

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION

EFFECTIVE DATE: September 20, 2022

REVISION DATE: December 5, 2024

ISSUED TO

Mead Johnson & Company, LLC

State Registration Number (SRN): A5858

LOCATED AT

725 East Main Street, Zeeland, Ottawa County, Michigan 49464

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-A5858-2022a

Expiration Date: September 20, 2027

Administratively Complete ROP Renewal Application
Due Between March 20, 2026 and March 20, 2027

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 Rule 210(1) of the administrative rules promulgated under Act 451, 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-A5858-2022a

This Permit to Install (PTI) is issued in accordance with and subject to Section 5505(1) of Act 451. Pursuant to Rule 214a of the administrative rules promulgated under Act 451, 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 Environment, Great Lakes, and Energy

Heidi Hollenbach

Heidi Hollenbach, Grand Rapids District Supervisor

TABLE OF CONTENTS

AUTHORITY AND ENFORCEABILITY	4
A. GENERAL CONDITIONS.....	5
Permit Enforceability	5
General Provisions.....	5
Equipment & Design	6
Emission Limits.....	6
Testing/Sampling	6
Monitoring/Recordkeeping	7
Certification & Reporting	7
Permit Shield	8
Revisions	9
Reopenings.....	9
Renewals.....	10
Stratospheric Ozone Protection	10
Risk Management Plan.....	10
Emission Trading	10
Permit to Install (PTI)	11
B. SOURCE-WIDE CONDITIONS	12
C. EMISSION UNIT SPECIAL CONDITIONS	13
EMISSION UNIT SUMMARY TABLE.....	13
EUBOWEN-DRYER.....	19
EUDIGEST-TANKS	21
EUZSP-VIT-WEIGH.....	27
EULIQUIFIER-TANK.....	29
EUZSP-LIQ-PROCESS	31
EUZSP-SPRAY-DRYER.....	33
D. FLEXIBLE GROUP SPECIAL CONDITIONS.....	36
FLEXIBLE GROUP SUMMARY TABLE.....	36
FGNS-DRYER-HTRS	39
FGBOILERS	41
FGZSP-BLEND-FILL	45
FGZIPP-PMSOURCES.....	47
FGNS-DRYERS.....	50
FGDRY-POWDER.....	53
FGCAMPM	56
FGGASHEATMACTSMALL	60
FGGAS1HEATMACTLARGE.....	63
FGCI-RICEMACT	69
FGSI-RICEMACTEXISTING	72
FGSI-RICEMACTNEW	76
FGRULE290	78
FGCOLDCLEANERS.....	81
E. NON-APPLICABLE REQUIREMENTS	84

APPENDICES	85
Appendix 1. Acronyms and Abbreviations.....	85
Appendix 2. Schedule of Compliance.....	86
Appendix 3. Monitoring Requirements	86
Appendix 4. Recordkeeping	86
Appendix 5. Testing Procedures	86
Appendix 6. Permits to Install.....	86
Appendix 7. Emission Calculations	87
Appendix 8. Reporting	87
Appendix 9. Malfunction Abatement Plans	87

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 Environment, Great Lakes, and Energy (EGLE) 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 is state-only enforceable will be noted as such.

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

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

A. GENERAL CONDITIONS

Permit Enforceability

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

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

Equipment & Design

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

Emission Limits

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

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

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

Testing/Sampling

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

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 state 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 60604-3507. **(R 336.1213(4)(c))**
20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**
21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
 - a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
 - b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
 - c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following: **(R 336.1213(3)(c))**
 - a. Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
 - b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a Responsible Official which states that; “based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete.” The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.
23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**
24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**
25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA.² **(R 336.1912)**

Permit Shield

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

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

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

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

Revisions

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

Reopenings

- 34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
 - a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. **(R 336.1217(2)(a)(i))**
 - b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
 - c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. **(R 336.1217(2)(a)(iii))**
 - d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

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(9))**

Stratospheric Ozone Protection

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

Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR 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))**

Permit to Install (PTI)

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

Footnotes:

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

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

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.

C. EMISSION UNIT SPECIAL CONDITIONS

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

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

EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUBOWEN-DRYER	Liquid product is atomized into a hot air stream evaporating all moisture. Dried product is recovered by a multi-clone cyclone. PM is controlled by a wet scrubber. PM emissions from this emission unit are subject to 40 CFR Part 64 for Compliance Assurance Monitoring (CAM). The CAM requirements are found in FGCAMPM.	01-01-1960/ 09-08-1994	FGCAMPM

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUDIGEST-TANKS	Zeeland Specialty Products digestion process consisting of digesters, a process tank, solids handling and liquefaction, and associated ancillary equipment. Fugitive VOC losses from the digesters and process tank exhaust through six process room exhaust stacks (SVV1, SVV3, SVV5, SVV7, SVV8, and SVV9). Process emissions from a draw-off process to remove organic material using a vacuum with a steam ejector are controlled by a knock-out pot and condenser (SV011). A wet scrubber (rotoclone) is used for particulate control from the dry materials handling system (SVV6). VOC and PM emissions from this emission unit are subject to 40 CFR Part 64 for CAM. The CAM requirements for VOCs are found in EUDIGEST-TANKS and the requirements for PM are found in FGCAMPM.	07-01-1977/ 05-11-2005/ 03-27-2008/ 03-20-2009/ 09-24-2010/ 08-28-2024	FGCAMPM
EUZSP-VIT-WEIGH	Vitamin weigh scale. Dry materials are transferred into containers and weighed. PM is controlled by a fabric filter collector.	09-01-1980/ 09-08-1994	NA
EULIQUIFIER-TANK	Dry ingredients added to and mixed with liquid ingredients in mix tanks. PM is controlled by a wet scrubber (rotoclone). PM emissions from this emission unit are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.	06-01-1992/ 09-08-1994	FGCAMPM
EUS-DRYER-HEATER	Natural gas fired heater with a maximum heat input capacity of 21.7 MMBTU per hour used to produce a hot air stream for the south spray dryer.	06-01-1992/ NA	FGNS-DRYER-HTRS FGGAS1HEATMACTLARGE
EUN-DRYER-HEATER	Natural gas fired heater with a maximum heat input capacity of 21.7 MMBTU per hour used to produce a hot air stream for the north spray dryer.	06-01-1992/ NA	FGNS-DRYER-HTRS FGGAS1HEATMACTLARGE

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUBOILerno1	Erie City Company boiler. Primary fuel is natural gas. Backup fuel is No. 2 fuel oil. Maximum heat input capacity is 35 MMBTU per hour when firing natural gas and 42 MMBTU per hour when firing fuel oil.	01-01-1960/ NA	FGBOILERS FGGAS1HEATMACTLARGE
EUBOILerno2	Erie City Company boiler. Primary fuel is natural gas. Backup fuel is No. 2 fuel oil. Maximum heat input capacity is 35 MMBTU per hour when firing natural gas and 42 MMBTU per hour when firing fuel oil.	01-01-1960/ NA	FGBOILERS FGGAS1HEATMACTLARGE
EUBOILerno3	Cleaver Brooks natural gas fired boiler equipped with an Oxygen trim system. Maximum heat input capacity is 97 MMBTU per hour when firing natural gas	08-15-2012	FGBOILERS FGGAS1HEATMACTLARGE
EUN-POWDER-BLEND	North powder blending system. Dry powdered ingredients are dumped into a blender. PM controlled by a fabric filter collector. PM emissions from this emission unit are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.	06-15-1978/ 09-08-1994	FGZSP-BLEND-FILL FGCAMPM
EUS-POWDER-BLEND	South powder blending system. Dry powdered ingredients are dumped into a blender. PM controlled by a fabric filter collector. PM emissions from this emission unit are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.	06-15-1978/ 09-08-1994	FGZSP-BLEND-FILL FGCAMPM
EUZSP-FILL-LINE	Powdered product filling system. Dry product is transferred into filling line hoppers. PM controlled by a fabric filter collector. PM emissions from this emission unit are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.	06-15-1978/ 09-08-1994	FGZSP-BLEND-FILL FGCAMPM

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUCAN-FILL-LINE	Can filling line. Powdered material transfer and product filling into cans and other small containers. PM controlled by a fabric filter collector. PM emissions from this emission unit are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.	06-01-1992/ 09-08-1994	FGZIPP-PMSOURCES FGCAMPM
EUN-BAG-LINE	North bag filling line. Equipment used to transfer, bag or drum dry product produced by EUN-DRYER. PM controlled by a fabric filter collector. PM emissions from this emission unit are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.	06-01-1992/ 01-10-1995	FGZIPP-PMSOURCES FGCAMPM
EUS-BAG-LINE	South bag filling line. Equipment used to transfer, bag or drum dry product produced by EUS-DRYER. PM controlled by fabric filter collector. PM emissions from this emission unit are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.	06-01-1992/ 01-10-1995	FGZIPP-PMSOURCES FGCAMPM
EUZIPP-VIT-WEIGH	Vitamin and mineral weighing. Dry ingredients are transferred among containers and weighed. PM controlled by a fabric filter collector.	06-01-1992/ 09-08-1994	FGZIPP-PMSOURCES
EU-ZIPP-MINORS-STATIONS	Three vitamin dump stations. PM controlled by fabric filter collector.	09-01-2018	FGZIPP-PMSOURCES
EUN-DRYER	North spray dryer. Liquid product is atomized into a hot air stream evaporating all moisture. Dried mixture is recovered by cyclone separators. PM controlled by two parallel fabric filter collectors. PM emissions from this emission unit are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.	06-01-1992/ 09-08-1994	FGNS-DRYERS FGCAMPM

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUS-DRYER	South spray dryer. Liquid product is atomized into a hot air stream evaporating all moisture. Dried mixture is recovered by cyclone separators. PM controlled by two parallel fabric filter collectors. PM emissions from this emission unit are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.	06-01-1992/ 09-08-1994	FGNS-DRYERS FGCAMPM
EUZSP-LIQ-PROCESS	ZSP Liquid Process Center. Equipment for liquefying and mixing dry powdered materials. PM is controlled by a wet scrubber (rotoclone). PM emissions from this emission unit are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.	12-03-2007/ NA	FGCAMPM
EUZSP-SPRAY-DRYER	A spray dryer which consists of a 9.5 MMBTU/hr natural gas fired process heater, a spray drying operation, and spray dryer cleaning operations. PM emissions from this emission unit are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.	06-01-2004/ 10-13-2010	FGGAS1HEATMACTSMALL FGCAMPM
EUDRY-POWDER1	Dry powder blending process and associated pneumatic powder product transfer system. The system is equipped with fabric filter cloths. PM emissions from this emission unit are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.	08-01-2016	FGDRY-POWDER FGCAMPM
EUDRY-POWDER2	Dry powder blending process and associated pneumatic powder product transfer system. The system is equipped with fabric filter cloths. PM emissions from this emission unit are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.	08-01-2016	FGDRY-POWDER FGCAMPM

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUEZ1-PACKAGING	The EZ1 Packaging line consists of a powder dump station, packaging fill lines, and a powder conveying system. A fabric filter collector is used to control PM emissions.	01-01-1999/ NA	FGRULE290
EUZSP-BULK-BAG	The ZSP Spray Dryer bulk bagging operation utilizes a fabric filter collector to control PM during bulk bag filling.	06-01-2004/ 04-05-2010	FGRULE290
EUDRY-SOLIDS-LIQ	The dry solids liquefier system consists of five solids charging hoppers and two liquefying vessels.	01-01-2006/ NA	FGRULE290
EUWWTU-FOGGER	WWTP odor-control fogging system.	09-28-2009/ NA	FGRULE290
EUZIPP-VACRECEIVER	A vacuum receiver to transport powder controlled by a fabric filter collector for PM emissions.	12-31-2011/ NA	FGRULE290
EUZIPPEMPTYCANCLEANER	ZIPP empty can clean equipment	09-01-2015	FGRULE290
EUZIPPFULLCANCLEANER	ZIPP full can clean equipment	09-01-2015	FGRULE290
EUZSPCANCLEANER	ZSP can clean equipment	09-01-2013	FGRULE290
EUFIRE-PUMP	Diesel fuel-fired compression ignition internal combustion engine water pump.	09-08-1994/ NA	FGCI-RICEMACT
EUNG-GENERATOR	Natural gas-fired spark ignition internal combustion engine emergency generator.	09-08-1994/ NA	FGSI-RICEMACTEXISTING
EUPROP-GENERATOR	Propane-fired spark ignition internal combustion engine emergency generator.	09-08-1994/ NA	FGSI-RICEMACTEXISTING
EUNG2-GENERATOR	Natural gas-fired emergency generator for the wastewater lift pump.	12-11-2015	FGSI-RICEMACTNEW
EUZSP-COLDCLEANER	Cold cleaner/parts washer located in ZSP maintenance shop.	01-01-1960/ NA	FGCOLDCLEANERS
EUZIPP-COLDCLEANER	Cold cleaner/parts washer located in the ZIPP maintenance shop.	07-01-1994/ NA	FGCOLDCLEANERS
EUWWTP-COLDCLEANER	Cold cleaner located in the wastewater treatment plant.	04-01-2015	FGCOLDCLEANERS

EUBOWEN-DRYER EMISSION UNIT CONDITIONS

DESCRIPTION

Liquid product is atomized into a hot air stream evaporating all moisture. Dried product is recovered by the dryer and a multi-clone cyclone. PM is controlled by a wet scrubber. PM emissions from this emission unit are subject to 40 CFR Part 64 for Compliance Assurance Monitoring (CAM). The CAM requirements are found in FGCAMPM.

Flexible Group ID: FGCAMPM

POLLUTION CONTROL EQUIPMENT

Wet scrubber.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.02 lb per 1,000 lbs exhaust gas* ²	Hourly	EUBOWEN-DRYER	SC VI.1, 2, & 3	R 336.1205(3), R 336.1331(1)(c)
2. Opacity	5% ²	6-minute average	EUBOWEN-DRYER	SC VI.1, 2, & 3	R 336.1205(3), R 336.1301(1)(c)

*calculated on a dry gas basis.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate the process unless the wet scrubber and water flow switch are installed and operating properly.² **(R 336.1910)**
- The permittee shall maintain a minimum water flow of 18 gpm on the wet scrubber. **(R 336.1213(3), R 336.1910))**
- The permittee shall implement the Malfunction Abatement Plan as per Appendix 9. **(R 336.1213(3), R 336.1910)**

See Appendix 9

IV. DESIGN/EQUIPMENT PARAMETER(S)

- The permittee shall not operate the process unless the scrubber is equipped with a water flow switch. **(R 336.1213(3))**

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 calibrate the water flow switch on a semiannual basis. (R 336.1213(3))

See Appendix 5

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall record the water flow in gpm a minimum of once a month. (R 336.1213(3))
2. The permittee shall record the results of the semiannual water flow switch calibration. (R 336.1213(3))
3. The permittee shall maintain records necessary to comply with the Malfunction Abatement Plan as required in Appendix 9. (R 336.1213(3), R 336.1910)

See Appendix 9

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV005	28 ²	47.3 ²	R 336.1201(3)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

EUDIGEST-TANKS EMISSION UNIT CONDITIONS

DESCRIPTION

Zeeland Specialty Products digestion process consisting of digesters, a process tank, solids handling and liquefaction, and associated ancillary equipment. Fugitive VOC losses from the digesters and process tank exhaust through six process room exhaust stacks (SVV1, SVV3, SVV5, SVV7, SVV8, and SVV9). Process emissions from a draw-off process to remove organic material using a vacuum with a steam ejector are controlled by a knock-out pot and condenser (SV011). A wet scrubber (rotoclone) is used for particulate control from the dry materials handling system (SVV6). VOC and PM emissions from this emission unit are subject to 40 CFR Part 64 for CAM. The CAM requirements for VOCs are found in EUDIGEST-TANKS and the requirements for PM are found in FGCAMPM.

Flexible Group ID: FGCAMPM

POLLUTION CONTROL EQUIPMENT

Condenser and knock-out pot for emissions from the digester tanks prior to the steam ejector stack (SV011). Wet scrubber (rotoclone) for particulate control from the dry materials handling system stack (SVV6).

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	103.6 lbs/day ²	24-hour period commencing each calendar day at 12:00 AM	Process room air exhaust from stacks SVV1, SVV3, SVV5, SVV7, SVV8, and SVV9	SC V.3, SC VI.3	R 336.1225, R 336.1702(a)
2. VOC	19.1 tpy ²	12-month rolling time period as determined at the end of the month	Process room air exhaust from stacks SVV1, SVV3, SVV5, SVV7, SVV8, and SVV9	SC VI.4	R 336.1702(a)
3. VOC	96.4 lbs/day ²	24-hour period commencing each calendar day at 12:00 AM	Steam ejector stack (SV011)	SC V.3, SC VI.3	R 336.1225, R 336.1702(a)
4. VOC	8.8 tpy ²	12-month rolling time period as determined at the end of the month	Steam ejector stack (SV011)	SC VI.4	R 336.1702(a)
5. PM	0.04 lb per 1,000 lbs exhaust gas, on a dry gas basis ²	Hourly	Dry materials handling system (SVV6)	SC V.3, SC VI.5, SC VI.6, SCVI.7	R 336.1205(3), R 336.1331(1)(c)
6. Opacity	10% ²	6-minute average	Dry materials handling system (SVV6)	SC VI.5, SC VI.6, SCVI.7	R 336.1205(3), R 336.1301(1)(c)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not draw off toluene from more than one digester tank within EUDIGEST-TANKS at any given time.² **(R 336.1225, R 336.1702(a))**
2. The permittee shall not perform a toluene draw-off within EUDIGEST-TANKS unless the condenser is installed and operating properly.² **(R 336.1225, R 336.1702(a), R 336.1910)**
3. The permittee shall not perform a toluene draw-off within EUDIGEST-TANKS unless the cooling water flow switch is installed and operating properly.² **(R 336.1910)**
4. All condensed toluene shall be captured and stored in closed containers.² **(R 336.1225, R 336.1702(a))**
5. The disposal of process filter cake shall be performed in a manner which minimizes the introduction of air contaminants to the outer air.² **(R 336.1225, R 336.1370, R 336.1702(a))**
6. The permittee shall implement the Malfunction Abatement Plan as per Appendix 9.² **(R 336.1702(a), R 336.1910, R 336.1911)**
7. The permittee shall not operate the dry materials handling system within EUDIGEST-TANKS unless the wet scrubber and water pressure switch are installed and operating properly.² **(R 336.1910)**
8. The permittee shall maintain a minimum water pressure of 23 psi on the wet scrubber during operation of the scrubber.² **(R 336.1910)**

See Appendix 9

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not perform a toluene draw-off within EUDIGEST-TANKS unless the condenser is equipped with a cooling water flow switch.² **(R 336.1702(a), R 336.1225)**
2. The permittee shall not operate the dry materials handling system within EUDIGEST-TANKS unless the wet scrubber is equipped with a water pressure switch.² **(40 CFR 52.21(c)&(d), 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. The permittee shall calibrate the condenser cooling water flow switch on a semiannual basis.² **(R 336.1702(a), R 336.1225)**
2. The permittee shall calibrate the wet scrubber water pressure switch on a semiannual basis.² **(40 CFR 52.21(c)&(d), R 336.1910)**
3. Within 180 days after commencement of trial operation, the permittee shall verify VOC and PM emission rates from EUDIGEST-TANKS by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below:

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
VOCs	40 CFR Part 60, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing,

the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.² **(R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c)&(d))** Upon request of the AQD District Supervisor, the permittee shall verify VOC and PM emission rates from EUDIGEST-TANKS by testing at the owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved USEPA Method listed in 40 CFR Part 60, Appendix A or in Part 10 of the Michigan Air Pollution Control Rules. An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

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 calculations in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1224, R 336.1225, R 336.1702(a))**
2. The permittee shall maintain tank specific daily records of the number of toluene draw-offs.² **(R 336.1702(a), R 336.1225)**
3. The permittee shall calculate the VOC emission rates from stacks SVV1, SVV3, SVV5, SVV7, SVV8, SVV9 and the steam ejector stack separately for each 24-hour time period that commenced each calendar day at 12:00 am, using a method acceptable to the AQD District Supervisor.² **(R 336.1702(a), R 336.1225)**
4. The permittee shall calculate and keep, in a satisfactory manner, records of monthly and 12-month rolling time period VOC emissions for EUDIGEST-TANKS using emission factors acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1702(a))**
5. The permittee shall maintain records necessary to comply with the Malfunction Abatement Plan as per Appendix 9.² **(R 336.1702(a), R 336.1910, R 336.1911)**
6. The permittee shall record the wet scrubber water pressure in psi a minimum of once a month.² **(40 CFR 52.21(c)&(d), R 336.1910)**
7. The permittee shall record the results of the semiannual wet scrubber water pressure switch calibration.² **(40 CFR 52.21(c)&(d), R 336.1910)**
8. The permittee shall keep a current listing of process equipment, indicating the size, use and date of installation or modification, of each.² **(40 CFR 52.21(c) & (d))**
9. The permittee shall continuously monitor the liquid level in the knock-out pot with a high-level detector. **(40 CFR 64.6 (c)(1)(ii))**
10. The permittee shall continuously monitor the presence of cooling water flow to the condenser with a condenser water flow switch. **(40 CFR 64.6(c)(1)(ii))**
11. The permittee shall inspect and calibrate the knock-out pot level detector on a semiannual basis. **(40 CFR 64.6(c)(1)(ii))**

12. The permittee shall inspect and calibrate the condenser water flow switch on a semiannual basis. **(40 CFR 64.6(c)(1)(ii))**
13. The permittee shall record the time and date of a knock-out pot high level alarm. **(40 CFR 64.6(c)(1)(ii))**
14. The permittee shall record the time and date of a condenser water flow switch alarm. **(40 CFR 64.6(c)(1)(ii))**
15. An excursion will occur if: **(40 CFR 64.6(c)(2))**
 - a. The knock-out pot liquid exceeds high level, and the alarm is not triggered, or alarm is triggered, and the toluene draw off is not automatically shut down.
 - b. The condenser water flow drops below 50 gallons per minute, and the alarm is not triggered, or alarm is triggered, and the toluene draw off is not automatically shut down.
16. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emission unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions. In response to an excursion, the toluene draw off is automatically discontinued and the system is evaluated to determine corrective action. **(40 CFR 64.7(d))**
17. 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), 40 CFR 64.7(c))**
18. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and activities undertaken to implement a quality improvement plan, and any 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))**

See Appendix 9

VII. REPORTING

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

4. Each semiannual report of monitoring and deviations shall include summary information on the number, duration and cause of excursions/exceedances and the corrective actions taken. If there were no excursions/exceedances in the reporting period then this report shall include a statement that there were no excursions/exceedances. **(40 CFR 64.9(a)(2)(i), R 336.1213(3)(c))**
5. Each semiannual 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), R 336.1213(3)(c))**
6. Each semiannual report of monitoring and deviations shall include a description of the actions taken to implement a Quality Improvement Plan (QIP) during the reporting period (if appropriate). If a QIP has been completed the report shall include documentation that the plan has been implemented and if it has reduced the likelihood of excursions or exceedances. **(40 CFR 64.9(a)(2)(iii))**
7. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV011	3 ¹	41 ¹	R 336.1225
2. SVV1*	6 ¹	15 ¹	R 336.1225
3. SVV3*	8x11 rectangle ¹	21 ¹	R 336.1225
4. SVV5	24 ¹	47 ¹	R 336.1225
5. SVV6	10 ²	44.25 ²	R 336.1225, 40 CFR 52.21(c)&(d)
6. SVV7	20 ¹	47 ¹	R 336.1225
7. SVV8	28 ¹	54 ¹	R 336.1225
8. SVV9	28 ¹	54 ¹	R 336.1225

* This stack is not required to be discharged unobstructed vertically upwards to the ambient air.

IX. OTHER REQUIREMENT(S)

1. The permittee shall not operate the process unless exhaust vents SVV1, SVV3, SVV5, SVV7, SVV8, SVV9, and SV011 are clearly labeled with an identification sign attached to the vent and stack in a conspicuous location.² **(R 336.1201(3))**
2. 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 conduction monitoring and collecting data, or the monitoring of additional parameters. **(40 CFR 64.7(e))**

3. The permittee shall, at all times, maintain the monitoring system, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. **(40 CFR 64.7(b))**
4. The permittee shall comply with all applicable requirements of 40 CFR Part 64. **(40 CFR Part 64)**

Footnotes:

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

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

EUZSP-VIT-WEIGH EMISSION UNIT CONDITIONS

DESCRIPTION

Vitamin weigh scale. Dry materials are transferred into containers and weighed. PM is controlled by a Torit dust collector with fabric filters.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Torit Dust Collector

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.01 lb per 1,000 lbs exhaust gas* ²	Hourly	EUZSP-VIT-WEIGH	SC VI.1 & 2	R 336.1205(3), R 336.1331(1)(c)
2. Opacity	5% ²	6-minute average	EUZSP-VIT-WEIGH	SC VI.1, 2 & 3	R 336.1205(3), R 336.1301(1)(c)

*calculated on a dry gas basis

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the process unless the Torit dust collector is installed and operating properly.² (R 336.1910)
2. The permittee shall not operate the process unless the broken bag detector is installed and operating properly, or the permittee performs a daily non-certified visual opacity observation during operation. (R 336.1213(3))
3. The permittee shall implement the Malfunction Abatement Plan as per Appendix 9. (R 336.1213(3), R 336.1910)

See Appendix 9

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the process unless it is equipped with a broken bag detector or the permittee performs a daily non-certified visual opacity observation during operation. (R 336.1213(3))

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 calibrate the broken bag detector on an annual basis. (R 336.1213(3))

See Appendix 5

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall record the results of the annual broken bag detector calibration. **(R 336.1213(3))**
2. The permittee shall maintain records necessary to comply with the Malfunction Abatement Plan as per Appendix 9. **(R 336.1213(3), R 336.1910)**
3. The permittee shall maintain records of any daily non-certified visual opacity observation performed to determine compliance with applicable opacity limitations. **(R 336.1213(3))**

See Appendix 9

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV012	13 ²	34.8 ²	R 336.1201(3)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

EULIQUIFIER-TANK EMISSION UNIT CONDITIONS

DESCRIPTION

Dry ingredients are added to and mixed with liquid ingredients in mix tanks. PM is controlled by a wet scrubber (rotoclone). PM emissions from this emission unit are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.

Flexible Group ID: FGCAMPM

POLLUTION CONTROL EQUIPMENT

Wet Scrubber (rotoclone)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.04 lb per 1,000 lbs exhaust gas* ²	Hourly	EULIQUIFIER-TANK	SC VI.1 & 3	R 336.1205(3), R 336.1331(1)(c)
2. Opacity	10% ²	6-minute average	EULIQUIFIER-TANK	SC VI.1 & 3	R 336.1205(3), R 336.1301(1)(c)

*calculated on a dry gas basis

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the process unless the wet scrubber (rotoclone) and water pressure switch are installed and operating properly.² (R 336.1910)
2. The permittee shall maintain a minimum water pressure of 23 psi on the wet scrubber. (R 336.1213(3), R 336.1910)
3. The permittee shall implement the Malfunction Abatement Plan as per Appendix 9. (R 336.1213(3), R 336.1910)

See Appendix 9

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the process unless it is equipped with a water pressure switch. (R 336.1213(3))

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 calibrate the water pressure switch on a semiannual basis. (R 336.1213(3))

See Appendix 5

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall record the water pressure in psi a minimum of once a month. **(R 336.1213(3))**
2. The permittee shall record the results of the semiannual water pressure switch calibration. **(R 336.1213(3))**
3. The permittee shall maintain records necessary to comply with the Malfunction Abatement Plan as per Appendix 9. **(R 336.1213(3), R 336.1910)**

See Appendix 9

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV014	13 ²	85 ²	R 336.1201(3)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

EUZSP-LIQ-PROCESS EMISSION UNIT CONDITIONS

DESCRIPTION

ZSP Liquid Process Center. Equipment for liquefying and mixing dry powdered materials. PM is controlled by a wet scrubber (Rotoclone). PM emissions from this emission unit are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.

Flexible Group ID: FGCAMPM

POLLUTION CONTROL EQUIPMENT

Wet scrubber (Rotoclone)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.04 pounds per 1,000 pounds exhaust gas* ²	Hourly	EUZSP-LIQ-PROCESS	SC VI.1, 2, & 3	R 336.1205(3), R 336.1331(1)(c)
2. Opacity	10% ²	6-minute average	EUZSP-LIQ-PROCESS	SC VI.1, 2, & 3	R 336.1205(3), R 336.1301(1)(c)

*calculated on a dry gas basis.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUZSP-LIQ-PROCESS unless the wet scrubber and water flow transmitter are installed and operating properly.² **(R 336.1331, R 336.1910)**
2. The permittee shall maintain a minimum water flow of 1.5 gpm on the wet scrubber.² **(R 336.1910)**
3. The permittee shall implement the Malfunction Abatement Plan as per Appendix 9.² **(R 336.1910)**

See Appendix 9

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUZSP-LIQ-PROCESS unless the scrubber is equipped with a water flow transmitter.² **(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. The permittee shall calibrate the water flow transmitter on a semiannual basis.² **(R 336.1910)**

See Appendix 5

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall record the water flow in gpm a minimum of once a month.² **(R 336.1910)**
2. The permittee shall record the results of the semiannual water flow transmitter calibration.² **(R 336.1910)**
3. The permittee shall maintain records necessary to comply with the Malfunction Abatement Plan as per Appendix 9.² **(R 336.1910)**

See Appendix 9

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVROTOCLONE	12 ¹	44.25 ¹	R 336.1901

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

EUZSP-SPRAY-DRYER EMISSION UNIT CONDITIONS

DESCRIPTION

Spray dryer which consists of a natural gas fired process heater, spray drying operation, and spray dryer cleaning operations. PM emissions from this emission unit are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.

Flexible Group ID: FGGAS1HEATMACTSMALL, FGCAMPM

POLLUTION CONTROL EQUIPMENT

One fabric filter baghouse

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.02 lbs per 1000 lbs of exhaust gases* ²	Hourly	SVZSPBAGHOUSE	SC VI.5	R 336.1331
2. PM ₁₀	2.76 pph ²	Hourly	SVZSPBAGHOUSE	SC VI.5	R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
3. VOC	1.8 tpy ¹	12-month rolling time period as determined at the end of each calendar month	EUZSP-SPRAY-DRYER	SC VI.3	R 336.1225
4. Opacity	10% ²	6-minute average	SVZSPBAGHOUSE	SC VI. 2 & 5	R 336.1301

* Calculated on a dry gas basis

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall implement the Malfunction Abatement Plan as per Appendix 9.² (R 336.1331, R 336.1910, R 336.1911)
- The permittee shall not use more than 167 pounds of sodium hydroxide per wash cleaning cycle in EUZSP-SPRAY-DRYER.¹ (R 336.1225)
- The permittee shall not operate EUZSP-SPRAY-DRYER unless the broken bag detector is installed, maintained, and operating in a satisfactory manner, or the permittee performs a daily non-certified visual opacity observation during operation.² (R 336.1205, R 336.1301, R 336.1331, R 336.1901, R 336.1910)

See Appendix 9

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUZSP-SPRAY-DRYER unless the fabric filter baghouse is installed, maintained, and operated in a satisfactory manner.² (R 336.1205, R 336.1331, R 336.1901, 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. The permittee shall calibrate the broken bag detector on an annual basis.² (R 336.1910)

See Appendix 5

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² (R 336.1224, R 336.1225, R 336.1702(a), R 336.1901)
2. The permittee shall maintain records of any daily non-certified visual opacity observation performed to determine compliance with applicable opacity limitations. The permittee shall keep all records on file at the facility and make them available to the Department upon request. ² (R 336.1301, R 336.1303)
3. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of the VOC emissions from EUZSP-SPRAY-DRYER. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² (R 336.1225, R 336.1702(a))
4. The permittee shall maintain records of the amount of sodium hydroxide used per wash cleaning cycle. The permittee shall keep all records on file at the facility and make them available to the Department upon request.¹ (R 336.1225)
5. The permittee shall maintain records necessary to comply with the Malfunction Abatement Plan as per Appendix 9. (R 336.1910, R 336.1213(3))

See Appendix 9

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVZSPBAGHOUSE	44 ²	91 ²	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
2. SVZSPHEATER*	18 ²	110 ²	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
3. SVZSPCIP	10 ²	108.5 ²	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)

*This exhaust stack has a fixed conical cap.

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

D. FLEXIBLE GROUP SPECIAL 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
FGNS-DRYER-HTRS	Two identical natural gas fired heaters used to produce a hot air stream for the north and south spray dryers.	EUS-DRYER-HEATER EUN-DRYER-HEATER
FGBOILERS	Three boilers consisting of two identical Erie City Company boilers firing natural gas or fuel oil and one Cleaver Brooks boiler firing natural gas exclusively.	EUBOILerno1 EUBOILerno2 EUBOILerno3
FGZSP-BLEND-FILL	Two lines where dry powdered ingredients are mixed in blenders and one line where the product created is sifted and placed in hoppers that are used to fill containers. Each system is controlled by a separate fabric filter collector. PM emissions from these emission units are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.	EUN-POWDER-BLEND EUS-POWDER-BLEND EUZSP-FILL-LINE
FGZIPP-PMSOURCES	Dry ingredients are transferred, mixed, and placed into cans or other containers. Each system is controlled by one of three fabric filter collectors. PM emissions from EUCAN-FILL-LINE, EUN-BAG-LINE, and EUS-BAG-LINE are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.	EUCAN-FILL-LINE EUN-BAG-LINE EUS-BAG-LINE EUZIPP-VIT-WEIGH EU-ZIPP-MINORS-STATIONS
FGNS-DRYERS	Two identical spray dryers. Liquid product is atomized into a hot air stream evaporating all moisture. Dried mixture is recovered by cyclone separators. PM controlled by two parallel fabric filter collectors per emission unit. PM emissions from these emission units are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.	EUN-DRYER EUS-DRYER
FGDRY-POWDER	Two dry powder blending processes and associated pneumatic powder transfer systems. Each dry blender (2) and each powder transfer system (2) is controlled by fabric filter collectors. The vacuum pumps have an in-line HEPA filter system. PM emissions from EUDRY-POWDER1 are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.	EUDRY-POWDER1 EUDRY-POWDER2

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGCAMP	The emission units are subject to 40 CFR Part 64 for Compliance Assurance Monitoring (CAM) for PM emissions.	EUN-DRYER EUS-DRYER EUN-BAG-LINE EUS-BAG-LINE EUCAN-FILL-LINE EULIQUIFIER-TANK, EUZSP-SPRAY-DRYER EUBOWEN-DRYER EUN-POWDER-BLEND EUS-POWDER-BLEND EUZSP-FILL-LINE EUDIGEST-TANKS EUDRY-POWDER1 EUDRY-POWDER2 EUZSP-LIQ-PROCESS
FGGAS1HEATMACTSMALL	Requirements for an existing boiler and process heater with a heat input capacity of <10 MMBTU/hr for major sources of HAP emissions per 40 CFR Part 63, Subpart DDDDD (Boiler MACT). These boilers or process heaters are designed to burn solid, liquid, or gaseous fuels.	EUZSP-SPRAY-DRYER
FGGAS1HEATMACTLARGE	Requirements for new and existing boilers and process heaters that are designed to burn gas 1 subcategory fuel with a heat input capacity of 10 MMBTU/hr or greater at major sources of HAP emissions per 40 CFR Part 63, Subpart DDDDD (Boiler MACT). Units designed to burn gas 1 subcategory fuels include boilers or process heaters that burn only natural gas, refinery gas, and/or Other Gas 1 fuels. Units that burn liquid fuel for testing or maintenance purposes for less than a total of 48 hours per year, or that burn liquid fuel during periods of curtailment or supply interruptions are included in this definition.	EUBOILERNO1 EUBOILERNO2 EUBOILERNO3 EUS-DRYER-HEATER EUN-DRYER-HEATER
FGCI-RICEMACT	Existing emergency compression ignition engines <500 HP that commenced construction or reconstruction before June 12, 2006.	EUFIRE-PUMP
FGSI-RICEMACTEXISTING	Existing emergency spark ignition <500 HP that commenced construction before June 12, 2006.	EUNG-GENERATOR EUPROP-GENERATOR
FGSI-RICEMACTNEW	New emergency spark ignition <500 HP that commenced construction after June 12, 2006.	EUNG2-GENERATOR
FGRULE290	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rule 278, Rule 278a and Rule 290. Emission units installed/modified before December 20, 2016, may show compliance with Rule 290 in effect at the time of installation/modification.	EUEZ1-PACKAGING EUZSP-BULK-BAG EUDRY-SOLIDS-LIQ EUWWTU-FOGGER EUZIPP-VACRECEIVER EUZIPPEMPTYCANCLEANER EUZIPPFULLCANCLEANER EUZSPCANCLEANER

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGCOLDCLEANERS	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, 278a and Rule 281(2)(h) or Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.	EUZSP-COLDCLEANER EUZIP-COLDCLEANER EUWWTP-COLDCLEANER

FGNS-DRYER-HTRS FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Two identical natural gas fired heaters used to produce a hot air stream for the north and south spray dryers.

Emission Units: EUS-DRYER-HEATER, EUN-DRYER-HEATER

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity	10% ²	6-minute average	FGNS-DRYER-HTRS	SC III.1	R 336.1205(3), R 336.1301(1)(c)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall only burn natural gas in FGNS-DRYER-HTRS.² (R 336.1201(3))

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))

NA

VII. REPORTING

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

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV015	25 ²	193.7 ²	R 336.1201(3)
2. SV018	25 ²	193.7 ²	R 336.1201(3)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

FGBOILERS FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Three boilers consisting of two identical Erie City Company boilers firing natural gas or fuel oil and one Cleaver Brooks boiler firing natural gas exclusively.

Emission Units: EUBOILERNO1, EUBOILERNO2, EUBOILERNO3

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. SO ₂	0.55 lb per MMBTU heat input ²	Per operating day	EUBOILERNO1, EUBOILERNO2 (The limit is applicable to each individual boiler.)	SC VI.1, VI.4 & VI.6	R 336.1201(3)
2. SO ₂	23.1 pph ²	Based on a daily average when firing fuel oil	EUBOILERNO1, EUBOILERNO2 (The limit is applicable to each individual boiler.)	SC VI.1, VI.2, VI.4 & VI.6	R 336.1205(3)
3. SO ₂	46.2 pph ²	Based on a daily average when firing fuel oil	EUBOILERNO1, EUBOILERNO2 (The limit is applicable to both boilers combined.)	SC VI.1, VI.2, VI.4 & VI.6	R 336.1205(3)
4. SO ₂	88.25 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGBOILERS (This limit is applicable to all three boilers combined)	SC VI.1, VI.3, VI.4 & VI.6	R 336.1205(3)
5. NO _x	0.14 lb per MMBTU heat input ²	When firing natural gas	EUBOILERNO1, EUBOILERNO2 (The limit is applicable to each individual boiler.)	SC VI.1	R 336.1205(3) R 336.2803 R 336.2804 40 CFR 52.21(c) & (d)
6. NO _x	0.045 lb per MMBTU heat input ²	When firing natural gas	EUBOILERNO3	SC VI.1	R 336.1205(3) R 336.2803 R 336.2804 40 CFR 52.21(c) & (d)
7. NO _x	4.9 pph ²	Based on a daily average when firing natural gas	EUBOILERNO1, EUBOILERNO2 (The limit is applicable to each individual boiler.)	SC VI.1 & VI.2	R 336.1205(3) R 336.2803 R 336.2804 40 CFR 52.21(c) & (d)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
8. NO _x	4.39 pph ²	Based on a daily average when firing natural gas	EUBOILERNO3	SC VI.1 & VI.2	R 336.1205(3) R 336.2803 R 336.2804 40 CFR 52.21(c) & (d)
9. NO _x	0.15 lb per MMBTUs heat input ²	When firing fuel oil	EUBOILERNO1, EUBOILERNO2 (The limit is applicable to each individual boiler.)	SC VI.1	R 336.1205(3)
10. NO _x	6.0 pph ²	Based on a daily average when firing fuel oil	EUBOILERNO1, EUBOILERNO2 (The limit is applicable to each individual boiler.)	SC VI.1 & VI.2	R 336.1205(3)
11. NO _x	16.2 pph ²	Based on a daily average	FGBOILERS (This limit is applicable to all three boilers combined)	SC VI.1 & VI.2	R 336.1205(3) R 336.2803 R 336.2804 40 CFR 52.21(c) & (d)
12. NO _x	66.2 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGBOILERS (This limit is applicable to all three boilers combined)	SC VI.1 & VI.3	R 336.1205(3)
13. Opacity	10% ²	6-minute average	EUBOILERNO1, EUBOILERNO2, EUBOILERNO3 (The limit is applicable to each individual boiler.)	SC VI.5 & 7	R 336.1205(3), R 336.1301(1)(c)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Fuel oil	0.50% by weight ²	Sulfur content, based on a 24 hour period	EUBOILERNO1 and EUBOILERNO2 (The limit is applicable to each individual boiler.)	SC VI.6	R 336.1205(3)

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall only combust natural gas in EUBOILERNO3.² (R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))
- The permittee shall implement the Malfunction Abatement Plan as per Appendix 9.² (R 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.1911, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

See Appendix 9

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 monitor and record the amount of natural gas and fuel oil combusted in each boiler during each calendar day in a manner and with instrumentation acceptable to the AQD.² **(R 336.1205(3))**
2. The permittee shall calculate and record actual SO₂ and NO_x emissions for each boiler on a daily basis.² **(R 336.1205(3))**
3. The permittee shall calculate and record actual SO₂ and NO_x emissions for each boiler based on a 12-month rolling average as determined at the end of each calendar month.² **(R 336.1205(3))**
4. When firing fuel oil in EUBOILERNO1 and/or EUBOILERNO2, the permittee shall calculate and record actual SO₂ emissions using the actual heating value and sulfur content of the fuel oil combusted and the amount of such fuel oil combusted during each day in each boiler.² **(R 336.1205(3))**
5. When firing fuel oil in EUBOILERNO1 and/or EUBOILERNO2, the permittee shall conduct and record non-certified visible emissions readings a minimum of once per day.² **(R 336.1301(c))**
6. The permittee shall maintain a complete copy of the fuel oil certification, as supplied by the fuel oil supplier.² **(R 336.1201(3))**
7. The permittee shall maintain records necessary to comply with the Malfunction Abatement Plan as per Appendix 9.² **(R 336.1911)**
8. The permittee shall monitor and record the amount of natural gas used in EUBOILERNO3 on a daily basis in a manner and with instrumentation acceptable to the AQD.² **(40 CFR 60.48c(g)(1))**

See Appendix 9

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV001	35 ²	38 ²	R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), R 336.1225
2. SV002	35 ²	38 ²	R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), R 336.1225
3. SV003	42 ²	42 ²	R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), R 336.1225

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

FGZSP-BLEND-FILL FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Two lines where dry powdered ingredients are mixed in blenders and one line where the product created is sifted and placed in hoppers that are used to fill containers. Each system is controlled by a separate fabric filter collector. PM emissions from these emission units are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.

Emission Units: EUN-POWDER-BLEND, EUS-POWDER-BLEND, EUZSP-FILL-LINE

POLLUTION CONTROL EQUIPMENT

Three fabric filter collectors.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.02 lb per 1,000 lbs exhaust gas* ²	Hourly	FGZSP-BLEND-FILL	SC VI.1 & 2	R 336.1331(1)(c), R 336.1205(3)
2. Opacity	5% ²	6-minute average	FGZSP-BLEND-FILL	SC VI.1, 2 & 3	R 336.1331(1)(c), R 336.1205(3)

*calculated on a dry gas basis.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate any process in FGZSP-BLEND-FILL unless the respective fabric filter collector is installed and operating properly.² (R 336.1910)
2. The permittee shall not operate the process unless the associated broken bag detector is installed and operating properly or the permittee performs a daily non-certified visual opacity observation during operation. (R 336.1213(3))
3. The permittee shall implement the Malfunction Abatement Plan as per Appendix 9. (R 336.1213(3), R 336.1910)

See Appendix 9

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any process in FGZSP-BLEND-FILL unless it is equipped with a broken bag detector or the permittee performs a daily non-certified visual opacity observation during operation. (R 336.1213(3))

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 calibrate the broken bag detector(s) on an annual basis. (R 336.1213(3))

See Appendix 5

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall record the results of the annual broken bag detector calibration. (R 336.1213(3))
2. The permittee shall maintain records necessary to comply with the Malfunction Abatement Plan as per Appendix 9. (R 336.1213(3), R 336.1910)
3. The permittee shall maintain records of any daily non-certified visual opacity observation performed to determine compliance with applicable opacity limitations. (R 336.1213(3))

See Appendix 9

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV007	14 ²	46.0 ²	R 336.1201(3)
2. SV008	14 ²	46.0 ²	R 336.1201(3)
3. SV009	11 ²	44.3 ²	R 336.1201(3)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

FGZIPP-PMSOURCES FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Dry ingredients are transferred, mixed and placed into cans or other containers. Each system is controlled by one of three fabric filter collectors. PM emissions from EUCAN-FILL-LINE, EUN-BAG-LINE, and EUS-BAG-LINE are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.

Emission Units: EUCAN-FILL-LINE, EUN-BAG-LINE, EUS-BAG-LINE, EUZIPP-VIT-WEIGH, EU-ZIPP-MINORS-STATIONS

POLLUTION CONTROL EQUIPMENT

Three fabric filter collectors.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.04 lb per 1,000 lbs exhaust gas* ²	Hourly	FGZIPP-PMSOURCES	SC V.2 SC VI.1 SC VI.2	R 336.1205(3), R 336.1224, R 336.1225, R 336.1331(1)(c)
2. Opacity	10% ²	6-minute average	FGZIPP-PMSOURCES	SC VI.1 SC VI.2 SC VI.3	R 336.1205(3), R 336.1331(1)(c)

* calculated on a dry gas basis

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate any process in FGZIPP-PMSOURCES unless the respective fabric filter collectors are installed and operating properly.² (R 336.1205(3), R 336.1224, R 336.1225, R 336.1331(1)(c), R 336.1301(1)(c), R 336.1910)
- The permittee shall not operate any process in FGZIPP-PMSOURCES unless the associated broken bag detector is installed and operating properly or the permittee performs a daily non-certified visual opacity observation during operation.² (R 336.1205(3), R 336.1224, R 336.1225, R 336.1331(1)(c), R 336.1301(1)(c))
- The permittee shall not operate any process in FGZIPP-PMSOURCES that exhausts to a fabric filter collector unless the Malfunction Abatement Plan in Appendix 9 is implemented and maintained.² (R 336.1205(3), R 336.1224, R 336.1225, R 336.1331(1)(c), R 336.1301(1)(c), R 336.1910)

See Appendix 9

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any process in FGZIPP-PMSOURCES unless it is equipped with a broken bag detector or the permittee performs a daily non-certified visual opacity observation during operation.² (R 336.1205(3), R 336.1224, R 336.1225, R 336.1331(1)(c), R 336.1301(1)(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 shall calibrate the broken bag detector(s) on an annual basis.² (R 336.1205(3), R 336.1224, R 336.1225, R 336.1331(1)(c), R 336.1301(1)(c))
2. Verification of PM emission rates from FGZIPP-PMSOURCES equipment exhausted to the fabric filter collectors may be required. Within 180 days after written notification from the AQD District Supervisor, the permittee shall verify PM emission rates from FGZIPP-PMSOURCES equipment exhausted to the fabric filter collectors by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A or in Part 10 of the Michigan Air Pollution Control Rules. The emission rate during testing shall be determined by the average of the acceptable test runs performed in accordance with the method requirements. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.² (R 336.1205(3), R 336.1224, R 336.1225, R 336.1331(1)(c), R 336.2001, R 336.2003, R 336.2004)

See Appendix 5

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall record the results of the annual broken bag detector calibration.² (R 336.1205(3), R 336.1224, R 336.1225, R 336.1331(1)(c), R 336.1301(1)(c))
2. The permittee shall maintain records necessary to comply with the Malfunction Abatement Plan as per Appendix 9.² (R 336.1205(3), R 336.1224, R 336.1225, R 336.1331(1)(c), R 336.1301(1)(c), R 336.1910)
3. The permittee shall maintain records of any daily non-certified visual opacity observation performed to determine compliance with applicable opacity limitations.² (R 336.1301(1)(c))

See Appendix 9

VII. REPORTING

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

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV013	23 ²	85 ²	R 336.1201(3)
2. SV017/020	25 ²	85 ²	R 336.1201(3)
3. SV022	11 ²	85 ²	R 336.1201(3)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

FGNS-DRYERS FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Two identical spray dryers. Liquid product is atomized into a hot air stream evaporating all moisture. Dried mixture is recovered by the dryers and cyclone separators. PM controlled by two parallel fabric filters per emission unit. PM emissions from these emission units are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.

Emission Units: EUN-DRYER, EUS-DRYER

POLLUTION CONTROL EQUIPMENT

Four fabric filter collectors.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. PM	0.01 lb per 1,00 lbs exhaust gas calculated on a dry gas basis ²	Hourly	EUN-DRYER EUS-DRYER	SC V.1, SC VI.2 SC VI.5	R 336.1331(1)(c) R 336.1205(3)
2. PM10	1.72 pph ²	Hourly	EUN-DRYER, EUS-DRYER, each separately	SC V.1, SC VI.2 SC VI.5	R 336.1331 40 CFR 52.21 (c)&(d)
3. PM2.5	1.72 pph ²	Hourly	EUN-DRYER EUS-DRYER, each separately	SC V.1, SC VI.2 SC VI.5	R 336.1331 40 CFR 52.21 (c)&(d)
4. Visible Emissions	5% opacity ²	6-minute average	EUN-DRYER EUS-DRYER, each separately	SC VI.1 SC VI.2 SC VI.3	R 336.1331(1)(c) R 336.1205(3)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall only burn natural gas in FGNS-DRYERS.² (**R 336.1205(3)**)
- The permittee shall not operate any process in FGNS-DRYERS unless their respective fabric filter collectors are installed and operating properly.² (**R 336.1331, R 336.1910**)
- The permittee shall not operate any process in FGNS-DRYERS unless the broken bag detector is installed and operating properly or the permittee performs a daily non-certified visual opacity observation during operation.² (**R 336.1331, 40 CFR 52.21(c) & (d)**)

4. The permittee shall implement and maintain an approved Malfunction Abatement Plan (MAP). The MAP shall include the following:
 - a. Recordkeeping provisions for part replacements, repairs and maintenance with respect to the control devices.
 - b. Procedures for maintaining and operating the spray dryers, the control devices, and any monitoring equipment in a satisfactory manner during malfunction events.
 - c. A program for corrective action for all malfunction events.

If the MAP 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 MAP within 45 days after such an event occurs.² **(R 336.1205, R 336.1331)**

See Appendix 9

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any process in FGNS-DRYERS unless it is equipped with a broken bag detector, or the permittee performs a daily non-certified visual opacity observation during operation.² **(R 336.1205, R 336.1331, 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 inspect and calibrate the broken bag detector(s) on an annual basis.² **(R 336.1331)**
2. Upon request of the AQD District Supervisor, the permittee shall verify PM, PM10, and PM2.5 emission rates from EUN-DRYER and/or EUS-DRYER by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A or in Part 10 of the Michigan Air Pollution Control Rules. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.² **(R 1336.1205(3), R 336.1331, R 336.2001, R 336.2003, R 336.2004, 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 continuously monitor for excess particulate matter in FGNS-DRYERS baghouse exhaust during operations using the broken bag detector or the permittee shall perform a daily non-certified visual opacity observation in the event that the broken bag detector is not operating properly.² **(R 336.1331)**
2. The permittee shall record the time and date of actuation of the broken bag detector alarm via the facility process control system on a daily basis.² **(R 336.1331)**
3. The permittee shall record the results of the annual broken bag detector calibration.² **(R 336.1331, 40 CFR 52.21(c)&(d))**
4. The permittee shall maintain records necessary to comply with the Malfunction Abatement Plan as per Appendix 9 of MI-ROP-A5858-2017b.² **(R 336.1331, R 336.1910)**

See Appendix 9

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV016	63 ²	193.7 ²	R 336.1201(3), 40 CFR 52.21(c) & (d)
2. SV019	63 ²	193.7 ²	R 336.1201(3), 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

FGDRY-POWDER FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Two dry powder blending processes and associated pneumatic powder transfer systems. PM emissions from EUDRY-POWDER1 are subject to 40 CFR Part 64 for CAM. The CAM requirements are found in FGCAMPM.

Emission Units: EUDRY-POWDER1, EUDRY-POWDER2

POLLUTION CONTROL EQUIPMENT

Each dry blender (2) and each powder transfer system (2) is controlled by fabric filter collectors. The vacuum pumps have an in-line HEPA filter system.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.02 lb per 1,000 lb exhaust gas, calculated on a dry gas basis ²	Hourly	FGDRY-POWDER	SC VI.1, 2 & 3	R 336.1331
2. Opacity	10% ¹	6-minute average	FGDRY-POWDER	SC VI.1, 2 & 3	R 336.1301, R 336.1331

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate any process in FGDRY-POWDER unless the respective fabric filter collectors are installed and operating properly.² (**R 336.1225, R 336.1331, R 336.1910**)
2. The permittee shall not operate any process in FGDRY-POWDER unless the associated broken bag detector is installed and operating properly or the permittee performs a daily non-certified visual opacity observation during operation.² (**R 336.1225, R 336.1301, R 336.1331, R 336.1910**)
3. The permittee shall not operate any process in FGDRY-POWDER unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the associated fabric filter systems, has been submitted, 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.² (**R 336.1225, R 336.1331, R 336.1910, R 336.1911, 40 CFR 52.21(c) & (d)**)

See Appendix 9

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any process in FGDRY-POWDER unless it is equipped with a broken bag detector or the permittee performs a daily non-certified visual opacity observation during operation.² **(R 336.1225, R 336.1301, R 336.1331, 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. The permittee shall inspect and calibrate the broken bag detector(s) on an annual basis.² **(R 336.1331, R 336.1910)**

See Appendix 5

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall record the results of the annual broken bag detector calibration.² **(R 336.1910)**
2. The permittee shall maintain records necessary to comply with the Malfunction Abatement Plan as per SC III.3.² **(R 336.1225, R 336.1331, R 336.1910)**
3. The permittee shall maintain records of any daily non-certified visual opacity observation performed to determine compliance with applicable opacity limitations.¹ **(R 336.1301)**

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVDRYBLEND1	16 ²	85 ²	R 336.1225, R 336.1331, 40 CFR 52.21(c) & (d)
2. SVDRYBLEND2	16 ²	85 ²	R 336.1225, R 336.1331, 40 CFR 52.21(c) & (d)
3. SVVACPUMP1	4 ²	35 ²	R 336.1225, R 336.1331, 40 CFR 52.21(c) & (d)

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
4. SVVACPUMP2	4 ²	35 ²	R 336.1225, R 336.1331, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

FGCAMPM FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Emission units subject to 40 CFR Part 64 for Compliance Assurance Monitoring (CAM) for PM emissions.

Emission Units: EUN-POWDER-BLEND, EUS-POWDER-BLEND, EUZSP-FILL-LINE, EUCAN-FILL-LINE, EUN-BAG-LINE, EUS-BAG-LINE, EUN-DRYER, EUS-DRYER, EUZSP-SPRAY-DRYER, EUDRY-POWDER1, EUDRY-POWDER2, EUBOWEN-DRYER, EUDIGEST-TANKS, EULIQUIFIER-TANK, EUZSP-LIQ-PROCESS.

POLLUTION CONTROL EQUIPMENT

Fabric filters: EUN-POWDER-BLEND, EUS-POWDER-BLEND, EUZSP-FILL-LINE, EUCAN-FILL-LINE, EUN-BAG-LINE, EUS-BAG-LINE, EUN-DRYER, EUS-DRYER, EUZSP-SPRAY-DRYER, EUDRY-POWDER1, EUDRY-POWDER2.

Wet Scrubbers: EUBOWEN-DRYER, EUDIGEST-TANKS, EULIQUIFIER-TANK, EUZSP-LIQ-PROCESS.

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate any emission unit in FGCAMPM unless their respective fabric filter collector or wet scrubber is installed, maintained and operating properly. **(R 336.1213(3)(c)(ii))**
2. The permittee shall not operate any emission unit in FGCAMPM unless fabric filters are equipped with a broken bag detector and the wet scrubbers are equipped with a water flow transmitter or pressure switch, or the permittee performs a daily non-certified visual opacity observation during operation. **(R 336.1213(3)(c)(ii))**

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. Upon request of the AQD District Supervisor, the permittee shall verify PM, PM10, and PM2.5 emission rates from any emission unit in FGCAMPM by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A or in Part 10 of the Michigan Air Pollution Control Rules. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days

following the last date of the test.² (R 1336.1205(3), R 336.1331, R 336.2001, R 336.2003, R 336.2004, 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 inspect and calibrate the broken bag detectors on an annual basis and the flow/pressure switches on a semi-annual basis. (R 336.1213(3)(c)(ii))
2. The permittee shall monitor the bag leak detection system from EUZSP-SPRAY-DRYER, FGZSP-BLEND-FILL (EUN-POWDER-BLEND, EUS-POWDER-BLEND, EUZSP-FILL-LINE), FGZIPP-PMSOURCES (EUCAN-FILL-LINE, EUN-BAG-LINE, EUS-BAG-LINE), FGNS-DRYERS (EUN-DRYER and EUS-DRYER), and FGDRY-POWDER (EUDRY-POWDER1, EUDRY-POWDER2 on a continuous basis as an indicator of proper operation of the dust collector. The bag leak detection signal is set at 70% to detect leaks. (40 CFR 64.6(c)(1)(i) and (ii))
3. The permittee shall continuously monitor the scrubber liquid flow rate from EUBOWEN-DRYER & EUZSP-LIQ-PROCESS and record every 15 minutes for an hourly average as an indicator of proper operation of the scrubber. The indicator range is a minimum of 18 gpm for EUBOWEN-DRYER and a minimum of 1.5 gpm for EUZSP-LIQ-PROCESS. (40 CFR 64.6(c)(1)(i) and (iii))
4. Within 90 days after issuance of this ROP the permittee shall continuously monitor the scrubber water pressure from EUDIGEST-TANKS, & EULIQUIFIER-TANK and record every 15 minutes for an hourly average as an indicator of proper operation of the scrubber. The indicator range is a minimum of 23 psi. (40 CFR 64.6(c)(1)(i) and (ii))
5. The permittee shall monitor and record non-certified visual opacity observations from FGCAMPM daily using EPA Reference Method 9 at any time when a broken bag detector is inoperable for more than 8 hours. The Permittee shall monitor and record the time periods for which the baghouse is inoperable. (40 CFR 64.6(c)(1)(iii))
6. An excursion will occur if: (40 CFR 64.6(c)(2))
 - a. A triboelectric signal greater than 70% of the broken bag detector scale (alarm state) occurs for more than 5 consecutive minutes.
 - b. Water flow drops below 18 gpm for EUBOWEN-DRYER and 1.5 gpm for EUZSP-LIQ-PROCESS.
 - c. Water Pressure drops below 23 psi for EUDIGEST-TANKS and EULIQUIFIER-TANK.
 - d. Visible emissions are present for any Emission Units subject to CAM requirements for PM.
7. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emission unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). In response to an excursion, the facility shall conduct an evaluation of the occurrence to determine action necessary to correct the situation as specified in the CAM Plan. (40 CFR 64.7(d))
8. 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), 40 CFR 64.7(c))

9. 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))**

See Appendix 9

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Each semiannual report of monitoring and deviations shall include summary information on the number, duration and cause of excursions/exceedances and the corrective actions taken. If there were no excursions/exceedances in the reporting period then this report shall include a statement that there were no excursions/exceedances. **(40 CFR 64.9(a)(2)(i), R 336 1213(3)(c))**
5. Each semiannual 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), R 336.1213(3)(c))**
6. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. 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))**

2. The permittee shall, at all times, maintain the monitoring system, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. **(40 CFR 64.7(b))**
3. The permittee shall comply with all applicable requirements of 40 CFR Part 64. **(40 CFR Part 64)**

Footnotes:

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

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

FGGASHEATMACTSMALL FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Requirements for an existing boiler and process heater with a heat input capacity of <10 MMBTU/hr for major sources of HAP emissions per 40 CFR Part 63, Subpart DDDDD (Boiler MACT). These boilers or process heaters are designed to burn solid, liquid, or gaseous fuels.

Emission Unit:

Equal to or less than 5 MMBTU/hr and only burns gaseous or light liquid fuels	NA
Greater than 5 MMBTU/hr and less than 10 MMBTU/hr that burns gaseous or light liquid fuels or any unit that is less than 10 MMBTU/hr and burns any heavy liquid or solid fuels	EUZSP-SPRAY-DRYER

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must, for boilers or process heaters with a heat input capacity of greater than 5 MMBTU/hr and less than 10 MMBTU/hr, conduct a biennial tune-up of the boiler or process heater according to 40 CFR 63.7540(a)(11) no more than 25 months after the previous tune-up. **(40 CFR 63.7500(e), 40 CFR 63.7515(d), 40 CFR 63.7540(a)(11), 40 CFR Part 63, Subpart DDDDD, Table 3.2)**
2. The permittee must conduct a tune-up of each boiler or process heater as specified in the following: **(40 CFR 63.7540(a)(11) or (12))**
 - a. As applicable, inspect the burner and clean or replace any components of the burner as necessary. The permittee may perform the burner inspection any time prior to the tune-up or 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))**
 - b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.7540(a)(10)(ii))**
 - c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly. The permittee may delay the inspection until the next scheduled unit shutdown. **(40 CFR 63.7540(a)(10)(iii))**

- d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**
 - e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as 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))**
3. If the unit is not operated on the required date for the tune-up, the tune-up must be conducted within 30 calendar days of startup. **(40 CFR 63.7540(a)(13))**
 4. At all times, the permittee must operate and maintain each existing small boiler or process heater, 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))**

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 a copy 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 2 or 5-year compliance report or one-time energy assessment, as applicable, that the permittee submitted. **(40 CFR 63.7555(a)(1))**
2. The permittee must keep the records in a form suitable and readily available for expeditious review. **(40 CFR 63.7560(a))**
3. 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))**
4. 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. The permittee can keep the records off site for the remaining 3 years. **(40 CFR 63.7560(c))**

VII. REPORTING

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

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee must submit boiler or process heater tune-up compliance reports to the appropriate AQD District Office and must be postmarked or submitted by March 15th of the year following the applicable 2-year period starting from January 1 of the year following the previous tune-up to December 31 (of the latest tune-up year). Compliance reports must also be submitted to EPA using the Compliance and Emissions Data Reporting Interface (CEDRI) which is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). If the reporting form is not available in CEDRI at the time the compliance report is due, a hardcopy of the compliance report shall be submitted to EPA Region 5. **(40 CFR 63.7550(b), 40 CFR 63.7550(h)(3))**
5. The permittee must include the following information in the compliance report. **(40 CFR 63.7550(c)(1))**
 - a. Company and Facility name and address. **(40 CFR 63.7550(c)(5)(i))**
 - b. Process unit information, emissions limitations, and operating parameter limitations. **(40 CFR 63.7550(c)(5)(ii))**
 - c. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.7550(c)(5)(iii))**
 - d. Include the date of the most recent tune-up for each unit. Include the date of the most recent burner inspection if it was not done biennially or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7550(c)(5)(xiv))**
 - e. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. **(40 CFR 63.7550(c)(5)(xvii))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subparts A and DDDDD for Industrial, Commercial, and Institutional Boilers and Process Heaters. **(40 CFR Part 63, Subparts A and DDDDD)**

FGGAS1HEATMACTLARGE FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Requirements for new and existing boilers and process heaters that are designed to burn gas 1 subcategory fuel with a heat input capacity of 10 MMBTU/hr or greater at major sources of HAP emissions per 40 CFR Part 63, Subpart DDDDD (Boiler MACT). Units designed to burn gas 1 subcategory fuels include boilers or process heaters that burn only natural gas, refinery gas, and/or Other Gas 1 fuels. Units that burn liquid fuel for testing or maintenance purposes for less than a total of 48 hours per year, or that burn liquid fuel during periods of curtailment or supply interruptions are included in this definition.

Emission Units: EUBOILerno1, EUBOILerno2, EUBOILerno3, EUS-DRYER-HEATER, EUN-DRYER-HEATER

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

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 shall conduct an annual tune up of each boiler or process heater as specified below. The annual tune-up shall be no more than 13 months after the previous tune-up. **(40 CFR 63.7500(a)(1), 40 CFR 63.7515(d), Table 3 of 40 CFR Part 63, Subpart DDDDD)**
 - a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown. Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. **(40 CFR 63.7540(a)(10)(i))**
 - b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.7540(a)(10)(ii))**
 - c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection. **(40 CFR 63.7540(a)(10)(iii))**
 - d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**

- e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as 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))**
2. If the unit is not operated on the required date for the tune-up, the tune-up must be conducted within 30 calendar days of startup. **(40 CFR 63.7540(a)(13))**
3. The permittee shall conduct a tune-up of each emission unit that has an oxygen trim system installed in FGGAS1HEATMACTLARGE of the burner(s) and combustion controls, as applicable, every 5 years as specified in 40 CFR 63.7540(a)(10)(i) through (vi). **(40 CFR 63.7500(d), 40 CFR 63.7540(a)(12), Table 3 of 40 CFR Part 63, Subpart DDDDD)**
 - a. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. **(40 CFR 63.7515(d))**
 - b. The permittee may delay the burner inspection until the next scheduled or unscheduled unit shutdown, but each burner must be inspected at least once every 72 months. **(40 CFR 63.7540(a)(12))**
 - c. If the unit is not operating on the required date for the tune-up, the tune-up must be conducted within 30 calendar days of startup. **(40 CFR 63.7540(a)(13))**
4. At all times, the permittee must operate and maintain each existing gas 1 boiler or process heater, 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))**

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. To demonstrate that a gaseous fuel other than natural gas or refinery gas qualifies as an Other Gas 1 fuel, as defined in 40 CFR 63.7575, the permittee must conduct a fuel specification analysis for mercury according to the procedures stated in SC V.2 through SC V.4 and Table 6 in 40 CFR Part 63, Subpart DDDDD, as applicable, except as listed below. Or, as an alternative where fuel specification analysis is not practical, the permittee must measure mercury concentration in the exhaust gas when firing only the gaseous fuel to be demonstrated as an Other Gas 1 fuel in the boiler or process heater according to the procedures in Table 6 to 40 CFR Part 63, Subpart DDDDD. **(40 CFR 63.7521(f))**
 - a. The permittee is not required to conduct the fuel specification analysis in SC V.2 through SC V.4 for any of the fuels listed below.
 - i. For natural gas or refinery gas. **(40 CFR 63.7521(f)(1))**
 - ii. For gaseous fuels that are subject to another subpart of 40 CFR Part 63, Part 60, Part 61, or Part 65. **(40 CFR 63.7521(f)(2))**
 - iii. On gaseous fuels for units that are complying with the limits for units designed to burn gas 2 (other) fuels. **(40 CFR 63.7521(f)(3))**
 - iv. For gas streams directly derived from natural gas at natural gas production sites or natural gas plants. **(40 CFR 63.7521(f)(4))**

2. The permittee must develop a site-specific fuel analysis plan for Other Gas 1 fuels according to the following procedures and requirements as listed below. **(40 CFR 63.7521(g))**
 - a. If the permittee intends to use an alternative analytical method other than those required by Table 6 of 40 CFR Part 63, Subpart DDDDD, the permittee must submit the fuel analysis plan to the Administrator for review and approval no later than 60 days before the date that the permittee intends to conduct the initial compliance demonstration described in 40 CFR 63.7510. **(40 CFR 63.7521(g)(1))**
 - b. The permittee must include the following information in the fuel analysis plan. **(40 CFR 63.7521(g)(2))**
 - i. The identification of all gaseous fuel types other than those stated in SC V.1 anticipated to be burned in each boiler or process heater. **(40 CFR 63.7521(g)(2)(i))**
 - ii. For each anticipated fuel type, the identification of whether the permittee or a fuel supplier will be conducting the fuel specification analysis. **(40 CFR 63.7521(g)(2)(ii))**
 - iii. For each anticipated fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the samples if the procedures are different from the sampling methods contained in Table 6 of 40 CFR Part 63, Subpart DDDDD. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types. If multiple boilers or process heaters are fueled by a common fuel stream, it is permissible to conduct a single gas specification at the common point of gas distribution. **(40 CFR 63.7521(g)(2)(iii))**
 - iv. For each anticipated fuel type, the analytical methods from Table 6 of 40 CFR Part 63, Subpart DDDDD, with the expected minimum detection levels, is to be used for the measurement of mercury. **(40 CFR 63.7521(g)(2)(iv))**
 - v. If the permittee requests to use an alternative analytical method other than those required by Table 6 of 40 CFR Part 63, Subpart DDDDD, the permittee must also include a detailed description of the methods and procedures that the permittee is proposing to use. Methods in Table 6 of 40 CFR Part 63, Subpart DDDDD shall be used until the requested alternative is approved. **(40 CFR 63.7521(g)(2)(v))**
 - vi. If the permittee will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 of 40 CFR Part 63, Subpart DDDDD. When using a fuel supplier's fuel analysis, the permittee is not required to submit the information in SC V.2.b.iii. **(40 CFR 63.7521(g)(2)(vi))**
3. The permittee must obtain a single fuel sample for each fuel type for fuel specification of gaseous fuels. **(40 CFR 63.7521(h))**
4. The permittee must determine the concentration in the fuel of mercury, in units of microgram per cubic meter, dry basis, of each sample for each Other Gas 1 fuel type according to the procedures in Table 6 of 40 CFR Part 63, Subpart DDDDD. **(40 CFR 63.7521(i))**
5. If the permittee elected to demonstrate that the unit meets the specification for mercury for the unit designed to burn Other Gas 1 fuel, the permittee must follow the sampling frequency as listed below and conduct this sampling according to the procedures in SC V.1 through SC V.4. **(40 CFR 63.7540(c))**
 - a. If the initial mercury constituents in the gaseous fuels are measured to be equal to or less than half of the mercury specification as defined in 40 CFR 63.7575, the permittee does not need to conduct further sampling. **(40 CFR 63.7540(c)(1))**
 - b. If the initial mercury constituents are greater than half but equal to or less than 75% of the mercury specification as defined in 40 CFR 63.7575, the permittee will conduct semiannual sampling. If 6 consecutive semiannual fuel analyses demonstrate 50% or less of the mercury specification, the permittee does not need to conduct further sampling. If any semiannual sample exceeds 75% of the mercury specification, the permittee must return to monthly sampling for that fuel, until 12 months of fuel analyses again are less than 75% of the compliance level. **(40 CFR 63.7540(c)(2))**

- c. If the initial mercury constituents are greater than 75% of the mercury specification as defined in 40 CFR 63.7575, the permittee will conduct monthly sampling. If 12 consecutive monthly fuel analyses demonstrate 75% or less of the mercury specification, the permittee may decrease the fuel analysis frequency to semiannual for that fuel. **(40 CFR 63.7540(c)(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 must keep a copy of each notification and report that the permittee submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or annual compliance report that the permittee submitted. **(40 CFR 63.7555(a)(1))**
2. The permittee must keep a copy of the records of 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))**
3. If the permittee elected to demonstrate that the unit meets the specification for mercury for the unit designed to burn gas 1 subcategory, the permittee must maintain monthly, or at the frequency specified in SC V.5, records of the calculations and results of the fuel specification for mercury in Table 6 of 40 CFR Part 63, Subpart DDDDD to demonstrate that the unit meets the specification for mercury for Other Gas 1 fuels. **(40 CFR 63.7555(g))**
4. If the permittee uses an alternative fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart under 40 CFR Part 63, Other Gas 1 fuel, or gaseous fuel subject to another subpart of 40 CFR Part 60 or Part 61, or Part 65, the permittee must keep records of the total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies. **(40 CFR 63.7555(h))**
5. The permittee shall maintain on-site and submit, if requested by the AQD, an annual tune-up report containing the information listed below.
 - 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 or process heater. **(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))**
6. 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))**
7. 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))**
8. 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. The permittee can keep the records off site for the remaining 3-years. **(40 CFR 63.7560(c))**

VII. REPORTING

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

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee must submit an Initial Notification not later than 15-days after the actual date of startup of the affected source. **(40 CFR 63.7545(c))**
5. 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 the affected unit during a period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575, 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 as listed below.
 - 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))**
6. The permittee must submit boiler and process heater tune-up compliance reports to the appropriate AQD District Office. The reports must be postmarked or submitted by March 15th and must cover the period of January 1 through December 31 of the reporting year. For new units, the first report should cover the period of startup to December 31 of the reporting year. Compliance reports must also be submitted to EPA using the Compliance and Emissions Data Reporting Interface (CEDRI) which is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). **(40 CFR 63.7550(b))**
7. The permittee must submit a compliance report containing the following information.
 - a. Company and Facility name and address. **(40 CFR 63.7550(c)(5)(i))**
 - b. Process unit information, emissions limitations, and operating parameter limitations. **(40 CFR 63.7550(c)(5)(ii))**
 - c. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.7550(c)(5)(iii))**
 - d. The total fuel use by each individual boiler or process heater subject to an emission limit within the reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by the EPA or the basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure. **(40 CFR 63.7550(c)(5)(vi))**
 - e. A summary of any fuel specification analyses conducted according to 40 CFR 63.7521(f), stated in SC V.1, and 40 CFR 63.7530(g), stated SC V.2. **(40 CFR 63.7550(c)(5)(x))**
 - f. If there are no deviations from any emission limits or operating limits in 40 CFR Part 63, Subpart DDDDD that apply to the permittee, a statement that there were no deviations from the emission limits or operating limits during the reporting period. **(40 CFR 63.7550(c)(5)(xi))**
 - g. If a malfunction occurred during the reporting period, the report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the permittee during a malfunction of a boiler, process heater, or associated air pollution control device or CMS to minimize emissions in accordance with 40 CFR 63.7500(a)(3), stated in SC III.6, including actions taken to correct the malfunction. **(40 CFR 63.7550(c)(5)(xiii))**

- h. Include the date of the most recent tune-up for each unit. Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7550(c)(5)(xiv))**
 - i. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. **(40 CFR 63.7550(c)(5)(xvii))**
8. The permittee must submit all reports required by Table 9 of this subpart electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, submit the report to the EPA Region V at the appropriate address listed in 40 CFR 63.13 and to the appropriate AQD District Office. **(40 CFR 63.7550(h)(3))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters as specified in 40 CFR Part 63, Subparts A and DDDDD. **(40 CFR Part 63, Subparts A and DDDDD)**

FGCI-RICEMACT FLEXIBLE GROUP CONDITIONS

DESCRIPTION

40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), located at a major source of HAP emissions, new or reconstructed emergency, compression ignition (CI) RICE less than or equal to 500 brake hp. A RICE is new or reconstructed if the date of installation or reconstruction is after June 12, 2006.

Emission Unit: EUFIRE-PUMP

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall burn only diesel fuel in each engine with a 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. **(40 CFR 1090.305)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate and maintain each engine in FGCI-RICEMACT and after-treatment control device (if any) in a manner consistent with good air pollution control practices for minimizing emissions. **(40 CFR 63.6605)**
2. For each engine in FGCI-RICEMACT, the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply. **(40 CFR 63.6625(h))**
3. The permittee may operate each engine in FGCI-RICEMACT 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, the regional transmission organization or equivalent balancing authority and transmission operator, 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. **(40 CFR 63.6640(f)(2))**
4. Each engine in FGCI-RICEMACT may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in **SC III.4**. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for the permittee 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))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FGCI-RICEMACT with non-resettable hours meters to track the operating hours. **(R 336.1213(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. For each engine in FGCI-RICEMACT, the permittee shall keep in a satisfactory manner, records of the maintenance conducted to demonstrate that the engine and after-treatment control device (if any) were operated and maintained according to a malfunction abatement plan developed per R 336.1911. The permittee shall keep all records on file and make them available to the department upon request. **(R 336.1213(3))**
2. The permittee shall monitor and record, the total hours of operation for each engine in FGCI-RICEMACT on a monthly basis, and the hours of operation during emergency and non-emergency service that are recorded through the non-resettable hour meter for each engine in FGCI-RICEMACT on a calendar year basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation including what classified the operation as emergency and how many hours are spent for non-emergency operation. The permittee shall keep all records on file and make them available to the department upon request. **(R 336.1213(3))**
3. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in FGCI-RICEMACT, demonstrating that the fuel meets the requirement of SC II.1. The certification or test data shall include the name of the oil supplier or laboratory, the sulfur content, and cetane index or aromatic content of the fuel oil. The permittee shall keep all records on file and make them available to the department upon request. **(R 336.1213(3), 40 CFR 1090.305)**
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 63.6660(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 63.6660(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. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

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

FGSI-RICEMACTEXISTING FLEXIBLE GROUP CONDITIONS

DESCRIPTION

40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), located at a major source of HAP emissions, existing emergency, spark ignition (SI) RICE equal to or less than 500 bhp. A RICE is existing if the date of installation is before June 12, 2006.

Emission Units: EUNG-GENERATOR, EUPROP-GENERATOR

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must comply with the requirements in Item 6 of Table 2c of 40 CFR Part 63, Subpart ZZZZ which apply to each engine in FGSI-RICEMACTEXISTING as specified in the following:
 - a. Change oil and filter every 500 hours of operation or annually, whichever comes first, except as allowed in SC III.2;
 - b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
 - c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

If the emergency engine is being operated during an emergency and it is not possible to shut down the engine to perform the management practice requirements on the schedule required, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice standard 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 been abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable. **(40 CFR 63.6602, 40 CFR Part 63, Subpart ZZZZ, Table 2c.6)**

2. The permittee may utilize an oil analysis program in order to extend the specified oil change requirement in SC III.1. The oil analysis must be performed at the same frequency specified for changing the oil in SC III.1. **(40 CFR 63.6625(j))**
3. The permittee shall operate and maintain each engine in FGSI-RICEMACTEXISTING and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner

consistent with good air pollution control practice for minimizing emissions. **(40 CFR 63.6605, 40 CFR 63.6625(e), 40 CFR 63.6640(a), 40 CFR Part 63, Subpart ZZZZ, Table 6.9**

4. For each engine in FGSI-RICEMACTEXISTING, the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply. **(40 CFR 63.6625(h))**
5. The permittee may operate each engine in FGSI-RICEMACTEXISTING 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, the regional transmission organization or equivalent balancing authority and transmission operator, 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, 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 internal combustion engines beyond 100 hours per calendar year. **(40 CFR 63.6640(f)(2))**
6. Each engine in FGSI-RICEMACTEXISTING may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted towards the 100 hours per calendar year provided for maintenance and testing as provided in **SC III.5**. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for the permittee 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))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FGSI-RICEMACTEXISTING with non-resettable hours meters to track the operating hours. **(40 CFR 63.6625(f))**

V. TESTING/SAMPLING

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

1. If using the oil analysis program, the permittee must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the permittee must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee must change the oil within 2 business days or before commencing operation, whichever is later. The permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. **(40 CFR 63.6625(j))**

VI. MONITORING/RECORDKEEPING

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

1. For each engine in FGSI-RICEMACTEXISTING the permittee shall keep in a satisfactory manner the following:
 - a. A copy of each notification and report that was submitted to comply with 40 CFR Part 63, Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted,
 - b. Records of the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment,
 - c. Records of performance tests and performance evaluations,

- d. Records of all required maintenance performed on the air pollution control and monitoring equipment,
- e. 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 to its normal or usual manner of operation.

The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(a), 40 CFR 63.6660)**

- 2. For each engine in FGSI-RICEMACTEXISTING, the permittee shall keep in a satisfactory manner, records to demonstrate continuous compliance with the operation and maintenance of the engine according to the manufacturer's emission-related operation and maintenance instructions; or develop and follow a maintenance plan that provides to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(d), 40 CFR 63.6660, 40 CFR Part 63, Subpart ZZZZ, Table 6.9)**
- 3. For each engine in FGSI-RICEMACTEXISTING the permittee shall keep in a satisfactory manner, records of the maintenance conducted to demonstrate that the engine and after-treatment control device (if any) were operated and maintained according to the developed maintenance plan. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(e), 40 CFR 63.6660)**
- 4. The permittee shall monitor and record, the total hours of operation for each engine in FGSI-RICEMACTEXISTING on a monthly basis, and the hours of operation during emergency and non-emergency service that are recorded through the non-resettable hour meter for each engine in FGSI-RICEMACTEXISTING on a calendar year basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation including what classified the operation as emergency and how many hours are spent for non-emergency operation. **(R 336.1213(3), 40 CFR 63.6655(f), 40 CFR 63.6660)**
- 5. 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 63.6660(a))**
- 6. 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 63.6660(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. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
- 3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

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

FGSI-RICEMACTNEW FLEXIBLE GROUP CONDITIONS

DESCRIPTION

40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), located at a major source of HAP emissions, new or reconstructed emergency, spark ignition (SI) RICE less than or equal to 500 brake hp. A RICE is new or reconstructed if the date of installation or reconstruction is after June 12, 2006.

Emission Unit: EUNG2-GENERATOR

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FGSI-RICEMACTNEW with non-resettable hours meters to track the operating hours. **(R 336.1213(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. For each engine in FGSI-RICEMACTNEW, the permittee shall keep in a satisfactory manner, records of the maintenance conducted to demonstrate that the engine and after-treatment control device (if any) were operated and maintained according to a malfunction abatement plan developed per R 336.1911. The permittee shall keep all records on file and make them available to the department upon request. **(R 336.1213(3))**
2. The permittee shall monitor and record, the total hours of operation for each engine in FGSI-RICEMACTNEW on a monthly basis, and the hours of operation during emergency and non-emergency service that are recorded through the non-resettable hour meter for each engine in FGSI-RICEMACTNEW on a calendar year basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation including what classified the operation as emergency and how many hours are spent for

non-emergency operation. The permittee shall keep all records on file and make them available to the department upon request. **(R 336.1213(3))**

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subparts A and ZZZZ for Stationary Reciprocating Internal Combustion Engines. **(40 CFR Part 63, Subparts A and ZZZZ)**
2. The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and JJJJ, as they apply to each engine in FGSI-RICEMACTNEW. **(40 CFR Part 60, Subparts A & JJJJ)**

FGRULE290 FLEXIBLE GROUP CONDITIONS

DESCRIPTION

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

Emission Units installed on or after December 20, 2016: NA

Emission Units installed prior to December 20, 2016: EUEZ1-PACKAGING, EUZSP-BULK-BAG, EUDRY-SOLIDS-LIQ, EUWWTU-FOGGER, EUZIPP-VACRECEIVER, EUZIPPEMPTYCANCLEANER, EUZIPPFULLCANCLEANER, EUZSPCANCLEANER

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

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

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

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

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

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

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

See Appendix 4

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

FGCOLDCLEANERS FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, Rule 278a and Rule 281(2)(h) or Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.

Emission Units: EUZSP-COLDCLEANER, EUZIPP-COLDCLEANER, EUWWTP-COLDCLEANER

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

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

III. PROCESS/OPERATIONAL RESTRICTION(S)

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

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The cold cleaner must meet one of the following design requirements:
 - a. The air/vapor interface of the cold cleaner is no more than ten square feet. **(R 336.1281(2)(h))**
 - b. The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment. **(R 336.1285(2)(r)(iv))**
2. The cold cleaner shall be equipped with a device for draining cleaned parts. **(R 336.1611(2)(b), R 336.1707(3)(b))**
3. All new and existing cold cleaners shall be equipped with a cover and the cover shall be closed whenever parts are not being handled in the cold cleaner. **(R 336.1611(2)(a), R 336.1707(3)(a))**
4. The cover of a new cold cleaner shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia or if the solvent is agitated or heated. **(R 336.1707(3)(a))**
5. If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia; or, if any solvent used in a new cold cleaner is heated above 120 degrees Fahrenheit, then the cold cleaner must comply with at least one of the following provisions:

- a. The cold cleaner must be designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7. **(R 336.1707(2)(a))**
- 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))**

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

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

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. Acronyms and Abbreviations

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

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

Appendix 2. Schedule of Compliance

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

Appendix 3. Monitoring Requirements

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

Appendix 4. Recordkeeping

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

Appendix 5. Testing Procedures

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

Appendix 6. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-A5858-2017. 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-A5858-2017b is being reissued as Source-Wide PTI No. MI-PTI-A5858-2022.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
87-18	201800103	To incorporate Permit to Install No. 87-18 into the ROP, which is for three vitamin dump stations in the ZIPP dry powder blending, handling, and filling system (EU-ZIPP-MINORS-STATIONS). This is existing equipment that previously only vented inside the facility. Mead Johnson now plans to vent them outside through an existing dust collector. EU-ZIPP-MINORS-STATIONS is incorporated with the dry ingredients that are transferred, mixed, and placed into cans or other containers covered in Flexible Group FGZIPP-PMSOURCES.	EU-ZIPP-MINORS-STATIONS

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
*81-21	NA	To incorporate Permit to Install No. 81-21 into the ROP, which increased the production rate of the product spray dryers in the Zeeland Integrated Powder Plant (ZIPP).	FGNS-DRYERS (EUN-DRYER, EUS-DRYER)

The following table lists the ROP amendments or modifications issued after the effective date of ROP No. MI-ROP-A5858-2022a.

Permit to Install Number	ROP Revision Application Number - Issuance Date	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
42-08C	202400153 / December 5, 2024	To incorporate PTI No. 42-08C into the ROP which was to install a new 9,000-gallon digest tank and remove older tanks.	EUDIGEST-TANKS

Appendix 7. 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. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use EGLE, AQD, Report Certification form (EQP 5736) and EGLE, AQD, Deviation Report form (EQP 5737) for the annual, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

B. Other Reporting

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

Appendix 9. Malfunction Abatement Plans

The permittee shall implement and maintain a Malfunction Abatement Plan (MAP) meeting the requirements of Rule 911 for EUDIGEST-TANKS, EUBOWEN-DRYER, EUZSP-VIT-WEIGH, EULIQUIFIER-TANK, FGZPS-BLEND-FILL, EUZPS-SPRAY-DRYER, EUZSP-LIQ-PROCESS, FGBOILERS, FGZIPP-PMSOURCES, FGNS-DRYERS, and FGDRY-POWDER. The MAP shall include the following:

- Recordkeeping provisions for part replacements, repairs and maintenance with respect to the control device system.

- b. Procedures for maintaining and operating EUDIGEST-TANKS, EUBOWEN-DRYER, EUZSP-VIT-WEIGH, EULIQUIIFIER-TANK, FGZSP-BLEND-FILL, EUZSP-SPRAY-DRYER, EUZSP-LIQ-PROCESS, FGBOILERS, FGZIPP-PMSOURCES, FGNS-DRYERS, and FGDRY-POWDER, the control device system, and any monitoring equipment in a satisfactory manner during malfunction events.
- c. A program for corrective action for all malfunction events.

If the MAP 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. Any modifications to the MAPs shall be submitted to the AQD Grand Rapids District Supervisor.