions monitoring systems (PEMS) installed on each of the boilers and turbines. The purpose of this document is to present the test plan for the emissions test program. The emissions test program is tentatively scheduled to commence on January 25, 2016 and extend through March, 2016 pending approval by the Air Quality Division (AQD) of Michigan's Department of Environmental Quality.

AQD has published a guidance document entitled "Format for Submittal of Source Emission Test Plans and Reports" (December 2013). The following is a summary of the emissions test plan in the format suggested by the aforementioned document.

### *Test Program Contacts*

The contact for the source and test plan is:

#### Facility Contact:

Mr. Thomas Andreski  
Dearborn Industrial Generation, LLC  
2400 Miller Road  
Dearborn, MI 48126  
(313) 336-7189

#### Testing Contact:

Mr. Todd Wessel  
Senior Project Manager  
BTEC Inc.  
4949 Fernlee Avenue  
Royal Oak, Michigan 48073  
Cell (616) 885-4013  
Phone(248) 548-8070  
Fax (248) 548-8073

### *Process Description*

The DIG facility located in Dearborn, Michigan operates two combined-cycle turbines and one simple-cycle Turbine that fire natural gas (NG) and three boilers that are

capable of firing a mixture of NG and blast furnace gas (BFG) or NG only.

Each of the combined cycle turbines is nominally rated at an output capacity of 194-208 Megawatts (MW). The simple cycle turbine is nominally rated at an output capacity of 170-180 Megawatts (MW). The turbines use natural gas as a primary fuel. The turbine generator consists of a compressor, combustion turbine, and generator. Energy is generated at the combustion turbine by drawing in ambient air by means of burning fuel and expanding the hot combustion gases in a three-stage turbine. The hot exhaust gases from the combined-cycle combustion turbines are directed to a multi-pressure heat recovery steam generator (HRSG) to produce steam. Low-NO<sub>x</sub> combustors minimize the emissions of nitrogen oxides from the turbines, while the emissions of CO and SO<sub>2</sub> are minimized by the efficient combustion of low sulfur bearing clean-burning fuels.

Each boiler is nominally rated at an output capacity of 500,000 pounds per hour of superheated steam at a minimum pressure of 1,350 psig and temperature of 960°F. The input capacity of the boilers while firing NG and BFG is 746 MMBtu/hr and 763 million BTU/hr while burning natural gas only. The steam from the boilers is dispatched to the turbines for electrical generation and or utilized as process steam. Low-NO<sub>x</sub> combustors minimize the emissions of nitrogen oxides from the boilers.

The boilers at DIG are designed to burn a mixture of BFG and NG or natural gas only. The BFG to NG ratio will be approximately 90% BFG and 10% NG, based upon the heat inputs of the fuels.

*Type and Quantity of Raw Materials*

Natural Gas and Blast Furnace Gas.  
*Cyclical or Batch Operations*

Start up and shut downs, load and steam demand. Also, blast furnace gas delivery pressure to the boilers.

*Basic Operating Parameters Used To Regulate The Process*

Fuel to air ratio, blast furnace gas availability, and steam demand.

*Process Rating*

The input capacity of the boilers while firing NG and BFG is 746 MMBtu/hr and 763 million BTU/hr while burning NG only.

Each of the combined cycle turbines are nominally rated at an output capacity of approximately 194-208 Megawatts (MW). The simple cycle turbine is nominally rated at an output capacity of approximately 170-180 Megawatts (MW).

Air Pollution Control Equipment

Low NO<sub>x</sub> burners and combustors minimize the emission of nitrogen oxides.

*Control Device Type*

NA

*Operating Parameters*

NA

*Rated Capacity and Efficiency*

NA

*Maintenance*

The new DLN (Dry Low NO<sub>x</sub>) 2.6+ has been installed on Turbines 2100 and 3100, which assists in reducing NO<sub>x</sub> without raising CO while at higher operating loads. The advanced gas path (AGP) upgrade allows the GT's to operate at a higher combustion temperature which will increase unit output power and reduce the heat rate (more efficient). Variable Inlet Guide Vanes allow for quicker output changes at high loads. New nozzles, buckets, and shrouds were installed to allow for the higher operating temperatures that will be achieved.

Permit No. and Emission Limits

Michigan Renewable Operating Permit No. MI-ROP-N6631-2012

Pollutants

Each of the boilers will be tested for NO<sub>x</sub>, CO, SO<sub>2</sub> and %O<sub>2</sub> RATA (NO<sub>x</sub> lb/mmBTU Part 75, SO<sub>2</sub> lb/mmBTU Part 60, O<sub>2</sub> % and CO ppm).

The combined-cycle turbines (2100, 3100) will be tested for NO<sub>x</sub>, CO, and % O<sub>2</sub> RATA (NO<sub>x</sub> at 15% O<sub>2</sub> Part 60, NO<sub>x</sub> lb/mmBTU trading program, O<sub>2</sub> % and CO ppm).

The simple-cycle turbine (1100) will be tested for NO<sub>x</sub>, % O<sub>2</sub> RATA (NO<sub>x</sub> lb/mmBTU Part 75).

Sampling Train Description

No deviations are anticipated from the sampling procedures outlined in 40 CFR, Part 60, Appendix A. Diagrams of the sampling apparatus is contained as Figure 1. The following sampling system will be used for the continuous emissions monitoring testing (U.S. EPA Method 3A, 6C, 7E, and 10 determinations):

- A) Stainless steel sampling probe with a three way calibration valve and filter;
- B) Heated Teflon sample line (250 +/- 25°F) to transport the sample gas to the moisture removal system;
- C) Moisture removal system comprised of an electric condenser;
- D) Sample pump, sample flow controller and a manifold;
- E) Instrumental analyzers;
- F) Data acquisition system.

Sampling and Analysis Procedures

The following U.S. EPA Methods found in the 40 CFR, Part 60, Appendix A and Appendix B will be used:

USEPA Method 3A and Performance Specification 3 will be used to determine the O<sub>2</sub> RATA. BTEC will use a zero gas, along with U.S. EPA Protocol 1 calibration gases with a 40-60%, and 80-100% of the span value (0-25% range)

USEPA Method 6C and Performance Specification 2 will be used to determine the SO<sub>2</sub> RATA, BTEC will use a zero gas along with US EPA protocol calibration gases with a 40-60%, and 80-100% of the span value (0-100 ppm range)

USEPA Method 7E and Performance Specification 2 will be used to determine the NO<sub>x</sub> RATA, BTEC will use a zero gas along with US EPA protocol calibration gases with a 40-60%, and 80-100% of the span value. (0-100 ppm range)

USEPA Method 10 and Performance Specification 4 will be used to determine the CO RATA, BTEC will use a zero gas along with US EPA protocol calibration gases with a 40-60%, and 80-100% of the span value. (0-100 ppm range)

USEPA Method 19 will be used to determine a fuel factor. A dry fuel factor of 8,710 dscf/MMBtu will be used to calculate the NO<sub>x</sub> emissions in lbs\mmbtu for the Turbines. The boilers F-Factor will be supplied by DIG. The dry F factor of the natural gas / blast furnace gas fuel mixture will be calculated in accordance with equation 19-13 of EPA Method 19. The equation for this calculation yields a dry factor in terms of dscf/MMBtu and is based upon the chemical constituents contained in the fuel (wt-%).

The boilers and turbines at DIG have been tested annually for the past eleven (11) years and have yet to exhibit any signs of stratification. A complete stratification traverse will be conducted on each source. Based on the stratification traverse results the performance testing will either be performed out of one test port at three sample points (approximately 6' 4' 2') or at a single point in the stack approximately six (6) feet in.

#### Number and Length of Sampling Runs

The RATA tests on the Boilers will be performed at three normal load demands with a BFG to NG ratio of approximately 90% BFG and 10% NG with a boiler load greater than 350 Mmbtu/hr for the first load (high), a BFG to NG ratio of approximately 90% BFG and 10% NG with a boiler load less than 350 Mmbtu/hr for the second load (mid) and 100% NG for the final load (low). (Thirty 21-minute test runs per load will be conducted). Since the boilers have to comply with both Part 60 and Part 75 regulations. The first 12, 21-minute test runs will be for the Part 60 requirements (SO<sub>2</sub> and CO). The remainder of the testing will be for NO<sub>x</sub> and O<sub>2</sub> only.

The combined cycle turbine testing will be conducted at three normal loads (high, mid and low). The MW output will be the maximum achievable load (base load) of approximately 190-208 MW for the high load, 180-190 MW for the mid load and 170-180 MW for the low load (Thirty 21-minute test runs per load will be conducted). As with the boilers the first 12 runs will be run to fulfill the Part 60 required testing for CO. The remainder of the testing will be for NO<sub>x</sub> and O<sub>2</sub> only.

The simple-cycle turbine testing will be conducted at three normal loads (high, mid and low). The MW output will be the maximum achievable load (base load) of approximately 175-180 MW for the high load, 170-175 MW for the mid load and 170-165 MW for the low load (thirty 21-minute test runs per load will be conducted for NO<sub>x</sub> and O<sub>2</sub> only).

#### Sampling Port Locations

The existing sample ports will be used with the test point determined per the regulations

and previous RATA certification at the site. Please see Figures 2-4 for schematic diagrams of the sources.

#### Estimated Exhaust Gas Conditions

##### Boilers BFG and NG Firing (Per Unit)

Boiler Rating: 746 MM Btu/hr heat input, 500,000 lb/hour steam;  
Temperature: Approximately 260°F;  
Moisture Content: About 10% by volume, depending upon ambient conditions;  
Velocity/Flow: About 50 ft/sec, 250,000 acfm, 150,000 dscfm.

##### Turbines 2100 and 3100 NG Fired

Turbine Rating: 194-208 Megawatts (MW);  
Temperature: Approximately 268°F;  
Moisture Content: About 2 % by volume, depending upon ambient conditions;  
Velocity/Flow: About 70 ft/sec, 1,000,000 acfm.

##### Turbine 1100 NG Fired

Turbine Rating: 175-180 Megawatts (MW);  
Temperature: Approximately 1000°F;  
Moisture Content: About 2 % by volume, depending upon ambient conditions;  
Velocity/Flow: About 160 ft/sec, 2,400,000 acfm.

#### Process Operating Conditions

The testing will be conducted under normal operating conditions and normal production rates. Specifically, the combined cycle turbines (2100, 3100) will be tested at base load at approximately 190-208 MW (high load), 180-190 (mid load) and 170-180 (low load).

The simple cycle turbine (1100) will be tested at base load at approximately 175-180 MW (high load), 170-175 (mid load) and 165-170 (low load).

The Boilers will be tested at normal load dictated by the current demand. The BFG to natural gas (NG) ratio will be approximately 90%BFG / 10%NG at both a high and mid load (greater than and less than 350 Mmbtu/hr) and pure natural gas (low load).

#### Process Data

The following additional information will be collected during the performance test:

1. Date, time, steam flow, MW
2. Natural gas flow (Turbines and Boilers)
3. Calculated F-Factors (Boilers)
4. Blast Furnace gas flow (Boilers)

#### Monitoring Data

NO<sub>x</sub> SO<sub>2</sub>, CO and O<sub>2</sub>% PEMS concentrations and NO<sub>x</sub>, CO and SO<sub>2</sub> lb/MMBtu (calculated). Chain of Custody Procedures.

No samples will be collected as part of this emissions test program.

## Field Quality Assurance/Quality Control Procedures

All test apparatus will be calibrated according to appropriate EPA QA/QC standards with field data recorded onto excel files.

## Laboratory Quality Assurance/Quality Control Procedures

NA

## Test Personnel

Names, titles, and telephone numbers for the personnel directly involved with this study are listed in Table 1.

**Table 1**  
**Test Personnel**

<b>Name and Title</b>	<b>Affiliation</b>	<b>Telephone</b>
Mr. Thomas Andreski	Dearborn Industrial Generation, LLC 2400 Miller Road Dearborn, MI 48126	(313) 336-7189
Mr. Todd Wessel Senior Project Manager	BTEC 4949 Fernlee Avenue Royal Oak, MI 48073	(616) 885-4013



**ATTACHMENT 4**  
**PEMS MODEL ENVELOPES**  
**AT**  
**DEARBORN INDUSTRIAL**  
**GENERATION, L.L.C.**  
**DEARBORN, MICHIGAN**  
**FEBRUARY 2016**

# SmartCEM™ Predictive Monitoring System Model Envelopes

40 CFR Part 60 and 40 CFR Part 75

Dearborn Industrial Generation:  
Boiler Units BL1100, BL2100, BL3100  
Turbine Units GTP1, GT2100 and GT3100

February 2016

Prepared For:

**Dearborn Industrial Generation, L.L.C.**  
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