

**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

# TABLE OF CONTENTS

**AUTHORITY AND ENFORCEABILITY ..... 5**

**Section 1 - MSU Main Campus ..... 6**

**A. GENERAL CONDITIONS..... 7**

Permit Enforceability ..... 7

General Provisions..... 7

Equipment & Design ..... 8

Emission Limits..... 8

Testing/Sampling ..... 8

Monitoring/Recordkeeping ..... 9

Certification & Reporting ..... 9

Permit Shield ..... 10

Revisions ..... 11

Re-openings ..... 11

Renewals..... 12

Stratospheric Ozone Protection ..... 12

Risk Management Plan..... 12

Emission Trading ..... 12

Permit To Install (PTI)..... 13

**B. SOURCE-WIDE CONDITIONS ..... 14**

**C. EMISSION UNIT CONDITIONS ..... 15**

EMISSION UNIT SUMMARY TABLE..... 15

EU-FLNRINC ..... 20

EU-DCPAHINC..... 24

EU-CREMATORY..... 27

EU-TESTSTAND ..... 30

EU-DIENGINE ..... 32

EU-ENCLSD\_FLARE..... 35

**D. FLEXIBLE GROUP CONDITIONS..... 38**

FLEXIBLE GROUP SUMMARY TABLE..... 38

FG-RULE 287(c)..... 43

FG-STERILIZERS..... 45

FG-NSPS-JJJJ ..... 48

FG-EMERGEN>500ZZZZ..... 51

FG-EMERGEN≤500ZZZZ ..... 54

FG-WSF ..... 58

FG-BOILERMACT ..... 60

FG-TESTCELLS ..... 63

**E. NON-APPLICABLE REQUIREMENTS ..... 66**

**APPENDICES ..... 67**

Appendix 1-1. Abbreviations and Acronyms..... 67

Appendix 2-1. Schedule of Compliance ..... 68

Appendix 3-1. Monitoring Requirements ..... 68

Appendix 4-1. Recordkeeping ..... 68

Appendix 5-1. Testing Procedures ..... 70

Appendix 6-1. Permits to Install..... 71  
 Appendix 7-1. Emission Calculations ..... 72  
 Appendix 8-1. Reporting ..... 73  
 Appendix 9-1. Incinerator Operation and Maintenance Guidelines..... 74  
 Appendix 10-1. Waste Management Plan ..... 75  
 Appendix 11-1. Boiler Units Summary Table..... 77  
**Section 2 - T.B. Simon Power Plant..... 82**  
**A. GENERAL CONDITIONS..... 83**  
 Permit Enforceability ..... 83  
 General Provisions..... 83  
 Equipment & Design ..... 84  
 Emission Limits..... 84  
 Testing/Sampling ..... 84  
 Monitoring/Recordkeeping ..... 85  
 Certification & Reporting ..... 85  
 Permit Shield ..... 86  
 Revisions ..... 87  
 Re-openings ..... 87  
 Renewals..... 88  
 Stratospheric Ozone Protection ..... 88  
 Risk Management Plan..... 88  
 Emission Trading ..... 88  
 Permit To Install (PTI) ..... 89  
**B. SOURCE-WIDE CONDITIONS ..... 90**  
**C. EMISSION UNIT CONDITIONS ..... 91**  
 EMISSION UNIT SUMMARY TABLE ..... 91  
 EU-MHFUGITIVE..... 93  
 EU-UNIT3 ..... 95  
 EU-UNIT4 ..... 98  
 EU-UNIT5 ..... 105  
 EU-UNIT6 ..... 107  
 EU-EMGENGINE ..... 110  
**D. FLEXIBLE GROUP CONDITIONS..... 112**  
 FLEXIBLE GROUP SUMMARY TABLE ..... 112  
 FG-UNIT1/2 ..... 113  
 FG-UNITS5/6..... 115  
 FG-2COLDCLEANER..... 118  
 FG-4MATVENTS ..... 121  
 FG-BLRMACT-EXISTINGGAS1 ..... 123  
**E. NON-APPLICABLE REQUIREMENTS ..... 129**  
**APPENDICES ..... 130**  
 Appendix 1-2. Abbreviations and Acronyms..... 130  
 Appendix 2-2. Schedule of Compliance ..... 131  
 Appendix 3-2. Monitoring Requirements ..... 131  
 Appendix 4-2. Recordkeeping ..... 133  
 Appendix 5-2. Testing Procedures ..... 133

Appendix 6-2. Permits to Install..... 134  
Appendix 7-2. Emission Calculations ..... 136  
Appendix 8-2. Reporting ..... 136

## AUTHORITY AND ENFORCEABILITY

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

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

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

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

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

**Section 1 - MSU Main Campus** ROP No: MI-ROP-K3249-2016a  
Expiration Date: October 21, 2021  
PTI No: MI-PTI-K3249-2016a

## **Section 1 - MSU Main Campus**

## A. GENERAL CONDITIONS

### Permit Enforceability

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

### General Provisions

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

## Section 1 - MSU Main Campus

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

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

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

### Equipment & Design

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

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

### Testing/Sampling

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1).<sup>2</sup> **(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))**

## Section 1 - MSU Main Campus

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

### 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.

## Section 1 - MSU Main Campus

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

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.<sup>2</sup> **(R 336.1912)**

### Permit Shield

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

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

27. Nothing in this ROP shall alter or affect any of the following:
  - a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
  - b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**
  - c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**

## Section 1 - MSU Main Campus

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

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

### Revisions

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

### 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))**
  - c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. **(R 336.1217(2)(a)(iii))**
  - d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

## Section 1 - MSU Main Campus

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

### Renewals

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

### Stratospheric Ozone Protection

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

### Risk Management Plan

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

### Emission Trading

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

## Section 1 - MSU Main Campus

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

### Permit To Install (PTI)

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.<sup>2</sup> **(R 336.1201(1))**
44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA.<sup>2</sup> **(R 336.1201(8), Section 5510 of Act 451)**
45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, MDEQ.<sup>2</sup> **(R 336.1219)**
46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months 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.<sup>2</sup> **(R 336.1201(4))**

#### **Footnotes:**

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

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

**Section 1 - MSU Main Campus**

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

**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.

**Section 1 - MSU Main Campus**

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

**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.

<b>Emission Unit ID</b>	<b>Emission Unit Description (Including Process Equipment &amp; Control Device(s))</b>	<b>Installation Date/ Modification Date</b>	<b>Flexible Group ID</b>
EU-FLNRINC	Consumat pathological waste incinerator (Farm Lane/Incinerator Road) that burns institutional waste co-fired with 10% or less medical/infectious waste. Additionally, the incinerator burns pathological waste, some low-level nuclear waste, and low volumes of non-hazardous pharmaceutical waste. Fuel type: natural gas Burn rate: 1000 lbs/hour	5/2/1975 6/13/1984	NA
EU-DCPAHINC	ASC design incinerator located at new DCPAH facility on Bennett Rd. Unit is gas fired with a 1,200 lb/hr capacity at 1,800 F and 1 second retention time in secondary chamber.	10/25/2002	NA
EU-CREMATORY	Crawford Model C500P, natural gas fired, animal crematory, with 200 pound maximum charge and a 75 pound per hour burn rate located at 4125 Beaumont Road.	11/01/2006	NA
EU-TESTCELL1	Engine test cell capable of testing engines up to 750 HP for unleaded gasoline/ethanol engines and 1,000 HP for diesel engines located at 1149 Engineering Research Court. Emissions are controlled by catalytic converters.	3/01/2006	FG-TESTCELLS
EU-TESTCELL2	Engine test cell capable of testing engines up to 750 HP for unleaded gasoline/ethanol engines and 1,000 HP for diesel engines located at 1149 Engineering Research Court. Emissions are controlled by catalytic converters.	3/01/2006	FG-TESTCELLS
EU-TESTSTAND	Engine Test stand capable of testing engines up to 750 HP for unleaded gasoline/ethanol engines and 1,000 HP for diesel engines located at 1149 Engineering Research Court. Emissions are controlled by catalytic converters.	3/01/2006	N/A

**Section 1 - MSU Main Campus**

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-DIENGINE	One new uncertified, non-emergency, spark ignition, stationary, 510 horsepower (380kilowatt), 4 stroke lean burn (4SLB), reciprocating internal combustion engine (RICE), used to produce electricity, fired by digester gas, manufactured on February 27, 2013 and rebuilt on April 15, 2016, subject to 40 CFR Part 60, Subpart JJJJ and 40 CFR Part 63, Subpart ZZZZ. Located at the Dairy Cattle Teaching and Research facility on College Road.	7/01/2013	NA
EU-CHEM	Chemical room lab hood located on Jolly Road. Consolidation of small waste containers is conducted under this hood.	January 1982	FG-WSF
EU-CONSOL1	Consolidation booth drum hood #1. Consolidation of waste containers is conducted under this hood, located on Jolly Road.	January 1982	FG-WSF
EU-CONSOL2	Consolidation booth drum hood #2. Consolidation of waste containers is conducted under this hood located on Jolly Road.	January 1982	FG-WSF
EU-ENCLSD-FLARE	An enclosed digester gas flare used as back up for the anaerobic digester EU-DIENGINE located at the dairy facility. The flare is capable of burning up to 150 scfm giving a Heat Input Capacity of 5,400,000 Btu/hr when using the estimated higher heating value of the digester gas of 600 Btu/scf.	8/01/2012 8/01/2016	NA
EU-ETO	Ethylene oxide sterilization process located at the Veterinary Medical Center on Wilson Road.	11/26/2003	FG-STERILIZERS
EU-453DEG01	Parts washer, University Farms	2/1/1994	FG-COLDCLEANER
EU-DEGLANDS1-2	2 parts washers, Landscape Services	2/3/2000	FG-COLDCLEANER
EU-DEGPHYSP	Parts washer, Physical Plant	8/9/1989	FG-COLDCLEANER
EU-DEGTRANS	Parts washer, Transportation Services garage	7/1/2015	FG-COLDCLEANER
EU-DEGGOLFC	Parts washer, Forest Akers garage	5/1/1984	FG-COLDCLEANER
EU-SPRAYBOOTH1	Paint spray booth, Physical Plant	5/15/1988	FG-RULE 287(c)
EU-SPRAYBOOTH2	Paint spray booth, Kresge Art Center	4/21/1987	FG-RULE 287(c)
EU-596GEN01	495HP Cummins natural gas generator Model: GTA-19G1 located at Farm Lane underpass #2.	10/01/2009	FG-NSPS-JJJJ
EU-475GEN01	97.5HP Cummins natural gas generator Model: GGHE, located at Waste Storage Facility.	9/1/2015	FG-NSPS-JJJJ
EU-524GEN01	67HP Cummins natural gas generator Model: GGPC, located at Farm Lane incinerator.	11/1/2015	FG-NSPS-JJJJ

**Section 1 - MSU Main Campus**

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-055GEN01	750HP Cummins Diesel generator Model: DFEK 5692837 located at the Kellogg Center.	10/01/2004	FG-EMERGEN>500ZZZZ
EU-069GEN01	750HP Cummins Diesel generator Model: KTTA19G2 located at the Breslin Center.	6/01/1988	FG-EMERGEN>500ZZZZ
EU-160GEN02	1350HP Cummins Diesel generator Model: DFHC-3386842 located at the Biomedical Physical Sciences building.	01/01/2001	FG-EMERGEN>500ZZZZ
EU-215GEN01	1490HP Cummins Diesel generator Model: DFHD 5003867 located at DCPAH.	01/01/2003	FG-EMERGEN>500ZZZZ
EU-003GEN01	70HP Onan natural gas generator Model: UV461 located at the Olin Health Center.	02/01/1982	FG-EMERGEN≤500ZZZZ
EU-006GEN01	192HP Newage/Stamford natural gas generator Model: 300-3298-05 located at the Union.	10/01/1997	FG-EMERGEN≤500ZZZZ
EU-016GEN01	115HP Cummins natural gas generator Model: GGHG-570815 located at Marshall-Adams.	01/01/2005	FG-EMERGEN≤500ZZZZ
EU-022GEN01	200HP Newage/Stamford natural gas generator Model:GTA83G2 located at Agriculture Hall.	07/01/1998	FG-EMERGEN≤500ZZZZ
EU-028GEN01	220 HP Southern Plains Power natural gas generator Model: 140G855-65-12 located at Giltner.	09/01/1996	FG-EMERGEN≤500ZZZZ
EU-049GEN01	100HP Kohler natural gas generator Model: LSG-8750-6005-A located at the Library.	10/01/1993	FG-EMERGEN≤500ZZZZ
EU-077GEN01	287HP Newage/Stamford natural gas generator Model GGLB-7178827 located at Duffy Daugherty.	06/01/1997	FG-EMERGEN≤500ZZZZ
EU-080GEN01	400HP Caterpillar natural gas generator Model: 3408S1 located at the Business College Complex.	01/01/1992	FG-EMERGEN≤500ZZZZ
EU-081GEN01	80HP Onan natural gas generator Model: 60ENA located at the Engineering Building.	10/01/1995	FG-EMERGEN≤500ZZZZ
EU-081GEN02	80HP Onan natural gas generator Model: 60ENA located at the Engineering Building.	1/01/2002	FG-EMERGEN≤500ZZZZ
EU-083GEN01	220HP Cummins natural gas generator Model: G-855 located at the MSU College of Law.	7/01/1996	FG-EMERGEN≤500ZZZZ
EU-085GEN01	240HP Cummins natural gas generator Model: GGKD-4961391 located at the Wharton Center.	8/01/2001	FG-EMERGEN≤500ZZZZ
EU-086GEN01	118HP Kohler natural gas generator Model: 605GEN12 located at Plant and Soil Sciences.	7/01/1989	FG-EMERGEN≤500ZZZZ
EU-086GEN02	100HP Chrysler natural gas generator Model: B75CGH-4R located at Plant and Soil Sciences.	5/01/1989	FG-EMERGEN≤500ZZZZ
EU-087GEN01	80HP Cummins natural gas generator Model: 60ENA located at Public Safety.	5/01/2001	FG-EMERGEN≤500ZZZZ

**Section 1 - MSU Main Campus**

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-132GEN01	454HP Stamford natural gas generator Model: Model: GTA19 located at Anthony Hall.	12/01/1995	FG-EMERGEN≤500ZZZZ
EU-133GEN01	40HP Kohler natural gas generator Model: CSG-6431-6005F located at Angell Building.	1/01/1987	FG-EMERGEN≤500ZZZZ
EU-160GEN01	435HP Cummins diesel generator Model: NT-855-G6 located at Biomedical Physical Sciences.	1/01/2001	FG-EMERGEN≤500ZZZZ
EU-163GEN01	380HP Cummins natural gas generator Model: GTA-855A located at the Chemistry Building.	11/01/1997	FG-EMERGEN≤500ZZZZ
EU-170GEN01	150HP Onan natural gas generator Model: F817GU/G48966 located at Veterinary Medicine.	2/01/1988	FG-EMERGEN≤500ZZZZ
EU-170GEN02	80HP Generac diesel generator Model: 97A040075 located at Veterinary Medicine.	9/01/1997	FG-EMERGEN≤500ZZZZ
EU-170GEN03	495HP Cummins natural gas generator Model: 325GFEB located at Veterinary Medicine.	5/01/2005	FG-EMERGEN≤500ZZZZ
EU-175GEN01	100HP Onan natural gas generator Model: LSG-8751-6005A located at IM East.	3/01/1988	FG-EMERGEN≤500ZZZZ
EU-178GEN01	80HP Kohler natural gas generator Model: 90R282 located at Plant Biology.	12/01/2000	FG-EMERGEN≤500ZZZZ
EU-181GEN01	200HP Cummins natural gas generator Model: GTA8-361 located at the Center for Integrated Plant Systems.	9/01/2000	FG-EMERGEN≤500ZZZZ
EU-186GEN01	107HP Cummins natural gas generator Model: 80ENAD located at Food Safety and Toxicology.	5/01/1996	FG-EMERGEN≤500ZZZZ
EU-186GEN02	379HP Cummins natural gas generator Model: GTA855-B located at Food Safety and Toxicology.	5/01/1996	FG-EMERGEN≤500ZZZZ
EU-200GEN01	500HP Waukesha natural gas generator Model: 2000 GEN located at the Clinical Center.	4/01/1979	FG-EMERGEN≤500ZZZZ
EU-203GEN01	107HP Cummins natural gas generator Model: ESG642-4.2L located at the Engineering Research Complex.	5/01/2004	FG-EMERGEN≤500ZZZZ
EU-203GEN02	47HP Ford natural gas generator Model: ESG-642 located at the Engineering Research Complex.	2/01/2006	FG-EMERGEN≤500ZZZZ
EU-210-PORGEN-1	Honda 6.5KW diesel generator (8HP)	1/01/2002	FG-EMERGEN≤500ZZZZ
EU-210-PORGEN-10	Honda 3HP diesel generator Model: EV3000	1/01/2003	FG-EMERGEN≤500ZZZZ
EU-210-PORGEN-2	Coleman 7HP diesel generator	1/01/2003	FG-EMERGEN≤500ZZZZ
EU-210-PORGEN-5	CAT 268HP diesel generator Model: CAT200	1/01/2004	FG-EMERGEN≤500ZZZZ
EU-210-PORGEN-6	CAT 268HP diesel generator Model: CAT200	1/01/2004	FG-EMERGEN≤500ZZZZ

## Section 1 - MSU Main Campus

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-210-PORGEN-7	CAT 268HP diesel generator Model: CAT200	1/01/2004	FG-EMERGEN≤500ZZZZ
EU-210-PORGEN-8	CAT 268HP diesel generator Model: CAT200	1/01/2004	FG-EMERGEN≤500ZZZZ
EU-210-PORGEN-9	CAT 268HP diesel generator Model: CAT200	1/01/2004	FG-EMERGEN≤500ZZZZ
EU-210-PORGEN-3	CAT 268HP diesel generator Model: CAT200	1/01/2004	FG-EMERGEN≤500ZZZZ
EU-210GEN-CT85	Generac 114HP diesel generator Model: 5459-S	01/01/1993	FG-EMERGEN≤500ZZZZ
EU-210-PORGEN-11	60HP Multiquip diesel generator Model: DH-04801	12/01/2012	FG-EMERGEN≤500ZZZZ
EU-211GEN01	400HP Caterpillar natural gas generator Model: 102-9407 located at University Research Containment.	1/01/1993	FG-EMERGEN≤500ZZZZ
EU-216GEN01	340HP Spectrum natural gas generator Model: 6063TKG5 located at Parking Ramp 5.	1/01/2001	FG-EMERGEN≤500ZZZZ
EU-218GEN01	167HP Perkins/Olympian diesel generator located at the Executive Development Center.	01/01/2002	FG-EMERGEN≤500ZZZZ
EU-219GEN01	287HP Cummins natural gas generator Model: GTA12 located at the new Shaw Lane Parking Ramp.	01/01/2002	FG-EMERGEN≤500ZZZZ
EU-222GEN01	240HP Cummins natural gas generator Model: GGKD-5740798 located at Parking Ramp 6.	10/01/2005	FG-EMERGEN≤500ZZZZ
EU-472DGEN01	100HP Kohler liquid propane generator Model: 17RY located at the Tree Research Headhouse.	9/01/2001	FG-EMERGEN≤500ZZZZ
EU-479GEN01	107HP Cummins natural gas generator Model: 80ENAD located at the Swine Teaching and Research Building.	01/01/2000	FG-EMERGEN≤500ZZZZ
EU-577GEN01	167HP Onan natural gas generator Model: LSG-8751-6005-A located at Radio Equipment Shelter.	01/01/2000	FG-EMERGEN≤500ZZZZ
EU-601GEN01	87HP Onan liquid propane generator Model: 65ENB located at Dobie Tower Transmitting.	01/01/1978	FG-EMERGEN≤500ZZZZ

**EU-FLNRINC  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Consumat Pathological waste incinerator (Farm Lane/Incinerator Road) that burns 10% or less medical/infectious waste low-level nuclear waste, and low volumes of non-hazardous pharmaceutical waste. Fuel type: natural gas. Burn rate: 1000 lbs/hour. PTI-28-12A.

Flexible Group ID: NA

**POLLUTION CONTROL EQUIPMENT**

Direct flame afterburner

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate Matter	0.20 Lbs/1000 lbs of exhaust gasses corrected to 50% excess air. <sup>2</sup>	Test Protocol*	EU-FLNRINC	SC V.1, V.2 and V.3	R 336.1331

\*Test protocol shall specify averaging time.

**II. MATERIAL LIMITS**

1. The permittee shall not burn polyvinyl chloride plastics in EU-FLNRINC.<sup>1</sup> **(R 336.1225, R 336.1901)**
2. The permittee shall not burn chemotherapeutic waste in EU-FLNRINC.<sup>1</sup> **(R 336.1225, R 336.1901)**
3. The permittee shall burn only pharmaceutical waste that is deemed non-hazardous in EU-FLNRINC.<sup>1</sup> **(R 336.1225, R 336.1901)**
4. In any combination of waste, the permittee shall not burn less than 90% Pathological waste by weight to maintain status as a pathological waste incinerator unit. Failure to do so will require compliance with 40 CFR Part 60, Subpart FFFF. **(40 CFR 60.2993(I))**
5. The permittee shall not burn any waste in EU-FLNRINC other than the following wastes.<sup>1</sup> **(R 336.1225, R 336.1901)**
  - a. **Institutional wastes** as defined in 40 CFR 60.3078. Institutional waste means solid waste that is combusted at any institutional facility that generated the waste.
  - b. **Non-hazardous Pharmaceutical wastes** as defined in the DEQ Office of Waste Management and Radiological Protection Hazardous Waste Management Rules, R 299.9228(2)(m), Non-hazardous Pharmaceutical Waste means solid waste pharmaceuticals that are not hazardous.
  - c. **Pathological Waste** as defined in 40 CFR 60.51c. Pathological waste is waste material consisting of only human or animal remains, anatomical parts and/or tissue, the bags/containers used to collect and transport the waste material and animal bedding.
  - d. **Medical/Infectious waste** - as defined in 40 CFR 60.51c, medical/infectious waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals that is further listed in the above regulation. This waste shall not exceed 10 percent, by weight, in aggregate, of the total waste burned in EU-FLNRINC as measured on a calendar

## Section 1 - MSU Main Campus

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

quarter basis. For purposes of this definition, pathological waste, chemotherapeutic waste, and low-level radioactive waste are considered "other" wastes when calculating the percentage of medical/infectious waste combusted.

6. The permittee shall not burn more than 10 percent, by weight, of medical/infectious waste as defined in SC II.4 of EU-FLNRINC.<sup>2</sup> **(40 CFR 60.51c, 40 CFR 60.50c(c))**
7. The permittee may incinerate animal carcasses and paper wastes containing byproduct materials defined in license to the permittee by the U.S. Nuclear Regulatory Commission, in accordance with the conditions of said license and all applicable federal regulations including 10 CFR Part 20.<sup>2</sup> **(10 CFR Part 20)**
8. The permittee shall use only natural gas as fuel in EU-FLNRINC.<sup>1</sup> **(R 336.1225, R 336.1901)**

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

1. The permittee shall not combust waste in EU-FLNRINC unless a minimum temperature of 1750 °F and a minimum retention time of 0.5 second in the afterburner are maintained.<sup>2</sup> **(R 336.1301, R 336.1331, R 336.1910)**
2. The after burner shall be installed, maintained, and operated in a satisfactory manner to control emissions from EU-FLNRINC. A list of operating and maintenance procedures is specified in Appendix 9-1.<sup>2</sup> **(R 336.1301, R 336.1331, R 336.1910)**
3. The permittee shall not operate EU-FLNRINC unless the temperature setting and indicator light for the afterburner are calibrated in a satisfactory manner. The indicator light will turn on when the afterburner reaches the minimum temperature from SC III.1.<sup>2</sup> **(R 336.1301, R 336.1331, R 336.1910)**
4. The permittee shall not operate EU-FLNRINC unless the Section 1 Incinerators Malfunction Abatement Plan, or an alternate plan approved by the AQD District Supervisor, is implemented and maintained. The plan shall include procedures for maintaining and operating in a satisfactory manner, EU-FLNRINC, add-on air pollution control device, and monitoring equipment during malfunction events, and a program for corrective action for such events. If the malfunction abatement plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the malfunction abatement plan within 45 days after such an event occurs and submit the revised plan to the AQD District Supervisor.<sup>2</sup> **(R 336.1910, R 336.1911)**
5. The permittee shall operate EU-FLNRINC as per the Waste Management Plan in Appendix 10-1 or via an alternate plan approved by the AQD District Supervisor.<sup>2</sup> **(40 CFR 60.50c(c))**

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

1. The permittee shall not operate EU-FLNRINC unless the afterburner is installed, maintained, and operated in a satisfactory manner.<sup>2</sup> **(R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1910)**
2. The permittee shall equip and maintain the afterburner of EU-FLNRINC with a thermocouple control system.<sup>2</sup> **(R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1901, R 336.1910, R 336.1910)**
3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the temperature in the afterburner of EU-FLNRINC on a continuous basis.<sup>2</sup> **(R 336.1301, R 336.1331, R 336.1901, R 336.1910)**
4. The EU-FLNRINC afterburner temperature shall be interconnected with the primary chamber start relay so that the primary chamber burner will start only after the afterburner minimum temperature (1750 °F) is reached.<sup>2</sup> **(R 336.1301, R 336.1331, R 336.1901, R 336.1910)**

## Section 1 - MSU Main Campus

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

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

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

1. Visual inspection for abnormal/excessive smoke to be performed at least once a day, every day that the incinerator is operating.<sup>2</sup> **(R 336.1301, R 336.1331, R 336.1901, R 336.1910)**
2. The permittee shall measure the opacity using Method 9 (Visual Determination of the Opacity of Emissions from Stationary Sources) upon request of the AQD.<sup>2</sup> **(R 336.1301, R 336.1331, R 336.1901, R 336.1910)**
3. The permittee shall verify PM emission rates, by testing at owner's expense, in accordance with department requirements within 12 months of this permit renewal issuance, and once every five years thereafter, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. During performance testing, the permittee shall also determine and record the average operating temperature of the afterburner to control the emissions from the EU-FLNRINC.<sup>2</sup> **(R 336.1301, R 336.1331, R 336.1901, R 336.1910)**

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

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

1. All required calculations shall be completed in a format acceptable to the AQD District Supervisor by the 30<sup>th</sup> day of the calendar month, for the previous calendar quarter, unless otherwise specified in any monitoring/recordkeeping special condition.<sup>2</sup> **(R 336.1224, R 336.1225, R 336.1901, 40 CFR 60.50c(c))**
2. The permittee shall monitor and record the temperature in the afterburner of EU-FLNRINC on a continuous basis in a manner and with instrumentation acceptable to the District Supervisor, Air Quality Division. Records shall be kept on file and made available to the Department upon request.<sup>2</sup> **(R 336.1301, R 336.1331, R 336.1901, R 336.1910)**
3. The permittee shall keep, in a satisfactory manner, records on a calendar quarter basis of the description and weight of waste burned in EU-FLNRINC, as required by SC II.4, II.5 and II.6 specifically differentiating between pathological and other wastes. All records shall be kept on file and made available to the Department upon request.<sup>2</sup> **(R 336.1225, R 336.1901, 40 CFR 60.51c)**
4. The permittee shall calculate the weight percent of medical/infectious waste burned in EU-FLNRINC, as required by SC II.6. All records shall be kept on file and made available to the Department upon request. **(R 336.1225, R 336.1901, 40 CFR 60.51c)**

### **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. A complete test plan shall be submitted to the AQD no less than 30 days prior to testing for review. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.<sup>2</sup> **(R 336.2001)**

See Appendix 8-1

**Section 1 - MSU Main Campus**ROP No: MI-ROP-K3249-2016a  
Expiration Date: October 21, 2021  
PTI No: MI-PTI-K3249-2016a**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:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVFLRINC01	40 <sup>1</sup>	29 <sup>1</sup>	<b>R 336.1901</b>

**IX. OTHER REQUIREMENT(S)**

NA

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

**EU-DCPAHINC  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

ASC design Pathological Waste incinerator located at DCPAH facility on Bennett Rd that burns 5% or less medical/infectious waste. Unit is gas fired with a 1,200 lb/hr capacity at 1,800 F and 1 second retention time in secondary chamber. (PTI 380-00)

Flexible Group ID: NA

**POLLUTION CONTROL EQUIPMENT**

Direct flame afterburner

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	1.71 lbs/hr <sup>2</sup>	Test Protocol*	EU-DCPAHINC	SC V.1, V.2 and V.3	<b>R 336.1331</b>
2. Particulate	0.10 gr/dscf @ 7% oxygen <sup>2</sup>	Test Protocol*	EU-DCPAHINC	SC V.1, V.2 and V.3	<b>R 336.1331</b>

\*Test protocol shall specify averaging time.

**II. MATERIAL LIMIT(S)**

1. The permittee shall not burn any waste in the EU-DCPAHINC other than the following wastes.<sup>2</sup> **(40 CFR 60.50c(c))**
  - a. **Pathological Waste** as defined in 40 CFR 60.51c. Pathological waste is waste material consisting of only human or animal remains, anatomical parts and/or tissue, the bags/containers used to collect and transport the waste material and animal bedding.
  - b. **Medical/Infectious Waste** as defined in 40 CFR 60.51c. This waste shall not contain any sharps or exceed 5 percent, by weight, in aggregate, of the total waste burned in the EU-DCPAHINC as measured on a calendar month basis.
  - c. **Institutional wastes** as defined in 40 CFR 60.3078. Institutional waste means solid waste that is combusted at any institutional facility that generated the waste.
2. The permittee shall burn 90 percent or more by weight pathological waste to maintain status as a pathological waste incinerator unit. Failure to do so will require compliance with 40 CFR Part 60, Subpart FFFF. **(40 CFR 60.2993(l))**

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

1. The permittee shall not charge or combust waste in the EU-DCPAHINC unless a minimum 15-minute average temperature of 1800°F is maintained.<sup>2</sup> **(R 336.1301, R 336.1910)**
2. The after burner shall be installed, maintained, and operated in a satisfactory manner to control emissions from EU-DCPAHINC. A list of operation and maintenance procedures as specified in Appendix 9-1.<sup>2</sup> **(R 336.1301, R 336.1331, R 336.1910)**

## Section 1 - MSU Main Campus

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

The permittee shall not operate EU-DCPAHINC unless the Incinerators Malfunction Abatement Plan, or an alternate plan approved by the AQD District Supervisor, is implemented and maintained. The plan shall include procedures for maintaining and operating in a satisfactory manner, EU-DCPAHINC, add-on air pollution control device, and monitoring equipment during malfunction events, and a program for corrective action for such events. If the malfunction abatement plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the malfunction abatement plan within 45 days after such an event occurs and submit the revised plan to the AQD District Supervisor.<sup>2</sup> **(R 336.1910, R 336.1911)**

3. The permittee shall not operate the EU-DCPAHINC unless the waste management plan specified in Appendix 10-1, or an alternate plan approved by the District Supervisor, is implemented and maintained.<sup>2</sup> **(40 CFR 60.50c)**

See Appendices 9-1 and 10-1

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

1. The permittee shall not operate EU-DCPAHINC unless the afterburner is installed, maintained, and operated in a satisfactory manner.<sup>2</sup> **(R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1910)**
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the temperature in the afterburner of EU-DCPAHINC on a continuous basis. The temperature monitoring device shall be installed, calibrated, operated and maintained properly.<sup>2</sup> **(R 336.1301, R 336.1331, R 336.1901, R 336.1910)**
3. The afterburner shall have a minimum retention time of 1.0 second.<sup>2</sup> **(R 336.1301, R 336.1910)**

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

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

1. Visual inspection for abnormal/excessive smoke to be performed at least once a day, every day that the incinerator is operating.<sup>2</sup> **(R 336.1301, R 336.1331, R 336.1901, R 336.1910)**
2. The permittee shall measure the opacity using Method 9 (Visual Determination of the Opacity of Emissions from Stationary Sources) upon request of the AQD.<sup>2</sup> **(R 336.1301, R 336.1331, R 336.1901, R 336.1910)**
3. The permittee shall verify PM emission rates, by testing at owner's expense, in accordance with department requirements within 12 months of permit renewal issuance, and once every five years thereafter, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. During performance testing, the permittee shall also determine and record the average operating temperature of the afterburner to control the emissions from EU-DCPAHINC. **(R 336.1331)**

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

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

1. The permittee shall monitor and record the temperature in the secondary combustion chamber during operation on a continuous basis in a manner and with instrumentation acceptable to the District Supervisor, Air Quality Division. All records shall be kept on file and made available to the Department upon request.<sup>2</sup> **(R 336.1301, R 336.1331, R 336.1910)**
2. If excessive visible emissions are observed during the daily visual inspections, the permittee shall implement the following procedures:<sup>2</sup> **(R 336.1301, R 336.1331, R 336.1910)**
  - a. Immediately cease charging EU-DCPAHINC;
  - b. Determine the cause of the excessive visible emissions within 4 hours of discovery;
  - c. Identify and implement corrective measures to reduce/eliminate the excessive visible emissions within 8 hours; or

## Section 1 - MSU Main Campus

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

- d. Initiate shut down of the EU-DCPAHINC consistent with the provisions of the malfunction abatement plan.
  - e. Notify AQD of deviations as per General Condition 21.
3. The permittee shall keep records on a daily basis of the type and weight of waste burned in EU-DCPAHINC specifically differentiating between pathological and medical/infectious waste. All records shall be kept on file and made available to the Department upon request.<sup>2</sup> **(40 CFR 60.50c(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. Report shall be received by appropriate AQD district office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. Report shall be received by appropriate AQD district office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. A complete test plan shall be submitted to the AQD no less than 30 days prior to testing for review. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.<sup>2</sup> **( R 336.1331)**

See Appendix 8-1

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

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVDCPAHINC	56 <sup>2</sup>	85 <sup>2</sup>	40 CFR 52.21 (c) and (d)

### IX. OTHER REQUIREMENT(S)

NA

#### Footnotes:

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

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

**EU-CREMATORY  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Crawford Model C500P, natural gas fired, animal crematory, with 200 pound maximum charge and a 75 pound per hour burn rate located at 4125 Beaumont Road. (PTI 226-05)

Flexible Group ID: NA

**POLLUTION CONTROL EQUIPMENT**

Direct flame afterburner

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.20 pounds per 1,000 pounds of exhaust gases, corrected to 50% excess air. <sup>2</sup>	Test Protocol*	EU-CREMATORY	SC V.1	R 336.1331

\*Test protocol will specify averaging time.

**II. MATERIAL LIMIT(S)**

1. The permittee shall not burn any waste in EU-CREMATORY other than the following wastes:<sup>2</sup> **(40 CFR 60.51c)**
  - a. **Pathological wastes** as defined in 40 CFR 60.51c. Pathological waste means waste materials consisting of only human or animal remains, anatomical parts, and/or tissue; the bags/containers used to collect and transport the waste material; and animal bedding.

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

1. The permittee shall not combust waste in EU-CREMATORY unless a minimum temperature of 1600 °F is maintained.<sup>2</sup> **(R 336.1301, R 336.1331, R 336.1910)**
2. The afterburner shall be installed, maintained, and operated in a satisfactory manner to control emissions from EU-CREMATORY. A list of operating and maintenance procedures is specified in Appendix 9-1.<sup>2</sup> **(R 336.1301, R 336.1331, R 336.1910)**

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

1. EU-CREMATORY shall have a minimum retention time of 1.0 second.<sup>2</sup> **(R 336.1301, R 336.1331, R 336.1910)**
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the temperature in the afterburner of EU-CREMATORY on a continuous basis.<sup>2</sup> **(R 336.1301, R 336.1331, R 336.1901)**

## Section 1 - MSU Main Campus

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

### V. TESTING/SAMPLING

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

1. Visual inspection for abnormal/excessive smoke to be performed at least once a day, every day that the incinerator is operating.<sup>2</sup> (R 336.1301, R 336.1331, R 336.1901, R 336.1910)
2. Verification of PM emission rates, by testing at owner's expense, in accordance with department requirements shall be completed upon the request of the AQD. During performance testing, the permittee shall also determine and record the average operating temperature of the afterburner to control the emissions from the EU-CREMATORY. (R 336.1331)

### VI. MONITORING/RECORDKEEPING

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

1. The permittee shall monitor and record the temperature in the afterburner during operation on a continuous basis in a manner and with instrumentation acceptable to the District Supervisor, Air Quality Division. All records shall be kept on file and made available to the Department upon request. (R 336.1301, R 336.1331, R 336.1910)
2. The permittee shall keep, in a satisfactory manner, daily records of the time, description and weight of waste combusted in EU-CREMATORY.<sup>2</sup> (R 336.1205, 40 CFR 60.50c(b))

### VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. Report shall be received by appropriate AQD district office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. Report shall be received by appropriate AQD district office by March 15 for the previous calendar year. (R 336.1213(4)(c))
4. Upon the request for testing, a complete test plan shall be submitted to the AQD no less than 30 days prior to testing for review. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. (R 336.1331)

See Appendix 8-1

### VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirements
1. SVCREMATORY	16 <sup>1</sup>	25 <sup>1</sup>	R 336.1901

### IX. OTHER REQUIREMENT(S)

NA

**Section 1 - MSU Main Campus**

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

**Footnotes:**

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

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

**Section 1 - MSU Main Campus**

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

**EU-TESTSTAND  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

An Engine Test stand capable of testing engines up to 750 HP for unleaded gasoline/ethanol engines and 1,000 HP for diesel engines located at 1149 Engineering Research Court. (PTI 229-05A)

Flexible Group ID: NA

**POLLUTION CONTROL EQUIPMENT**

Catalytic converters while testing gasoline/ethanol engines

**I. EMISSION LIMIT(S)**

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

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Unleaded Gasoline	1,000 <sup>2</sup> gallons	12 month rolling time period as determined at the end of each calendar month	EU-TESTSTAND	SC VI.2	R 336.1205(1)(a) and (3), R 336.1225, R 336.1702(a)
2. Diesel Fuel	1,000 <sup>2</sup> gallons	12 month rolling time period as determined at the end of each calendar month	EU-TESTSTAND	SC VI.2	R 336.1205(1)(a) and (3), R 336.1225, R 336.1702(a)

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

NA

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

- The permittee shall equip and maintain EU-TESTSTAND with a catalytic converter when burning gasoline.<sup>2</sup> (R 336.1205(1)(a) and (3), R 336.1225, R 336.1702(a), R 336.1910)

**V. TESTING/SAMPLING**

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

NA

## Section 1 - MSU Main Campus

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

### VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required records in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.<sup>2</sup> (R 336.1205(1)(a)&(3), R 336.1225, R 336.1702(a))
2. The permittee shall record, in a satisfactory manner, monthly and previous 12-month fuel usage for EU-TESTSTAND. All records shall be kept on file and made available to the Department upon request.<sup>2</sup> (R 336.1205(1)(a)&(3), R 336.1225, R 336.1702(a))

### VII. REPORTING

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

See Appendix 8-1

### VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirements
NA	NA	NA	NA

### IX. OTHER REQUIREMENT(S)

NA

#### Footnotes:

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

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

**EU-DIENGINE  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

One new uncertified non-emergency, spark ignition, stationary, 510 horsepower (380kilowatt), 4 stroke lean burn (4SLB), reciprocating internal combustion engine (RICE), used to produce electricity, fired by digester gas, manufactured on February 27, 2013 and rebuilt on April 15, 2016, subject to 40 CFR Part 60, Subpart JJJJ and 40 CFR Part 63, Subpart ZZZZ.

Flexible Group ID: NA

**POLLUTION CONTROL EQUIPMENT**

Catalytic reduction

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. CO	5.0 g/hp-hr or 610 ppmvd @ 15% O2	Test Protocol*	EU-DIENGINE	SC V.1, VI.1	<b>40 CFR 60.4233(e) Table 1</b>
2. NOx	2.0 g/hp-hr or 150 ppmvd @ 15% O2	Test Protocol*	EU-DIENGINE	SC V.1, VI.1	<b>40 CFR 60.4233(e) Table 1</b>
3. VOC	1.0 g/hp-hr or 80 ppmvd @ 15% O2	Test Protocol*	EU-DIENGINE	SC V.1, VI.1	<b>40 CFR 60.4233(e) Table 1</b>

\*Test protocol shall specify averaging time.

**II. MATERIAL LIMIT(S)**

1. The heat input provided by digester gas must be equivalent to 10 percent or more of the gross heat input on an annual basis. **(40 CFR 63.6590(b)(ii)(2))**

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

EU-DIENGINE shall operate in a manner which reasonably minimizes HAP emissions. **(40 CFR 63.6625(c))**

1. If the permittee purchased a non-certified engine or operates a certified engine in a non-certified manner, the permittee shall keep a maintenance plan and records of conducted maintenance for FGNSPSJJJJ and shall, to the extent practicable, maintain and operate each engine in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 60.4243(b)(2)(ii))**

## Section 1 - MSU Main Campus

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

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

1. The permittee shall equip and maintain EU-DIENGINE with a fuel meter to monitor and record the daily fuel usage and volumetric flow rate of the digester fuel used. **(40 CFR 63.6625(c))**

### V. TESTING/SAMPLING

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

1. The permittee must conduct an initial performance test within 1 year of engine rebuild and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance. **(40 CFR 60.4243(a)(2)(iii))**
2. Performance testing shall be conducted according to 40 CFR 60.4244. **(40 CFR 60.4244)**

### 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 the following records for EU-DIENGINE:
  - a. All notifications submitted to comply with Subpart JJJJ and all documentation supporting any notification **(40 CFR 60.4245(a)(1))**
  - b. Maintenance conducted on EU-DIENGINE **(40 CFR 60.4243(b)(2)(ii), 40 CFR 60.4245(a)(2))**
  - c. If the engine is operating in a non-certified manner, documentation that the engine meets emission standards. **(40 CFR 60.4245(a)(4))**
2. The permittee shall record all fuel usage for EU-DIENGINE, including digester gas, on a daily basis with separate fuel meters to measure the volumetric flow rate of each fuel. **(40 CFR 63.6625(c), 40 CFR 63.6655(c))**
3. The permittee shall maintain records of the hours of operation for determining performance testing requirements. **(40 CFR 60.4243)**

### 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. If testing is required, no less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.2001(f))**
5. The permittee shall submit an annual report to the appropriate AQD District Office by March 15 for reporting period January 1 to December 31. The following information shall be included in this annual report: **(40 CFR 63.6650(b)(5))**
  - a. The permittee must demonstrate that the percentage of heat input provided by digester gas is equivalent to 10 percent or more of the total gross heat input for EU-DIENGINE on an annual basis. **(40 CFR 63.6650(g)(1))**
  - b. The operating limits provided in this permit, and any deviations from these limits. **(40 CFR 63.6650(g)(2))**
  - c. Any problems or errors suspected with the meters. **(40 CFR 63.6650(g)(3))**

**Section 1 - MSU Main Campus**

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

See Appendix 8-1

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

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

<b>Stack &amp; Vent ID</b>	<b>Maximum Diameter (inches)</b>	<b>Minimum Height Above Ground Level (feet)</b>	<b>Applicable Requirements</b>
1. SVDIENGINE	NA	NA	<b>R 336.1901</b>

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with all applicable provisions of the federal Standards of Performance for Stationary Spark Ignition Internal Combustion Engines as specified in 40 CFR Part 60, Subpart A and Subpart JJJJ. **(40 CFR Part 60 Subparts A & JJJJ)**
2. A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of §63.6645(f) and the requirements of §§63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart. **(40 CFR 63.6590(b)(ii)(2))**

**Footnotes:**

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

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

**EU-ENCLSD\_FLARE  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

An enclosed digester gas flare used as back up for the anaerobic digester EU-DIENGINE located at the dairy facility. The flare is capable of burning up to 150 scfm giving a Heat Input Capacity of 5,400,000 Btu/hr when using the estimated higher heating value of the digester gas of 600 Btu/scf.  
 (PTI 95-12A)

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

Enclosed Flare and fuel SO2 scrubber

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Sulfur dioxide	0.90 pph <sup>2</sup>	30-day average	EU-ENCLSD-FLARE	SC VI.1, VI. 2	<b>40 CFR 52.21 (c) &amp; (d)</b>

**II. MATERIAL LIMIT(S)**

1. The permittee shall burn only gas produced by the dairy facility anaerobic digester (digester gas) in the EU-ENCLSD-FLARE.<sup>2</sup> **(40 CFR 52.21(c) & (d))**
2. The hydrogen sulfide (H2S) concentration of the gas exiting the digester shall not exceed 600 ppmv.<sup>2</sup> **(40 CFR 52.21(c) & (d))**

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

1. The permittee shall not operate EU-ENCLSD\_FLARE unless a MAP as described in Rule 911(2), is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the 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.<sup>2</sup> **(R 336.1911, 40 CFR 52.21(c) and (d))**

## Section 1 - MSU Main Campus

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

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

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the volumetric flow rate of digester gas burned in EU-ENCLSD-FLARE, on a continuous basis.<sup>2</sup> **(40 CFR 52.21(c) & (d))**

### V. TESTING/SAMPLING

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

1. The permittee shall verify the hydrogen sulfide or total reduced sulfur (TRS) content of the digester gas burned in EU-ENCLSD-FLARE on a quarterly basis by gas sampling. If, after a year, the average of the previous four (4) quarterly concentrations of the hydrogen sulfide or TRS concentration of the digester gas is below 600 ppm (TRS equivalent), the permittee may petition the District Supervisor, Air Quality Division to reduce the frequency of gas sampling and recording the hydrogen sulfide/total reduced sulfur concentration of the digester gas to once each calendar year. If at any time the average of the previous four concentration readings exceeds 600 ppm (TRS equivalent), the permittee shall resume sampling and recording on a quarterly basis and shall review all operating and maintenance activities for the digester gas collection and treatment system along with keeping records of corrective actions taken. Once the average of the previous four concentrations determined from the quarterly readings is maintained below 600 ppm of hydrogen sulfide/TRS concentration in the digester gas for one year after an exceedance, the permittee may resume annual monitoring and recordkeeping. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request.<sup>2</sup> **(40 CFR 52.21(c) & (d))**

### 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, records of the H<sub>2</sub>S content of the digester gas routed to EU-ENCLSD-FLARE as specified in SC V.1. The permittee shall keep all records on file and make them available to the Department upon request.<sup>2</sup> **(40 CFR 52.21 (c) and (d))**
2. The permittee shall continuously monitor and record, in a satisfactory manner, the volumetric flow rate of digester gas burned in the flare. The permittee shall keep all records on file at the facility and make them available to the Department upon request.<sup>2</sup> **(40 CFR 52.21(c) & (d))**
3. SO<sub>2</sub> emission calculations shall be completed as per Appendix 7-1. Calculations shall be made available to the department upon request.<sup>2</sup> **(40 CFR 52.21(c) & (d))**

See Appendix 7-1

### VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. 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 8-1

**Section 1 - MSU Main Campus**ROP No: MI-ROP-K3249-2016a  
Expiration Date: October 21, 2021  
PTI No: MI-PTI-K3249-2016a**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:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SV -ENCLSD_FLARE	18 <sup>2</sup>	7 <sup>2</sup>	<b>40 CFR 52.21 (c) &amp; (d)</b>

**IX. OTHER REQUIREMENT(S)**

NA

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

### 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-COLDCLEANER	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.	EU-453DEG01 EU-DEGLANDS1-2 EU-DEGPHYS EU-DEGTRANS EU-DEGGOLFC
FG-RULE 287(c)	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 287(c).	EU-SPRAYBOOTH1, EU-SPRAYBOOTH2
FG-STERILIZERS	One or more ethylene oxide (EtO) sterilizers, with a capacity not to exceed 30 cubic feet per unit, and associated aeration equipment. Each unit shall be controlled by an acid-water scrubber or catalytic oxidizer that is guaranteed by the manufacturer to reduce EtO emissions by at least 99.9.	EU-ETO
FG-NSPS-JJJJ	Stationery spark ignition lean burn reciprocating internal combustion engines combusting natural gas fuel, producing greater than 25 hp (19 KW) but less than 500 hp, that were constructed, on or after June 12, 2006, and used to power emergency use generators.	EU596GEN01
FG-EMERGEN>500ZZZZ	Existing compression ignition Engine Units greater than 500 HP.	EU055GEN01, EU069GEN01, EU160GEN02, EU215GEN01

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

**Section 1 - MSU Main Campus**

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-EMERGEN≤500ZZZZ	Existing stationary spark ignition (SI) or compression ignition (CI) emergency reciprocating internal combustion engines (RICE), with a rating of less than or equal to 500 HP and constructed prior to June 12, 2006.	EU-003GEN01, EU-006GEN01, EU-016GEN01, EU-022GEN01, EU-028GEN01, EU-049GEN01, EU-077GEN01, EU-080GEN01, EU-081GEN01, EU-081GEN02, EU-083GEN01, EU-085GEN01, EU-086GEN01, EU-086GEN02, EU-087GEN01, EU-132GEN01, EU-133GEN01, EU-160GEN01, EU-163GEN01, EU-170GEN01, EU-170GEN02, EU-170GEN03, EU-175GEN01, EU-178GEN01, EU-181GEN01, EU-186GEN01, EU-186GEN02, EU-200GEN01, EU-203GEN02, EU-203GEN01, EU-210-PORGEN-1, EU-210-PORGEN-10, EU-210-PORGEN-2, EU-210-PORGEN-5, EU-210-PORGEN-6, EU-210-PORGEN-7, EU-210-PORGEN-8, EU-210-PORGEN-9, EU-210-PORGEN-3, EU-210GEN-CT85, EU-210-PORGEN-11, EU-211GEN01, EU-216GEN01, EU218GEN01, EU-219GEN01, EU-222GEN01, EU-472DGEN01, EU-479GEN01, EU-577GEN01, EU-601GEN01
FG-WSF	Waste Storage Facility (WSF) that receives, stores, and consolidates laboratory waste before sending it out for disposal.	EU-CHEM, EU-CONSOL1, and EU-CONSOL2
FG-BOILERMACT	Boilers/process heaters located at the Main Campus that are designed to burn gas 1 fuels and subject to 40 CFR Part 63, Subpart DDDDD ("Boiler MACT").	Various (See Appendix 11-1)
FG-TESTCELLS	2 engine test cells capable of testing engines up to 750 HP for unleaded gasoline/ethanol engines and 1,000 HP for No.2 diesel engines. Emissions are controlled by catalytic converters.	EU-TESTCELL1, EU-TESTCELL2

**FG-COLDCLEANER  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and 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-453DEG01, EU-DEGLANDS1-2, EU-DEGPHYS, EU-DEGTRANS, EU-DEGGOLFC

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

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

**II. MATERIAL LIMIT(S)**

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

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

1. Cleaned parts shall be drained for no less than 15 seconds or until dripping ceases. **(R 336.1611(2)(b), R 336.1707(3)(b))**
2. Cover will remain closed when not in use or when allowing parts to soak. **(R 336.1611(2)(a), R336.1707(3))**
3. The permittee shall perform routine maintenance on each cold cleaner as recommended by the manufacturer. **(R 336.1213(3))**

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

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

## Section 1 - MSU Main Campus

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

5. If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia; or, if any solvent used in a new cold cleaner is heated above 120 degrees Fahrenheit, then the cold cleaner must comply with at least one of the following provisions:
  - a. The cold cleaner must be designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7. **(R 336.1707(2)(a))**
  - b. The solvent bath must be covered with water if the solvent is insoluble and has a specific gravity of more than 1.0. **(R 336.1707(2)(b))**
  - c. The cold cleaner must be controlled by a carbon adsorption system, condensation system, or other method of equivalent control approved by the AQD. **(R 336.1707(2)(c))**

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

NA

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

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

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

### **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. 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 8-1

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

NA

**Section 1 - MSU Main Campus**

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

**IX. OTHER REQUIREMENT(S)**

NA

**FG-RULE 287(c)  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 287(c).

**Emission Units:** EU-SPRAYBOOTH1, EU-SPRAYBOOTH2

**POLLUTION CONTROL EQUIPMENT**

Particulate control filter

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Underlying Applicable Requirement
1. Coatings	200 gallons	Per month, as applied, minus water, per emission unit	NA	R 336.1287(c)(i)

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

NA

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

1. Any exhaust system that serves only coating spray equipment shall be equipped with a properly installed and operating particulate control system. **(R 336.1287(c)(ii))**

**V. TESTING/SAMPLING**

NA

**VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall maintain records of the following information for each emission unit for each calendar month using the methods outlined in the DEQ, AQD Rule 287(c), Permit to Install Exemption Record form (EQP 3562) or in a format acceptable to the AQD District Supervisor. **(R 336.1213(3))**
  - a. Volume of coating used, as applied, minus water, in gallons. **(R 336.1287(c)(iii))**
  - b. Documentation of any filter replacements for exhaust systems serving coating spray equipment. **(R 336.1213(3))**

See Appendix 4-1

**Section 1 - MSU Main Campus**

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

**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 8-1**

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

NA

**IX. OTHER REQUIREMENT(S)**

NA

**Section 1 - MSU Main Campus**

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

**FG-STERILIZERS  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

One or more ethylene oxide (EtO) sterilizers, with a capacity not to exceed 30 cubic feet per unit, and associated aeration equipment. Each unit shall be controlled by an acid-water scrubber or catalytic oxidizer that is guaranteed by the manufacturer to reduce EtO emissions by at least 99.9%. (PTI 271-03)

**Emission Unit:** EU-ETO

**POLLUTION CONTROL EQUIPMENT**

Acid-wash scrubber or catalytic oxidizer that is guaranteed by the manufacturer to reduce ethylene oxide emissions by at least 99.9%.

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. EtO	0.006 pph <sup>2</sup>	Hourly	FG-STERILIZERS	SC V.1	R 336.1205, R 336.1225(1)
2. EtO	0.141 lb/mo <sup>2</sup>	Calendar month	FG-STERILIZERS	SC VI.2	R 336.1205, R 336.1225(1)
3. HCFC*	62.3 pph <sup>2</sup>	Hourly	FG-STERILIZERS	SC V.1	R 336.1205, R 336.1225(1)
4. HCFC*	0.75 ton/mo <sup>2</sup>	Calendar month	FG-STERILIZERS	SC VI.2	R 336.1205, R 336.1225(1)
* HCFC = Hydrochlorofluorocarbon					

**II. MATERIAL LIMIT(S)**

1. The permittee shall use a sterilant gas, which consists of 100% EtO or an EtO/inert gas mixture. Acceptable inert gases include 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124), carbon dioxide (CO<sub>2</sub>), or a HCFC blend, which includes only toxic air contaminants for which the initial threshold screening level (ITSL) is equal to or greater than 5000 micrograms per cubic meter on a 24 hour average.<sup>1</sup> **(R 336.1225(1))**
2. The permittee shall not use more than 6.5 pounds of EtO per calendar day, or 141.1 pounds of EtO per calendar month in FG-STERILIZERS.<sup>2</sup> **(R 336.1205)**
3. The permittee shall not use more than 69.23 pounds of HCFC per calendar day, or 1,500 pounds of HCFC per calendar month in FG-STERILIZERS.<sup>2</sup> **(R 336.1205)**

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

1. The permittee shall not operate any sterilizer or aerator associated with FG-STERILIZERS unless the associated control device is installed, maintained and operated properly according to the manufacturer's specifications. Proper operation requires a minimum of 99.9% reduction (by weight) of EtO emissions to the atmosphere. A copy of the manufacturer's specifications for the control device shall be maintained on file.<sup>2</sup> **(R 336.1205, R 336.1225(1), R 336.1910)**

## Section 1 - MSU Main Campus

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

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

1. The permittee shall not operate any sterilizer associated with FG-STERILIZERS unless a closed loop recirculating-fluid vacuum pump, an air ejector system, or other method of drawing a vacuum and evacuating the sterilizer chamber is installed, maintained, and operated in a satisfactory manner. This equipment is necessary to prevent the discharge of any EtO to a wastewater stream.<sup>2</sup> **(R 336.1201a(1))**

### V. TESTING/SAMPLING

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

1. Verification and quantification of EtO emission rates from FG-STERILIZERS, and control device efficiency, by testing at owner's expense, in accordance with Department requirements, may be required for continued operation. Refer to 40 CFR 63.365 for test methods and procedures.<sup>2</sup> **(R 336.2001(1), R 336.2001(2), R 336.2001(4), R 336.2003, 40 CFR 63.365)**

### 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 an operating parameter of the control device, based on either manufacturer's specifications or a performance test, which assures at least 99.9% reduction of EtO emissions. A copy of the manufacturer's specifications for the control device shall be maintained on file.<sup>2</sup> **(R 336.1225, R 336.1910)**
  - a. For processes controlled by an acid-water scrubber: Measure and record once per week, either the maximum ethylene glycol concentration of the scrubber liquor, or the level of the scrubber liquor in the recirculation tank.
  - b. For processes controlled by a catalytic oxidizer: Continuously monitor the oxidation temperature in the catalyst bed.
2. The permittee shall keep, in a satisfactory manner, separate daily and monthly records of the amount of EtO and any inert gas used in each sterilizer, in pounds per cycle.<sup>2</sup> **(R 336.1205, R 336.1225(1))**
3. The permittee shall calculate the EtO emission rates from FG-STERILIZERS for each month as outlined in Appendix 4-1.<sup>2</sup> **(R 336.1205, R 336.1225(1))**
4. The permittee shall keep the following in a satisfactory manner: records of the date, duration, and description of any malfunction of the control equipment; any maintenance performed; replacement of catalyst or scrubber liquor; and any testing results for FG-STERILIZERS. All records shall be kept on file and made available to the Department upon request.<sup>2</sup> **(R 336.1225, R 336.1910)**

See Appendix 4-1

### VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. 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. Within 60 days of notification from the AQD, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.<sup>2</sup> **(R 336.2001(1))**

See Appendix 8-1

## Section 1 - MSU Main Campus

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

### 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:

1. The exhaust gases from FG-STERILIZERS shall be discharged unobstructed vertically upwards to the ambient air at an exit point not less than 25 feet above ground level. The discharge must be located a minimum of 25 feet from any window, air intake vent, or any location accessible by the general public.<sup>1</sup> **(R 336.1225(1))**

### IX. OTHER REQUIREMENT(S)

1. The permittee shall not replace or modify FG-STERILIZERS, or any portion of FG-STERILIZERS, including control equipment, unless all of the following conditions are met:<sup>2</sup> **(R 336.1201a(1))**.
  - a. The permittee shall update the general permit by submitting a new Process Information Form (EQP5730) to the Permit Section and District Supervisor, identifying the existing and new equipment a minimum of 10 days before the equipment is replaced or modified.
  - b. The permittee shall continue to meet all general permit to install applicability criteria after the replacement, modification or installation of new equipment is complete.
  - c. The permittee shall keep records of the date and description of the replacement, modification or installation of new equipment. All records shall be kept on file for a period of at least five years and made available to the Department upon request.

#### **Footnotes:**

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

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

**Section 1 - MSU Main Campus**

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

**FG-NSPS-JJJJ  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Stationery spark ignition lean burn reciprocating internal combustion engines combusting natural gas fuel, producing greater than 25 hp (19 KW) but less than 500 hp, that were constructed, on or after June 12, 2006, and used to power emergency use generators.

**Emission Units:** EU-596GEN01, EU-475GEN01, EU524GEN01

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NO <sub>x</sub>	2.0 g/hp-hr or 160 ppm @ 15% O <sub>2</sub>	Three 1 hour runs at ±10% of 100% peak load	FG-NSPS-JJJJ	SC VI.2 SC V.1	<b>40 CFR 60.4233(e) 40 CFR 60.4244(c) 40 CFR Part 60 Subpart JJJJ, Table 1</b>
2. CO	4.0 g/hp-hr or 540 ppm @ 15% O <sub>2</sub>	Three 1 hour runs at ±10% of 100% peak load	FG-NSPS-JJJJ	SC VI.2 SC V.1	<b>40 CFR 60.4233(e) 40 CFR 60.4244(c) 40 CFR Part 60 Subpart JJJJ, Table 1</b>
3. VOC*	1.0 g/hp-hr or 86 ppm @ 15% O <sub>2</sub>	Three 1 hour runs at ±10% of 100% peak load	FG-NSPS-JJJJ	SC VI.2 SC V.1	<b>40 CFR 60.4233(e) 40 CFR 60.4244(c) 40 CFR Part 60 Subpart JJJJ, Table 1</b>

\*VOC average does not include formaldehyde per 40 CFR Part 60, Subpart JJJJ, Table 1 sub note d.

**II. MATERIAL LIMIT(S)**

1. The permittee shall burn only pipeline quality natural gas, in FG-NSPS-JJJJ. **(R 336.1205(1)(a))**

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

1. The permittee must operate units in FG-NSPS-JJJJ according to the following: **(40 CFR 60.4243(d))**
  - a. There is no time limit on the use in emergency situations.
  - b. For non-emergency situations; not more than 100 hours per calendar year for any combination of:
    - i. 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 year.

## Section 1 - MSU Main Campus

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

- ii. Up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing in SC III.1.b. The 50 hours per 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.
2. The permittee shall operate and maintain each FG-NSPS-JJJJ engine such that it meets the emission limits in SC I.1, SC I.2, and SC I.3 over the entire life of the engine. **(40 CFR 60.4234)**
3. For Certified engines, the permittee shall operate and maintain FG-NSPS-JJJJ according to the manufacturer's emission-related written instructions. The permittee shall also meet the requirements as specified in 40 CFR Part 1068, Subparts A through D, as they apply to FG-NSPS-JJJJ. If the engine's settings are adjusted according to and consistent with the manufacturer's instructions, FG-NSPS-JJJJ will be considered in compliance. **(40 CFR 60.4243(a) and 40 CFR 60.4243(b))**
4. If the permittee purchased a non-certified engine or has a certified engine operating in a non-certified manner, the permittee shall test according to SC V.1, will keep a maintenance plan for FG-NSPS-JJJJ, and shall maintain and operate each engine in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 60.4243(b)(2), 40 CFR 60.4243(a)(2)(ii))**

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

1. If any engine included in FG-NSPS-JJJJ does not meet the standards applicable to non-emergency engines, the permittee shall equip and maintain FG-NSPS-JJJJ with non-resettable hours meters to track the operating hours. **(40 CFR 60.4237)**
2. The nameplate capacity of FG-NSPS-JJJJ shall not exceed 500 HP, as certified by the equipment manufacturer. **(40 CFR 60.4230)**

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

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

1. For any non-certified engine as per SC III.4, the permittee shall conduct an initial performance test for FG-NSPS-JJJJ within one year after startup of the engine to demonstrate compliance with the applicable emission limits contained in SC I.1, SC I.2, and SC I.3. If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4244 to demonstrate compliance with 40 CFR 60.4230 Table 1 and permit limits. **(40 CFR 60.4243(a)(2)(ii) and (f), 40 CFR 60.4243(b)(2)(i), 40 CFR 60.4244)**

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

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

1. The permittee shall monitor and record the hours of operation of FG-NSPS-JJJJ during emergencies and non-emergencies as allowed in SC III.1., on a monthly and 12-month rolling time period basis, in a manner acceptable to the District Supervisor, Air Quality Division. The permittee shall record the time of operation of FG-NSPS-JJJJ and the reason it was in operation during that time. **(R 336.1213(3))**
2. The permittee shall keep records of the following information for FG-NSPS-JJJJ:
  - a. All notifications submitted to comply with 40 CFR Part 60, Subpart JJJJ and all documentation supporting any notification.
  - b. Maintenance conducted on FG-NSPS-JJJJ.
  - c. If FG-NSPS-JJJJ is a certified engine, documentation from the manufacturer that the FG-NSPS-JJJJ is certified to meet the emission standards and information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable.
  - d. If FG-NSPS-JJJJ is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation of testing required in SC V.1 that FG-NSPS-JJJJ meets the emission standards. **(40 CFR 60.4245(a))**

See Appendix 4-1

## Section 1 - MSU Main Campus

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

### 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. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.2001(2))**
5. For newly installed engines, the permittee must submit an initial notification as required in 40 CFR 60.7(a)(1), if FG-NSPS-JJJJ has not been certified by an engine manufacturer to meet the emission standards in 40 CFR 60.4231. The notification must include the following information: **(40 CFR 60.4245(c))**
  - a. Name and address of the owner or operator;
  - b. The address of the effected source;
  - c. FG-NSPS-JJJJ information including make, model, engine family, serial number, model year maximum engine power, and engine displacement;
  - d. FG-NSPS-JJJJ emission control equipment; and
  - e. Fuel used in FG-NSPS-JJJJ

See Appendix 8-1

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

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

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

### IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the federal Standards of Performance for Stationary Spark Ignition Internal Engines as specified in 40 CFR Part 60, Subpart A and Subpart JJJJ. **(40 CFR Part 60, Subparts, A & JJJJ 40 CFR 63.6590)**
2. FG-NSPS-JJJJ must meet the requirements of the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40 CFR, Part 63, Subpart ZZZZ) by meeting the requirements of 40 CFR 60 Subpart JJJJ. No further requirements apply for such engines under 40 CFR Part 63, Subpart ZZZZ. **(40 CFR 63.6590(c))**

#### Footnotes:

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

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

**Section 1 - MSU Main Campus**

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

**FG-EMERGEN>500ZZZZ  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Two new (commenced construction on or after December 19, 2002) Cummins diesel, compression ignition (CI) emergency reciprocating internal combustion engines (RICE); EU055GEN01 rated at 750HP and EU215GEN01 rated at 1490HP. Two existing (commenced construction prior to December 19, 2002) Cummins diesel, CI emergency RICE; EU069GEN01 rated at 750HP and EU160GEN02 rated at 1350HP

**Emission Units:** EU055GEN01, EU069GEN01, EU160GEN02, EU215GEN01

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

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

**II. MATERIAL LIMIT(S)**

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

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

1. The permittee may operate each engine in FG-EMERGEN>500ZZZZ as necessary for emergency use with no time limit. The permittee may also operate each engine 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. Emergency engines 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))**

**Section 1 - MSU Main Campus**

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

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

NA

**V. TESTING/SAMPLING**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall record the following information for each instance that an engine in FG-EMERGEN>500ZZZZ is operated. (R 336.1213(3)(b))
  - a. Beginning and ending dates.
  - b. Total number of operational hours.
  - c. Indicate whether operation was for emergency, readiness testing, maintenance checks, or other non-emergency use.
  - d. Reason for use (example: for an emergency - loss of electrical due to down power lines).

See Appendix 4-1

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. 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 8-1

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

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

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

**Section 1 - MSU Main Campus**

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

**IX. OTHER REQUIREMENT(S)**

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

**Footnotes:**

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

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

**FG-EMERGEN≤500ZZZZ  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Existing stationary spark ignition (SI) or compression ignition (CI) emergency reciprocating internal combustion engines (RICE), with a rating of less than or equal to 500 HP and constructed prior to June 12, 2006.

**Emission Units:** EU-003GEN01, EU-006GEN01, EU-016GEN01, EU-022GEN01, EU-028GEN01, EU-049GEN01, EU-077GEN01, EU-080GEN01, EU-081GEN01, EU-081GEN02, EU-083GEN01, EU-085GEN01, EU-086GEN01, EU-086GEN02, EU-087GEN01, EU-132GEN01, EU-133GEN01, EU-160GEN01, EU-163GEN01, EU-170GEN01, EU-170GEN02, EU-170GEN03, EU-175GEN01, EU-178GEN01, EU-181GEN01, EU-186GEN01, EU-186GEN02, EU-200GEN01, EU-203GEN01, EU-203GEN02, EU-210-PORGEN-1, EU-210-PORGEN-10, EU-210-PORGEN-2, EU-210-PORGEN-5, EU-210-PORGEN-6, EU-210-PORGEN-7, EU-210-PORGEN-8, EU-210-PORGEN-9, EU-210-PORGEN-3, EU-210GEN-CT85, EU-210-PORGEN-11, EU-211GEN01, EU-216GEN01, EU-218GEN01, EU-219GEN01, EU- 222GEN01, EU-472DGEN01, EU-479GEN01, EU-577GEN01, EU-601GEN01

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

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

**II. MATERIAL LIMIT(S)**

1. For compression ignition RICE in FG-EMERGEN≤500ZZZZ with a site rating of more than 100 HP and a displacement of less than 30 liters per cylinder that uses diesel fuel, the permittee shall burn only diesel fuel with the maximum sulfur content of 15 ppm (0.0015 percent) by weight; and a minimum cetane index of 40, or a maximum aromatic content of 35 volume percent. Any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted. **(40 CFR 63.6604(b) and 40 CFR 80.510(b))**

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

1. The permittee shall comply with the following requirements for each RICE in FG-EMERGEN≤500ZZZZ: **(40 CFR 63.6602, 40 CFR 63 Subpart ZZZZ Table 2C Items 1 & 6)**
  - a. Change oil and filter every 500 hours of operation or annually, whichever comes first;
  - b. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary;
  - c. For compression ignition, inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;
  - d. For spark ignition, inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.
2. If a RICE in FG-EMERGEN≤500ZZZZ is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements in S.C. III.1, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law,

## Section 1 - MSU Main Campus

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. The permittee shall report any failure to perform the management practice required and the federal, state or local law under which the risk was deemed unacceptable. **(40 CFR 63 Subpart ZZZZ Table 2C)**

3. The permittee shall demonstrate continuous compliance with the operating limitations for each RICE in FG-EMERGEN≤500ZZZZ by the following:
  - a. Any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year for each RICE, is prohibited; **(40 CFR 63.6640(f))**
  - b. There is no time limit on the use of emergency stationary RICE in emergency situations; **(40 CFR 63.6640(f)(1))**
  - c. The permittee may operate each RICE up to 100 hours per calendar year for the purpose of:
    - i. Maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year; **(40 CFR 63.6640(f)(2)(i))**
  - d. Each RICE may operate up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **(40 CFR 63.6640(f)(3))**
4. Each RICE in FG-EMERGEN≤500ZZZZ shall be maintained and operated per the manufacturer's emission related written instructions or develop a maintenance plan which must provide for the maintenance and operation of the engine in a manner consistent with good air pollution control practices for minimizing emissions. **(40 CFR 63.6625(e), 40 CFR 63.6640(a), 40 CFR Part 63, Subpart ZZZZ, Table 6 Item 9)**
5. The permittee shall minimize the startup time of each RICE in FG-EMERGEN≤500ZZZZ to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. The permittee shall also minimize the time spent at idle during startup. **(40 CFR 63.6625(h))**
6. Each engine under FG-EMERGEN≤500ZZZZ must be in compliance at all times with the operating and other requirements that apply. **(40 CFR 63.6605(a))**
7. At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.6605(b))**

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

1. The permittee shall equip and maintain each RICE in FG-EMERGEN≤500ZZZZ with a non-resettable hour meter to track the number of hours of operation. **(40 CFR 63.6625(f))**

## Section 1 - MSU Main Campus

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

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

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

1. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement as specified in SC III.1(a). The oil analysis must be performed at the same frequency specified for changing the oil in SC III.1(a). The analyzing program must analyze the Total Acid Number (spark ignition), Total Base Number (compression ignition), viscosity, and percent water content. The condemning limits for these parameters are as follows:
  - a. For spark ignition, Total Acid Number (spark ignition) increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new;
  - b. For compression ignition, Total Base Number (compression ignition) is less than 30 percent of the Total Base Number of the oil when new;
  - c. Viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or
  - d. Percent water content (by volume) is greater than 0.5.

If none of the condemning limits are exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee must change the oil within 2 business days of receiving results or before commencing operation, whichever is later. **(40 CFR 63.6625(i) & (j))**

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

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii), 40 CFR 63.6660)**

1. The permittee shall keep the following records in a satisfactory manner for each engine in FG-EMERGEN≤500ZZZZ:
  - a. Records to demonstrate continuous compliance with operating limitations in SC III.1. **(40 CFR 63.6655(d))**
  - b. Records of all required maintenance performed on the air pollution control and monitoring equipment (if any). **(40 CFR 63.6655(a)(4))**
  - c. Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or of the air pollution control and monitoring equipment if any. **(40 CFR 63.6655(a)(2))**
  - d. Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment if any to its normal or usual manner of operation. **(40 CFR 63.6655(a)(5))**
  - e. Records of the maintenance conducted in order to demonstrate that the stationary RICE and after-treatment control device (if any) were operated and maintained according to the manufacturer's emission-related operation and maintenance instructions, or operated and maintained according to the developed maintenance plan. **(40 CFR 63.6655(e), 40 CFR 63.6655(d))**
  - f. Records of hours of operation recorded through the non-resettable hour meter. The permittee shall document how many hours were spent during emergency operation; including what classified the operation as emergency and how many hours were spent during non-emergency operation. If the engines are used for demand response operation, or where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency, or to supply power as part of a financial arrangement with another entity, the permittee must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. **(40 CFR 63.6655(f))**
  - g. If using the oil analysis program identified in SC V. 1., the permittee must keep records of the parameters that are analyzed, the results of the analysis, and the oil changes for each engine. The analysis program must be part of the maintenance plan for each engine. **(40 CFR 63.6625(i) & (j))**

See Appendix 4-1

### **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. 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

**Section 1 - MSU Main Campus**

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

to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i), 40 CFR 63.6640(b))**

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

See Appendix 8-1

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

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

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

**IX. OTHER REQUIREMENT(S)**

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

**Footnotes:**

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

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

**Section 1 - MSU Main Campus**

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

**FG-WSF  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Waste Storage Facility (WSF) that receives, stores, and consolidates laboratory waste before sending it out for disposal. (PTI 175-11)

**Emission Units:** EU-CHEM, EU-CONSOL1, and EU-CONSOL2

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

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

**II. MATERIAL LIMIT(S)**

1. The permittee shall not consolidate benzyl chloride, ethylene dibromide, or hexachlorobutadiene in FG-WSF.<sup>1</sup> (R 336.1225)

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

1. The permittee shall not consolidate waste in more than one FG-WSF unit at a time.<sup>1</sup> (R 336.1225)
2. The permittee shall not consolidate waste in FG-WSF for more than 300 hours per 12-month rolling time period as determined at the end of each calendar month.<sup>2</sup> (R 336.1225, R 336.1702(a))
3. The permittee shall post, in a conspicuous place in FG-WSF, a notice stating that benzyl chloride, ethylene dibromide, or hexachlorobutadiene are not allowed to be consolidated in FG-WSF.<sup>1</sup> (R 336.1225)

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

NA

**V. TESTING/SAMPLING**

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

NA

See Appendix 5-1

## Section 1 - MSU Main Campus

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

### VI. MONITORING/RECORDKEEPING

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

1. Every 12 months the permittee shall conduct an ambient air monitoring study in a manner and with instrumentation approved by the AQD Air Monitoring Unit. Upon approval of the AQD District Supervisor, the permittee may change the frequency of the ambient air monitoring. All ambient air monitoring data shall be kept on file at the facility and made available to the Department upon request.<sup>1</sup> (R 336.1225)
2. The permittee shall keep, in a satisfactory manner, a log of the waste. The log will state the classification of the waste by chemical name, intake date, storage unit ID, disposal shipping date, and number of hours that waste is consolidated in FG-SWF. The log will be tracked via 12-month rolling time period, as determined at the end of each calendar month. The permittee shall keep all records on file at the facility and make them available to the Department upon request.<sup>2</sup> (R 336.1225, R 336.1702(a))
3. The permittee shall keep, in a satisfactory manner, a log of each constituent evaluation occurrence. The permittee shall keep all records on file at the facility and make them available to the Department upon request.<sup>1</sup> (R 336.1225)
4. The permittee shall keep, in a satisfactory manner, the waste tags for the containers that have been consolidated in FG-WSF. The permittee shall keep all records on file at the facility and make them available to the Department upon request.<sup>1</sup> (R 336.1225)

### 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 8-1

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

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-CHEM	6 <sup>1</sup>	18 <sup>1</sup>	R 336.1225
2. SV-CONSOL1	12 <sup>1</sup>	16 <sup>1</sup>	R 336.1225
3. SV-CONSOL2	12 <sup>1</sup>	16 <sup>1</sup>	R 336.1225

### IX. OTHER REQUIREMENT(S)

NA

#### Footnotes:

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

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

**FG-BOILERMACT  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

New and existing boilers/process heaters located multiple buildings on the Main Campus. These boilers burn gas 1 fuels, are subject to 40 CFR Part 63, Subpart DDDDD (“Boiler MACT”), and are of various sizes. See Appendix 11-1 for individual sizes, types and locations for subject boilers.

**Emission Units:** Various (See Appendix 11-1)

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

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

**II. MATERIAL LIMIT(S)**

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

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

1. The permittee shall only burn natural gas, as defined under 40 CFR 63.7575, in each emission unit under FG-BOILERMACT. **(40 CFR 63.7499(I))**

**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. All applicable boilers will meet the emission limitations, work practice standards, and operating limits as per 40 CFR 63 DDDDD. **(40 CFR 63.7500)**
2. The permittee shall conduct an initial tune-up on applicable boilers prior to the compliance date of January 31, 2016. If the unit is not operating on the required date for the tune-up, the tune-up must be conducted within 30 days of startup. **(40 CFR 63.7500 (a))**
3. The permittee shall conduct a one-time energy assessment by a qualified energy assessor on applicable boilers prior to the compliance date of January 31, 2016. The energy assessment must include the following with the extent of the evaluation for items appropriate for the on-site technical hours listed in 40 CFR 63.7575. **(40 CFR 63.7510(e), 40 CFR 63.7530(e))**

## Section 1 - MSU Main Campus

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

- a. A visual inspection of the boiler or process heater system.
- b. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints.
- c. An inventory of major energy use systems consuming energy from affected boilers and process heaters which are under the control of the boiler/process heater owner/operator.
- d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.
- e. A review of the facility's energy management practices and provide recommendations for improvements consistent with the definition of energy management practices, if identified
- f. A list of cost-effective energy conservation measures that are within the facility's control.
- g. A list of the energy savings potential of the energy conservation measures identified.
- h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame to recouping those investments.

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

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

1. The permittee shall keep records of each notification and report submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report. **(40 CFR 63.7555(a)(1))**
2. The permittee's records shall be in a form suitable and readily available for expeditious review. **(40 CFR 63.7560(a))**
3. The permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.7560(b))**
4. The permittee shall keep each record on site, or they must be accessible from on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The records can be kept off site for the remaining 3 years. **(40 CFR 63.7560(c))**
5. The permittee shall maintain satisfactory records to indicate that the facility is only burning natural gas, as defined in 40 CFR 7575, in all boilers. **(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))**
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. Initial tune-up requirements per SC V. 2 and the one time energy assessment as per SC V.3 notifications must be postmarked by January 31, 2016 for each applicable boiler.
5. Continuing compliance reporting shall be conducted as per 40 CFR Part 63, Subpart DDDDD for required initial, semi-annual, annual, biannual, or every 5 years as applicable to each individual boiler with reports postmarked no later than January 31 for the previous year. **(40 CFR 63.7550(c), 40 CFR Part 63, Subpart DDDDD, Table 9)**

**See Appendix 8-1**

**Section 1 - MSU Main Campus**

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

**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:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

**FG-TESTCELLS  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Two engine test cells capable of testing engines up to 750 HP for unleaded gasoline/ethanol engines and 1,000 HP for No.2 diesel engines located at 1149 Engineering Research Court. Emissions are controlled by catalytic converters. (PTI 229-05A)

**Emission Units:** EU-TESTCELL1, EU-TESTCELL2

**POLLUTION CONTROL EQUIPMENT**

Catalytic Converters

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Acetaldehyde	0.12 lb/hr <sup>1</sup>	When burning Ethanol*	EU-TESTCELL1 EU-TESTCELL2	SC V.1	R 336.1225

\* Test Protocol shall specify averaging times

**II. MATERIAL LIMIT(S)**

1. The permittee shall burn only unleaded gasoline, ethanol and No.2 diesel fuel in FG-TESTCELLS. Unleaded gasoline contains no more than 5/100ths of a gram of lead per gallon. The No. 2 diesel fuel shall contain no more than 0.05% sulfur.<sup>2</sup> **(R 336.1205(1)(a)&(3), 40 CFR 52.21(c)&(d))**
2. The permittee shall not burn more than 15,000 gallons of No.2 diesel fuel in FG-TESTCELLS per 12-month rolling time period as determined at the end of each calendar month.<sup>2</sup> **(R 336.1205(1)(a)&(3), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**
3. The permittee shall not burn more than a total of 15,000 gallons of combined unleaded gasoline and ethanol fuel in FG-TESTCELLS per 12-month rolling time period as determined at the end of each calendar month.<sup>2</sup> **(R 336.1205(1)(a)&(b), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**

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

1. The permittee shall operate each engine in FG-TESTCELLS for research and teaching purposes only and not for the development of engines or engine test services for commercial purposes.<sup>2</sup> **(40 CFR 63.9290(d)(3))**

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

1. The permittee shall equip and maintain each engine in FG-TESTCELLS with a catalytic converter when burning gasoline.<sup>2</sup> **(R 336.1205(1)(a)&(3), R 336.1225, R 336.1702(a), R 336.1910)**

## Section 1 - MSU Main Campus

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

### **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, if requested by the AQD, verify Acetaldehyde emission rates from EU-TESTCELL1 and EU-TESTCELL2, by testing at owner's expense, in accordance with Department requirements<sup>2</sup> **(R 336.1225, R 336.2001, R 336.2003, R 336.2004)**

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

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

1. The permittee shall complete all required records in a format acceptable to the AQD District Supervisor by the 15<sup>th</sup> day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.<sup>2</sup> **(R 336.1205(1)(a)&(3), R 336.1225, R 336.1702(a))**
2. The permittee shall keep, in a satisfactory manner, monthly and previous 12-month fuel use records for FG-TESTCELLS. All records shall be kept on file for a period of at least five years and made available to the Department upon request.<sup>2</sup> **(R 336.1205(1)(a)&(3), R 336.1225, R 336.1702(a))**
3. The permittee shall keep, in a satisfactory manner, records of the maximum lead content in the gasoline fuel to be used in FG-TESTCELLS upon each delivery. The permittee shall keep all records on file and make them available to the Department upon request.<sup>2</sup> **(R 336.1205(1)(a)&(3), 40 CFR 52.21(c)&(d))**
4. The permittee shall keep, in a satisfactory manner, records of the maximum sulfur content in the diesel fuel to be used in FG-TESTCELLS upon each delivery. The permittee shall keep all records on file and make them available to the Department upon request.<sup>2</sup> **(R 336.1205(1)(a)&(3), 40 CFR 52.21(c)&(d))**

### **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. 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. No less than 90 days prior to any testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.<sup>2</sup> **(R 336.2001, R 336.2003, R 336.2004)**

See Appendix 8-1

**Section 1 - MSU Main Campus**ROP No: MI-ROP-K3249-2016a  
Expiration Date: October 21, 2021  
PTI No: MI-PTI-K3249-2016a**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:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVCELL1	10 <sup>2</sup>	37.83 <sup>2</sup>	R 336.1225 40 CFR 52.21(c)&(d)
2. SVCELL2	10 <sup>2</sup>	37.83 <sup>2</sup>	R 336.1225 40 CFR 52.21(c)&(d)

**IX. OTHER REQUIREMENT(S)**

NA

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

## **E. NON-APPLICABLE REQUIREMENTS**

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

APPENDICES

Appendix 1-1. Abbreviations and Acronyms

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

AQD	Air Quality Division	MM	Million
acfm	Actual cubic feet per minute	MSDS	Material Safety Data Sheet
BACT	Best Available Control Technology	MW	Megawatts
BTU	British Thermal Unit	NA	Not Applicable
°C	Degrees Celsius	NAAQS	National Ambient Air Quality Standards
CAA	Federal Clean Air Act	NESHAP	National Emission Standard for Hazardous Air Pollutants
CAM	Compliance Assurance Monitoring	NMOC	Non-methane Organic Compounds
CEM	Continuous Emission Monitoring	NOx	Oxides of Nitrogen
CFR	Code of Federal Regulations	NSPS	New Source Performance Standards
CO	Carbon Monoxide	NSR	New Source Review
COM	Continuous Opacity Monitoring	PM	Particulate Matter
department	Michigan Department of Environmental Quality	PM-10	Particulate Matter less than 10 microns in diameter
dscf	Dry standard cubic foot	pph	Pound per hour
dscm	Dry standard cubic meter	ppm	Parts per million
EPA	United States Environmental Protection Agency	ppmv	Parts per million by volume
EU	Emission Unit	ppmw	Parts per million by weight
°F	Degrees Fahrenheit	PS	Performance Specification
FG	Flexible Group	PSD	Prevention of Significant Deterioration
GACS	Gallon of Applied Coating Solids	psia	Pounds per square inch absolute
GC	General Condition	psig	Pounds per square inch gauge
gr	Grains	PeTE	Permanent Total Enclosure
HAP	Hazardous Air Pollutant	PTI	Permit to Install
Hg	Mercury	RACT	Reasonable Available Control Technology
hr	Hour	ROP	Renewable Operating Permit
HP	Horsepower	SC	Special Condition
H <sub>2</sub> S	Hydrogen Sulfide	scf	Standard cubic feet
HVLP	High Volume Low Pressure *	sec	Seconds
ID	Identification (Number)	SCR	Selective Catalytic Reduction
IRSL	Initial Risk Screening Level	SO <sub>2</sub>	Sulfur Dioxide
ITSL	Initial Threshold Screening Level	SRN	State Registration Number
LAER	Lowest Achievable Emission Rate	TAC	Toxic Air Contaminant
lb	Pound	Temp	Temperature
m	Meter	THC	Total Hydrocarbons
MACT	Maximum Achievable Control Technology	tpy	Tons per year
MAERS	Michigan Air Emissions Reporting System	µg	Microgram
MAP	Malfuction Abatement Plan	VE	Visible Emissions
MDEQ	Michigan Department of Environmental Quality	VOC	Volatile Organic Compounds
mg	Milligram	yr	Year
mm	Millimeter		

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

## Section 1 - MSU Main Campus

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

### Appendix 2-1. Schedule of Compliance

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

### Appendix 3-1. Monitoring Requirements

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

### Appendix 4-1. Recordkeeping

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



**Section 1 - MSU Main Campus**

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

The permittee shall use the following approved formats and procedures for the recordkeeping requirements referenced in FG-NSPS-JJJ, FG-EMERGEN>500ZZZZ, and FG-EMERGEN≤500ZZZZ. Alternative formats must be approved by the AQD District Supervisor.

**FG-NSPS-JJJ, FG-EMERGEN>500ZZZZ, FG-EMERGEN≤500ZZZZ  
 EMERGENCY USE RECORDKEEPING**

Permittee (Source Name) _____ ROP Number _____ Unit ID _____ Location _____					
Beginning Date	Ending Date	Elapsed Hours and Purpose			Comment
		Emergency unlimited hours	≤ 100 hours annually combined		
			Maintenance & Testing	Non-Emergency ≤ 50 hours annually	
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 Year Total		42	2	0	

**Appendix 5-1. Testing Procedures**

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

**Section 1 - MSU Main Campus**

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

**Appendix 6-1. Permits to Install**

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-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)
95-12 *	NA	Digester Bio-Gas Flare at Dairy Barns	EU-ENCLSD-FLARE
28-12A *	NA	Modification to incinerator with 10% Medical/Infectious Waste and limited Controlled Substance Waste.	EU-FLNRINC
175-11 *	NA	Hoods for chemical collection and consolidation.	EU-CHEM EU-CONSOL1 EU-CONSOL2 FG-WSF
229-05A *	20140090	3 - Engine Test Stands capable of testing engines up to 750 HP for unleaded gasoline/ethanol engines and 1,000 HP for diesel engines. Emissions are controlled by catalytic converters.	EU-TESTCELL1 EU-TESTCELL2 EU-TESTSTAND FG-TESTCELLS

The following ROP amendments or modifications were issued after the effective date of ROP No. MI-ROP-K3249-2016.

Permit to Install Number	ROP Revision Application Number/Issuance Date	Description of Change	Corresponding Emission Unit(s) or Flexible Group(s)
95-12A	201600197 / March 7, 2017	Incorporate PTI 95-12A, which is to increase the SO2 emission limit and H2S concentrations in Section 1 - EU-ENCLSD_FLARE because H2S concentrations have been trending upward.	EU-ENCLSD_FLARE

**Section 1 - MSU Main Campus**

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

**Appendix 7-1. Emission Calculations**

**EU-ENCLSD-FLARE SO2 Emissions Calculations**

A. Flare Heat Input Capacity (Btu / hr):  _____ Btu/hr	B. Heat Content of Biogas (Btu / ft <sup>3</sup> ):  _____ Btu/ft <sup>3</sup>	C. Fuel H2S Concentration (ppm)  _____ ppm
D. Biogas emission rate (ft <sup>3</sup> / hr):  (A / B) = _____ ft <sup>3</sup> / hr		
E. H2S emission rate (lbs / hr):  (D) x (C / 1,000,000 ft <sup>3</sup> biogas) x (0.088 lb H2S / ft <sup>3</sup> H2S)* = _____ lbs H2S / hr		
F. SO2 emission rate (lbs / hr):  (E) x (1.88 lbs SO2 / lb H2S)** = _____ <b>lbs SO2 / hr</b>		

\* (1 lb-mole H2S / 387 ft<sup>3</sup> H2S ) x (34 lb H2S / 1 lb-mole H2S) = 0.088 lbs H2S / ft<sup>3</sup> H2S

\*\* (1 lb-mole H2S / 34 lb H2S) x (1 lb-mole SO2 / 1 lb-mole H2S) x (64 lbs SO2 / 1 lb-mole SO2) = 1.88 lbs SO2 / lb H2S

**EXAMPLE**

A. Flare Heat Input Capacity (Btu / hr):  _____ <u>5,400,000</u> Btu/hr	B. Heat Content of Biogas (Btu / ft <sup>3</sup> ):  _____ <u>600</u> Btu/ft <sup>3</sup>	C. Fuel H2S Concentration (ppm)  _____ <u>600</u> ppm
D. Biogas emission rate (ft <sup>3</sup> / hr):  (5,400,000 / 600) = _____ <u>9000</u> ft <sup>3</sup> / hr		
E. H2S emission rate (lbs / hr):  (9000) x (600 / 1,000,000 ft <sup>3</sup> biogas) x (0.088 lb H2S / ft <sup>3</sup> H2S) = _____ <u>0.4752</u> lbs H2S / hr		
F. SO2 emission rate (lbs / hr):  (0.1584) x (1.88 lbs SO2 / lb H2S) = _____ <u>0.893</u> <b>lbs SO2 / hr</b>		

## **Section 1 - MSU Main Campus**

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

### **Appendix 8-1. 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, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

#### **B. Other Reporting**

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

## Section 1 - MSU Main Campus

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

### Appendix 9-1. Incinerator Operation and Maintenance Guidelines

#### EU-FLNRINC, EU-DCPAHINC, and EUCREMATORY

1. Designate a trained operator for your unit and make that person responsible for compliance with the air pollution control requirements.
2. Grates should be cleaned before each day's operation (more often if necessary), and the ashes disposed of properly.
3. Preheat the unit with the burners (not with waste) for at least 15 minutes.
4. Do not overload the incinerator. Stay within the given loading rates, and follow the manufacturer's instructions.
5. Schedule charges to minimize opening the charging door as infrequently as possible. Opening the charging door lets cold air in and quenches the fire causing smoke.
6. Burn only the type of wastes that your incinerator has been approved to burn. Follow the manufacturer's instructions to maximize the efficiency of the unit, and to properly burn the waste(s).
7. Keep the combustion air adjusted according to the manufacturer's instructions.
8. Observe the stack frequently and adjust your operation as necessary to eliminate smoke and fly ash.
9. A copy of the manufacturer's manual and this Guideline should be posted near your incinerator.
10. Make quarterly inspections to check and service all of the equipment. If you do not have a qualified person available for proper inspections, a service contract with a reputable manufacturer is advisable.

## Section 1 - MSU Main Campus

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

### Appendix 10-1. Waste Management Plan

#### EU-DCPAHINC and EU-FLNRINC

All hazardous waste and low-level radioactive waste will be disposed of in a safe, efficient and ecologically sound manner per rules and regulations administered by the U.S. Environmental Protection Agency (EPA), the Michigan Department of Environmental Quality (DEQ) and the Nuclear Regulatory Commission (NRC).

The procedures identified in the following plan are biomedical waste specific and intended to prohibit unwanted materials from entering the incinerator. The plan denotes the types of waste streams expected to be generated at the facility, sorting procedure for the waste types, recommended routes of disposal and a recordkeeping system.

#### Types of Bio-Medical Waste to be Handled at MDA – Animal Health Diagnostic Laboratory (AHDL)

- Cultures and stocks of infectious agents and associated biologicals, including laboratory waste, biological production wastes, discarded live and attenuated vaccines, culture dishes, and related devices.
- Liquid animal waste, including blood and blood products and body fluids, but not including urine or materials stained with blood or body fluids.
- Pathological waste from client animals including animal carcasses organs, tissues, body parts, products of conception, and fluids removed during necropsy or other procedures. This type of waste is not considered regulated medical waste under the Michigan Medical Waste Regulatory Act (as per interpretation by DEQ). Additional and directly associate waste consisting of lined fiber drums, plastic bags, personal protective equipment (PPE) and animal bedding.
- Sharps, which means needles, syringes, scalpels, any item that is sharp enough to penetrate the skin and is contaminated with potentially infectious material.

#### Proposed Segregation, Packaging, Labeling, Collection and Disposal of Bio-Waste at AHDL

At AHDL, the following procedures are used for segregation, packaging, labeling and disposal of biomedical waste materials.

##### A. General Methods

1. Biomedical waste is generally to be packaged, or contained and located in a manner that prevents and protects the waste from release at the producing facility at anytime before ultimate disposal.
2. Primary containers (other than approved biohazard bags) used for bio-waste collection, storage and disposal are to be labeled with a biohazard symbol, or the words "Biohazardous Waste," or "Pathological Waste" in letters not less than one inch high. The preferable background color of all primary containers is red or orange fluorescent (e.g., biohazard bags).

##### B. Waste Type-Specific Management Methods

1. All liquid cultures and stocks of materials contaminated with an infectious agent and associated biologicals, including laboratory waste, biological production wastes, discarded live and attenuated vaccines, shall be stored in closable, puncture-resistant containers and **decontaminated by autoclaving**. After autoclaving, liquid decontaminated waste can be disposed of in a sanitary sewer if no other hazardous materials are present (e.g., chemicals and/or radioactive materials).
2. All solid cultures and stocks of materials contaminated with an infectious agent, culture dishes and related devices other than sharps, can be stored in leak-proof, biohazard bags prior and **decontaminated by autoclaving**. If rupture of bags or leakage is possible, the use of a secondary leak-proof container or bag is advised.

## Section 1 - MSU Main Campus

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

3. Biomedical wastes, with the exception of liquids and sharps that have been decontaminated by autoclaving may be disposed of in the local (dumpster) if they are securely packaged in leak-proof containers and the biohazard warning labels have been removed or the container is clearly labeled as decontaminated biohazardous waste. Decontaminated waste in biohazard bags with an "Autoclaved" bag indicator must be placed inside a non-see-through (opaque) plastic bag or other secondary non-transparent container (box) prior to disposal in the local. It is imperative that the waste is sufficiently autoclaved (darkening of the indicator) prior to disposal. Only biohazard bags with the "AUTOCLAVED" indicator are currently approved.
4. All blood and blood products and body fluids shall be disposed of by one of the following methods:
  - Flushing down a sanitary sewer;
  - Decontaminated by autoclaving and disposed of in the landfill.
5. Client animal carcasses, body parts and related materials generated during necropsy are considered pathological waste (not regulated medical waste). Animal carcasses not known to contain infectious agents can be rendered or incinerated. Animal carcasses known to contain infectious agents will be incinerated. Animal carcasses, body parts and related materials that are not incinerated immediately will be stored and contained in a way that protects personnel and the environment from exposure to potentially infectious agents. Procedures will include storage in closed containers (e.g., plastic bags, lined fiber drums). Containers holding pathological waste will be incinerated, as will spend animal bedding and used PPE.
6. Sharps will be disposed of in the landfill. Needles, syringes, scalpels etc., need to be discarded into an approved sharps container. An approved sharps container is one that is leakproof, puncture-resistant, closable, bears the biohazard symbol and is manufactured as a sharps container. A sharps container must be permanently closed and disposed of when:
  - It is  $\frac{3}{4}$  full, or
  - Within 90 days of the date that the first sharp was placed in it,whichever comes first.

### C. Methods of On-Site or Off-Site Storage

Biomedical waste cannot be stored on the premises for more than 90 days. All containers and equipment (e.g., refrigerators) used for storage shall be labeled with the biohazard sticker or the words bio-hazardous waste, or pathological waste in letters not less than one inch high. The preferable background color of all primary bio-waste containers is red or orange fluorescent (e.g., biohazard bags).

### D. Methods of On-site Decontamination

#### Decontamination by Autoclave

Biomedical waste, other than sharps and pathological waste, may be either decontaminated on-site by autoclaving or picked-up by a commercial waste hauler. To use the on-site treatment method, personnel must use an autoclave that has been tested and approved for bio-waste decontamination. Approved autoclaves are labeled with a large colored sign located on or near the autoclave. The colored sign will also list operating parameters for effective waste decontamination for that specific autoclave. All personnel using the autoclave for waste decontamination purposes must follow these parameters.

All autoclaves used for waste decontamination are tested to verify that operating parameters used for waste treatment are sufficient and effective for biomedical waste decontamination.

## Section 1 - MSU Main Campus

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

### On-site Incineration

On-site incineration is limited to client animal carcasses, body parts and related materials generated during necropsy at AHDL, which will include up to 5 percent wt. medical waste and animal bedding materials. Personnel operating the incinerator will inspect the waste prior to incineration and refuse any material not considered pathological waste. Type and amount of pathological waste incinerated will be noted in the "Incinerator Load Sheet" on a daily basis.

### Use of Sanitary Landfills, Cemeteries and Other Disposal Sites

All autoclaved and decontaminated bio-hazardous waste other than pathological waste will be disposed of in a Type II Sanitary Landfill.

### **Biomedical Waste Management Plan**

This proposed plan is subject to additions and modifications as required by the Michigan Medical Waste Regulatory Act (Public Health Code; Part 138). A written medical waste management plan will be on file at the AHDL facility within 90 days after registration with the DEQ Medical Waste Regulatory Program.

### **Appendix 11-1. Boiler Units Summary Table**

<b>Emission Unit ID</b>	<b>Emission Unit Description (Including Process Equipment &amp; Control Device(s))</b>	<b>Installation Date/ Modification Date</b>	<b>Flexible Group ID</b>
EU-ANGELLUNIV1	Bryan cast iron 0.52 MMBtu natural gas hot water heater located in the Angell University Services Building SN: 349167	1988	FG-BOILERMACT
EU-ANGELLUNIV2	Bryan cast iron 0.52 MMBtu natural gas hot water heater located in the Angell University Services Building SN: 349168	1988	FG-BOILERMACT
EU-ANGELLUNIV3	Bryan cast iron 0.52 MMBtu natural gas hot water heater located in the Angell University Services Building SN: 349169	1988	FG-BOILERMACT
EU-BEEFCATTLERES	Burnham cast iron 0.17 MMBtu natural gas hot water heater located in the Beef Cattle Research Building SN: 412595	2005	FG-BOILERMACT
EU-CENTRALSCHOOLS1	Weil McLain cast iron 0.33 MMBtu natural gas hot water heater located in the Central Services Building SN: 350683	1987	FG-BOILERMACT
EU-CENTRALSCHOOLS2	Weil McLain cast iron 0.39 MMBtu natural gas hot water heater located in the Central Services Building SN: 350684	1987	FG-BOILERMACT
EU-CENTRALSCHOOLS3	Weil McLain cast iron 0.39 MMBtu natural gas hot water heater located in the Central Services Building SN: 350685	1987	FG-BOILERMACT
EU-CROPSCIFIELDLAB1	Lochinvar watertube 1.40 MMBtu	1996	FG-BOILERMACT

**Section 1 - MSU Main Campus**

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
	natural gas hot water heater located in the Crop Science Field Lab SN: 379424		
EU-CROPSCIFIELDLAB2	Lochinvar watertube 1.40 MMBtu natural gas hot water heater located in the Crop Science Field Lab SN: 379425	1996	FG-BOILERMACT
EU-CROPSCIFIELDLAB3	Lochinvar watertube 1.40 MMBtu natural gas hot water heater located in the Crop Science Field Lab SN: 379426	1996	FG-BOILERMACT
EU-CROPSCIFIELDLAB4	Weil McLain cast iron 0.15 MMBtu natural gas hot water heater located in the Crop Science Field Lab SN: 391183	1999	FG-BOILERMACT
EU-DAIRYRESBARN1	NAT'L RADTR cast iron 0.15 MMBtu natural gas hot water heater located in the Dairy Research Barn Lab SN: 209610	1965	FG-BOILERMACT
EU-DAIRYRESBARN2	NAT'L RADTR cast iron 0.13 MMBtu natural gas hot water heater located in the Dairy Research Barn Lab SN: 209611	1965	FG-BOILERMACT
EU-DCPAH1	Johnston firetube 32.38 MMBtu natural gas high pressure steam boiler located at the DCPAH SN: 403061	2001	FG-BOILERMACT
EU-DCPAH2	Johnston firetube 32.38 MMBtu natural gas high pressure steam boiler located at the DCPAH SN: 403062	2001	FG-BOILERMACT
EU-ENDOCRINESWINERES	Lochinvar firetube 0.75 MMBtu natural gas hot water heater located in the Endocrine Swine Research Facility SN: 398619	1997	FG-BOILERMACT
EU-ENGINEERINGRESCONCRETE1	Lochinvar watertube 0.99 MMBtu natural gas hot water heater located in the Engineering Research Bldg. SN: 398619	2000	FG-BOILERMACT
EU-ENGINEERINGRESCONCRETE2	Lochinvar watertube 0.99 MMBtu natural gas hot water heater located in the Engineering Research Bldg. SN: 398620	2000	FG-BOILERMACT
EU-EXECUTIVEDEVL CNTR4	Teledyne Laars firetube 2.00 MMBtu natural gas hot water heater located in the Executive Development Center SN: 395964	2000	FG-BOILERMACT
EU-EXECUTIVEDEVL CNTR5	Teledyne Laars firetube 2.00 MMBtu natural gas hot water heater located in the Executive Development Center SN: 395965	2000	FG-BOILERMACT
EU-FOODSTORES1	Smith cast iron 3.17 MMBtu natural gas hot water heater located at the Food Stores SN: 384194	1997	FG-BOILERMACT

**Section 1 - MSU Main Campus**

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-FOODSTORES2	Smith cast iron 2.20 MMBtu natural gas hot water heater located at the Food Stores SN: 413511	2006	FG-BOILERMACT
EU-FOODSTORES3	Lattner firetube 0.26 MMBtu natural gas steam power boiler located at the Food Stores SN: 413512	2006	FG-BOILERMACT
EU-FOODSTORES4	Unknown type 0.26 MMBtu natural gas hot water heater located at the Food Stores SN: xxxxxx		FG-BOILERMACT
EU-GROUNDSNURSURY	Weil McLain cast iron 0.63 MMBtu natural gas hot water heater located at the Grounds Maintenance Nursery SN: R395958	2001	FG-BOILERMACT
EU-HORTCLTRRSCH	NAT'L Crane cast iron 0.40 MMBtu natural gas hot water heater located at the Horticulture Teaching and Research Center SN: 209615	1966	FG-BOILERMACT
EU-HOUSINGSERVICEOFFICE1	Kewanee firetube 0.45 MMBtu natural gas hot water heater located at the RHS Information Service Bldg. SN: 345960	1986	FG-BOILERMACT
EU-HOUSINGSERVICEOFFICE2	Smith cast iron 0.50 MMBtu natural gas hot water heater located at the RHS Information Service Bldg. SN: 421246	2007	FG-BOILERMACT
EU-MANLYMILES1	Smith cast iron 2.16 MMBtu natural gas hot water heater located in the Manly Miles Bldg. SN: 388275	1998	FG-BOILERMACT
EU-MANLYMILES2	Smith cast iron 2.16 MMBtu natural gas hot water heater located in the Manly Miles Bldg. SN: 393458	2000	FG-BOILERMACT
EU-NISBET1	Smith cast iron 3.84 MMBtu natural gas hot water heater located in the Nisbet Bldg. SN: 393441	2000	FG-BOILERMACT
EU-NISBET2	Smith cast iron 3.84 MMBtu natural gas hot water heater located in the Nisbet Bldg. SN: 393459	2000	FG-BOILERMACT
EU-PAVILIONAGLIVESTOCK1	Raypak watertube 3.00 MMBtu natural gas hot water heater located at 3351 Forest Rd, SN: 379417	1996	FG-BOILERMACT
EU-PAVILIONAGLIVESTOCK2	Raypak watertube 3.00 MMBtu natural gas hot water heater located at 3351 Forest Rd, SN: 379418	1996	FG-BOILERMACT
EU-PAVILIONAGLIVESTOCK3	Raypak watertube 3.00 MMBtu natural gas hot water heater located at 3351 Forest Rd, SN: 379419	1996	FG-BOILERMACT
EU-PAVILIONAGLIVESTOCK4	Raypak watertube 3.00 MMBtu natural gas hot water heater located at 3351 Forest Rd, SN: 379420	1996	FG-BOILERMACT
EU-PAVILIONAGLIVESTOCK5	Raypak watertube 3.00 MMBtu natural gas hot water heater located at 3351 Forest Rd, SN: 379421	1996	FG-BOILERMACT

**Section 1 - MSU Main Campus**

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-PAVILIONAGLIVESTOCK6	Raypak watertube 3.00 MMBtu natural gas hot water heater located at the 3351 Forest Rd, SN: 379422	1996	FG-BOILERMACT
EU-PAVILIONAGLIVESTOCK7	Lochinvar watertube 1.26 MMBtu natural gas hot water heater located at 3351 Forest Rd, SN: 379423	1996	FG-BOILERMACT
EU-POULTRYSERVICEBUILDING	Hydrotherm cast iron 0.24 MMBtu natural gas hot water heater located 3197 W. Jolly Rd, SN: 342910	1985	FG-BOILERMACT
EU-PURCHASINGBLDG	Weil McLain cast iron 0.50 MMBtu natural gas hot water heater located at 88 Service Rd, SN: 373522	1993	FG-BOILERMACT
EU-RIVERWATERRES	Burnham cast iron 0.50 MMBtu natural gas hot water heater located at 1150 Kalamazoo St, SN: 393463	2000	FG-BOILERMACT
EU-SPARTANCHILDDEV1	Weil McLain cast iron 0.15 MMBtu natural gas hot water heater located in the Spartan Child Development Center, SN: 398690	2002	FG-BOILERMACT
EU-SPARTANCHILDDEV2	Weil McLain cast iron 0.15 MMBtu natural gas hot water heater located in the Spartan Child Development Center, SN: 398691	2002	FG-BOILERMACT
EU-SPARTANCHILDDEV3	Weil McLain cast iron 0.15 MMBtu natural gas hot water heater located in the Spartan Child Development Center, SN: 398692	2002	FG-BOILERMACT
EU-SPARTANCHILDDEV4	Weil McLain cast iron 0.15 MMBtu natural gas hot water heater located in the Spartan Child Development Center, SN: 398693	2002	FG-BOILERMACT
EU-SURPLUSRECYCLING1	Viessman firetube 0.85 MMBtu natural gas hot water heater located at 223 Greenway St, SN: 423333	2009	FG-BOILERMACT
EU-SURPLUSRECYCLING2	Viessman firetube 0.85 MMBtu natural gas hot water heater located at 223 Greenway St, SN: 423333	2009	FG-BOILERMACT
EU-SWINETEACHINGRES	Weil McLain cast iron 0.15 MMBtu natural gas hot water heater located at 479 S. College Rd, SN: 385357	1997	FG-BOILERMACT
EU-TENNISFACILITY1	Lochinvar firetube 0.28 MMBtu natural gas hot water heater located at the Tennis Facility, SN: 377312	1985	FG-BOILERMACT
EU-TENNISFACILITY2	Lochinvar firetube 0.28 MMBtu natural gas hot water heater located at the Tennis Facility, SN: 377313	1985	FG-BOILERMACT
EU-TREERESSHOPOFFICE	Weil McLain cast iron 0.14 MMBtu natural gas hot water heater located at 472 Jolly Rd, SN: 324068	1976	FG-BOILERMACT
EU-UNIVCONTRESCTR1	Johnston firetube 5.23 MMBtu natural gas low pressure steam boiler located at 4321 N Hagadorn Rd, SN: 372265	1993	FG-BOILERMACT

**Section 1 - MSU Main Campus**

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-UNIVCONTRESCTR2	Johnston firetube 2.57 MMBtu natural gas high pressure steam boiler located at 4321 N Hagadorn Rd, SN: 372266	1993	FG-BOILERMACT
EU-UNIVCONTRESCTR3	Johnston firetube 5.23 MMBtu natural gas low pressure steam boiler located at 4321 N Hagadorn Rd, SN: 372267	1993	FG-BOILERMACT
EU-VANHOOSENHALL	Viessman Werke firetube 1.73 MMBtu natural gas hot water heater located at 133 Service Rd, SN: 429170	2011	FG-BOILERMACT
EU-VETRESGERMFREE	Columbia cast iron 0.45 MMBtu natural gas hot water heater located at 4339 Hagadorn Rd, SN: 384196	1997	FG-BOILERMACT
EU-VETMEDMCPHAILEQUINE1	Smith cast iron 1.22 MMBtu natural gas hot water heater located at 1535 Bogue St, SN: 393442	2000	FG-BOILERMACT
EU-VETMEDMCPHAILEQUINE2	Smith cast iron 1.23 MMBtu natural gas hot water heater located at 1535 Bogue St, SN: 393443	2000	FG-BOILERMACT
EU-VETMEDPEGASUS1	Smith 19A-s/w09 cast iron 1.55 MMBtu natural gas hot water heater located at 4321 N. Hagadorn Rd, SN: 408644	2005	FG-BOILERMACT
EU-VETMEDPEGASUS2	Smith 19A-s/w09 cast iron 1.55 MMBtu natural gas hot water heater located at 4321 N. Hagadorn Rd, SN: 408645	2005	FG-BOILERMACT
EU-VETRESBARNA	Columbia cast iron 0.70 MMBtu natural gas hot water heater located at 4445 Hagadorn Rd, SN: 384195	1997	FG-BOILERMACT
EU-VETRESBARNJ1	Burnham firetube 0.20 MMBtu natural gas low pressure steam boiler located at 4339 Hagadorn Rd, SN: 424836	2011	FG-BOILERMACT
EU-VETRESBARNJ2	Weil-McLain cast iron 0.15 MMBtu natural gas hot water heater located at 4339 Hagadorn Rd, SN: 419658	2008	FG-BOILERMACT

**Section 2 - T.B. Simon Power Plant**

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

**Section 2 - T.B. Simon Power Plant**

## A. GENERAL CONDITIONS

### Permit Enforceability

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

### General Provisions

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

## Section 2 - T.B. Simon Power Plant

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

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).<sup>2</sup> **(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:"<sup>2</sup> **(R 336.1301(1))**
  - a. A 6-minute average of 20% opacity, except for one 6-minute average per hour of not more than 27% opacity.
  - b. A limit specified by an applicable federal new source performance standard.

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

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

### Testing/Sampling

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1).<sup>2</sup> **(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))**

## Section 2 - T.B. Simon Power Plant

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

### 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.

## Section 2 - T.B. Simon Power Plant

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

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.<sup>2</sup> **(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))**
  - b. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**

## Section 2 - T.B. Simon Power Plant

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))**
  - c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. **(R 336.1217(2)(a)(iii))**
  - d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

## Section 2 - T.B. Simon Power Plant

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

### Renewals

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

### Stratospheric Ozone Protection

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

### Risk Management Plan

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

### Emission Trading

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

## Section 2 - T.B. Simon Power Plant

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

### Permit To Install (PTI)

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.<sup>2</sup> **(R 336.1201(1))**
44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA.<sup>2</sup> **(R 336.1201(8), Section 5510 of Act 451)**
45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, MDEQ.<sup>2</sup> **(R 336.1219)**
46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months 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.<sup>2</sup> **(R 336.1201(4))**

#### **Footnotes:**

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

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

## **Section 2 - T.B. Simon Power Plant**

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

### **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.

**Section 2 - T.B. Simon Power Plant**

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

**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.

<b>Emission Unit ID</b>	<b>Emission Unit Description (Including Process Equipment &amp; Control Device(s))</b>	<b>Installation Date/ Modification Date</b>	<b>Flexible Group ID</b>
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 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 cease 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

## Section 2 - T.B. Simon Power Plant

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

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-EMENGINE	Emergency black start 1528 hp, 1020 kW compression ignition reciprocating engine for EU-UNIT6.	06/04/2004	NA
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-ASHEXH4	Unit 4 ash handling mechanical exhauster used to pneumatically transfer ash from hoppers to the ash silo. The vacuum system pump pulls the ash from the hoppers and into the ash 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-ASHSILO4	Unit 4 ash silo vent. This air displacement vent is equipped with a bag filter. This vent discharges air from the ash silo during periods when ash 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

**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	NA	NA	NA

**II. MATERIAL LIMIT(S)**

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

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

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

See Appendix 9-2

**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))**

- 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))**

## Section 2 - T.B. Simon Power Plant

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

### VI. MONITORING/RECORDKEEPING

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

1. 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)(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

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

#### Footnotes:

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

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

<b>EU-UNIT3 EMISSION UNIT CONDITIONS</b>
--

**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	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	0.20 lbs/MMBTU <sup>2</sup>	3-hr rolling average	EU-UNIT3	SC VI.1	<b>40 CFR 60.44(a)(1)</b>

**II. MATERIAL LIMIT(S)**

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

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

NA

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

1. The permittee shall calibrate, maintain, and operate, in a satisfactory manner, devices to monitor and record the NOx and CO<sub>2</sub> or O<sub>2</sub> emissions and flow from EU-UNIT3, on a continuous basis and according to the procedures outlined in Appendix 3-2.<sup>2</sup> **(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))**

1. The permittee shall continuously monitor and record, in a satisfactory manner, the NOx and CO<sub>2</sub> or O<sub>2</sub> 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)**

## Section 2 - T.B. Simon Power Plant

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

2. 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))**
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. 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<sup>2</sup>: **(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

## Section 2 - T.B. Simon Power Plant

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

### **IX. OTHER REQUIREMENT(S)**

1. 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)**
3. The permittee shall comply with all applicable requirements of 40 CFR Part 60, Subpart D. **(40 CFR 60.40).**
4. The permittee shall comply with all applicable requirements of 40 CFR Part 75. **(40 CFR Part 75).**
5. 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))**

#### **Footnotes:**

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

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

## Section 2 - T.B. Simon Power Plant

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

### EU-UNIT4 EMISSION UNIT CONDITIONS

#### DESCRIPTION

Circulating fluidized bed 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 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
- Limestone injection for sulfur dioxide control (solid fuel only)

#### I. EMISSION LIMIT(S)

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

**Section 2 - T.B. Simon Power Plant**

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

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

\* 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 SO<sub>2</sub>, 60.43b for particulate and 60.44b for NO<sub>x</sub>), which has been subsumed under this streamlined requirement.

\*\* Test protocol shall determine averaging time period

15. The 24-hour rolling average NO<sub>x</sub> emission rate when firing a mixture of natural gas and coal shall not exceed the applicable standard determined by proration using the following formula:<sup>2</sup> **(R 336.2810, 40 CFR 52.21(j), 40 CFR 60.44b(b))**

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

Where:

PS<sub>NOx</sub> = the prorated standard of NO<sub>x</sub> 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

16. The SO<sub>2</sub> emission rate from EU-UNIT4 shall not be in excess of 10 percent of the potential SO<sub>2</sub> emission rate based upon a 30 day rolling time period. The “potential SO<sub>2</sub> 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.<sup>2</sup> **(40 CFR 60.42b(a))**

**II. MATERIAL LIMIT(S)**

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

- The permittee shall only combust natural gas and/or coal in EU-UNIT4 prior to January 31, 2017. **(R 336.1225)**
- 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)**

- 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

## Section 2 - T.B. Simon Power Plant

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

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)**

2. 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:<sup>2</sup> **(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.<sup>2</sup>
  - b. The span value of the COM shall be between 60 and 80%.<sup>2</sup>
  - c. The permittee shall keep necessary parts for routine repair of the monitoring equipment. **(R 336.2152(1))**
3. The permittee shall calibrate, maintain, and operate continuous emission monitoring systems (CEMS) (or Predictive Emissions Monitoring Systems (PEMS)) to monitor and record the NO<sub>x</sub>, CO, CO<sub>2</sub> or O<sub>2</sub> emissions and flow for EU-UNIT4 when firing coal or natural gas and will additionally monitor SO<sub>2</sub> 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)**
  - a. 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.<sup>2</sup>

#### **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.<sup>2</sup> **(R 336.1910)**
2. 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.<sup>2</sup> **(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))**

1. 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.<sup>2</sup> **(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 D2234. The percent sulfur content of the coal shall be analyzed in accordance with ASTM D3177.<sup>2</sup> **(R 336.1201(3))**
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.<sup>2</sup> **(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. H<sub>2</sub>O. **(40 CFR 64.6(c)(1)(i and ii))**

## Section 2 - T.B. Simon Power Plant

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

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.<sup>2</sup> **(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.<sup>2</sup> **(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))**
4. 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 opacity as an indicator of the proper operation of the baghouse collector. The indicator range of opacity defining proper function of the dust collector is a value of less than 10% opacity. **(40 CFR 64.6(c)(1)(i and ii))**
6. The permittee shall continuously monitor and record, in a satisfactory manner, the NO<sub>x</sub>, CO, CO<sub>2</sub> or O<sub>2</sub> emissions and flow from EU-UNIT4 when firing coal or natural gas and will additionally monitor SO<sub>2</sub> 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:<sup>2</sup> **(R 336.2810, R 336.1213(3), 40 CFR 52.21(j), 40 CFR Part 75)**
  - a. The 24-hour rolling average NO<sub>x</sub> emission rates in terms of pounds per million BTU heat input and pounds per hour.
  - b. The 24-hour rolling average (in pounds per million BTU and tons per day) and 30-day rolling average (in pounds per million BTU) SO<sub>2</sub> emission rates.
  - c. The 24-hour rolling average (in pounds per million BTU and pounds per hour) CO emission rates.
7. The permittee shall keep the following information on a monthly basis for EU-UNIT4:
  - a. SO<sub>2</sub> emission calculations determining the monthly emission rate in tons per calendar month.
  - b. SO<sub>2</sub> emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.
  - c. 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.<sup>2</sup> **(R 336.2810, 40 CFR 52.21(j))**
8. The permittee shall calibrate, maintain, and operate a continuous emission monitoring system (CEMS) or Predictive Emissions Monitoring Systems (PEMS) to monitor and record the NO<sub>x</sub>, CO, CO<sub>2</sub> or O<sub>2</sub> emissions and flow from EU-UNIT4 when firing coal or natural gas and will additionally monitor SO<sub>2</sub> when firing coal, on a continuous basis and according to the procedures outlined below and in Appendix 3-2.<sup>2</sup> **(R 336.1201(3))**
  - a. The CEMS (or PEMS) shall complete a minimum of 1 cycle of operation for each successive 15-minute period.<sup>2</sup> **(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.<sup>2</sup> **(40 CFR 60.13(d), 40 CFR 75)**

## Section 2 - T.B. Simon Power Plant

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

9. 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.<sup>2</sup> **(R 336.1201(3))**
10. 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.<sup>2</sup> **(R 336.1224, R 336.1702)**
11. 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.<sup>2</sup> **(40 CFR 60.7)**
12. The permittee shall determine the percent of SO<sub>2</sub> reduction based on fuel sulfur content determined on a daily basis and SO<sub>2</sub> CEM (or PEM) data. A 30-day rolling average SO<sub>2</sub>% 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.<sup>2</sup> **(40 CFR 60.42b(a))**
13. 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))**
14. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 64.7(c))**
15. 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))**
16. 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

## Section 2 - T.B. Simon Power Plant

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

### **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. 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, NO<sub>x</sub>, CO, and SO<sub>2</sub> (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.<sup>2</sup> **(R 336.2170, 40 CFR 60.7)**
7. 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.<sup>2</sup> **(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))**
10. 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.<sup>2</sup> **(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.<sup>2</sup> **(40 CFR 60 Appendix B and Appendix F)**

**See Appendix 8-2**

## Section 2 - T.B. Simon Power Plant

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

### 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 <sup>1</sup>	275 <sup>1</sup>	R 336.1225

### IX. OTHER REQUIREMENT(S)

1. 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 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. The permittee shall comply with all applicable requirements of 40 CFR, Part 60 Subpart Db. **(40 CFR 60.40b)**.
5. 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 modification may include but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. **(40 CFR 64.7(e))**
7. The requirements under EU-UNIT4 pertaining to solid fuel will no longer apply starting January 31, 2017.

#### Footnotes:

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

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

**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	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**II. MATERIAL LIMIT(S)**

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

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

NA

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

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))

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.<sup>2</sup> (40 CFR 60.48c (g)(2))

## Section 2 - T.B. Simon Power Plant

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

### **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

### **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:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
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:**

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

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

<b>EU-UNIT6</b> <b>EMISSION UNIT CONDITIONS</b>
--

**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	<b>40 CFR 60.332(a)</b>

**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.<sup>2</sup> **(40 CFR 60.331)**

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

NA

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

1. The permittee shall equip and maintain EU-UNIT6 with a dry low-NOx combustor.<sup>2</sup> **(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.<sup>2</sup> **(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 EU-UNIT6 on a continuous basis<sup>2</sup> **(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))**

1. 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.<sup>2</sup> **(40 CFR 60.334(h)(3)(i))**

## Section 2 - T.B. Simon Power Plant

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

2. 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.<sup>2</sup> **(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.<sup>2</sup> **(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.<sup>2</sup> **(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:<sup>2</sup> **(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**

## Section 2 - T.B. Simon Power Plant

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

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

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

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

### IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants from Stationary Combustion Turbines as specified in 40 CFR Part 63, Subparts A and YYYY, as they apply to EU-UNIT6.<sup>2</sup> **(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.<sup>2</sup> **(40 CFR Part 60, Subpart GG)**

#### **Footnotes:**

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

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

**EU-EMGENGINE  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Kohler compression ignition 1528 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	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**II. MATERIAL LIMIT(S)**

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

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

- 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))**

NA

## Section 2 - T.B. Simon Power Plant

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

### 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, 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.<sup>2</sup> **( 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))**
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

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

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

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

### IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the 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:

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

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

**D. FLEXIBLE GROUP CONDITIONS**

Part D outlines 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.

<b>Flexible Group ID</b>	<b>Flexible Group Description</b>	<b>Associated Emission Unit IDs</b>
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-ASHEXH4 EU-LIMESILO4 EU-ASHSILO4 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<sub>x</sub> burners

**I. EMISSION LIMIT(S)**

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

**II. MATERIAL LIMIT(S)**

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.<sup>2</sup> (R 336.1911).

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

NA

**V. TESTING/SAMPLING**

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

NA

## Section 2 - T.B. Simon Power Plant

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

### 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.<sup>2</sup> **(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))**
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))**

### 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 <sup>2</sup>	275 <sup>2</sup>	R 336.1201(3), R 336.1225

### IX. OTHER REQUIREMENT(S)

1. 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:

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

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

**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 <sup>2</sup>	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 <sup>2</sup>	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)**

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

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

NA

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

- The permittee shall equip and maintain FG-UNITS5/6 with a dry low-NOx combustor.<sup>2</sup> (R 336.1225, R 336.1702(a), R 336.1910)
- 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.<sup>2</sup> (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 FG-UNITS5/6 on a continuous basis.<sup>2</sup> (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

## Section 2 - T.B. Simon Power Plant

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

### **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.<sup>2</sup> **(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.<sup>2</sup> **(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))**
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.<sup>2</sup> **(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:<sup>2</sup> **(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:

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

**Section 2 - T.B. Simon Power Plant**

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

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

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

**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 Scenario	Equipment	Monitoring/ Testing Method	Underlying 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)**

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

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

1. The cold cleaner must meet one of the following design requirements:
  - a. The air/vapor interface of the cold cleaner is no more than 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))**

## Section 2 - T.B. Simon Power Plant

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

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

## Section 2 - T.B. Simon Power Plant

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

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

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

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

### IX. OTHER REQUIREMENT(S)

NA

#### Footnotes:

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

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

<b>FG-4MATVENTS</b> <b>FLEXIBLE GROUP CONDITIONS</b>
---

**DESCRIPTION**

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

**Emission Units:** EU-CONVEYOR4, EU-ASHEXH4, EU-LIMESILO4, EU-ASHSILO4, EU-SANDSILO4

**POLLUTION CONTROL EQUIPMENT**

Bag filter on EU-CONVEYOR4  
Cyclone on EU-ASHEXH4  
Bag filter on EU-LIMESILO4  
Bag filter on EU-ASHSILO4  
Bag filter on EU-SANDSILO4

**I. EMISSION LIMIT(S)**

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

**II. MATERIAL LIMIT(S)**

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

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

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))

- 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))

## Section 2 - T.B. Simon Power Plant

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

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

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

1. The permittee shall perform, 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))**
2. 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))**
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:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVCONVEYOR4	NA	NA	NA
2. SVASHEXH4A	NA	NA	NA
3. SVASHEXH4B	NA	NA	NA
4. SVLIMESTONESILO	NA	NA	NA
5. SVASHSILO4	NA	NA	NA
6. SVSANDSILO	NA	NA	NA

### **IX. OTHER REQUIREMENT(S)**

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

#### **Footnotes:**

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

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

**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	Equipment	Monitoring/ Testing Method	Underlying Applicable 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))**

## Section 2 - T.B. Simon Power Plant

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

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))**
  - b. Records 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))**
3. 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))**
5. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.7560(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))**

## Section 2 - T.B. Simon Power Plant

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

### 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. 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))**

## Section 2 - T.B. Simon Power Plant

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

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))**
  - c. 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))**
  - d. 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))**
    - ii. 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](http://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))**

See Appendix 8-2

## Section 2 - T.B. Simon Power Plant

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

### 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 DDDDD. **(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<sub>x</sub> 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

## Section 2 - T.B. Simon Power Plant

ROP No: MI-ROP-K3249-2016a

Expiration Date: October 21, 2021

PTI No: MI-PTI-K3249-2016a

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:**

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

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

**Section 2 - T.B. Simon Power Plant**

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

**E. NON-APPLICABLE REQUIREMENTS**

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

## APPENDICES

### Appendix 1-2. Abbreviations and Acronyms

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

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

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

## Section 2 - T.B. Simon Power Plant

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

### 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

1. 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.
- b. 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.
- c. 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.
  - iv. 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**

#### NO<sub>x</sub>, CO, SO<sub>2</sub>, and CO<sub>2</sub> or O<sub>2</sub> 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

## Section 2 - T.B. Simon Power Plant

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

Pollutant	Applicable PS
SO <sub>2</sub> & NO <sub>x</sub>	2
O <sub>2</sub> & CO <sub>2</sub>	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:
  - i. 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 - NO<sub>x</sub> 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 NO<sub>x</sub> 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.

**Section 2 - T.B. Simon Power Plant**

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

**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**

Permittee (Source Name) _____ ROP Number _____ Unit ID _____ Location _____					
Beginning Date	Ending Date	Elapsed Hours and Purpose			Comment
		Emergency	≤ 100 hours annually combined		
			Maintenance & Testing	Non-Emergency ≤ 50 hours annually	
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 Year 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.

## Section 2 - T.B. Simon Power Plant

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

### 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 minimize 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.  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.	EU-UNIT3, EU-UNIT4, FG-UNIT1/2
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-UNIT4 is allowed to combust up to 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	EU-UNIT3, EU-UNIT4, FG-UNIT1/2, EU-2-DSLIMESILO1, EU-2-DSLIMESILO2, EU-2-DSLIMESILO4

**Section 2 - T.B. Simon Power Plant**

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

		addition of dry or liquid sorbent injection. The amendments were issued February 24, 2015.	
--	--	--	--

## Section 2 - T.B. Simon Power Plant

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

### 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 roadways/ 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.
2. Coal Storage Piles
  - a. Coal storage piles will be watered on an as needed basis in order to meet the opacity 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, leaking, blowing or otherwise 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 opacity limits are not being met.