MICHIGAN STATE UNIVERSITY

Ms. Caryn Owens MDEQ – Air Quality Division Cadillac District Office 120 West Chapin St. Cadillac, MI 49601



RE: Renewable Operating Permit Minor Modification Application
Michigan State University - T.B. Simon Power Plant (SRN: K3249)

Dear Ms. Owens:

Michigan State University (MSU) is submitting this Renewable Operating Permit (ROP) minor modification application to incorporate terms and conditions of Permit to Install (PTI) No. 75-14C into Section 2 of ROP No. MI-ROP-K3249-2016a, for the T.B. Simon Power Plant located at 354 Service Road in East Lansing, Michigan. PTI No. 75-14C incorporates the permanent removal of coal-firing capabilities on the existing EU-UNIT4 (Unit 4) and permanent removal of coal-handling processes at the T. B. Simon Power Plant.

On April 4, 2016, MSU ceased burning coal in Unit 4. On November 3, 2016, MSU completed the removal of the coal conveyor system, resulting in the permanent cessation of burning coal and handling of coal, ash, and limestone at the T.B. Simon Power Plant. As a result, the following permit changes have been incorporated as part of PTI No. 75-14C (issued on March 16, 2017):

- Removal of coal-specific conditions under EU-UNIT4
- Removal of EU-MHFUGITIVE, EU-CONVEYOR4, and EU-LIMESILO4
- Changes to EU-ASHEXH4 and EU-ASHSILO4 to allow storage and handling of spent sand rather than ash

Please refer to the enclosed C-001 and M-001 forms outlining the ROP modification. A mark-up copy of ROP No. MI-ROP-K3249-2016a with AI-001 form and have also been included with this minor modification application that incorporates the changes noted above and incorporated into PTI No. 75-14C.

This letter also serves as a notice that NTH Consultants, Ltd. (NTH) is authorized to act as our agent in the submittal and review of this minor modification application. If you have questions regarding this application, please contact me at (517) 355-3314 or Ms. Rhiana Dornbos of NTH at (517) 702-2953.

Power and Water

Infrastructure

Planning and

Facilities

T.B. Simon Power Plant Michigan State University 354 Service Road East Lansing, MI 48824

> 517-355-3314 Fax: 517-432-2368 ipf.msu.edu

Sincerely,

Robert L. Ellerhorst, P.E. Director of Utilities

Enclosures

cc: Dan Bollman, IPF AVP, MSU

Rhiana Dornbos, P.E., NTH Consultants, Ltd.

Kevin Eisenbeis, Director EAS, MSU Nathan Hude, MDEQ – AQD

201700057



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 K3249	3
Stationary Source Name		-				
Michigan State University - T.B. Simon	Power Plant					
City				County		
East Lansing				Ingham		
SUBMITTAL CERTIFICATION INF				C		
Type of Submittal Check only one						
☐ Initial Application (Rule 210)		fication / Administr	ative Ar	nendment /	/ Modification	(Rules 215/216)
Renewal (Rule 210)				meriamon,	Modification	(11005 215/210)
Meriewar (Nuie 210)	☐ Ottle	er, describe on AI-0	JU 1			
2. If this ROP has more than one Section, list the Section(s) that this Certification applies to Section 2						
3. Submittal Media 🛛 E-ma	ail	FTP		Disk		□ Paper
4. Operator's Additional Information ID) - Create an A	dditional Information	on (AI) II	D that is us	ed to provide	supplemental information
on Al-001 regarding a submittal. Al ROP						
AI ROP						
CONTACT INFORMATION						
Contact Name			Title			
Robert Ellerhorst			1	or of Utilities	S	
Phone number		E-mail address	1		Carlo de Car	
517-355-3314		rlellerh@ipf.msu.	edu			
This form must be signed and	dated by a	Responsible (Officia	l.		
Responsible Official Name			Title			
Robert Ellerhorst	-		Direct	tor of Utilitie)S	
Mailing address						
354 Service Road		T			***	·
City	State	ZIP Code	1	unty		Country
East Lansing	MI	48824		ham ••••••••••••••••••••••••••••••••••••		United States
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.						
mquiry, the statements and mi	inquiry, the statements and information in this submittal are true, accurate and complete.					
(/) SM	A				11	- , ¬
Cigrature of Popponsible Official		And the second s				-17
Signature of Responsible Official					Date	





Michigan Department of Environmental Quality
Air Quality Division

RENEWABLE OPERATING PERMIT M-001: RULE 215 CHANGE NOTIFICATION RULE 216 AMENDMENT/MODIFICATION APPLICATION

This information is required by Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, 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.

1.	SRN K3249	2. ROP Number	MI-ROP-K3249-2016a	3. County	Ingham	
4.	Stationary Source Name	Michigan State U	niversity - T.B. Simon Pow	er Plant		
5.	Location Address	354 Service Road	t	6. City	East Lansing	
7.	Submittal Type - The submup of the affected ROP pa	ages for applications	e criteria for the box checke s for Rule 216 changes. lete Items 8 – 10 and 14	ed below. Check o	nly one box. Atta	ach a mark-
	☐ Rule 215(2) Notification		lete Items 8 – 10 and 14			
-	☐ Rule 215(3) Notification		lete Items 8 – 11 and 14			
	Rule 215(5) Notification		lete Items 8 – 10 and 14			
	, ,		ment. Complete Items 8 – 10	0 and 14		
	Rule 216(1)(a)(v) Admit be submitted. See detail		nt. Complete Items 8 – 14. F	Results of testing, mo	nitoring & recordke	eping must
	□ Rule 216(2) Minor Mod	ification. Comp	lete Items 8 – 12 and 14			
	Rule 216(3) Significant		lete Items 8 – 12 and 14, and cation forms. See detailed ins		al information need	led on ROP
	☐ Rule 216(4) State-Only	Modification. Comp.	lete Items 8 – 12 and 14			
8.	Effective date of the chan See detailed instructions.	ge. (MM/DD/YYYY)	<u>03/16/2017</u>	9. Change in emis	ssions? Ye	s 🛭 No
10			ges or additions to the ROF is needed, complete an Ad			าร and/or
	permanent removal of co	al-firing capabilities perations. ROP co	o Install (PTI) No. 75-14C i on the existing EU-UNIT4 nditions originally establish d.	(Unit 4) and perma	nent removal of	coal, ash,
11	. New Source Review Per	mit(s) to Install (PT	l) associated with this appli	ication?	⊠ Yes	□ No
	If Yes, enter the PTI Num	nber(s) <u>75-14C</u>				
12	. Compliance Status - A n AI-001 if any of the follow		e plan, including a schedule o.	e for compliance, m	ust be submitted	using an
	a. Is the change identifie	ed above in complia	nce with the associated ap	plicable requiremer	nt(s)? ⊠ Ye	s 🗌 No
	b. Will the change identified requirement(s)?	fied above continue	to be in compliance with the	ne associated appli	cable 🛭 Ye	s 🗌 No
	c. If the change includes	a future applicable	requirement(s), will timely	compliance be ach	ieved? 🛚 🖂 Ye	s 🗌 No
13	. Operator's Additional Inf AI-001 form used to prov		e an Additional Information nformation.	n (AI) ID for the asso	ociated AI RO	Р
14	. Contact Name	Telepho	ne No.	E-mail Address		
	Robert Ellerhorst	517-355	5-3314	rlellerh@ipf.msu.e	du	
15			al application submitted on the ROP must be attached.		_ □ Ye	es 🛭 N/A



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.

	SRN: K3249	Section Number (if applicable): 2
Additional Information ID AI-ROP		
Additional Information		
2. Is This Information Confidential?	: (BOB) N - MI B	☐ Yes ☒ No
Marked-up copy of Section 2 of Renewable Operation Perland conditions of Permit to Install (PTI) No. 75-14C as a m	mit (ROP) No. MI-Ri inor modification.	OP-K3249-2016a to incorporate the terms
		Page 1 of 1

DEQ Environmental Assistance Center Phone: 800-662-9278

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

EFFECTIVE DATE: October 21, 2016

REVISION DATE: March 7, 2017

ISSUED TO

Michigan State University

State Registration Number (SRN): K3249

LOCATED AT

426 Auditorium Road, Room 450, East Lansing, Michigan 48824

RENEWABLE OPERATING PERMIT

Permit Number:

MI-ROP-K3249-2016a

Expiration Date:

October 21, 2021

Administratively Complete ROP Renewal Application Due Between April 21, 2020 and April 21, 2021

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

SOURCE-WIDE PERMIT TO INSTALL

Permit Number:

MI-PTI-K3249-2016a

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

Michigan Department of Environmental Quality

Brad Myott, Lansing District Supervisor

ROP No: MI-ROP-K3249-2016a Expiration Date: October 21, 2021 PTI No: MI-PTI-K3249-2016a

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AUTHORITY AND ENFORCEABILITY

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

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

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

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

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

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Section 2 - T.B. Simon Power Plant

ROP No: MI-ROP-K3249-2016a Expiration Date: October 21, 2021 PTI No: MI-PTI-K3249-2016a

A. GENERAL CONDITIONS

Permit Enforceability

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

General Provisions

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

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

- 7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. (R 336.1213(1)(g))
- 8. This ROP does not convey any property rights or any exclusive privilege. (R 336.1213(1)(h))

Equipment & Design

- 9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2).² (R 336.1370)
- 10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. (R 336.1910)

Emission Limits

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

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

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

Testing/Sampling

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

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Monitoring/Recordkeeping

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

Certification & Reporting

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

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22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following (R 336.1213(3)(c)):

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. Semi-annually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. (R 336.1213(3)(c)(i))
- 24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. (R 336.1212(6))
- 25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA.² (R 336.1912)

Permit Shield

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

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

- 27. Nothing in this ROP shall alter or affect any of the following:
 - 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))
 - a. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. (R 336.1213(6)(b)(ii))
 - The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. (R 336.1213(6)(b)(iii))

ROP No: MI-ROP-K3249-2016a Expiration Date: October 21, 2021 PTI No: MI-PTI-K3249-2016a

c. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. (R 336.1213(6)(b)(iv))

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

Revisions

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

Re-openings

- 34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
 - a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. (R 336.1217(2)(a)(i))
 - b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. (R 336.1217(2)(a)(ii))
 - 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(8))

Stratospheric Ozone Protection

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

Risk Management Plan

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

Emission Trading

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

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Permit To Install (PTI)

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

Footnotes:

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

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

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B. SOURCE-WIDE CONDITIONS

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

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

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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
EU-MHFUGITIVE	Fugitive emissions generated by materials handling activities, truck traffic, and wind erosion of coal piles. This emission unit will no longer operate as of January 31, 2017.	01/01/1965 , 12/12/1990	NA /
EU-UNIT1	Dry bottom wall-fired, natural gas boiler capable of generating 250,000 lb/hr of steam. This boiler is used to generate heating steam for the university and for the firing of a steam turbine to produce electricity for the university. This boiler is equipped with overfire air.	01/01/1965, 11/01/1978, 10/20/2011	FG-UNIT1/2, FG-BLRMACT- EXISTINGGAS1,
EU-UNIT2	Dry bottom wall-fired, natural gas fired boiler capable of generating 250,000 lb/hr of steam. This boiler is used to generate heating steam for the university and for the firing of a turbine to produce electricity for the university. This boiler is equipped with overfire air.	01/01/1965, 11/01/1978, 10/20/2011	FG-UNIT1/2, FG-BLRMACT- EXISTINGGAS1,
EU-UNIT3	Dry bottom wall-fired natural gas fired boiler capable of generating 350,000 lb/hr of steam. The boiler can be used to generate heating steam for the university and for the firing of a steam turbine to produce electricity for the university. This boiler is equipped with overfire air.	03/15/1973, 01/01/1975, 10/20/2011, 10/31/2014	FG-BLRMACT- EXISTINGGAS1
EU-UNIT4	Circulating fluidized bed natural gas boiler capable of firing natural gas and bituminous coal, and is—capable of generating 350,000 lb/hr of steam. The boiler is used to generate heating steam for the university and for the firing of a steam turbine to produce electricity for the university. Coal will coase to be fired by January 31, 2017.	12/12/1990, 10/20/2011,	FG-BLRMACT- EXISTINGGAS1
EU-UNIT5	Heat recovery steam generator (HRSG) with natural gas-fired duct burner; 80 MMBTU/hr heat input (LHV).	06/04/2004	FG-UNITS5/6

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Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-UNIT6	139 MMBtu/Hr natural gas fired turbine with dry low-NOx burner (considered a lean premix gas-fired turbine) and HRSG (EU-UNIT5) capable of generating 115,000 lbs of steam/hour and 12.0 mW. The heat rate based on lower heating value of the fuel for EU-UNIT6 is 10.6 kJ/Wh.	06/04/2004	FG-UNITS5/6
EU-EMGENGINE	Emergency black start 1528 hp, 1020 kW compression ignition reciprocating engine for EU-UNIT6.	06/04/2004	NΑ
EU-CONVEYOR4	Coal conveyor bag filter discharge vent for Unit 4. This vent exhausts air from the coal conveyor gallery. This emission unit will no longer be in use as of January 31, 2017.	12/12/1990	FG-4MATVENTS
EU- SPENTSANDASHEX H4	Unit 4 ash spent sand handling mechanical exhauster used to pneumatically transfer ash spent sand from hoppers to the ash spent sand silo. The vacuum system pump pulls the ash spent sand from the hoppers and into the ash spent sand silo via a cyclone separator. Two separate discharge vent fans are associated.	12/12/1990	FG-4MATVENTS
EU-LIMESILO4	Limestone silo vent filter. This air displacement vent is equipped with a bag filter. This vent discharges air from the limestone silo during periods when the silo is being filled. This emission unit will no longer be in use as of January 31, 2017.	12/12/1990	FG-4MATVENTS
EU- SPENTSANDASHSIL O4	Unit 4 spent sandash silo vent. This air displacement vent is equipped with a bag filter. This vent discharges air from the spent sandash silo during periods when spent sandash is being loaded into the silo.	12/12/1990	FG-4MATVENTS
EU-SANDSILO4	Sand silo vent. This air displacement vent is equipped with a bag filter. This vent discharges air from the sand silo during periods when the silo is being filled.	12/12/1990	FG-4MATVENTS
EU-DEGTSIMONP1	Parts washer	09/01/1990	FG- 2COLDCLEANER
EU-DEGTSIMONP2	Parts washer	09/01/1990	FG- 2COLDCLEANER

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EU-MHFUGITIVE EMISSION UNIT CONDITIONS

DESCRIPTION

Fugitive emissions generated by materials handling activities, truck traffic, and wind erosion of coal piles. This emission unit will no longer operate as of January 31, 2017.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

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

II. MATERIAL LIMIT(S)

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

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate this facility unless a continuous program of fugitive dust control for all plant readways, the plant yard, all material storage piles, and all material handling operations has been implemented. The fugitive dust centrel program will be maintained and have the approval of AQD prior to modifications of the program.² (R 336.1201(3))

See Appendix 9-2

IV. DESIGN/EQUIPMENT PARAMETER(S)

ΑИ

V. TESTING/SAMPLING

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

 The permittee shall measure the epacity using Method 9 (Visual Determination of the Opacity of Emissions from Stationary Sources) upon request of the AQD. (R 336.1213(3))

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VI. MONITORING/RECORDKEEPING

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

Visual inspection for abnormal/excessive dust to be performed at least once a week on all fugitive dust areas including all plant roadways, the plant yard, all material storage piles, and all material handling operations. A record shall be made of all checks, and abnormal conditions shall trigger initiation of abatement/repair actions. (R 336.1213(3))

VII. REPORTING

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

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

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

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

IX. OTHER REQUIREMENT(S)

The requirements under EU-MHFUGITIVE will no longer apply starting January 31, 2017.

Footnotes:

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

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

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EU-UNIT3 EMISSION UNIT CONDITIONS

DESCRIPTION

Dry bottom wall-fired natural gas fired boiler capable of generating 350,000 lb/hr of steam. The boiler can be used to generate heating steam and electricity for the university. This boiler is equipped with overfire air. (PTI 75-14B)

Flexible Group ID: FG-BLRMACT-EXISTINGGAS1

POLLUTION CONTROL EQUIPMENT

Low-NOx burners

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario		Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	0.20 lbs/MMBTU ²	3-hr rolling average	EU-UNIT3	SC VI.1	40 CFR 60.44(a)(1)

II. MATERIAL LIMIT(S)

1. The permittee shall only combust pipeline quality natural gas fuel in EU-UNIT3.1 (R 336.1225)

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

- The permittee shall calibrate, maintain, and operate, in a satisfactory manner, devices to monitor and record the NOx and CO₂ or O₂ emissions and flow-from EU-UNIT3, on a continuous basis and according to the procedures outlined in Appendix 3-2.² (40 CFR 60.45, 40 CFR Part 75)
- 2. The maximum design heat input capacity for EU-UNIT3, shall not exceed 460 mmBtu per hour, based on the higher heating value (HHV) of the fuel, (R336.1201(3))

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))

The permittee shall continuously monitor and record, in a satisfactory manner, the NOx and CO₂ or O₂ emissions and flow-from EU-UNIT3. The permittee shall operate the Continuous Emission Monitoring System (CEMS) (or Predictive Emissions Monitoring Systems (PEMS)) to meet the timelines, requirements and reporting detailed in Appendix 3 and shall use the CEMS (or PEMS) data for determining compliance with SC I.1. (40 CFR 60.45, 40 CFR Part 75)

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- Records of all measurements including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring systems' performance evaluations; all continuous monitoring system or monitoring device calibration checks; and records of adjustments and maintenance performed on these systems or devices. (R 336.1201(3), R 336.1911, 40 CFR Part 60 Subpart D)
- 3. The permittee shall monitor and maintain the following:
 - a. Amount of natural gas fired in EU-EUNIT3 on a monthly basis.
 - b. Calendar month.

The permittee shall keep the above records on file at the facility, in a satisfactory manner, and available to the Department upon request. (R 336.1205, R 336.1224, R 336.1702, R 336.1901)

See Appendix 3-2

VII. REPORTING

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
- 3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
- 4. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to the AQD, within 30 days following the end of each calendar quarter. The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information²: (R 336.2170, 40 CFR 60.7,)
 - a. A report of each exceedance above the limits specified in the conditions of EU-UNIT3. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.
 - b. A report of all periods of CEMS (or PEMS)/CERMS downtime and corrective action.
 - c. A report of the total operating time of EU-UNIT3 during the reporting period.
 - d. A report of any periods that the CEMS (or PEMS)/CERMS exceeds the instrument range.
 - e. If no exceedances or CEMS (or PEMS)/CERMS downtime occurred during the reporting period, the permittee shall report that fact.

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVUNIT3/4	156	275	R 336.1225

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IX. OTHER REQUIREMENT(S)

- The permittee shall meet the monitoring, recordkeeping, and reporting requirements of the NOx SIP Call during the ozone season (May 1 through September 30). (40 CFR Part 96, Subpart H)
- 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 DDDDD, for National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters by the initial compliance date. (40 CFR 63.7495, 40 CFR Part 63, Subparts A and DDDDD)
- The permittee shall comply with all applicable requirements of 40 CFR Part 60, Subpart D. (40 CFR 60.40).
- The permittee shall comply with all applicable requirements of 40 CFR Part 75. (40 CFR Part 75). 4.
- The permittee shall provide written notification to the Air Quality Division not more than 30 days after the completion of the project and commencement of trial operation. (R 336.1201(7)(a))

<u>Footnotes:</u>
¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
² This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

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EU-UNIT4 EMISSION UNIT CONDITIONS

DESCRIPTION

Circulating fluidized bed <u>natural gas</u> boiler <u>capable of firing natural gas and bitumineus coal and is</u> capable of generating 350,000 lb/hr of steam. The boiler is used to generate -steam for the university and for the firing of a steam turbine to produce electricity for the university. Coal will cease to be fired by January 31, 2017. (PTI 75-14B)

Flexible Group ID: FG-BLRMACT-EXISTINGGAS1

POLLUTION CONTROL EQUIPMENT

- Baghouse collector for particulate control
- Selective non-catalytic reduction (SNCR) system for nitrogen oxide control (may be used)
- Limestone injection for sulfur dioxide control (solid fuel only)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/	Equipment	Monitoring/	Underlying
		Operating		Testing	Applicable
		Scenario		Method	Requirements
Visible Emissions	10% Opacity, except	6-minute	EU-UNIT4	SC VI.3	40 CFR 52.21(j),
	one 6-minute average	average			R 336.2810
	per hour of not more				
	than 20% 2*				
Particulate Matter	0.03 lbs/MM BTU	Test Protocol**	EU-UNIT4	SC V.1	40 CFR 52.21(j),
	heat input 2*				R 336.2810
 Particulate Matter 	13.8 lbs/hr ²	Test Protocol**	EU-UNIT4	SC V.1	40 CFR 52.21(j),
					R 336.2810
NO _∗	0.16 lbs/MM BTU	24-hr rolling	EU-UNIT4	SC VI.6	40 CFR 52.21(j),
	heat input when firing	average			R 336.2810
	coal ^{2*}				
NO _∗	73.6 lbs/hr when firing	24-hr rolling	EU-UNIT4	SC VI.6	40 CFR 52.21(j),
	coal ²	average			R 336.2810
2-1.NO _x	0.076 lbs/MM BTU	24-hr rolling	EU-UNIT4	SC VI.6	40 CFR 52.21(j),
	heat input when firing	average			R 336.2810
	natural gas ^{2*}				
3.2.NO _x	32.2 lbs/hr when firing	24-hr rolling	EU-UNIT4	SC VI.6	40 CFR 52.21(j),
_	natural gas ²	average			R 336.2810
SO ₂	0.60 lbs/MM BTU	30-day rolling	EU-UNIT4	SC VI.6	40 CFR 52.21(j),
	heat input when firing	average			R 336.2810
	coal				
SO 2	0.74 lbs/MM BTU	24-hr rolling	EU-UNIT4	SC VI.6	40 CFR 52.21(j),
	heat input when firing	average			R 336.2810
	coal ^{2*}				
SO ₂	4.09 tons/day when	24-hr rolling	EU-UNIT4	SC VI.6	40 CFR 52.21(j),
	firing coal ²	average			R 336.2810
SO ₂	1208.9 tpy when firing	12-month rolling	EU-UNIT4	SC VI.7	40 CFR 52.21(j),
	coal ²	average			R 336.2810

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Pollutant	Limit	Time Period/	Equipment	Monitoring/	Underlying
		Operating		Testing	Applicable
		Scenario		Method	Requirements
CO	0.20 lbs/MM BTU	24-hr rolling	EU-UNIT4	SC VI.6	40 CFR 52.21(j),
	heat input excluding	average			R 336.2810
	periods of startup and				
	shutdown ²				
CO	92 lbs/hr ²	24-hr rolling	EU-UNIT4	SC VI.6	40 CFR 52.21(j),
		average			R 336.2810
VOC	9.2 lbs/hr ²	monthly average	EU-UNIT4	SC VI.7	40 CFR 52.21(j),
		, ,			P 336 3810

* Compliance with this requirement, 40 CFR 52.21(j), shall be considered compliance with the standards specified in NSPS, 40 CFR Part 60, Subpart Db (60.42b for SO2, 60.43b for particulate and 60.44b for NOx), which has been subsumed under this streamlined requirement.
** Test protocol shall determine averaging time period

The 24-hour rolling average NOx emission rate when firing a mixture of natural gas and coal shall not exceed
the applicable standard determined by proration using the following formula:² (R 336.2810, 40 CFR 52.21(j),
40 CFR 60.44b(b))

$$PS_{NOX} = \frac{0.076x + 0.16z}{x + z}$$

Where

PS_{Nox} = the prorated standard of NOx in lb/MMBtu, based on a 24-hour rolling average determined each hour x = the percentage of total heat input derived from natural gas, based on a 24-hour rolling average determined each hour

- z = the percentage of total heat input derived from coal, based on a 24-hour rolling average determined each hour
- 5. The SO₂ emission rate from EU UNIT4 shall not be in excess of 10 percent of the potential SO₂ emission rate based upon a 30 day rolling time period. The "potential SO₂ emission rate" means the theoretical emissions (lb/MMBTU heat input) that would result from the combustion of a fuel in an uncleaned state without an emissions control system.² (40 CFR 60.42b(a))

II. MATERIAL LIMIT(S)

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

- 1. The permittee shall only combust natural gas and/or coal in EU-UNIT4 prior to January 31, 2017. (R 336.1225)
- 2.1. The permittee shall only combust pipeline quality natural gas fuel in EU-UNIT4 starting on January 31, 2017. (R 336.1213(2))

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-UNIT4 unless a Malfunction Abatement Plan for EU-UNIT4 and its associated control equipment has been implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not

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notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. (R 336.1911)

- The permittee shall calibrate, maintain, and operate in a satisfactory manner a continuous opacity monitoring system (COM), in accordance with the procedures outlined below and in 40 CFR 60.48b;² (40 CFR 60.48b(a), R336.2152(1), 40 CFR 60.48b(c)(1))
 - a. The COM shall complete a minimum of 1 cycle of sampling and analyzing for each successive 10-second period and 1 cycle of data recording for each successive 6-minute period.²
 - b. The span value of the COM shall be between 60 and 80%.
 - e. The permittee shall keep necessary parts for routine repair of the monitoring equipment. (R 336.2152(1)
- 3-2. The permittee shall calibrate, maintain, and operate continuous emission monitoring systems (CEMS) (or Predictive Emissions Monitoring Systems (PEMS)) to monitor and record the NOx, CO, CO₂ or O₂ emissions and flow for EU-UNIT4-when firing coal or natural gas and will additionally monitor SO₂ when firing coal, on a continuous basis and according to the procedures outlined:

 (R 336.1201(3), R 336.2152(2), 40 CFR 60.13(d), 40 CFR Part 75)
 - The CEMS (or PEMS) shall complete a minimum of 1 cycle of operation for each successive 15-minute period.
 - b. The permittee shall check the zero and span calibration drifts for all CEM (or PEM) systems, at least once daily, and make the appropriate adjustments in accordance with the manufacturer's written procedure.²

IV. DESIGN/EQUIPMENT PARAMETER(S)

- 1. The permittee shall not operate EU-UNIT4, while burning coal, unless the SNCR system and baghouse are installed and operating properly.² (R 336.1910)
- The permittee shall not operate EU-UNIT4, while burning solid fuel, unless the limestone injection system is installed, maintained, and operated in a satisfactory manner.² (R 336.1910)

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1201(3), R 336.1213(3)(b)(ii))

- The permittee shall verify the PM emissions from EU-UNIT4 by testing at owner's expense, in accordance with Department requirements. Testing will be required once every five years.² (R 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2810, 40 CFR 52.21(j))
- 2. The permittee shall create a daily composite fuel sample for EU-UNIT4 collected during periods when the Unit 4-coal bunker is being filled. Samples shall consist of grab samples from the flowing over bunker coal belt, taken every five minutes while the coal is being loaded into the bunker. The daily composite fuel sample shall be analyzed to determine % sulfur content, BTU's/lb, and the calculated % sulfur adjusted to 12,000 BTU. The coal shall be sampled in accordance with ASTM D234. The percent sulfur content of the coal shall be analyzed in accordance with ASTM D3177.² (R 336.1201(3))
- The permittee shall conduct random sampling of coal from railcars and trucks using flowing belt sampling at the bunker coal feed. This analysis shall be used to check the supplier's analysis. The coal shall be sampled in accordance with ASTM D2234. The percent sulfur content of the coal shall be analyzed in accordance with ASTM D3177.² (R 336.1201(3))

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall continuously measure the pressure drop across the baghouse collector for EU-UNIT4 as an indicator of proper operation of the baghouse collector. The indicator of proper operation is a pressure drop within the range 0 to 5.5 in. H2O. (40 CFR 64.6(c)(1)(i and ii))

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- 2. The permittee shall record the pressure drop across the baghouse collector at least once each calendar day in a manner and with instrumentation acceptable to the Air Quality Division. (R 336.1910, 40 CFR 64.6(c)(1)(iii))
- 3. The permittee shall continuously monitor opacity from EU-UNIT4 and record, in a satisfactory manner, each successive 6-minute opacity determination. The permittee shall operate the COM system to meet the timelines, requirements and reporting detailed in Appendix 3-2 and shall use the COM data for determining compliance with SC I.1.2 (R 336.2810, 40 CFR 52.21(j), 40 CFR 60.48b(a), 40 CFR 60.48b(e)(1), 40 CFR 60.49b(f), 40 CFR 64.6(c)(1)(iii))
- The permittee shall use the COMS to assure compliance with the PM limit. An excursion for PM shall be a
 departure from the indicator range of less than 10% opacity in a 6-minute time period. This condition does not
 affect compliance with R 336.1301. (40 CFR 64.6(c)(2))
 - 5. The permittee shall utilize COM-recorded epacity as an indicator of the proper operation of the baghouse collector. The indicator range of epacity defining proper function of the dust collector is a value of less than 10% opacity. (49 CFR 64.6(e)(1)(i and ii))
- 1. The permittee shall continuously monitor and record, in a satisfactory manner, the NOx, CO, CO₂ or O₂ emissions and flow from EU-UNIT4 when firing coal or natural gas and will additionally monitor SO₂ when firing coal. The permittee shall operate each Continuous Emission Monitoring System (or Predictive Emissions Monitoring Systems)/Continuous Emission Rate Monitoring System (CEMS (or PEMS)/CERMS) to meet the timelines, requirements and reporting detailed in Appendix 3-2 and shall use the CEMS (or PEMS)/CERMS data for determining compliance with SC I.4-I.9 and I.12-13. Where the following data is required: (R 336.2810, R 336.1213(3), 40 CFR 52.21(j), 40 CFR Part 75)
 - a. The 24-hour rolling average NOx emission rates in terms of pounds per million BTU heat input and pounds per hour.
 - The 24-hour rolling average (in pounds per million BTU and tons per day) and 30-day rolling average (in pounds per million BTU) SO₂ emission rates.
 - c. The 24-hour rolling average (in pounds per million BTU and pounds per hour) CO emission rates.
- 2. The permittee shall keep the following information on a monthly basis for EU-UNIT4:
 - a. SO₂ emission calculations determining the monthly emission rate in tons per calendar month.
 - SO₂ emission calculations determining the annual emission rate in tens per 12 month rolling time period as determined at the end of each calendar month.
 - e.a. A record of the hours of operation.
 - d. VOC emission calculations determining the average monthly emission rate in pounds per hour based upon actual hours of operation using the Michigan Air Emissions Reporting System (MAERS) emission factors.

The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.² (R 336.2810, 40 CFR 52.21(j))

- 3. The permittee shall calibrate, maintain, and operate a continuous emission monitoring system (CEMS) or Predictive Emissions Monitoring Systems (PEMS) to monitor and record the NOx, CO, CO, or O2 emissions and flow from EU-UNIT4 when firing coal or natural gas and will additionally monitor SO2 when firing coal, on a continuous basis and according to the procedures outlined below and in Appendix 3-2: (R 336.1201(3))
 - a. The CEMS (or PEMS) shall complete a minimum of 1 cycle of operation for each successive 15-minute period.² (R 336.2152(2))
 - b. The permittee shall check the zero and span calibration drifts for all CEM (or PEM) systems, at least once daily, and make the appropriate adjustments in accordance with the manufacturer's written procedure.² (40 CFR 60.13(d), 40 CFR 75)

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- 4. The permittee shall keep records of all measurements including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring systems performance evaluations; all continuous monitoring system or monitoring device calibration checks; and records of adjustments and maintenance performed on these systems or devices.² (R 336.1201(3))
- 5. The Permittee shall monitor and maintain daily records on the following:
 - a. Amount of coal fired in EU-UNIT4 on a weight and percent weight basis.
 - b. Amount of natural gas fired in EU-UNIT4.
 - c. Calendar date.

The permittee shall keep the above records on file at the facility, in a satisfactory manner, and available to the Department upon request. (R 336.1224, R 336.1702)

- The permittee shall keep records of the occurrence and duration of any startup, shutdown, or malfunction in the
 operation; any malfunction of the air pollution control equipment, or any periods during which a continuous
 monitoring system or monitoring device is inoperative.² (40 CFR 60.7)
- The permittee shall determine the percent of SO₂ reduction based on fuel sulfur content determined on a daily basis and SO₂ CEM (or PEM) data. A 30-day rolling average SO₂% reduction shall be calculated from each day's fuel sulfur content and CEM data when firing coal. This calculation will be used to determine compliance with SC 1.16.² (40 CFR 60.42b(a))
- 8. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of EU-UNIT4 (including the control device) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). In response to an excursion of more than 10% opacity based on a 6-minute average, corrective actions shall be taken in accordance with the Baghouse Malfunction Abatement Plan. (40 CFR 64.7(d))
- 9. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or centrol activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the centrol device and associated centrol system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. (40 CFR 64.6(c)(3), 64.7(c))
- 10. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. (40 CFR 64.9(b)(1))
- 11. The permittee shall keep, in a satisfactory manner, records of the PM verification tests for EU-UNIT4 on file at the facility and make them available to the Department upon request. (R 336.2810, 40 CFR 52.21(j))

See Appendix 3-2

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VII. REPORTING

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- 2. Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
- 3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
- 4. Each semi-annual report of monitoring and deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. (40 CFR 64.9(a)(2)(i))
- 5. Each semi-annual report of monitoring and deviations shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. (40 CFR 64.9(a)(2)(ii))
- 6.4. Quarterly reporting of the "Excess Emission and Monitoring Systems Performance Report" and the "Summary Report" as specified in 40 CFR 60.7 (c) and (d) for opacity, NOx, CO, and SO₂ (excess emissions shall be based on the limits identified in Section I). Due April 30 for reporting period January 1 to March 31, July 30 for reporting period April 1 to June 30, October 30 for reporting period July 1 to September 30, and January 30 for reporting period October 1 to December 31.² (R 336.2170, 40 CFR 60.7)
- 7.5_Quarterly reporting of the "Data Assessment Report" (ie. Linearity or CGA) as set forth in Appendix F of 40 CFR 60 for the CEMS (or PEMS). Due April 30 for reporting period January 1 to March 31, July 30 for reporting period April 1 to June 30, October 30 for reporting period July 1 to September 30, and January 30 for reporting period October 1 to December 31.2 (40 CFR 60.7)
 - 8. The permittee shall notify the AQD of any physical or operational change which may increase the emission rate of any pollutant to which a standard applies, unless that change is specifically exempted. This notice shall be postmarked 60 days, or as soon as practical, before the change is commenced and shall include information on describing the precise nature of the change, present and proposed emission control systems, productive capacity before and after the change, and the expected completion date of the change. (40 CFR 60.7)
 - 9. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. The permittee shall notify the District Supervisor or the Technical Programs Unit no less than 7 days prior to the anticipated test date. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. (R 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2810, 40 CFR 52.21(j))
 - Each calendar quarter, the permittee shall perform the Quality Assurance Procedures of the CEMS/PEMS set forth in 40 CFR Part 75, Subpart C. Within 30 days following the end of each calendar quarter, the permittee shall submit the results to the AQD.² (40 CFR 75.21)
 - 11. Annually, the permittee shall perform the Quality Assurance Procedures of the COMS set forth in Appendix B and Appendix F. Procedure 3 of 40 CFR Part 60. The permittee shall submit the results to the AQD within 30 days of completion.² (40 CFR 60 Appendix B and Appendix F)

See Appendix 8-2

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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. SVUNIT3/4	156 ¹	275 ¹	R 336.1225

IX. OTHER REQUIREMENT(S)

- The permittee shall meet the monitoring, recordkeeping, and reporting requirements of the NOx SIP Call during the ozone season (May 1 through September 30). (40 CFR Part 96, Subpart H)
- 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 DDDDD, for National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters by the extend compliance date of January 31, 2017. (40 CFR 63.7495, 40 CFR Part 63, Subparts A and DDDDD)
- 3. The permittee shall comply with all applicable requirements of 40 CFR, Part 64. (40 CFR Part 64)
- 4-3_The permittee shall comply with all applicable requirements of 40 CFR, Part 60 Subpart Db. (40 CFR 60.40b).
- 5.4. The permittee shall comply with all applicable requirements of 40 CFR, Part 75. (40 CFR Part 75).
 - 6. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the AQD and if necessary, submit a proposed modification of the CAM Plan to address the necessary monitoring changes. Such a modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. (40 CFR 64.7(e))
 - 7. The requirements under EU-UNIT4 pertaining to solid fuel will no longer apply starting January 31, 2017.

Footnotes:

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

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

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EU-UNIT5 EMISSION UNIT CONDITIONS

DESCRIPTION

Heat recovery steam generator (HRSG) with natural gas fired duct burner capable of 80 MMBTU/hr heat input for EU-UNIT6. (PTI 13-04)

Flexible Group ID: FG-UNITS5/6

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

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

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario		Monitoring/ Testing Method	
					Requirements
NA	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 five years. (R 336.1213(3)(b)(ii))

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

The permittee shall record and maintain records of the amount of fuel combusted in EU-UNIT5 during each calendar month. All records shall be kept on file for a period of at least five years and made available to the Department upon request.² (40 CFR 60.48c (g)(2))

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VII. REPORTING

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

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

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

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

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the New Source Performance Standards for Small Industrial -Commercial-Institutional Steam Generating Units as specified in 40 CFR Part 60, Subpart Dc. (40 CFR Part 60, Subpart Dc)

Footnotes:

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

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

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EU-UNIT6 EMISSION UNIT CONDITIONS

DESCRIPTION

139 MMBtu/Hr natural gas fired turbine with dry low-NOx burner (considered a lean premix gas-fired turbine) and HRSG (EU-UNIT5) capable of generating 115,000 lbs of steam/hour and 12.0 MW. The heat rate based on lower heating value of the fuel for EU-UNIT6 is 10.6 kJ/Wh. (PTI 13-04)

Flexible Group ID: FG-UNITS5/6

POLLUTION CONTROL EQUIPMENT

Low NOx Burner

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	204 ppm @ 15% O2 dry	Test Protocol	EU-UNIT6	40 CFR 60.335	40 CFR 60.332(a)

II. MATERIAL LIMIT(S)

 The permittee shall only fire natural gas containing 20.0 grains or less of total sulfur per 100 standard cubic feet.² (40 CFR 60.331)

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

- The permittee shall equip and maintain EU-UNIT6 with a dry low-NOx combustor.² (R 336.1225, R 336.1702(a), R 336.1910)
- 2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the NOx emissions for EU-UNIT6 on a continuous basis.² (R 336.1205 (1)(a) and (3))
- The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the CO emissions for EU-UNIT6 on a continuous basis² (R 336.1205 (1)(a) and (3))

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))

 The permittee shall monitor the fuel sulfur content via a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less.² (40 CFR 60.334(h)(3)(i))

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 The permittee shall keep, in a satisfactory manner, monthly NOx records for EU-UNIT6. All records shall be kept on file for a period of at least five years and made available to the Department upon request.² (R 336.1205 (1)(a) and (3), 40 CFR 60.332 (a)(2))

3. The permittee shall keep, in a satisfactory manner, monthly CO records for EU-UNIT6. All records shall be kept on file for a period of at least five years and made available to the Department upon request.² (R 336.1205 (1)(a) and (3))

VII. REPORTING

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- 2. Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
- 3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
- 4. Each calendar quarter, the permittee shall perform the Quality Assurance Procedures of the CEMS set forth in Appendix F of 40 CFR Part 60. Within 30 days following the end of each calendar quarter, the permittee shall submit the results to the AQD. This documentation can be submitted as a combined package for FG-UNITS-5/6.² (40 CFR Part 60, Appendix F)
- 5. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to the AQD, within 30 days following the end of each calendar quarter. The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:² (R 336.2170, 40 CFR 60.7)
 - a. A report of each exceedance above the limits specified in the conditions of FG-UNIT5/6. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.
 - b. A report of all periods of CEMS (or PEMS)/CERMS downtime and corrective action.
 - c. A report of the total operating time of FG-UNIT5/6 during the reporting period.
 - d. A report of any periods that the CEMS (or PEMS)/CERMS exceeds the instrument range.
 - e. If no exceedances or CEMS (or PEMS)/CERMS downtime occurred during the reporting period, the permittee shall report that fact.

This documentation can be submitted as a combined package for FG-UNITS-5/6

See Appendix 8-2

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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)

- The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants from Stationary Combustion Turbines as specified in 40 CFR Part 63, Subparts A and YYYY, as they apply to EU-UNIT6.² (40 CFR Part 63, Subparts A & YYYY, 40 CFR 63.6095(d))
- 2. The permittee shall comply with all applicable provisions of the New Source Performance Standards for Stationary Gas Turbines as specified in 40 CFR Part 60, Subpart GG, as applicable to EU-UNIT6. (40 CFR Part 60, Subpart GG)

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

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

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EU-EMGENGINE EMISSION UNIT CONDITIONS

DESCRIPTION

Kohler compression ignition1528 horsepower, 1020kW, black start existing reciprocating internal combustion engine, for EU-UNIT6.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	4	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

II. MATERIAL LIMIT(S)

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

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee may operate EU-EMGENGINE unlimited hours for emergency use. The permittee may also operate EU-EMGENGINE for no more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year. EU-EMGENGINE may operate up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year provided for maintenance and testing. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply non-emergency power as part of a financial arrangement with another entity. (40 CFR 63.6640(f))

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))

NΑ

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VI. MONITORING/RECORDKEEPING

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

The permittee shall keep, in a satisfactory manner, a written log of the monthly hours of operation and type of
operation for EU-EMGENGINE. All records shall be kept on file for a period of at least five years and made
available to the Department upon request.² (R336.1205 (1)(a) and (3))

See Appendix 2-4

VII. REPORTING

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

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

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

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

IX. OTHER REQUIREMENT(S)

 The permittee shall comply with the applicable requirements of 40 CFR Part 63 ("National Emission Standard for Hazardous Air Pollutants for Source Categories"), Subparts A ("General Provisions') and ZZZZ ("National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines"). (40 CFR Part 63, Subparts A and ZZZZ)

Footnotes

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

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

D. FLEXIBLE GROUP CONDITIONS

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

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

FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-UNIT1/2	Two dry bottom wall-fired natural gas fired boilers capable of generating 250,000 lb/hr of steam. The boilers are used to generate heating steam for the university and for the firing of a steam turbine to produce electricity for the university. The boilers are equipped with overfire air and are also equipped with SNCR which may be used primarily during the ozone season to reduce NOx levels.	EU-UNIT1 EU-UNIT2
FG-UNITS5/6	Natural gas fired 139 MMBtu/Hr heat input turbine with dry low-NOx burner and heat recovery steam generator (HRSG) and a natural gas fired duct burner capable of 80 MMBTU/hr heat input.	EU-UNIT5 EU-UNIT6
FG-2COLDCLEANER	All cold cleaners at the powerhouse.	EU-DEGTSIMONP1 EU-DEGTSIMONP2
FG-4MATVENTS	Material handling equipment associated with Unit 4 boiler. EU-CONVEYOR4 and EU-LIMESILO4 will no longer be in use as of January 31, 2017.	EU-CONVEYOR4 EU- SPENTSANDASHEXH4 EU-LIMESILO4 EU- SPENTSANDASHSILO4 EU-SANDSILO4
FG-BLRMACT- EXISTINGGAS1	Gas 1 Fuel Subcategory requirements for existing Boilers at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart DDDDD. EU-UNIT1, EU-UNIT2, and EU-UNIT3 must comply with this subpart no later than January 31, 2016, and EU-UNIT4 must comply with this subpart no later than January 31, 2017.	EU-UNIT1 EU-UNIT2 EU-UNIT3 EU-UNIT4

FG-UNIT1/2 FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Two dry bottom wall-fired natural gas fired boilers each capable of generating 250,000 lb/hr of steam. The boilers are used to generate steam for the university and for the firing of a steam turbine to produce electricity (CHP). The boilers are equipped with overfire air. (PTI 75-14A)

Emission Units: EU-UNIT1, EU-UNIT2

POLLUTION CONTROL EQUIPMENT

Low-NO_x burners

I. EMISSION LIMIT(S)

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

II. MATERIAL LIMIT(S)

1. The permittee shall only combust pipeline quality natural gas fuel in EU-UNIT1 and EU-UNIT2. (R 336.1213(2))

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate either EU-UNIT1 or EU-UNIT2 unless a Malfunction Abatement Plan for EU-UNIT1 and EU-UNIT2, and their associated control equipment, has been implemented and is maintained for both units. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.² (R 336.1911).

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NΑ

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VI. MONITORING/RECORDKEEPING

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

- 1. The permittee shall monitor and maintain monthly records on the following:
 - a. Amount of natural gas fired in EU-UNIT1 and EU-UNIT2.
 - b.. Calendar month.

The permittee shall keep the above records on file at the facility, in a satisfactory manner, and available to the Department upon request. (R 336.1205, R 336.1224, R 336.1702, R 336.1901)

VII. REPORTING

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

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVUNIT1/2	132 ²	2752	R 336.1201(3), R 336.1225

IX. OTHER REQUIREMENT(S)

- The permittee shall meet the monitoring, recordkeeping, and reporting requirements of the NOx SIP Call during the ozone season (May 1 through September 30). (40 CFR Part 96, Subpart H)
- 2. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart DDDDD, for National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters by the initial compliance date. (40 CFR 63.7495, 40 CFR Part 63, Subparts A and DDDDD)

Footnotes

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

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

FG-UNITS5/6 FLEXIBLE GROUP CONDITIONS

DESCRIPTION

139 MMBtu/Hr heat input natural gas fired turbine with dry low-NOx burner, heat recovery steam generator (HRSG) and a natural gas fired duct burner rated at 80 MMBTU/hr. heat input. (PTI 13-04)

Emission Units: EU-UNIT5, EU-UNIT6

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	34.9 tpy ²	12-month rolling time period as determined by the end of each calendar month	FG-UNITS5/6	SC VI.2	R 336.1205 (1)(a) and (3),
2. CO	89.9 tpy ²	12-month rolling time period as determined by the end of each calendar month	FG-UNITS5/6	SC VI.3	R 336.1205 (1)(a) and (3)

II. MATERIAL LIMIT(S)

1. The permittee shall only fire natural gas containing 20.0 grains or less of total sulfur per 100 standard cubic feet. (40 CFR 60.331)

III. PROCESS/OPERATIONAL RESTRICTION(S)

NΑ

IV. DESIGN/EQUIPMENT PARAMETER(S)

- 1. The permittee shall equip and maintain FG-UNITS5/6 with a dry low-NOx combustor. (R 336.1225, R 336.1702(a), R 336.1910)
- 2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the NOx emissions for FG-UNITS5/6 on a continuous basis.² (R 336.1205 (1)(a) and (3))
- 3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the CO emissions for FG-UNITS5/6 on a continuous basis.² (R 336.1205 (1)(a) and (3))

V. TESTING/SAMPLING

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

NΑ

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VI. MONITORING/RECORDKEEPING

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

- 1. The permittee shall keep, in a satisfactory manner, monthly and previous 12 month NOx records for FG-UNITS5/6. All records shall be kept on file for a period of at least five years and made available to the Department upon request.² (R 336.1205 (1)(a) and (3))
- 2. The permittee shall keep, in a satisfactory manner, monthly and previous 12 month CO records for FG-UNITS5/6. All records shall be kept on file for a period of at least five years and made available to the Department upon request. (R 336.1205 (1)(a) and (3))

See Appendix 3-2

VII. REPORTING

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- 2. Semi-annual 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))
- Each calendar quarter, the permittee shall perform the Quality Assurance Procedures of the CEMS set forth in Appendix F of 40 CFR Part 60. Within 30 days following the end of each calendar quarter, the permittee shall submit the results to the AQD.² (40 CFR Part 60, Appendix F)
- 5. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to the AQD, within 30 days following the end of each calendar quarter. The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:² (R 336.2170, 40 CFR 60.7,)
 - a. A report of each exceedance above the limits specified in the conditions of FG-UNIT5/6. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.
 - b. A report of all periods of CEMS (or PEMS)/CERMS downtime and corrective action.
 - c. A report of the total operating time of FG-UNIT5/6 during the reporting period.
 - d. A report of any periods that the CEMS (or PEMS)/CERMS exceeds the instrument range.
 - e. If no exceedances or CEMS (or PEMS)/CERMS downtime occurred during the reporting period, the
 permittee shall report that fact.

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-2-TURB/DB1	72 ²	157.5 ²	R 336.1225, 40 CFR 52.21 (c) & (d)

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IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

FG-2COLDCLEANER FLEXIBLE GROUP CONDITIONS

DESCRIPTION

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

Emission Units: EU-DEGTSIMONP1, EU-DEGTSIMONP2

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

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

II. MATERIAL LIMIT(S)

1. The permittee shall not use cleaning solvents containing more than 5 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)

- 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))
- 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 10 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

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))

Records shall be maintained on file for a period of 5 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%, 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. Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
- 3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

See Appendix 8-2

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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)

NA

Footnotes:

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

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

FG-4MATVENTS FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Material handling equipment associated with Unit 4 boiler. <u>EU-CONVEYOR4 and EU-LIMESILO4 will no longer be in use as of January 31, 2017.</u>

Emission Units: <u>EU-CONVEYOR4</u>, EU-<u>SPENTSAND</u>ASHEXH4, <u>EU-LIMESILO4</u>, EU-<u>SPENTSAND</u>ASHSILO4, EU-SANDSILO4

POLLUTION CONTROL EQUIPMENT

Bag filter on EU-CONVEYOR4
Cyclone on EU-ASHEXH4SPENTSANDEXH4
Bag filter on EU-LIMESILO4
Bag filter on EU-ASHSPENTSANDSILO4
Bag filter on EU-SANDSILO4

I. EMISSION LIMIT(S)

	Pollutant	Limit	Time Period/ Operating	Equipment	Monitoring/	Underlying
			Scenario		Testing Method	Applicable
					Ü	Requirements
1.	Opacity	5%²	6-minute average	FG-4MATVANTS	SC V.1	R336,1301(1)(c)
2.	Particulate	0.02 gr/dscf ²	NA	FG-4MATVANTS	SC VI.1, VI.2	R336.1331(1)(c)
	Matter				.	

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario		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 five years. (R 336.1213(3)(b)(ii))

1. The permittee shall measure the opacity using Method 9 (Visual Determination of the Opacity of Emissions from Stationary Sources) upon request of the AQD. (R 336.1213(3))

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VI. MONITORING/RECORDKEEPING

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

- The permittee shall perform, at a minimum, a semiannual maintenance check and repairs on each baghouse filter. A record of repairs and maintenance performed on the baghouse filters shall be maintained. (R 336.1213(3))
- Visual inspection for abnormal/excessive dust to be performed at least once a week on all exhausts points. A record shall be made of all checks. Abnormal conditions shall trigger initiation of abatement/repair actions. (R 336.1213(3))

VII. REPORTING

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

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

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

	Stack & Vent ID	Maximum Exhaust	Minimum Height Above Ground	Underlying Applicable Requirements
		Dimensions	(feet)	nequirements
		(inches)		
1.	SVCONVEYOR4	AA	AA	NA
2.	SVASHEXH4ASVSPENTSAND	NA	NA	NA
	EXH4A			,
3.	SV ASH SPENTSANDEXH4B	NA	NA	NA
4.	SVLIMESTONESILO	AA	AA	NA A
5.	SVASHSILO4SVSPENTSANDSI	NA	NA	NA
	LO4			
6.	SVSANDSILO	NA	NA	NA

IX. OTHER REQUIREMENT(S)

The requirements under FG-4MATVENTS pertaining to EU-CONVEYOR4 and EU-LIMESILO4 will no longer apply starting January 31, 2017.

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

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

FG-BLRMACT-EXISTINGGAS1 FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Gas 1 Fuel Subcategory requirements for existing Boilers at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart DDDDD. EU-UNIT1, EU-UNIT2, and EU-UNIT3 must comply with this subpart no later than January 31, 2016, and EU-UNIT4 must comply with this subpart no later than January 31, 2017.

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

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

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

II. MATERIAL LIMIT(S)

1. The permittee shall only burn fuels as allowed in the Unit designed to burn gas 1 subcategory definition in 40 CFR 63.7575. (40 CFR 63.7499(I))

III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. The permittee must meet the requirements in paragraphs (a)(1) and (3) of 40 CFR 63.7500, as listed below, except as provided in paragraphs (b) and (e) of 40 CFR 63.7500, stated in SC III.2 and SC III.3. The permittee must meet these requirements at all times the affected unit is operating, except as provided in paragraph (f) of 40 CFR 63.7500, stated in SC III.4. (40 CFR 63.7500(a))
 - a. The permittee must meet each work practice standard in Table 3 of 40 CFR Part 63, Subpart DDDDD that applies to the boiler, for each boiler at the source. (40 CFR 63.7500(a)(1))
 - b. At all times, the permittee must operate and maintain any affected source (EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. (40 CFR 63.7500(a)(3))
- 2. As provided in 40 CFR 63.6(g), EPA may approve use of an alternative to the work practice standards. (40 CFR 63.7500(b))
- 3. Boilers in the units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13 of 40 CFR Part 63, Subpart DDDDD, or the operating limits in Table 4 of 40 CFR Part 63, Subpart DDDDD. (40 CFR 63.7500(e))
- 4. The above standards apply at all times the affected unit is operating, except during periods of startup and shutdown during which time the permittee must comply only with Table 3 of 40 CFR Part 63, Subpart DDDDD. (40 CFR 63.7500(f))

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- 5. The permittee must complete an initial tune-up by following the procedures described in 40 CFR 63.7540(a)(10)(i) through (vi), stated in SC IX.5, no later than the compliance date specified in 40 CFR 63.7495 unless an extension applies, stated in SC IX.2. The permittee must complete the one-time energy assessment specified in Table 3 of 40 CFR Part 63, Subpart DDDDD no later than the compliance date specified in 40 CFR 63.7495 unless an extension applies, stated in SC IX.2. (40 CFR 63.6(i)(4)(i)(A), 40 CFR 63.7510(e))
- 6. The permittee must conduct an annual performance tune-up according to 40 CFR 63.7540(a)(10), stated in SC IX.5.a; or 5-year performance tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.14.b. Each annual tune-up specified in 40 CFR 63.7540(a)(10) must be no more than 13 months after the previous tune-up. Each 5-year tune-up specified in 40 CFR 63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up. (40 CFR 63.7515(d))
- 7. For startup and shutdown, the permittee must meet the work practice standards according to item 5 of Table 3 of 40 CFR Part 63, Subpart DDDDD. (40 CFR 63.7540(d))

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

- 1. The permittee must keep records according to paragraphs (a)(1) and (2) of 40 CFR 63.7555, as listed below. (40 CFR 63.7555(a))
 - a. A copy of each notification and report that the permittee submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). (40 CFR 63.7555(a)(1))
 - Becords of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in 40 CFR 63.10(b)(2)(viii). (40 CFR 63.7555(a)(2))
- 2. The permittee must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown. (40 CFR 63.7555(i))
- The permittee must maintain records of the amount(s) of natural gas used during each startup and shutdown. (40 CFR 63.7555(j))
- 4. The permittee's records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). (40 CFR 63.7560(a))
- As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. (40 CFR 63.7560(b))
- 6. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The permittee can keep the records off site for the remaining 3 years. (40 CFR 63.7560(c))

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VII. REPORTING

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
- Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be
 postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.
 (R 336.1213(4)(c))
- 4 The permittee must meet the notification requirements in 40 CFR 63.7545 according to the schedule in 40 CFR 63.7545, both stated in SC VII.7 through SC VII.10, and in Subpart A of 40 CFR 63. (40 CFR 63.7495(d))
- 5 The permittee must include with the Notification of Compliance Status a signed certification that the energy assessment was completed according to Table 3 of 40 CFR Part 63, Subpart DDDDD and is an accurate depiction of the facility at the time of the assessment. (40 CFR 63.7530(e))
- 6 The permittee must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in 40 CFR 63.7545(e), stated in SC VII.8. (40 CFR 63.7530(f))
- 7 The permittee must submit to the Administrator all of the notifications in 40 CFR 63.7(b) and (c), 40 CFR 63.8(e), (f)(4) and (6), and 40 CFR 63.9(b) through (h) that apply to the permittee by the dates specified. (40 CFR 63.7545(a))
- 8. Since the permittee is not required to conduct an initial compliance demonstration as specified in 40 CFR 63.7530(a), the Notification of Compliance Status must only contain the information specified in paragraphs (e)(1) and (8). (40 CFR 63.7545(e))
 - a. A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with 40 CFR Part 63, Subpart DDDDD, and description of the fuel(s) burned. (40 CFR 63.7545(e)(1))
 - b. In addition to the information required in 40 CFR 63.9(h)(2), your notification of compliance status must include the following certification(s) of compliance, as applicable, and signed by a responsible official: (40 CFR 63.7545(e)(8))
 - i. "This facility complies with the required initial tune-up according to the procedures in 40 CFR 63.7540(a)(10)(i) through (vi)." (40 CFR 63.7545(e)(8)(i))
 - ii. "This facility has had an energy assessment performed according to 40 CFR 63.7530(e)." (40 CFR 63.7545(e)(8)(ii))
- 9. During a period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575, if the permittee intends to use a fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart of 40 CFR Part 63, Part 60, Part 61, or Part 65, or other gas 1 fuel to fire any affected unit, the permittee must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575. The notification must include the information specified in paragraphs (f)(1) through (5) of 40 CFR 63.7545, as listed below. (40 CFR 63.7545(f))
 - a. Company name and address. (40 CFR 63.7545(f)(1))
 - b. Identification of the affected unit. (40 CFR 63.7545(f)(2))
 - c. Reason the permittee is unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began. (40 CFR 63.7545(f)(3))
 - d. Type of alternative fuel that the permittee intends to use. (40 CFR 63.7545(f)(4))
 - e. Dates when the alternative fuel use is expected to begin and end. (40 CFR 63.7545(f)(5))

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10. If the permittee has switched fuels or made a physical change to any boiler and the fuel switch or physical change resulted in the applicability of a different subcategory, the permittee must provide notice of the date upon which the permittee switched fuels or made the physical change within 30 days of the switch/change. The notification must identify: (40 CFR 63.7545(h))

- a. The name of the owner or operator of the affected source, EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4, the location of the source, the boiler(s) that have switched fuels, were physically changed, and the date of the notice. (40 CFR 63.7545(h)(1))
- b. The currently applicable subcategory under 40 CFR Part 63, Subpart DDDDD. (40 CFR 63.7545(h)(2))
- c. The date upon which the fuel switch or physical change occurred. (40 CFR 63.7545(h)(3))
- 11. The permittee must submit each report in Table 9 of 40 CFR Part 63, Subpart DDDDD that applies. (40 CFR 63.7550(a))
- 12. Unless the EPA Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report, according to paragraph (h)(3) of 40 CFR 63.7550, stated in SC VII.14, by the date in Table 9 of 40 CFR Part 63, Subpart DDDDD and according to the requirements in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below. For units that are subject only to a requirement to conduct an annual tune-up according to 40 CFR 63.7540(a)(10), stated in SC IX.5.a, or 5-year tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.5.b, and not subject to emission limits or operating limits, the permittee may submit only an annual or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below, instead of a semi-annual compliance report. (40 CFR 63.7550(b))
 - a. The first compliance report must cover the period beginning on the compliance date that is specified for each boiler stated in SC IX.2, and ending on January 31, 2018 (or whichever date is the first date that occurs at least 5 years after January 31, 2017, stated in SC IX.2 if submitting a 5-year compliance report). (40 CFR 63.6(i)(4)(i)(A), 40 CFR 63.7550(b)(1))
 - b. The first annual or 5-year compliance report must be postmarked or submitted no later than January 31. (40 CFR 63.7550(b)(2), (40 CFR 63.10(a)(5))
 - Each subsequent annual and 5-year compliance reports must cover the applicable 1 or 5-year periods from January 1 to December 31. (40 CFR 63.7550(b)(3))
 - Each subsequent annual and 5-year compliance reports must be postmarked or submitted no later than March 15. (40 CFR 63.7550(b)(4), (40 CFR 63.10(a)(5))
- 13. A compliance report must contain the following information depending on how the permittee chooses to comply with the limits set in this rule. (40 CFR 63.7550(c))
 - a. If the facility is subject to a the requirements of a tune up they must submit a compliance report with the information in paragraphs (c)(5)(i) through (iv) and (xiv) of 40 CFR 63.7550. (40 CFR 63.7550(c)(1))
 - b. 40 CFR 63.7550(c)(5) is as follows:
 - i. Company and Facility name and address. (40 CFR 63.7550(c)(5)(i))
 - Process unit information, emissions limitations, and operating parameter limitations. (40 CFR 63.7550(c)(5)(ii))
 - iii. Date of report and beginning and ending dates of the reporting period. (40 CFR 63.7550(c)(5)(iii))
 - iv. The total operating time during the reporting period. (40 CFR 63.7550(c)(5)(iv))
 - v. Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual tune-up according to 40 CFR 63.7540(a)(10), stated in SC IX.5.a, or 5-year tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.5.b. Include the date of the most recent burner inspection if it was not done annually or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown. (40 CFR 63.7550(c)(5)(xiv))
- 14. The permittee must submit all reports required by Table 9 of 40 CFR Part 63, Subpart DDDDD electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to 40 CFR Part 63, Subpart DDDDD is not available in CEDRI at the time that the report is due the report the permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR 63.13. At the discretion of the Administrator, the permittee must also submit these reports, to the Administrator in the format specified by the Administrator. (40 CFR 63.7550(h)(3))

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VIII. STACK/VENT RESTRICTION(S)

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

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

IX. OTHER REQUIREMENT(S)

- 1. A boiler is existing if it is not new or reconstructed, as defined below. (40 CFR 63.7490(d))
 - a. A boiler is new if the permittee commences construction of the boiler after June 4, 2010, and the permittee meets the applicability criteria at the time the permittee commences construction. (40 CFR 63.7490(b))
 - b. A boiler is reconstructed if the permittee meets the reconstruction criteria as defined in 40 CFR 63.2, the permittee commences reconstruction after June 4, 2010, and the permittee meets the applicability criteria at the time the permittee commence reconstruction. (40 CFR 63.7490(c))
- 2. If the permittee has an existing boiler, the permittee must comply with 40 CFR Part 63, Subpart DDDDD no later than January 31, 2016 for EU-UNIT1, EU-UNIT2, and EU-UNIT3 and no later than January 31, 2017 for EU-UNIT4. (40 CFR 63.6(i)(4)(i)(A), 40 CFR 63.7495(b))
- 3. The permittee must be in compliance with the work practice standards of 40 CFR Part 63, Subpart DDDD. (40 CFR 63.7505(a))
- 4. For affected sources that have not operated since the previous compliance demonstration and more than one year has passed since the previous compliance demonstration, the permittee must complete a subsequent tune-up by following the procedures described in 40 CFR 63.7540(a)(10)(i) through (vi), stated in SC IX.5.a, and the schedule described in 40 CFR 63.7540(a)(13), stated in SC IX.5.c, for units that are not operating at the time of their scheduled tune-up. (40 CFR 63.7515(g))
- 5. The permittee must demonstrate continuous compliance with the work practice standards in Table 3 of 40 CFR Part 63, Subpart DDDDD that applies according to the methods specified in paragraphs (a)(10) through (13) of 40 CFR 63.7540, as listed below. (40 CFR 63.7540(a))
 - a. For the affected units, the permittee must conduct an annual tune-up of the boiler to demonstrate continuous compliance as specified in paragraphs (a)(10)(i) through (vi) of 40 CFR 63.7540, as listed below. This frequency does not apply to units with continuous oxygen trim systems that maintain an optimum air to fuel ratio. (40 CFR 63.7540(a)(10))
 - i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the permittee may delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. (40 CFR 63.7540(a)(10)(i))
 - ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. (40 CFR 63.7540(a)(10)(ii))
 - iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). (40 CFR 63.7540(a)(10)(iii))
 - iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject. (40 CFR 63.7540(a)(10)(iv))
 - v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or

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wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. (40 CFR 63.7540(a)(10)(v))

- vi. Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (a)(10)(vi)(A) through (C) of 40 CFR 63.7540, as listed below. (40 CFR 63.7540(a)(10)(vi))
 - A. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler. (40 CFR 63.7540(a)(10)(vi)(A))
 - B. A description of any corrective actions taken as a part of the tune-up. (40 CFR 63.7540(a)(10)(vi)(B))
 - C. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. (40 CFR 63.7540(a)(10)(vi)(C))
- b. If a boiler has a continuous oxygen trim system that maintains an optimum air to fuel ratio, the permittee must conduct a tune-up of the boiler every 5 years as specified in paragraphs (a)(10)(i) through (vi) of 40 CFR 63.7540 to demonstrate continuous compliance. The permittee may delay the burner inspection specified in paragraph (a)(10)(i) of 40 CFR 63.7540 until the next scheduled or unscheduled unit shutdown, but the permittee must inspect each burner at least once every 72 months. (40 CFR 63.7540(a)(12))
- c. If a boiler is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. (40 CFR 63.7540(a)(13))
- 6. Table 10 of 40 CFR Part 63, Subpart DDDDD shows which parts of the General Provisions in 40 CFR 63.1 through 63.15 applies to the permittee. (40 CFR 63.7565)

Footnotes:

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

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

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E. NON-APPLICABLE REQUIREMENTS

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

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APPENDICES

Appendix 1-2. Abbreviations and Acronyms

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

The following	The following is an alphabetical listing of abbreviations/acronyms that may be used in this permit.					
	Common Acronyms	Pollutant / Measurement Abbreviations				
AQD	Air Quality Division	acfm Actual cubic feet per minute				
BACT	Best Available Control Technology	BTU	British Thermal Unit			
CAA	Clean Air Act	°C	Degrees Celsius			
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide			
CEM	Continuous Emission Monitoring	CO₂e	Carbon Dioxide Equivalent			
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot			
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter			
Department/	Michigan Department of Environmental	F	Degrees Fahrenheit			
department	Quality	gr	Grains			
EÜ	Emission Unit	HAP	Hazardous Air Pollutant			
FG	Flexible Group	Hg	Mercury			
GACS	Gallons of Applied Coating Solids	hr	Hour			
GC	General Condition	HP	Horsepower			
GHGs	Greenhouse Gases	H₂S	Hydrogen Sulfide			
HVLP	High Volume Low Pressure*	kW	Kilowatt			
ID	Identification	lb	Pound			
IRSL	Initial Risk Screening Level	m	Meter			
ITSL	Initial Threshold Screening Level	mg	Milligram			
LAER	Lowest Achievable Emission Rate	mm	Millimeter			
MACT	Maximum Achievable Control Technology	MM	Million			
MAERS	Michigan Air Emissions Reporting System	MW	Megawatts			
MAP	Malfunction Abatement Plan	NMOC	Non-methane Organic Compounds			
MDEQ	Michigan Department of Environmental	NO _x	Oxides of Nitrogen			
MDEQ	Quality	ng	Nanogram			
MSDS	Material Safety Data Sheet	PM	Particulate Matter			
NA	Not Applicable	PM10	Particulate Matter equal to or less than 10			
NAAQS	National Ambient Air Quality Standards	1	microns in diameter			
NESHAP	National Emission Standard for Hazardous	PM2.5	Particulate Matter equal to or less than 2.5			
112011/11	Air Pollutants	1 1012.0	microns in diameter			
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	wmqq	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	Reasonable Available Control Technology	scf	Standard cubic feet			
ROP	Renewable Operating Permit	sec	Seconds			
SC	Special Condition	SO ₂	Sulfur Dioxide			
SCR	Selective Catalytic Reduction	TAC	Toxic Air Contaminant			
SNCR	Selective Valarytic Reduction	Temp	Temperature			
SRN	State Registration Number	THC	Total Hydrocarbons			
TEQ	Toxicity Equivalence Quotient	tpy	Tons per year			
USEPA/EPA	United States Environmental Protection		Microgram			
OOLI A/LI'A	Agency	μд	Micrometer or Micron			
VE	Visible Emissions	μm VOC	Volatile Organic Compounds			
V L	VISIDIE FIIISSIONS		· ·			
		yr	Year			

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

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Appendix 2-2. Schedule of Compliance

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. (R 336.1213(4)(a), R 336.1119(a)(ii))

Appendix 3-2. Monitoring Requirements

 The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in EU-UNIT4

Continuous Opacity Monitoring System (COMS) Requirements

- a. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.
- The COMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and PS 1 of Appendix B, 40 CFR Part 60.
- e. The permittee shall perform an annual audit of the COMS using the procedures set forth in USEPA Publication 450/4-92-010, "Performance Audits Procedures for Opacity Monitors", or a procedure acceptable to AQD. Within 30 days after the completion of the audit, the results of the annual audit shall be submitted to the AQD.
- d. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to Air Quality Division, within 30 days following the end of each calendar quarter. The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:
 - i. A report of each exceedance above 10 percent opacity. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.
 - ii. A report of all periods of COMS downtime and corrective action.
 - iii. A report of the total operating time of the EU-UNIT4 during the reporting period.
 - If no exceedances or COMS downtime occurred during the reporting period, the permittee shall report that fact.

All monitoring data is shall be kept on file for a period of at least five (5) years and made available to the AQD upon request.

2. The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in EU-UNIT3, EU-UNIT4, FG-UNITS5/6

NOx, CO, SO₂₇ and CO₂ or O₂ Monitoring Continuous Emission Monitoring System/ Continuous Emission Rate Monitoring System/ Predictive Emission Monitoring System (CEMS/CERMS/PEMS) Requirements

a. The CEMS/CERMS/PEMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and the PS Numbers of Appendix B to 40 CFR Part 60 listed in the table below. As an alternative to PS 6 for CERMS, the flow CEMS (or PEMS) may be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR Part 75, Appendices A and B.

Pollutant	Applicable PS	
Opacity	1	

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Pollutant	Applicable PS
SO ₂ & NOx	2
O ₂ & CO ₂	3
CO	4
CERMS	6
PEMS	16

- b. CEMS (or PEMS) shall complete a minimum of 1 cycle of operation for each successive 15-minute period.
- c. The permittee shall check the zero and span calibration drifts for all CEM systems, at least once daily, and make the appropriate adjustments in accordance with the manufacturer's written procedure.
- d. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.
- e. Each calendar quarter, the permittee shall perform the Quality Assurance Procedures of the CEMS (or PEMS)/CERMS set forth in Appendix F of 40 CFR Part 60. As an alternative to Appendix F of 40 CFR Part 60, the permittee may perform the Quality Assurance Procedures for flow CEMS (or PEMS) as set forth in Appendices B of 40 CFR Part 75. Within 30 days following the end of each calendar quarter, the permittee shall submit the results to the AQD in the format of the data assessment report (Figure 1, Appendix F).
- f. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to the AQD, within 30 days following the end of each calendar quarter. The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:
 - A report of each exceedance above the limits specified in the conditions of EU-UNIT3 and EU-UNIT4.
 This includes the date, time, magnitude, cause and corrective actions of all occurrences during the
 reporting period.
 - ii. A report of all periods of CEMS (or PEMS)/CERMS downtime and corrective action
 - iii. A report of the total operating time of EU-UNIT3 and EU-UNIT4 during the reporting period.
 - iv. A report of any periods that the CEMS (or PEMS)/CERMS exceeds the instrument range.
 - v. If no exceedances or CEMS (or PEMS)/CERMS downtime occurred during the reporting period, the permittee shall report that fact.
- g. FG-UNITS5/6 NOx and CO Continuous Emission Monitoring System (CEMS) (or Predictive Emissions Monitoring Systems (PEMS)) Requirements
 - i. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.
 - ii. The NOx and CO CEMS (or PEMS) shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and PS 2 and PS 4 of Appendix B, 40 CFR Part 60.

(PEMS) downtime occurred during the reporting period, the permittee shall report that fact.

All monitoring data shall be kept on file for a period of at least five years and made available to the AQD upon request.

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Appendix 4-2. Recordkeeping

1. The permittee shall use this or a similar format for recordkeeping requirements referenced in EU-EMGENGINE.

EU-EMGENGINE EMERGENCY USE RECORDKEEPING

ROP Number Unit ID	ource Name) _				_
		Elapsed Hours and Purpose ≤ 100 hours annually			
			comb	oined	
Beginning Date	Ending Date	>	% eo	icy annually	Comment
		Emergency	Maintenance Testing	Non- Emergency ≤ 50 hours annu	
		Eme	Mair Test	Non Eme	
3/14/2009	3/16/2009	42			Loss of electricity due to tornado damage
4/01/2009	4/01/2009		1		Monthly Readiness Check
6/27/2009	6/27/2009		1		Following bearing replacement.
Calendar Vear	· Total	42	2	0	

Appendix 5-2. Testing Procedures

Specific testing requirement plans, procedures, and averaging times are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

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Appendix 6-2. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-K3249-2009. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No MI-PTI-K3249-2009a is being reissued as Source-Wide PTI No. MI-PTI-K3249-2016.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
142-10	201100135	Incorporate Permit to Install (PTI) No. 142-10. The permit includes conditions to minnimize fugitive emissions generated by materials handling activities, truck traffic, and wind erosion of coal piles.	EU-MHFUGITIVE
25-11	201100135	Incorporate Permit to Install (PTI) No. 25-11. The PTI public comment period was from September 9, 2011 through October 11, 2011. The equipment modified included EU-UNIT3, EU-UNIT4 and FG-UNIT1/2.	EU-UNIT3, EU-UNIT4, FG-UNIT1/2
		The project is for the use of biofuel as an alternative fuel in four existing boilers at the T.B. Simon Power Plant. The use of biofuel (agricultural residues, switchgrass, hay, wood waste, and processed biofuels) will replace a portion of the coal usage at the power plant. There are no changes proposed which will increase the capacity of the boilers beyond their present capacities.	× .
75-14 75-14A 75-14B	201400190	Incorporate Permit to Install (PTI) No. 75-14. The PTI public comment period was from September 26, 2014, until October 28, 2014. The emission units modified included EU-UNIT3, EU-UNIT4 and FG-UNIT1/2. EU-UNIT3 will no longer burn coal or biofuels, but is dedicated to natural gas fuel only. All applicable requirements related to coal and/or biofuel combustion have been removed from the ROP. 75-14B included a burner change.	EU-UNIT3, EU-UNIT4, FG-UNIT1/2, EU-2-DSLIMESILO1, EU-2-DSLIMESILO2, EU-2-DSLIMESILO4
		EU-UNIT4 is allowed to combust upto 30% biofuel and engineered pelleted fuel by weight. Recordkeeping provisions included for Actual to Projected-Actual Applicability Test. FG-UNIT1/2 removed obsolete testing and	
		sampling requirements. Future MACT subpart DDDDD requirements were added as an amendment to the permit, as well as future allowances for the possible	,

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addition of dry or liquid sorbent injection. Th	9
amendments were issued February 24, 2015.	

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Appendix 7-2. Emission Calculations

Specific emission calculations to be used with monitoring, testing or recordkeeping data are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible group Special Conditions. Therefore, this appendix is not applicable.

Appendix 8-2. Reporting

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

The permittee shall use the MDEQ, AQD, Report Certification form (EQP 5736) and MDEQ, AQD, Deviation Report form (EQP 5737) for the annual, 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

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

Appendix 9-2. Fugitive Dust Plan

The permittee shall use the following approved Fugitive Dust Plan for EU-MHFUGITIVE.

1. Site Roadways/Plant Yard

- a. The dust on the site readways/ plant yard will be controlled by applications of water, calcium chloride or other acceptable and approved fugitive dust control compounds. Application will be on an as needed basis.
- b. A record of all applications and sweepings shall be kept on file and made available upon request to the Air Quality Division (AQD).
- c. Vehicles should be driven in a manner to minimize fugitive dust.
- d. Any material spillage on roads shall be removed immediately.

Coal Storage Piles

a. Coal storage piles will be watered on an as needed basis in order to meet the epacity limits included within the permit. A record of all watering shall be kept on file and be made available upon request to the AQD.

3. Truck Traffic

- a. On-site, vehicles shall be loaded to prevent their contents from dropping, loaking, blowing or etherwise escaping. This shall be accomplished by loading so that no part of the load shall come in contact within 6 inches of the top of any side board, side panel or tail gate, otherwise, the truck shall be tarped.
- b. Off-site, all trucks leaving must be tarped.

4. AQD/MDEQ Inspection

a. The provisions and procedures of this plan are subject to adjustment if following an inspection and written notification the AQD finds the fugitive dust requirements and/or the permitted epacity limits are not being met.