

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

EFFECTIVE DATE: October 18, 2021

REVISION DATE: May 12, 2022

ISSUED TO

Pharmacia & Upjohn, LLC, a subsidiary of Pfizer Inc.

State Registration Number (SRN): B3610

LOCATED AT

7000 Portage Road, Kalamazoo, Michigan 49001-0199

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-B3610-2021a

Expiration Date: October 18, 2026

Administratively Complete ROP Renewal Application Due
Between April 18, 2025 and April 18, 2026

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-B3610-2021a

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

Rex Lane, Kalamazoo District Supervisor

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AUTHORITY AND ENFORCEABILITY

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

Section 1 – Plant Services and Utilities

ROP No: MI-ROP-B3610-2021a
Expiration Date: October 18, 2026
PTI No: MI-PTI-B3610-2021a

SECTION 1 - PLANT SERVICES AND UTILITIES

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

Risk Management Plan

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

Emission Trading

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

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
EUEBLR43-7-S1	One 120,000 pound steam/hr natural gas fired boiler with No. 2 fuel oil backup. (PTI 233-15)	01-01-1970/ 02-29-2016	FGBOILERMACT-EXISTING_AND_NEW-GAS_1-S1
EUEBLR43-8-S1	One 120,000 pound steam/hr natural gas fired boiler with No. 5 fuel oil backup. (PTI 233-15)	01-01-1979/ 02-29-2016	FGBOILERMACT-EXISTING_AND_NEW-GAS_1-S1
EUEBLR43-9-S1	One 120,000 pound steam/hr boiler with a maximum nameplate heat input capacity of 144.5 MMBTU/hr for natural gas and 138.3 MMBTU/hr for #2 fuel oil. The boiler primarily burns natural gas with #2 fuel oil as a back-up fuel. The boiler will utilize low NOx burners (LNB) and flue gas recirculation (FGR).	12-03-2015	FGBOILERMACT-EXISTING_AND_NEW-GAS_1-S1
EUEBLR43-10-S1	One 120,000 pound steam/hr boiler with a maximum nameplate heat input capacity of 143.2 MMBTU/hr for natural gas and 138.5 MMBTU/hr for #2 fuel oil. The boiler primarily burns natural gas with #2 fuel oil as a back-up fuel. The boiler will utilize low NOx burners (LNB) and flue gas recirculation (FGR).	11-17-2020	FGEBLR43-10&11-S1, FGBOILERMACT-EXISTING_AND_NEW-GAS_1-S1

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUEBLR43-11-S1	One 120,000 pound steam/hr boiler with a maximum nameplate heat input capacity of 143.2 MMBTU/hr for natural gas and 138.5 MMBTU/hr for #2 fuel oil. The boiler primarily burns natural gas with #2 fuel oil as a back-up fuel. The boiler will utilize low NOx burners (LNB) and flue gas recirculation (FGR).	12-28-2020	FGEBLR43-10&11-S1, FGBOILERMACT-EXISTING_AND_NEW-GAS_1-S1
EUBOILERMACT<5MMBTU/HR-S1	Requirements for existing boilers and process heaters with a heat input capacity of <5 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.	01-01-1989/ 08-01-2003/ 03-31-2006	FGBOILERMACT-EXISTING_AND_NEW_SMALL UNITS-S1
EUTANK8500-S1	20,000 gallon horizontal fixed roof #2 fuel oil storage tank.	To Be Determined	FGB43OILTANKS-S1
EUTANK8600-S1	20,000 gallon horizontal fixed roof #2 fuel oil storage tank.	To Be Determined	FGB43OILTANKS-S1
EUTANK8700-S1	20,000 gallon horizontal fixed roof #2 fuel oil storage tank.	To Be Determined	FGB43OILTANKS-S1
EUB51GENERATOR-S1	Diesel fuel-fired reciprocating engine generator with a maximum nameplate capacity of 1.25 MW used for emergency power generation only.	01-01-1996	NA
EURICEMACT-CI-S1	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, compression ignition (CI) RICE equal to or less than 500 brake hp. A RICE is existing if the date of installation is before June 12, 2006. This applies to engine 186GENE1001-1 at the facility.	03-03-1993	FGRICEMACT-CI-S1

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EURICEMACT-SI-S1	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. This applies to engine 000GENE1000-2 at the facility.	02-01-1993	FGRICEMACT-SI-S1
EURICE-CI-NSPS-S1	Stationary Compression Ignition RICE units that meet all the criteria specified in 40 CFR, Part 60, Subpart IIII; 40 CFR 60.4200, and meet the definition of Emergency Stationary RICE or Fire Pump Engine in 40 CFR 60.4219.	01-01-2007/ 08-16-2007/ 11-01-2012	FGRICE-CI-NSPS-S1
EURICE-SI-NSPS-S1	Stationary Reciprocating Spark Ignition Internal Combustion Engines (ICE) units that meet all the criteria specified in 40 CFR Part 60, Subpart JJJJ; 40 CFR 60.4200, and meet the definition of Emergency Stationary ICE 40 CFR 60.4248.	03-23-2011	FGRICE-SI-NSPS-S1
EUECOLDNEW-S1	Cold cleaners and any new cold cleaners exempt by Rule 281(2)(h) or Rule 285(2)(r)(iv), and not subject to the Halogenated Solvent Cleaner Maximum Achievable Control Technology (MACT).	>01-11-1978	FGCOLDCLEANER-S1
EUELECTROPOLISH-S1	Electropolisher and passivation system.	05-12-2000	FGRULE290-S1

**EUEBLR43-7-S1
 EMISSION UNIT CONDITIONS**

DESCRIPTION

One 120,000 pound steam/hr natural gas fired boiler with No. 2 fuel oil backup. (PTI 233-15)

Flexible Group ID: FGBOILERMACT-EXISTING_AND_NEW-GAS_1-S1

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. SO ₂	1.11 lbs/MMBTU ²	24-hour average	EUEBLR43-7-S1	SC VI.1	R 336.1401

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. No. 2 Fuel Oil	1.00% Sulfur by weight calculated on the basis of 18,000 BTU / lb ²	Instantaneous	EUEBLR43-7-S1	SC VI.1, V.1, V.2, V.3	R 336.1401

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not burn liquid fuel in EUEBLR43-7-S1 except for the following circumstances:² **(40 CFR 63.7575)**
 - a. Periodic testing of liquid fuel, maintenance, or operator training.
 - b. Periods of gas curtailment or supply interruptions as defined below:
 - i. Periods of gas curtailment or supply interruption mean periods of time during which the supply of gaseous fuel to an affected boiler or process heater is restricted or halted for reasons beyond the control of the permittee.
 - ii. The act of entering into a contractual agreement with a supplier of natural gas established for curtailment purposes does not constitute a reason that is under the control of the permittee for the purposes of this definition.
 - iii. An increase in the cost or unit price of natural gas due to normal market fluctuations not during periods of supplier delivery restriction does not constitute a period of natural gas curtailment or supply interruption.
 - iv. On-site gaseous fuel system emergencies or equipment failures qualify as periods of supply interruption when the emergency or failure is beyond the control of the permittee.

2. The burning of liquid fuel in EUEBLR43-7-S1 for performance testing, maintenance, or operator training shall not exceed a combined total of 48 hours during any calendar year.² **(40 CFR 63.7575)**

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. Fuel oil analysis of density, BTU/gal or BTU/lb and sulfur content, by weight. **(R 336.1213(3))**
2. All fuel oil analysis shall be done using ASTM D4057-88 and D129-91, ASTM D2622-92, ASTM D4294-90, or an EPA approved test method. **(R 336.1213(3))**
3. Fuel oil analysis shall be conducted once every 12 months. **(R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep records for each delivery of the oil analysis, as provided by the supplier, including the percent sulfur content by weight and the heat content in BTU per pound.² **(R 336.1213(3), R 336.1401)**
2. When No. 2 fuel oil is being fired during gas curtailment or supply interruptions, the permittee shall conduct an initial survey, once per calendar day, to determine if the visible emissions appear to be 20% opacity or greater. With an indication of 20% opacity or greater, the permittee shall conduct and record the results of an EPA method 9 visible emission observation, using a certified reader, for a minimum period of 12 minutes.² **(R 336.1213(3), R 336.1301)**
3. If the permittee burns No. 2 fuel oil, the permittee shall keep, in a satisfactory manner, records of the total hours per calendar year that No. 2 fuel oil was burned and the total hours per calendar year that EUEBLR43-7-S1 operated during periods of gas curtailment or gas supply emergencies.² **(40 CFR 63.7555(h), 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))**
4. If the permittee intends to burn No. 2 fuel oil during a period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575, SC III.1, the permittee shall submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption. The notification must include the information specified below:² **(40 CFR 63.7545(f))**
 - a. Company name and address.
 - b. Identification of the affected unit.
 - 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.
 - d. Type of alternative fuel that the permittee intends to use.
 - e. Dates when the alternative fuel use is expected to begin and end.

See Appendix 8-S1

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVEBLR43-7-8	60 ²	127 ²	R 336.1201(3)

IX. OTHER REQUIREMENTS

1. The permittee shall implement and document the results of the following malfunction abatement program when a 6-minute average visible emission reading exceeds the limits in R 336.1301 detailed in General Condition 11:² **(R 336.1911)**
 - a. Adjust O₂ level through control system.
 - b. Adjust draft.
 - c. Adjust master to shift load from offending boiler to another.

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).

**EUEBLR43-8-S1
 EMISSION UNIT CONDITIONS**

DESCRIPTION

One 120,000 pound steam/hr natural gas fired boiler with No. 5 fuel oil backup. (PTI 233-15)

Flexible Group ID: FGBOILERMACT-EXISTING_AND_NEW-GAS_1-S1

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	0.20 lb/MMBTU from natural gas ²	Hourly	EUEBLR43-8-S1	SC V.1	R 336.1201(3)
2. NOx	0.30 lb/MMBTU from oil ²	Hourly	EUEBLR43-8-S1	SC V.1	R 336.1201(3)
3. SO ₂	0.80 lb/MMBTU ²	Based upon a 24- hour average	EUEBLR43-8-S1	SC VI.1	R 336.1401

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. No. 5 Fuel Oil	Sulfur content shall not exceed an equivalent of 0.72% by weight calculated on the basis of 18,000 BTU / lb ²	Instantaneous	EUEBLR43-8-S1	SC V.5	R 336.1401

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not burn liquid fuel in EUEBLR43-8-S1 except for the following circumstances:² **(40 CFR 63.7575)**
 - a. Periodic testing of liquid fuel, maintenance, or operator training.
 - b. Periods of gas curtailment or supply interruptions as defined below:
 - i. Periods of gas curtailment or supply interruption mean periods of time during which the supply of gaseous fuel to an affected boiler or process heater is restricted or halted for reasons beyond the control of the permittee.
 - ii. The act of entering into a contractual agreement with a supplier of natural gas established for curtailment purposes does not constitute a reason that is under the control of the permittee for the purposes of this definition.
 - iii. An increase in the cost or unit price of natural gas due to normal market fluctuations not during periods of supplier delivery restriction does not constitute a period of natural gas curtailment or supply interruption.
 - iv. On-site gaseous fuel system emergencies or equipment failures qualify as periods of supply interruption when the emergency or failure is beyond the control of the permittee.

2. The burning of liquid fuel in EUEBLR43-8-S1 for performance testing, maintenance, or operator training shall not exceed a combined total of 48 hours during any calendar year.² **(40 CFR 63.7575)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. The permittee shall verify NO_x emission rates from EUEBLR43-8-S1 by testing at the owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in 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. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
2. The permittee shall verify the NO_x emission rates from EUEBLR43-8-S1, at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted. **(R 336.1213(3))**
4. Fuel oil analysis of density, BTU/gal or BTU/lb and sulfur content, by weight. **(R 336.1213(3))**
5. All fuel oil analysis shall be done using ASTM D4057-88 and D129-91, ASTM D2622-92, ASTM D4294-90, or an EPA approved test method. **(R 336.1213(3))**
6. Fuel oil analysis shall be conducted once every 12 months. **(R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep records for each delivery of the oil analysis, as provided by the supplier, including the percent sulfur content by weight and the heat content in BTU per pound. **(R 336.1213(3), R 336.1401)**
2. When No. 5 fuel oil is being fired during gas curtailment or supply interruptions, the permittee shall conduct an initial survey, once per calendar day, to determine if the visible emissions appear to be 20% opacity or greater. With an indication of 20% opacity or greater, the permittee shall conduct and record the results of an EPA method 9 visible emission observation, using a certified reader, for a minimum period of 12 minutes.² **(R 336.1213(3), R 336.1301)**
3. If the permittee burns No. 5 fuel oil, the permittee shall keep, in a satisfactory manner, records of the total hours per calendar year that No. 5 fuel oil was burned and the total hours per calendar year that EUEBLR43-8-S1 operated during periods of gas curtailment or gas supply emergencies.² **(40 CFR 63.7555(h), 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))**
4. If the permittee intends to burn No. 2 fuel oil during a period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575, SC III.1, the permittee shall submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption. The notification must include the information specified below.² **(40 CFR 63.7545(f))**
 - a. Company name and address.
 - b. Identification of the affected unit.
 - 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.
 - d. Type of alternative fuel that the permittee intends to use.
 - e. Dates when the alternative fuel use is expected to begin and end.

See Appendix 8-S1

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVEBLR43-7-8	60 ²	127 ²	R 336.1201(3)

IX. OTHER REQUIREMENTS

1. The permittee shall implement and document the results of the following malfunction abatement program when a 6-minute average visible emission reading exceeds the limits in R 336.1301 detailed in General Condition 11:² **(R 336.1911)**
 - a. Adjust O₂ level through control system.
 - b. Adjust draft.
 - c. Adjust master to shift load from offending boiler to another.

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).

**EUEBLR43-9-S1
 EMISSION UNIT CONDITIONS**

DESCRIPTION

One 120,000 pound steam/hr boiler with a maximum nameplate heat input capacity of 144.7 MMBTU/hr for natural gas and 138.3 MMBTU/hr for #2 fuel oil. The boiler primarily burns natural gas with #2 fuel oil as a backup fuel.

Flexible Group ID: FGBOILERMACT-EXISTING AND NEW-GAS_1-S1

POLLUTION CONTROL EQUIPMENT

Low NOx burner, flue gas recirculation

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	0.20 lb/MMBTU ²	30 day rolling average time period	EUEBLR43-9-S1	SC VI.2	40 CFR 60.44b(a), 40 CFR 52.21(c)&(d)
2. NOx	32.0 tpy ²	12-month rolling time period as determined at the end of each calendar month.	EUEBLR43-9-S1	SC VI.2	R336.1205(1)

II. MATERIAL LIMIT(S)

1. The permittee shall burn only natural gas or #2 fuel oil in EUEBLR-43-9-S1.² **(R 336.1201(3), 40 CFR 60.44b(a))**
2. The permittee shall not burn more than 1,614,170 gallons of #2 fuel oil in EUEBLR43-9-S1 per 12-month rolling time period.² **(R 336.1205(1), R 336.1225, 40 CFR 52.21(c) & (d))**
3. The permittee shall only burn #2 fuel oil that contains no more than 0.0015 weight percent sulfur.² **(40 CFR 60.42b(j), 40 CFR 52.21(c) & (d))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate a continuous oxygen trim system on EUEBLR43-9-S1 that maintains an optimum air to fuel ratio and conduct a tune-up of EUEBLR43-9-S1 every 5 years as follows:² **(40 CFR 63.7540(a)(12))**
 - a. The permittee shall inspect the burner, and clean or replace any components of the burner as necessary. The permittee may delay the burner inspection until the next scheduled unit shutdown. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;
 - b. The permittee shall 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;
 - c. The permittee shall 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.
 - d. The permittee shall optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NOX requirement to which the unit is subject;
 - e. The permittee shall 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.

- i. The permittee shall maintain on-site and submit, if requested by the Administrator, a report containing the following information:
 - ii. 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.
 - iii. A description of any corrective actions taken as a part of the tune-up.
 - iv. 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.
2. The permittee shall not burn liquid fuel in EUEBLR43-9-S1 except for the following circumstances:² **(40 CFR 63.7575)**
- a. Periodic testing of liquid fuel, maintenance, or operator training.
 - b. Periods of gas curtailment or supply interruptions as defined below.
 - i. Periods of gas curtailment or supply interruption means periods of time during which the supply of gaseous fuel to an affected boiler or process heater is restricted or halted for reasons beyond the control of the permittee.
 - ii. The act of entering into a contractual agreement with a supplier of natural gas established for curtailment purposes does not constitute a reason that is under the control of the permittee.
 - iii. An increase in the cost or unit price of natural gas due to normal market fluctuations not during periods of supplier delivery restriction does not constitute a period of natural gas curtailment or supply interruption.
 - iv. On-site gaseous fuel system emergencies or equipment failures qualify as periods of supply interruption when the emergency or failure is beyond the control of the permittee.

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The maximum design heat input capacity for each boiler of EUEBLR43-9-S1 shall not exceed 144.5 MMBTU/hr for natural gas and 138.3 MMBTU/hr for #2 fuel oil on a fuel heat input basis.² **(R 336.1205(1)(a) & (3), R 336.1225, 40 CFR 52.21(c) & (d), R 336.2810, 40 CFR 52.21(j), 40 CFR Part 60, Subpart Db)**
2. The permittee shall not operate EUEBLR43-9-S1 unless the low NOx burners and flue gas recirculation system are installed, maintained, and operated in a satisfactory manner.² **(R 336.1205, 40 CFR 52.21(c) & (d))**
3. The permittee shall install, calibrate, maintain and operate, in a satisfactory manner, a device to monitor and record the fuel usage rate for EUEBLR43-9-S1 on a continuous basis, for both natural gas and #2 fuel oil.² **(40 CFR 60.49b(d)(1))**
4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, devices to monitor and record the NOx emissions, and oxygen (O₂), or carbon dioxide (CO₂), content of the exhaust gas from each boiler of FGEBLR43-10&11-S1 on a continuous basis. The permittee shall install and operate the Continuous Emission Monitoring System (CEMS) to meet the timelines, requirements and reporting detailed in Appendix 3-S1.² **(R 336.1205(1)(a) & (b), 40 CFR 52.21(c) & (d), R 336.2810, 40 CFR 60.48b(b))**

See Appendix 3-S1

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 complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(1)(a) & (3), R 336.1224, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR 60.44b(i), 40 CFR 60.49b(d), (g), & (w))**
2. The permittee shall continuously monitor and record, in a satisfactory manner, the NO_x emissions and the O₂, or CO₂, emissions from EUEBLR43-9-S1. The permittee shall operate each Continuous Emission Monitoring System (CEMS) to meet the timelines, requirements and reporting detailed in Appendix 3-S1 and shall use the CEMS data for determining compliance with SC I.1 & I.2.² **(R 336.1205(1)(a) & (3), 40 CFR 52.21(c) & (d), 40 CFR 60.48b(b))**
3. The permittee shall keep, in a satisfactory manner, daily and 30-day rolling average NO_x emission rate records for EUEBLR43-9-S1, from the data collected from the CEMS. The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.1205(1)(a) & (3), 40 CFR 52.21(c) & (d), 40 CFR 60.44b(i), 40 CFR 60.49b(g))**
4. The permittee shall calculate and keep, in a satisfactory manner, records of the 12-month rolling emissions for NO_x from the data collected from the CEMS. The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.1205(3))**
5. The permittee shall keep, in a satisfactory manner, records of the daily, monthly, and 12-month rolling natural gas and #2 fuel oil usage records for EUEBLR43-9-S1. The records must indicate the total amount of natural gas used in cubic feet and total amount of #2 fuel oil in gallons. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1205(1)(a) & (3), R 336.1224, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR 60.49b(d))**
6. The permittee shall calculate and keep, in a satisfactory manner, records of the individual 12-month rolling annual capacity factors for natural gas and #2 fuel oil for EUEBLR43-9-S1. The permittee shall keep all records on file and make them available to the Department upon request.² **(40 CFR 60.49b(d))**
7. The permittee shall maintain records of all information necessary for all notifications and reports as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of this permit. This information shall include, but shall not be limited to the following:
 - a. Compliance tests and any testing required under the special conditions of this permit.
 - b. Monitoring data.
 - c. Documentation of heat input capacity required to show compliance with SC IV.1.
 - d. All records required by 40 CFR 60.7 and 40 CFR 60.49b.
 - e. All calculations or documents necessary to show compliance with the limits contained in this permit.

All of the above information shall be stored in a format acceptable to the Air Quality Division and shall be consistent with the requirements of 40 CFR 60.7(f). The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.1205(1)(a) & (3), R 336.1224, R 336.1225, R 336.1331(1)(c), R 336.1702(a), R 336.1912, 40 CFR 52.21(c) & (d), 40 CFR 60.7(f), 40 CFR Part 60, Subpart Db)**

8. The permittee shall keep, in a satisfactory manner, #2 fuel oil supplier receipts from the fuel supplier to certify that the fuel meets the definition of distillate oil and the sulfur content limit of 0.0015 percent by weight.² **(40 CFR 60.41b, 40 CFR 60.42b, 40 CFR 60.49b(r)(1))**
9. The permittee shall continuously monitor and record, in a satisfactory manner, the NOx emissions from EUEBLR43-9-S1. The permittee shall operate the Continuous Emission Monitoring System (CEMS) to meet the timelines, requirements and reporting detailed in Appendix 3-S1 and shall use the CEMS data for determining compliance with SC I.1, I.2, and I.3.² **(R 336.1205, R 336.2802)**
10. The permittee shall maintain a record of the following for EUEBLR43-9-S1.² **(R 336.1205, 40 CFR 63.7575, 40 CFR 52.21(c) & (d))**
 - a. The reason for burning of #2 fuel oil (natural gas curtailment or periodic testing of liquid fuels/maintenance/operator training) and the number of hours for each occurrence.
 - b. The total number of hours of operation while burning #2 fuel oil for each month for any reason.
 - c. The total number of hours of operation while burning #2 fuel oil for the purpose of performance testing, maintenance, or operator training.
 - d. The 12-month rolling total number of hours of operation while burning #2 fuel oil for any reason.
 - e. The total number of hours of operation while burning #2 fuel oil for the purpose of performance testing, maintenance, or operator training in the last calendar year.

See Appendix 3-S1

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 the following notifications to the Department in accordance with the federal National Emissions Standards for Hazardous Air Pollutants:² **(40 CFR 63.7545)**
 - a. The permittee shall submit to the Administrator all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to EUEBLR43-9-S1 by the dates specified.

See Appendix 8-S1

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. SVEBLR43-9-S1	48 ²	127 ²	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and Db, as they apply to EUEBLR43-9-S1.² **(40 CFR Part 60, Subparts A & Db)**

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).

**EUB51GENERATOR-S1
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Diesel fuel-fired reciprocating engine generator with a maximum nameplate capacity of 1.25 MW used for emergency power generation only.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	12.9 tpy ^{2*}	12-month rolling time period, as determined at the end of each calendar month	EUB51GENERATOR-S1	SC VI.3	R 336.1205(1)(a) and (3)

* This emission limit is based on a default emission factor of 12.7 grams of NOx per brake horsepower-hour (g/bhp-hr) and 1,850 brake horsepower (bhp) at 100% load in standby mode operation.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall burn only diesel No. 2 fuel oil in EUB51GENERATOR-S1.² **(R 336.1224, R 336.1225, R 336.1402)**
2. The permittee shall operate EUB51GENERATOR-S1 in accordance with manufacturer’s recommendations for safe and proper operation to minimize emissions during periods of startup, shutdown and malfunction.² **(R 336.1912)**
3. The permittee shall not operate EUB51GENERATOR-S1 more than 500 hours per 12-month rolling time period as determined at the end of each calendar month.² **(R 336.1205(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 shall monitor and record the hours of operation of EUB51GENERATOR-S1 on a monthly basis in a manner that is acceptable to the AQD District Supervisor.² **(R 336.1205(3))**
2. The permittee shall keep, in a satisfactory manner, records of the following:² **(R 336.1912, R 336.1205(3))**
 - a. The date, duration, and description of malfunctions and corrective maintenance performed that may impact the air emissions of EUB51GENERATOR-S1.
 - b. Results from any air emissions testing of EUB51GENERATOR-S1.
3. The permittee shall calculate monthly and 12-month rolling time period NOx emissions from EUB51GENERATOR-S1, and shall make them available to the Department upon request. For the purpose of showing compliance with the NOx emission limit in SC I.1., the applicant shall multiply the default NOx emission factor (12.7 grams of NOx per brake horsepower-hour (g/bhp-hr)) by the number of operating hours and the output capacity (1,850 brake horsepower) of the generator. Whenever EUB51GENERATOR-S1 is in service, it will be assumed to be operating at 100% load (in standby mode) for every hour of operation. In the event that stack testing is performed on EUB51GENERATOR-S1, the emission factor derived from that testing (expressed as grams of NOx per brake horsepower-hour) shall be used in lieu of the default emission factor.² **(R 336.1205(3))**
4. The permittee shall keep, in a satisfactory manner, records of the type of diesel fuel oil delivered, for EUB51GENERATOR-S1, as required by SC III.1.² **(R 336.1224, R 336.1225, R 336.1402)**

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-S1

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-B51GENERATOR	8.375 ¹ (each discharge point, there are two discharge points)	12.5 ¹	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).

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
FGEBLR43-10&11-S1	Two (2) 120,000 pound steam/hr boilers, each with a maximum nameplate heat input capacity of 143.2 MMBTU/hr for natural gas and 138.5 MMBTU/hr for #2 fuel oil. The boilers primarily burn natural gas with #2 fuel oil as a back-up fuel.	EUEBLR43-10-S1, EUEBLR43-11-S1
FGB43OILTANKS-S1	Three (3) 20,000 gallon #2 fuel oil storage tanks providing fuel to FGEBLR43-10&11-S1 and EUEBLR43-9-S1.	EUTANK8500-S1, EUTANK8600-S1, EUTANK8700-S1
FGBOILERMACT-EXISTING_AND_NEW_GAS_1-S1	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.	EUEBLR43-7-S1, EUEBLR43-8-S1, EUEBLR43-9-S1, EUEBLR43-10-S1, EUEBLR43-11-S1
FGBOILERMACT-EXISTING_AND_NEW_SMALL UNITS-S1	Requirements for existing boilers and process heaters 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.	EUBOILERMACT<5MMBTU/HR-S1 EUBOILERMACT≥5<10MMBTU/HR-S1

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGCOLDCLEANER-S1	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.	EUECOLDNEW-S1
FGRULE290-S1	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.	EUELECTROPOLISH-S1
FGRICEMACT-CI-S1	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, compression ignition (CI) RICE equal to or less than 500 brake hp. A RICE is existing if the date of installation is before June 12, 2006.	EURICEMACT-CI-S1-S1
FGRICEMACT-SI-S1	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.	EURICEMACT-SI-S1
FGRICE-CI-NSPS-S1	These conditions apply to Stationary Compression Ignition Internal Combustion Engines (ICE) units that meet all the criteria specified in 40 CFR Part 60, Subpart IIII; 40 CFR 60.4200; and meet the definition of Emergency Stationary RICE or Fire Pump Engine in 40 CFR 60.4219.	EURICE-CI-NSPS-S1
FGRICE-SI-NSPS-S1	These conditions apply to Stationary Reciprocating Spark Ignition ICE units that meet all the criteria specified in 40 CFR Part 60, Subpart JJJJ; 40 CFR 60.4200; and meet the definition of Emergency Stationary ICE, 40 CFR 60.4248.	EURICE-SI-NSPS-S1

**FGEBLR43-10&11-S1
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Two (2) 120,000 pound steam/hr boilers, each with a maximum nameplate heat input capacity of 143.2 MMBTU/hr for natural gas and 138.5 MMBTU/hr for #2 fuel oil. The boilers primarily burn natural gas with #2 fuel oil as back-up fuel.

Emission Units: EUEBLR43-10-S1, EUEBLR43-11-S1

POLLUTION CONTROL EQUIPMENT

Low NO_x burners and flue gas recirculation for NO_x control.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NO _x	0.2 lb/MMBTU (each unit) ²	30-day rolling average time period	FGEBLR43-10&11-S1	SC VI.2, SC VI.3, SC VI.7	40 CFR 52.21(c) & (d), 40 CFR 60.44b(l)(1)
2. NO _x	33.6 tpy (each unit) ²	12-month rolling time period as determined at the end of each calendar month	FGEBLR43-10&11-S1	SC VI.2, SC VI.4, SC VI.7	R 336.1205(1)(a) & (3), 40 CFR 52.21(c) & (d)

II. MATERIAL LIMIT(S)

1. The permittee shall burn only natural gas or #2 fuel oil in FGEBLR43-10&11-S1.² (**R 336.1205(1)(a) & (3), R 336.1224, R 336.1225, R 336.1331, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR Part 60, Subpart Db**)
2. Prior to July 1, 2021, the permittee shall not burn more than 2,527,380 gallons of #2 fuel oil per 12-month rolling time period in FGEBLR43-10&11-S1. After June 30, 2021, the permittee shall not burn more than 3,839,580 gallons per 12-month rolling time period in FGEBLR43-10&11-S1.² (**R 336.1205(1), R 336.1225, 40 CFR 52.21(c) & (d)**)
3. The permittee shall only burn #2 fuel oil that contains no more than 0.0015 weight percent sulfur.² (**40 CFR 60.42b(j), 40 CFR 52.21(c) & (d)**)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Within 180 days of trial operation, the permittee shall submit to the AQD District Supervisor, for review and approval, a malfunction abatement plan (MAP) as described in Rule 911(2) for FGEBLR43-10&11-S1. The permittee shall not operate either EUEBLR43-10-S1 or EUEBLR43-11-S1 of FGEBLR43-10&11-S1 unless the approved MAP, or an alternate plan approved by the AQD District Supervisor, is implemented and maintained. The MAP shall include the following:
 - a. Recordkeeping of repairs and maintenance of each boiler.
 - b. Procedures for maintaining and operating each boiler and any monitoring equipment in a satisfactory manner during malfunction events.
 - c. A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

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 336.1205(1)(a) & (3), R 336.1910, R 336.1911, 40 CFR 52.21(c) & (d))**

2. The permittee shall not operate EUEBLR43-10-S1 or EUEBLR43-11-S1 of FGEBLR43-10&11-S1 unless an acceptable plan that describes how emissions will be minimized during all startups, shutdowns and malfunctions has been submitted to the AQD District Supervisor. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices.² **(R 336.1205(1)(a)&(3), R 336.1912(1), 40 CFR 52.21(c) & (d))**
3. The permittee shall operate a continuous oxygen trim system on EUEBLR43-10-S1 or EUEBLR43-11-S1 of FGEBLR43-10&11-S1 that maintains an optimum air to fuel ratio and conduct a tune-up every 5 years as follows:² **(40 CFR 63.7540 (a)(12))**
 - a. The permittee shall inspect the burner, and clean or replace any components of the burner as necessary. The permittee may delay the burner inspection until the next scheduled unit shutdown. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;
 - b. The permittee shall 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;
 - c. The permittee shall 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;
 - d. The permittee shall optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NOx requirement to which the unit is subject;
 - e. The permittee shall 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.
 - f. The permittee shall maintain on-site and submit, if requested by the Administrator, a report containing the following information:
 - i. 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.
 - ii. A description of any corrective actions taken as a part of the tune-up.
 - iii. 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.
4. The permittee shall not burn liquid fuel in EUEBLR43-10-S1 or EUEBLR43-11-S1 of FGEBLR43-10&11-S1 except for the following circumstances:² **(40 CFR 63.7575)**
 - a. Periodic testing of liquid fuel, maintenance, or operator training.
 - b. Periods of gas curtailment or supply interruptions as defined below.
 - i. Periods of gas curtailment or supply interruption means periods of time during which the supply of gaseous fuel to an affected boiler or process heater is restricted or halted for reasons beyond the control of the permittee.
 - ii. The act of entering into a contractual agreement with a supplier of natural gas established for curtailment purposes does not constitute a reason that is under the control of the permittee.
 - iii. An increase in the cost or unit price of natural gas due to normal market fluctuations not during periods of supplier delivery restriction does not constitute a period of natural gas curtailment or supply interruption.

- iv. On-site gaseous fuel system emergencies or equipment failures qualify as periods of supply interruption when the emergency or failure is beyond the control of the permittee.

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The maximum design heat input capacity for each boiler of FGEBLR43-10&11-S1 shall not exceed 143.2 MMBTU per hour for natural gas and 138.5 MMBTU/hr for fuel oil on a fuel heat input basis. ² (R 336.1205(1)(a) & (3), R 336.1225, 40 CFR 52.21(c) & (d), R 336.2810, 40 CFR 52.21(j), 40 CFR Part 60, Subpart Db)
2. The permittee shall not operate EUEBLR43-10-S1 or EUEBLR43-11-S1 of FGEBLR43-10&11-S1 unless the low NOx burners and flue gas recirculation system are installed, maintained, and operated in a satisfactory manner. Satisfactory manner includes operating and maintaining the equipment in accordance with the MAP required in SC III.1.² (R 336.1205(1)(a) & (3), R 336.1910, 40 CFR 52.21(c) & (d))
3. The permittee shall install, calibrate, maintain and operate, in a satisfactory manner, a device to monitor and record the fuel usage rate for FGEBLR43-10&11-S1 on a continuous basis, for both natural gas and No. 2 fuel oil. ² (40 CFR 60.49b(d)(1))
4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, devices to monitor and record the NOx emissions, and oxygen (O2), or carbon dioxide (CO2), content of the exhaust gas from each boiler of FGEBLR43-10&11-S1 on a continuous basis. The permittee shall install and operate the Continuous Emission Monitoring System (CEMS) to meet the timelines, requirements and reporting detailed in Appendix 3-S1.² (R 336.1205(1)(a) & (b), 40 CFR 52.21(c) & (d), R 336.2810, 40 CFR 60.48b(b))

See Appendix 3-S1

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 complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² (R 336.1205(1)(a) & (3), R 336.1224, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR 60.44b(i), 40 CFR 60.49b(d), (g), & (w))
2. The permittee shall continuously monitor and record, in a satisfactory manner, the NOx emissions and the O2, or CO2, emissions from FGEBLR43-10&11-S1. The permittee shall operate each Continuous Emission Monitoring System (CEMS) to meet the timelines, requirements and reporting detailed in Appendix 3-S1 and shall use the CEMS data for determining compliance with SC I.1 & I.2.² (R 336.1205(1)(a) & (3), 40 CFR 52.21(c) & (d), 40 CFR 60.48b(b))
3. The permittee shall keep, in a satisfactory manner, daily and 30-day rolling average NOx emission rate records for FGEBLR43-10&11-S1, as required by SC I.1. The permittee shall keep all records on file and make them available to the Department upon request.² (R 336.1205(1)(a) & (3), 40 CFR 52.21(c) & (d), 40 CFR 60.44b(i), 40 CFR 60.49b(g))
4. The permittee shall calculate and keep, in a satisfactory manner, records of the monthly and 12-month rolling emissions for NOx. The permittee shall keep all records on file and make them available to the Department upon request.² (R 336.1205(3))

5. The permittee shall keep, in a satisfactory manner, records of the daily, monthly, and 12-month rolling natural gas and fuel oil burned in each boiler in FGEBLR43-10&11-S1. The records must indicate the total amount of natural gas used in cubic feet and number of fuel oil in gallons. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1205(1)(a) & (3), R 336.1224, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR 60.49b(d))**
6. The permittee shall calculate and keep, in a satisfactory manner, records of the monthly and 12-month rolling annual capacity factor for natural gas for FGEBLR43-10&11-S1. The permittee shall keep all records on file and make them available to the Department upon request² **(40 CFR 60.49b(d))**
7. The permittee shall maintain records of all information necessary for all notifications and reports as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of this permit. This information shall include, but shall not be limited to the following:
 - a. Compliance tests and any testing required under the special conditions of this permit.
 - b. Monitoring data.
 - c. Documentation of heat input capacity required to show compliance with SC IV.1.
 - d. Identification, type and the amounts of fuel combusted in FGEBLR43-10&11-S1 on an hourly basis, calendar day basis, and calendar month basis.
 - e. All records required by 40 CFR 60.7 and 40 CFR 60.49b.
 - f. All calculations or documents necessary to show compliance with the limits contained in this permit.

All of the above information shall be stored in a format acceptable to the Air Quality Division and shall be consistent with the requirements of 40 CFR 60.7(f). The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.1205(1)(a) & (3), R 336.1224, R 336.1225, R 336.1331(1)(c), R 336.1702(a), R 336.1912, 40 CFR 52.21(c) & (d), 40 CFR 60.7(f), 40 CFR Part 60, Subpart Db)**

8. The permittee shall keep, in a satisfactory manner, No. 2 fuel oil supplier receipts from the fuel supplier to certify that the fuel meets the definition of distillate oil and the sulfur content limit of 0.0015 percent by weight.² **(40 CFR 60.41b, 40 CFR 60.42b, 40 CFR 60.49b(r)(1))**

See Appendix 3-S1

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 all reports required by the federal Standards of Performance for New Stationary Sources, 40 CFR 60.49b, as applicable. The permittee shall submit these reports to the AQD District Supervisor within the time frames specified in 40 CFR 60.49b and/or 40 CFR 60.7.² **(40 CFR 60.7, 40 CFR 60.49b(b), (h) & (i))**

See Appendix 8-S1

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. SVEBLR43-10	48 ²	128 ²	R 336.1225, 40 CFR 52.21(c) & (d)
2. SVEBLR43-11	48 ²	128 ²	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and Db, as they apply to FGEBLR43-10&11-S1.² **(40 CFR Part 60, Subparts A & Db)**
2. The permittee shall comply with all provisions of the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63, Subparts A and DDDDD, as they apply to FGEBLR43-10&11-S1.² **(40 CFR Part 63, Subparts A & DDDDD)**

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).

FGB43OILTANKS-S1 FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Three (3) 20,000 gallon #2 fuel oil storage tanks providing fuel to FGEBLR43-10&11-S1 and EUEBLR43-9-S1.

Emission Units: EUTANK8500-S1, EUTANK8600-S1, EUTANK8700-S1

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall only store #2 fuel oil in FGB43OILTANKS-S1 for use only in FGEBLR43-10&11-S1 and EUEBLR43-9-S1.² **(R 336.1225, R 336.1702, 40 CFR 60.110b)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not install any tank in FGB43OILTANKS-S1 with a capacity over 20,000 gallons.² **(R 336.1702, R 336.1225)**

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 specification of each tank in FGB43OILTANKS-S1. The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.1205(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-S1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

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).

**FGBOILERMACT-EXISTING_AND_NEW_GAS_1-S1
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: EUEBLR43-7-S1, EUEBLR43-8-S1, EUEBLR43-9-S1, EUEBLR43-10-S1, and EUEBLR43-11-S1

POLLUTION CONTROL EQUIPMENT

Low NOx burners and flue gas recirculation for NOx control on EUEBLR43-9-S1, EUEBLR43-10-S1, and EUEBLR43-11-S1

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must complete an initial tune-up of each emission unit installed after June 4, 2010 that has a continuous oxygen trim system as specified in SC III.3 by no later than 61 months after startup.² **(40 CFR 63.7510(g))**
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.² **(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 FGBOILERMACT-EXISTING_AND_NEW_GAS_1-S1 of the burner(s) and combustion controls, as applicable, every 5 years as specified in 40 CFR 63.7540(a)(10)(i) through (vi).² **(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.² **(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.² **(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.² **(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.² **(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 that the permittee submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted.² **(40 CFR 63.7555(a)(1))**
2. 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.² **(40 CFR 63.7555(h))**
3. The permittee shall maintain on-site and submit, if requested by the AQD, a 5-year 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.² **(40 CFR 63.7540(a)(10)(vi)(A))**
 - b. A description of any corrective actions taken as a part of the tune-up.² **(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.² **(40 CFR 63.7540(a)(10)(vi)(C))**
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).² **(40 CFR 63.7560(a))**
5. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5-years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.² **(40 CFR 63.7560(b))**
6. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2-years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee can keep the records off site for the remaining 3-years.² **(40 CFR 63.7560(c))**
7. The permittee shall maintain a record of the following for FGBOILERMACT-S1:² **(R 336.1205, 40 CFR 63.7575, 40 CFR 52.21(c) & (d))**
 - a. The reason for burning of #2 fuel oil (natural gas curtailment or periodic testing of liquid fuels/maintenance/operator training) and the number of hours for each occurrence
 - b. The total number of hours of operation while burning #2 fuel oil for the purpose of periodic testing, maintenance, or operator training in the last calendar year.

See Appendix 3-S1

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.² **(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.² **(40 CFR 63.7545(f)(1))**
 - b. Identification of the affected unit.² **(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.² **(40 CFR 63.7545(f)(3))**
 - d. Type of alternative fuel that the permittee intends to use.² **(40 CFR 63.7545(f)(4))**
 - e. Dates when the alternative fuel use is expected to begin and end.² **(40 CFR 63.7545(f)(5))**
6. If the permittee has switched fuels or made a physical change to the boiler or process heater and the fuel switch or physical change resulted in the applicability of a different subcategory, the permittee must provide notice of the date upon which the permittee switched fuels or made the physical change within 30 days of the switch/change. The notification must identify:
 - a. The name of the owner or operator of the affected source, the location of the source, the boiler(s) and process heater(s) that have switched fuels, were physically changed, and the date of the notice.² **(40 CFR 63.7545(h)(1))**
 - b. The currently applicable subcategory under 40 CFR Part 63, Subpart DDDDD.² **(40 CFR 63.7545(h)(2))**
 - c. The date upon which the fuel switch or physical change occurred.² **(40 CFR 63.7545(h)(3))**
7. 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).² **(40 CFR 63.7550(b))**
8. The permittee must submit a compliance report containing the following information.
 - a. Company and Facility name and address.² **(40 CFR 63.7550(c)(5)(i))**
 - b. Process unit information, emissions limitations, and operating parameter limitations.² **(40 CFR 63.7550(c)(5)(ii))**
 - c. Date of report and beginning and ending dates of the reporting period.² **(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 annually and was delayed until the next scheduled or unscheduled unit shutdown.² **(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.² **(40 CFR 63.7550(c)(5)(xvii))**
9. 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.² **(40 CFR 63.7550(h)(3))**

See Appendix 8-S1

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.² **(40 CFR Part 63, Subparts A and DDDDD)**

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).

**FGBOILERMACT-EXISTING_AND_NEW_SMALL_UNITS-S1
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Requirements for all existing boilers and process heaters 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 Units:

Equal to or less than 5 MMBTU/hr and only burns gaseous or light liquid fuels	EUBOILERMACT<5MMBTU/HR-S1
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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 less than or equal to 5 MMBTU/hr, conduct a 5-year tune-up according to 40 CFR 63.7540(a)(12). Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. The burner inspection may be delayed until the next scheduled or unscheduled unit shutdown, but each burner must be inspected at least once every 72 months. **(40 CFR 63.7500(d) or (e), 40 CFR 63.7515(d), 40 CFR 63.7540(a)(12), 40 CFR Part 63, Subpart DDDDD, Table 3.1)**
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 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 5-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-S1

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)**

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).

FGCOLDCLEANER-S1 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 Unit: EUECOLDNEW-S1

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMITS

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 RESTRICTIONS

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 PARAMETERS

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-S1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

FGRULE290-S1
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: EUELECTROPOLISH-S1

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMITS

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 LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTION

- 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 sufficient 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-S1

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-S1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

FGRICEMACT-CI-S1
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, compression ignition (CI) RICE equal to or less than 500 brake hp. A RICE is existing if the date of installation is before June 12, 2006.

Emission Unit: EURICEMACT-CI-S1

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 63.6604(b), 40 CFR 1090.305)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must comply with the requirements in Item 1 of Table 2c of 40 CFR Part 63, Subpart ZZZZ which apply to each engine in FGRICEMACT-CI-S1 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 the air cleaner 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 work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State or local law has been abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law or which the risk was deemed unacceptable. **(40 CFR 63.6602, 40 CFR Part 63, Subpart ZZZZ, Table 2c.1)**

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(i))**

3. The permittee shall operate and maintain each engine in FGRICEMACT-CI-S1 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 FGRICEMACT-CI-S1, 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 FGRICEMACT-CI-S1 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))**
6. Each engine in FGRICEMACT-CI-S1 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.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 FGRICEMACT-CI-S1 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 Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30% of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20% from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee must change the oil within 2 business days or before commencing operation, whichever is later. The permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. **(40 CFR 63.6625(i))**

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 FGRICEMACT-CI-S1, 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 FGRICEMACT-CI-S1, 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 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 FGRICEMACT-CI-S1, 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 FGRICEMACT-CI-S1 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 FGRICEMACT-CI-S1 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), 40 CFR 63.6655(f), 40 CFR 63.6660)**
- 5. 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 FGRICEMACT-CI-S1, 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)**
- 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 63.6660(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 63.6660(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-S1

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)**

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).

**FGRICEMACT-SI-S1
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 Unit: EURICEMACT-SI-S1

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 FGRICEMACT-SI-S1 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 FGRICEMACT-SI-S1 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 FGRICEMACT-SI-S1 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 FGRICEMACT-SI-S1 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 FGRICEMACT-SI-S1 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 FGRICEMACT-SI-S1 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. **(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 FGRICEMACT-SI-S1, 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 FGRICEMACT-SI-S1, 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 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 FGRICEMACT-SI-S1, 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 FGRICEMACT-SI-S1 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 FGRICEMACT-SI-S1 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), 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-S1

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)**

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).

FGRICE-CI-NSPS-S1 FLEXIBLE GROUP CONDITIONS
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DESCRIPTION

These conditions apply to Stationary Compression Ignition RICE units that meet all the criteria specified in 40 CFR Part 60, Subpart IIII; 40 CFR 60.4200, and meet the definition of Emergency Stationary ICE or Fire Pump Engine in 40 CFR 60.4219.

Emission Unit: EURICE-CI-NSPS-S1

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

1. The permittee shall comply with the emission standards as defined in 40 CFR Part 60, Subpart IIII. **(40 CFR 60.4205(c))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall burn only ultra low sulfur diesel (ULSD). **(40 CFR 60.4207(b))**
2. The permittee shall operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions. **(40 CFR 60.4211(a)(1))**
3. The permittee may change only those emission-related settings that are permitted by the manufacturer. **(40 CFR 60.4211(a)(2))**
4. For CI fire pump engines that are manufactured during or after the model year that applies to the permittee's fire pump engine power rating in Table 3 of 40 CFR Part 60, Subpart IIII and must comply with the emission standards specified in 40 CFR 60.4205(c), the permittee must purchase an engine certified to the emission standards in 40 CFR 60.4205(c) for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as allowed in 40 CFR 60.4211(g). **(40 CFR 60.4211(c))**
5. The emergency stationary ICE must be operated according to the requirements below. In order for the engine to be considered an emergency stationary ICE, any operation other than emergency operation, maintenance and testing, emergency demand response and operation in non-emergency situations for 50 hours per year, as described below, is prohibited: **(40 CFR 60.4211(f))**
 - a. There is no time limit on the use of emergency stationary ICE in emergency situations.
 - b. The emergency stationary ICE may be operated for the purposes in c. and d. below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations counts as part of the 100 hours per calendar year as allowed.
 - c. The emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is

limited to 100 hours per year. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year.

- d. The permittee may operate the emergency stationary ICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing.

IV. DESIGN/EQUIPMENT PARAMETERS

- 1. The permittee shall install a non-resettable hour meter. **(40 CFR 60.4209(a))**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

- 1. The permittee must keep records of the operation of the engine in emergency and non-emergency service that is recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time. **(40 CFR 60.4214(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))**

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENTS

- 1. The permittee shall comply with all applicable requirements of the NSPS (New Source Performance Standard) for Stationary Compression ignition Internal Combustion Engines in Subpart IIII. **(40 CFR Part 60, Subpart IIII)**
- 2. 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)**

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).

FGRICE-SI-NSPS-S1
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

These conditions apply to Stationary Reciprocating Spark Ignition Internal Combustion Engines (ICE) units that meet all the criteria specified in 40 CFR Part 60, Subpart JJJJ; 40 CFR 60.4200, and meet the definition of Emergency Stationary ICE 40 CFR 60.4248.

Emission Unit: EURICE-SI-NSPS-S1

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

1. The permittee shall comply with the emission standards as defined in 40 CFR Part 60, Subpart JJJJ. **(40 CFR 60.4233(a))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. For engines that use gasoline, the permittee shall burn only gasoline that meets the per gallon sulfur limit in 40 CFR 80.195. **(40 CFR 60.4235)**
2. The permittee shall operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions. The permittee must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. The permittee must meet the requirements as specified in 40 CFR Part 1068, subparts A through D, as they apply. If the permittee adjusts engine settings according to and consistent with the manufacturer's instructions, the stationary SI internal combustion engine will not be considered out of compliance. **(40 CFR 60.4243(a)(1))**
3. The emergency stationary ICE must be operated according to the requirements below. In order for the engine to be considered an emergency stationary ICE, any operation other than emergency operation, maintenance and testing, emergency demand response and operation in non-emergency situations for 50 hours per year, as described below, is prohibited: **(40 CFR 60.4243(d))**
 - a. There is no time limit on the use of emergency stationary ICE in emergency situations.
 - b. The emergency stationary ICE may be operated for the purposes in c., d., and e. below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations counts as part of the 100 hours per calendar year as allowed.
 - c. The emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year.
 - d. The permittee may operate the emergency stationary ICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-

emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

- e. The emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- 2. For stationary SI internal combustion engines that are manufactured after July 1, 2008, and must comply with the emission standards specified in 40 CFR 60.4233(a), the permittee must purchase an engine certified to the emission standards in 40 CFR 60.4231(a) for the same engine class and maximum engine power. **(40 CFR 60.4243(a))**

IV. DESIGN/EQUIPMENT PARAMETERS

- 1. The permittee shall install a non-resettable hour meter. **(40 CFR 60.4237(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. The permittee must keep records of the operation of the engine in emergency and non-emergency service that is recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time. **(40 CFR 60.4245(b))**
- 2. The permittee must keep records of maintenance conducted on the engine. **(40 CFR 60.4245(a)(2))**

VII. REPORTING

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

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENTS

- 1. The permittee shall comply with all applicable requirements of the NSPS (New Source Performance Standard) for Stationary Spark Ignition Internal Combustion Engines in Subpart IIII. **(40 CFR Part 60, Subpart JJJJ)**
- 2. 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)**

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).

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-S1. 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
EU	Emission Unit	Hg	Mercury
FG	Flexible Group	hr	Hour
GACS	Gallons of Applied Coating Solids	HP	Horsepower
GC	General Condition	H ₂ S	Hydrogen Sulfide
GHGs	Greenhouse Gases	kW	Kilowatt
HVLP	High Volume Low Pressure*	lb	Pound
ID	Identification	m	Meter
IRSL	Initial Risk Screening Level	mg	Milligram
ITSL	Initial Threshold Screening Level	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	NMOC	Non-methane Organic Compounds
MAP	Malfunction Abatement Plan	NO _x	Oxides of Nitrogen
MSDS	Material Safety Data Sheet	ng	Nanogram
NA	Not Applicable	PM	Particulate Matter
NAAQS	National Ambient Air Quality Standards	PM10	Particulate Matter equal to or less than 10 microns in diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR	New Source Review	ppm	Parts per million
PS	Performance Specification	ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight
PTE	Permanent Total Enclosure	%	Percent
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonable Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO ₂	Sulfur Dioxide
SDS	Safety Data Sheet	TAC	Toxic Air Contaminant
SNCR	Selective Non-Catalytic Reduction	Temp	Temperature
SRN	State Registration Number	THC	Total Hydrocarbons
TEQ	Toxicity Equivalence Quotient	tpy	Tons per year
USEPA/EPA	United States Environmental Protection Agency	µg	Microgram
VE	Visible Emissions	µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
		yr	Year

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

Appendix 2-S1. 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-S1. Monitoring Requirements

The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in EUEBLR43-9-S1 and FGEBLR43-10&11-S1.

Continuous Emission Monitoring System (CEMS) Requirements

1. Within 30 calendar days after commencement of initial start-up, the permittee shall submit two copies of a Monitoring Plan to the AQD, for review and approval. The Monitoring Plan shall include drawings or specifications showing proposed locations and descriptions of the required CEMS.
2. Within 150 calendar days after commencement of initial start-up, the permittee shall submit two copies of a complete test plan for the CEMS to the AQD for approval.
3. Within 180 calendar days after commencement of initial start-up, the permittee shall complete the installation and testing of the CEMS.
4. Within 60 days of completion of testing, the permittee shall submit to the AQD two copies of the final report demonstrating the CEMS complies with the requirements of the corresponding Performance Specifications (PS) in the following table:

Pollutant	Applicable PS
NOx	2
CO ₂ /O ₂	3

5. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.
6. The CEMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and PS 2, 3, and Appendix B to 40 CFR Part 60.
7. Each calendar quarter, the permittee shall perform the Quality Assurance Procedures of the CEMS set forth in Appendix F of 40 CFR Part 60. Within 30 days following the end of each calendar quarter, the permittee shall submit the results to the AQD in the format of the data assessment report (Figure 1, Appendix F of 40 CFR Part 60).
8. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to the AQD, within 30 days following the end of each calendar quarter. The summary report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:
 - a. A report of each exceedance above the limits specified in the Emission Limits of this permit. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.
 - b. A report of all periods of CEMS downtime and corrective action.
 - c. A report of the total operating time of EUEBLR43-10-S1 and EUEBLR43-11-S1 during the reporting period.
 - d. A report of any periods that the CEMS exceeds the instrument range.
 - e. If no exceedances or CEMS downtime occurred during the reporting period, the permittee shall report that fact.

9. The permittee shall keep all monitoring data on file for a period of at least five years and make them available to the AQD upon request.

Appendix 4-S1. 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-S1. 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-S1. 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-B3610-2014. 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-B3610-2014h is being reissued as Source-Wide PTI No. MI-PTI-B3610-2021a.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
233-15 and 234-15	201600072/ September 29, 2016	Incorporate PTI No. 233-15 and 234-15. PTI No. 233-15 restricts the use of fuel oil in Boilers 7 and 8 (EUEBLR43-7-S1 and EUEBLR43-8-S1) to periods of gas curtailment or supply interruptions. PTI No. 234-15 defines Boiler 4 (EUEBLR43-4-S1) as a limited use boiler according to 40 CFR 63.7575.	EUEBLR43-7-S1 EUEBLR43-8-S1 EUEBLR43-4-S1
97-16	201600129/ September 29, 2016	Incorporate PTI No. 97-16. PTI No. 97-16 changes the monitoring method of the boiler house ash vacuum system from differential pressure monitoring to bag leak detection.	EU43-ASH-S1
57-15*	NA	Incorporate PTI No. 57-15. PTI No. 57-15 is for one new natural gas-fired boiler.	EUEBLR43-9-S1
99-18*	NA	Incorporate PTI No. 99-18. PTI No. 99-18 is for two new natural gas-fired boilers with propane back-up.	EUEBLR43-10-S1 EUEBLR43-11-S1 FGBLR43-10&11-S1 FGBOILERMACT-S1
49-20*	202000173*	Incorporate PTI No. 49-20. PTI No. 49-20 allows the company to use #2 diesel as back-up fuel for Boilers 9, 10, and 11.	EUEBLR43-9-S1 FGEBLR43-10&11-S1 FGBOILERMACT-S1 FG43OILTANKS-S1 FGEBLR43-1-6-S1

Appendix 7-S1. 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-S1. 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.

Section 2 – Drug Products (DP)

ROP No: MI-ROP-B3610-2021a
Expiration Date: October 18, 2026
PTI No: MI-PTI-B3610-2021a

SECTION 2 – DRUG PRODUCTS (DP)

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))**
- 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.
 - 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))**
- The applicable requirements are included and are specifically identified in the ROP.
 - The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.

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

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

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

Risk Management Plan

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

Emission Trading

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

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
EUPCKF&OEQUIP-S2	The Non-Sterile Liquids (NSL) area of Building 41 includes modules 1, 2, 3, and 4, associated tanks and weigh module used for manufacturing both alcohol and non-alcohol containing fluids. Also includes charging room with bag cart, charging hoods, and associated tanks. Includes tank assembly.	04-29-1994	FGPPSDREGIONI-S2 FGRULE290-S2
EUPDR-18-S2	60 cubic foot PK blender located within the dry products manufacturing weighing area of Building 41.	12-14-1994	FGPPSDREGIONI-S2 FGRULE290-S2
EUPATGAMPDN-S2	Alcohol tanks and raw material handling equipment in the ATGAM Production Area of Building 41 with associated rotoclone LLL-6.	07-01-1993/ 05-01-2012	FGPPSDREGION1-S2 FGRULE290-S2
EUPLSTERINJ-S2	All particulate emitting equipment in the sterile injectables production area of Building 41.	03-29-1994/ 09-27-1996	FGPPSDREGIONI-S2
EUPKDRYPKGEQUIP-S2	All particulate emitting equipment in the dry products packaging production area of Building 41.	03-29-1994	FGPPSDREGIONI-S2
EUPSPECIALPKG-S2	Four modules and all associated equipment used in the special packaging area of Building 41.	09-20-1993	FGPPSDREGIONI-S2
EUPPRINTING-S2	All printing in DP.	03-29-1994	FGPPSDREGIONI-S2 FGRULE287(2)(c)-S2
EUPGELFOAM-S2	Equipment for gel foam and film in Building 41.	01-01-1980	FGPPSDREGIONI-S2 FGRULE290-S2
EUPATGAMFILTERTEST-S2	Filter integrity testing equipment.	07-01-1993	FGPPSDREGIONI-S2 FGRULE290-S2
EUPDPCMANUALCLN-S2	Manual cleaning with alcohol.	01-01-1980	FGPPSDREGIONI-S2 FGRULE290-S2
EUPFILTERTESTINJ-S2	Filter integrity testing equipment.	03-29-1994	FGPPSDREGIONI-S2 FGRULE290-S2
EUPNSLMANUFACTCLN-S2	The NSL manufacturing manual cleaning with alcohol.	01-01-1980	FGPPSDREGIONI-S2 FGRULE290-S2

Section 2 – Drug Products (DP)

ROP No: MI-ROP-B3610-2021a
 Expiration Date: October 18, 2026
 PTI No: MI-PTI-B3610-2021a

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUCOLDCLEANER-S2	Cold cleaners in Building 41.	<1979	FGCOLDCLEANERS-S2
EUPANVISA-S2	Raw material handling and production for Anvisa products in Sterile.	01-01-2011	FGPPSDREGION1-S2 FGRULE290-S2
EUPNSLLINE72-S2	Packaging line 72 in NSL using alcohol.	12-01-2008	FGPPSDREGION1-S2 FGRULE290-S2

**EUPLSTERINJ-S2
 EMISSION UNIT CONDITIONS**

DESCRIPTION

All particulate emitting equipment in the sterile injectables production area of Building 41.

Flexible Group ID: FGPPSDREGIONI-S2

POLLUTION CONTROL EQUIPMENT

W-Rotoclone on PLV-4.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	0.11 pph ²	Hourly	Weigh modules 1-4 equipment exhausted through SVPLV-4	SC VI.4	R 336.1201(3)
2. VOC	0.05 tons ²	Per month	Weigh modules 1-4 equipment exhausted through SVPLV-4	SC VI.4	R 336.1201(3)
3. Particulate	0.152 pph ²	Hourly	Weigh modules 1-4, 14, and 15 equipment exhausted through SVPLV-4	SC VI.4	R 336.1201(3)
4. Particulate	0.015 tons ²	Per month	Weigh modules 1-4, 14, and 15 equipment exhausted through SVPLV-4	SC VI.4	R 336.1201(3)
5. Particulate	0.009 lb / 1000 lbs of exhaust gas, calculated on a dry gas basis ²	Hourly	Weigh modules 1-4, 14, and 15 equipment exhausted through SVPLV-4	SC VI.4	R 336.1331(1)(c)
6. Opacity	5% ²	6-minute average	EUPLSTERINJ-S2	SC VI.2	R 336.1201(3)

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Raw Materials	220,000 dry pounds ²	Per month	Weigh Modules 2 through 4	SC VI.1	R 336.1201(3)
2. Raw Materials	55,000 dry pounds ²	Per month	Weigh Module 1	SC VI.1	R 336.1201(3)

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate any equipment being exhausted to SVPLV-4 unless the W-Rotoclone is installed, maintained, and operated properly.² **(R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip and maintain the W-Rotoclone with a water flow rate gauge.² **(R 336.1201(3))**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep a separate record for each calendar month of the dry pounds per month of production in weigh module 1 equipment separately and in total for weigh modules 1-4.² **(R 336.1201(3))**
2. The permittee shall conduct and record the results of a visible emission observation of the W-Rotoclone exhaust once per calendar month during a period when the W-Rotoclone is being operated. **(R 336.1213(3))**
3. The permittee shall monitor and keep a separate record for each calendar month of the W-Rotoclone water flow rate according to the program described in Appendix 9-S2. The reading shall be performed once per calendar month during a period when the W-Rotoclone is being operated. **(R 336.1213(3))**
4. The permittee shall calculate the monthly particulate and VOC emission rates from EUPLSTERINJ-S2. **(R 336.1213(3))**

See Appendix 9-S2

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-S2

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVPLV-4	15 ²	30 ²	R 336.1201(3)

IX. OTHER REQUIREMENTS

1. The permittee shall implement the Malfunction Abatement Program, detailed in Appendix 9-S2, when either of the following occurs: **(R 336.1911)**
 - a. Visible emissions have been observed from the W-Rotoclone exhaust according to the requirement in SC VI.2.
 - b. The water flow rate into the W-Rotoclone is observed outside the acceptable operating range listed in Appendix 10-S2 according to the requirement in SC VI.3.

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).

**EUPKDRYPKGEQUIP-S2
 EMISSION UNIT CONDITIONS**

DESCRIPTION

All particulate emitting equipment in the dry products packaging production area of Building 41. This area fills various powder products into bottles and packets.

Flexible Group ID: FGPPSDREGIONI-S2

POLLUTION CONTROL EQUIPMENT

W-Rotoclone installed on all dry packaging operations, Hoffco Vac System (two cartridge filter dust collectors in parallel, exhausted from common stack HV-24.2).

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	3.3 pph ²	Hourly	All powder packaging equipment being exhausted through stack SVPKH-22	SC VI.2	R 336.1201(3)
2. PM	215 lbs ²	Per calendar month	All powder packaging equipment being exhausted through stack SVPKH-22	SC VI.2	R 336.1201(3)
3. PM	0.096 lb / 1000 lbs of exhaust gas, calculated on a dry gas basis ²	Hourly	All powder packaging equipment being exhausted through stack SVPKH-22	SC VI.2	R 336.1331(1)(c) R 336.1201(3)
4. PM	0.002 lb / 1000 lbs of exhaust gas, calculated on a dry gas basis ²	Hourly	vacuum system exhausted through SVHV-24.2	SC VI.2	R 336.1331(1)(c) R 336.1201(3)
5. Opacity	10% ²	6-minute average	Each individual exhaust stack	SC VI.3	R 336.1201(3)

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Production	196,530 lbs ²	Per calendar month	Powder in bottle packaging equipment	SC VI.1	R 336.1201(3)
2. Production	171,394 lbs ²	Per calendar month	Powder in packet packaging equipment	SC VI.1	R 336.1201(3)

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate any equipment being exhausted to SVPKH-22, or SVHV-24.2 unless the W-Rotoclone or cartridge filter is installed, maintained, and operated properly.² **(R 336.1910, R 336.1201(3))**
2. The permittee shall exhaust all powder packaging equipment to the W-Rotoclone, stack SVPKH-22.² **(R 336.1201(3))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip and maintain the W-Rotoclone with a water flow rate gauge.² **(R 336.1201(3))**
2. The permittee shall equip and maintain the cartridge filter collectors with differential pressure gauges.² **(R 336.1201(3))**

V. TESTING/SAMPLING

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

1. During the term of this permit, the permittee shall verify PM emission rates from EUPKDRYPKGEQUIP-S2 by testing at the owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A; 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 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)**
2. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days before testing of the time and place performance tests will be conducted. **(R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep a separate record for each calendar month of the pounds per month of product processed in the equipment.² **(R 336.1201(3))**
2. The permittee shall calculate and keep a separate record of the particulate matter emission rate for each calendar month from the equipment using the method detailed in Appendix 7-S2.² **(R 336.1201(3))**
3. The permittee shall conduct and record the results of a visible emission observation of the W-Rotoclone exhaust once per calendar month during a period when the W-Rotoclone is being operated. **(R 336.1213(3))**
4. The permittee shall monitor and keep a separate record for each calendar month of the W-Rotoclone water flow rate according to the program described in Appendix 9-S2. The reading shall be performed once per calendar month during a period when the W-Rotoclone is being operated. **(R 336.1213(3))**
5. The permittee shall monitor and keep a separate record for each calendar month of the differential pressure across each cartridge filter collector according to the program described in Appendix 9-S2. The reading shall be performed once per calendar month during a period when the exhaust fans are being operated. **(R 336.1213(3))**

See Appendices 7-S2 and 9-S2

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-S2

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVPKH-22	20 ²	36.3 ²	R 336.1201(3)
2. SVHV-24.2	8 ²	28 ²	R 336.1201(3)

IX. OTHER REQUIREMENTS

1. The permittee shall implement the Malfunction Abatement Program, detailed in Appendix 9-S2, when either of the following occurs: **(R 336.1911)**
 - a. Visible emissions have been observed from the W-Rotoclone or cartridge filter exhaust according to the requirement in SC VI.3.
 - b. The water flow rate into the W-Rotoclone is observed outside the acceptable operating range listed in Appendix 10-S2 according to the requirement in SC VI.4.
 - c. The differential pressure across the cartridge filter is observed outside the acceptable operating range listed in Appendix 10-S2 according to the requirement in SC VI.5.

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).

**EUSPECIALPKG-S2
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Four modules and all associated equipment used in the special packaging area of Building 41.

Flexible Group ID: FGPPSDREGIONI-S2

POLLUTION CONTROL EQUIPMENT

The HEPA filters on POGG-6, POHH-6, POJJ-6, POKK-6. W-Rotoclones on POGG-6, POHH-6, POJJ-6, used as prefilters.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	0.028 pph ²	Hourly	All modules combined	SC VI.4	R 336.1201(3)
2. Particulate	0.13 tpy ²	12-month rolling time period, as determined at the end of each calendar month	All modules combined	SC VI.4	R 336.1201(3)
3. Particulate	0.00013 lb / 1000 lbs of exhaust gas, calculated on a dry gas basis ²	Hourly	Each individual module exhausted from separate stacks	SC VI.4	R 336.1331(1)(c)
4. VOC	1.86 pph ²	Hourly	All modules combined	SC VI.1	R 336.1201(3)
5. VOC	1.43 tpy ²	12-month rolling time period, as determined at the end of each calendar month	All modules combined	SC VI.1	R 336.1201(3)
6. Opacity	0% ²	6-minute average	Each individual module exhausted from separate stacks	SC VI.2	R 336.1201(3)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate any equipment being exhausted to SVPOGG-6, SVPOHH-6, SVPOJJ-6, or SVPOKK-6 unless the respective HEPA filter is installed, maintained, and operated properly:² **(R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip and maintain the HEPA filters with differential pressure gauges.² **(R 336.1201(3))**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall calculate and keep a separate record for each calendar month of the VOC emission rates from the equipment. Records of the solvent used and recovered shall be kept.² **(R 336.1201(3))**
2. The permittee shall conduct and record the results of a visible emission observation of the HEPA filter exhausts once per calendar month during a period when the exhaust fan is operating. **(R 336.1213(3))**
3. The permittee shall monitor and keep a separate record for each calendar month of the HEPA filter differential pressure according to the program described in Appendix 9-S2. The reading shall be performed once per calendar month during a period when the exhaust fan is operating. **(R 336.1213(3))**
4. The permittee shall calculate the yearly particulate emission rate from EUPSPECIALPKG-S2. **(R 336.1213(3))**

See Appendix 9-S2

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-S2

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVPOGG-6	32 ²	49 ²	R 336.1201(3)
2. SVPOHH-6	32 ²	49 ²	R 336.1201(3)
3. SVPOJJ-6	32 ²	49 ²	R 336.1201(3)
4. SVPOKK-6	32 ²	49 ²	R 336.1201(3)

IX. OTHER REQUIREMENTS

1. The permittee shall implement the Malfunction Abatement Program, detailed in Appendix 9-S2, when either of the following occurs: **(R 336.1911)**
 - a. Visible emissions have been observed from the HEPA filter exhaust according to the requirement in SC VI.2.
 - b. The differential pressure across the HEPA filter is observed outside the acceptable operating range listed in Appendix 10-S2 according to the requirement in SC VI.3.

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).

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
FGPPSDREGIONI-S2	Drug Products. PSD regional separation.	EUPCKF&OEQUIP-S2 EUPLSTERINJ-S2 EUPKDRYPKGEQUIP-S2 EUPSPECIALPKG-S2 EUPPRINTING-S2 EUPGELFOAM-S2 EUPATGAMFILTERTEST-S2 EUPDPMANUALCLN-S2 EUPFILTERTESTINJ-S2 EUPNSLMANUFACTCLN-S2 EUPATGAMPDN-S2 EUPANVISA-S2 EUPNSLLINE72-S2 EUPDR-18-S2
FGRULE287(2)(c)-S2	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rule 278, Rule 278a and Rule 287(2)(c). Emission units installed/modified before December 20, 2016, may show compliance with Rule 287 in effect at the time of installation/modification.	EUPPRINTING-S2
FGRULE290-S2	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.	EUPGELFOAM-S2 EUPATGAMFILTERTEST-S2 EUPDPMANUALCLN-S2 EUPFILTERTESTINJ-S2 EUPNSLMANUFACTCLN-S2 EUPDR-18-S2 EUPATGAMPDN-S2 EUPANVISA-S2 EUPNSLLINE72-S2 EUPCKF&OEQUIP-S2
FGCOLDCLEANERS-S2	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.	EUCOLDCLEANER-S2

**FGPPSDREGIONI-S2
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Drug Products. PSD regional separation.

Emission Units: EUPCKF&OEQUIP-S2, EUPLSTERINJ-S2, EUPKDRYPKGEQUIP-S2, EUPSPECIALPKG-S2, EUPPRINTING-S2, EUPGELFOAM-S2, EUPATGAMFILTERTEST-S2, EUPDPCMANUALCLN-S2, EUPFILTERTESTINJ-S2, EUPNSLMANUFACTCLN-S2, EUPATGAMPDN-S2, EUPANVISA-S2, EUPDR-18-S2, EUPNSLLINE72-S2

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)

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-S2

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENTS

1. The equipment in this flexible emission group “Pharmaceutical Region I” shall constitute a stationary source for the purposes of Federal Prevention of Significant Deterioration regulations, 40 CFR Part 52.21 et seq.²
(R 336.1201(3))

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).

FGRULE287(2)(c)-S2
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 287(2)(c). Emission units installed/modified before December 20, 2016, may show compliance with Rule 287 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: EUPPRINTING-S2

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Underlying Applicable Requirement
1. Coatings	200 Gallons/month (minus water as applied)	Calendar month	Each emission unit	R 336.1287(2)(c)(i)

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETERS

- Any exhaust system installed on or after December 20, 2016, that serves only coating spray equipment shall be equipped with a dry filter control or water wash control which is installed, maintained, and operated in accordance with the manufacturer’s specifications, or the permittee develops a plan which provides to the extent practicable for the maintenance and operation of the equipment in a manner consistent with good air pollution control practices for minimizing emissions. All emission units installed before December 20, 2016, with an exhaust system that serves only coating spray equipment must have a properly installed and operated particulate control system. **(R 336.1213(2), R 336.1287(2)(c)(ii), R 336.1910)**

V. TESTING/SAMPLING

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

NA

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 287(2)(c), Permit to Install Exemption Record form (EQP 3562) or in a format acceptable to the AQD District Supervisor. **(R 336.1213(3))**
 - a. Volume of coating used, as applied, minus water, in gallons. **(R 336.1287(2)(c)(iii))**
 - b. Documentation of any filter replacements or maintenance of water wash control for exhaust systems serving coating spray equipment or other documentation included in a plan developed by the owner or operator of the equipment. **(R 336.1213(3))**

See Appendix 4-S2

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-S2

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

FGRULE290-S2

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: EUPGELFOAM-S2, EUPATGAMFILTERTEST-S2, EUPDPMANUALCLN-S2, EUPFILTERTESTINJ-S2, EUPNSLMANUFACTCLN-S2, EUPDR-18-S2, EUPATGAMPDN-S2, EUPANVISA-S2, EUPNSLLINE72-S2, EUPCKF&OEQUIP-S2

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMITS

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))**
 - f. 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 RESTRICTIONS

- 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))**
 - g. Records of material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions in sufficient 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))**
 - g. 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-S2

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-S2

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

FGCOLDCLEANERS-S2 FLEXIBLE GROUP CONDITIONS
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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 Unit: EUCOLDCLEANER-S2

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMITS

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 RESTRICTIONS

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 PARAMETERS

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-S2

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that the requirements identified in the table below are not applicable to the specified emission unit(s) and/or flexible group(s). This determination is incorporated into the permit shield provisions set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii). If the permittee makes a change that affects the basis of the non-applicability determination, the permit shield established as a result of that non-applicability decision is no longer valid for that emission unit or flexible group.

Emission Unit/Flexible Group ID	Non-Applicable Requirement	Justification
All Section 2 emission groups and flexible groups	R 336.1625	Section 2 of this ROP covers processes that manufacture formulated pharmaceutical products. No chemical synthesis occurs in the areas covered by this section.
All Section 2 emission groups and flexible groups	40 CFR Part 63, Subpart GGG	Section 2 of this ROP produces formulated products from pharmaceutical product ingredients. There are no reactions, recovery operations, separations, or purification operations used to produce a pharmaceutical product in the areas covered by this section.

APPENDICES

Appendix 1-S2. 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
EU	Emission Unit	Hg	Mercury
FG	Flexible Group	hr	Hour
GACS	Gallons of Applied Coating Solids	HP	Horsepower
GC	General Condition	H ₂ S	Hydrogen Sulfide
GHGs	Greenhouse Gases	kW	Kilowatt
HVLP	High Volume Low Pressure*	lb	Pound
ID	Identification	m	Meter
IRSL	Initial Risk Screening Level	mg	Milligram
ITSL	Initial Threshold Screening Level	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	NMOC	Non-methane Organic Compounds
MAP	Malfunction Abatement Plan	NO _x	Oxides of Nitrogen
MSDS	Material Safety Data Sheet	ng	Nanogram
NA	Not Applicable	PM	Particulate Matter
NAAQS	National Ambient Air Quality Standards	PM10	Particulate Matter equal to or less than 10 microns in diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR	New Source Review	ppm	Parts per million
PS	Performance Specification	ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight
PTE	Permanent Total Enclosure	%	Percent
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonable Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO ₂	Sulfur Dioxide
SDS	Safety Data Sheet	TAC	Toxic Air Contaminant
SNCR	Selective Non-Catalytic Reduction	Temp	Temperature
SRN	State Registration Number	THC	Total Hydrocarbons
TEQ	Toxicity Equivalence Quotient	tpy	Tons per year
USEPA/EPA	United States Environmental Protection Agency	µg	Microgram
VE	Visible Emissions	µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
		yr	Year

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

Appendix 2-S2. 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-S2. 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-S2. 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-S2. 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-S2. 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-B3610-2014. 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-B3610-2014h is being reissued as Source-Wide PTI No. MI-PTI-B3610-2021a.

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

Appendix 7-S2. Emission Calculations

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in EUPKDRYPKGGEQUIP-S2.

EUPKDRYPKGGEQUIP-S2

Process	Product Process lbs/month	Loss Factor lb Lost/lb Processed	Lbs Emitted Per Month
Powders in bottles		0.004	
Powders in packets		0.009	

Appendix 8-S2. 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-S2. Rotoclone/Wet Scrubber/Dry Filter Maintenance and Malfunction Abatement Program

The permittee shall use the following approved formats and procedures for the maintenance and malfunction abatement program requirements referenced in EUPCKF&OEQUIP-S2, EUPLSTERINJ-S2, EUPKDRYPKG EQUIP-S2, and EUPSPECIALPKG-S2:

1. Obtain an "Air Emission Device Monitoring Form" from the HVAC - Reliability Maintenance Engineer (RME) and complete the following:
2. Inspect the water flow or differential pressure gauge installed on each W-Rotoclone, wet scrubber, or dry filter device.
3. Document the observed water flow rate (gal/min) or differential pressure reading (mm Hg or inches H₂O) and compare the reading to the acceptable range.
4. Observe the exhaust stack from each device for the "presence" of visible emissions.
5. Document whether any visible particulate emissions were observed.
6. Document any additional comments.
7. Submit completed Monitoring Form to maintenance team leader or designee.
8. If the water flow or differential pressure reading is outside of the acceptable operating range, or visible emissions are present, the maintenance team leader or designee shall notify the production unit immediately to implement the Malfunction Abatement Program.
9. The HVAC-RME shall initiate a root cause analysis for any devices found malfunctioning (including out of range conditions), and issue a Work Order Request for the appropriate repair.
10. Following repairs, re-inspect the device and document that it is operating properly.
11. Repeat the visible emissions observation for the respective stack.
12. Forward a copy of the completed Monitoring Form to the appropriate Environmental & Safety Services personnel.

Appendix 10-S2. Control Equipment Operating Ranges

Rotoclone/ Scrubber	Fabric Filter	Emission Unit	Operating Range, min or min/max GPM	Operating Range min/max DP inches water column
H-22		EUPKDRYPKGGEQUIP-S2	3	
	HV-24.2	EUPKDRYPKGGEQUIP-S2		0.5
	GG-6	EUPSPECIALPKG-S2		0.25/3
GG-6C		EUPSPECIALPKG-S2	0.5	
HH-6C		EUPSPECIALPKG-S2	0.5	
	HH-6	EUPSPECIALPKG-S2		0.25/3
	JJ-6	EUPSPECIALPKG-S2		0.25/3
JJ-6C		EUPSPECIALPKG-S2	0.5	
	KK-6	EUPSPECIALPKG-S2		0.25/3
V-4		EUPLSTERINJ-S2	2	

Section 3 – Active Pharmaceutical Ingredients (API)

ROP No: MI-ROP-B3610-2021a
Expiration Date: October 18, 2026
PTI No: MI-PTI-B3610-2021a

SECTION 3 – ACTIVE PHARMACEUTICAL INGREDIENTS (API)

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))**
- 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.
 - 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))**
- The applicable requirements are included and are specifically identified in the ROP.
 - The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.

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

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

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

Risk Management Plan

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

Emission Trading

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

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
EUC41MILLING-S3	Portable equipment used for milling, sieving, screening, and bolting, located within the milling rooms 1-4. Located in Building 41.	08-03-1993	FGC41PSDREGIONIII-S3 FGC41MICVOC-S3
EUC41NEOSTOR&HANDL-S3	Storage and handling equipment located in the neomycin area. Located in Building 41.	01-01-1946/ 08-01-1996	FGC41PSDREGIONIII-S3
EUC41NEOSPRAYDRYER-S3	Spray dryer located within the neomycin area. Located in Building 41.	01-01-1946/ 08-01-1996	FGC41PSDREGIONIII-S3
EUC41MICRONIZING-S3	Equipment in the micronizing area located in Building 41. This includes the equipment in micronizing area module #1 venting to stack EE-33, the equipment in micronizing area modules #3, #4 and #5 venting to stack G-33 and to stack Y-32; and the equipment in the washer/dryer area for the micronizing area, which also vents to stack Y-32. The modules are controlled by five HEPA filters (one venting to EE-33 and four venting to Y-32) and a W-Rotoclone (G-33). The emission units that now make up this emission unit were formerly known as EUC41MICEE33-S3 and EUC41MICG33-S3. (PTI No. 149-19)	01-01-1946, 09-30-1994, November/ December 2014, March 2017, September 2019	FGC41PSDREGIONIII-S3 FGC41MICVOC-S3
EUC41MICKK33-S3	Equipment in micronizing area JETPHAR1 module, venting to stack KK-33. Located in Building 41.	01-01-1946/ 09-30-1994	FGC41PSDREGIONIII-S3 FGC41MICVOC-S3

Section 3 – Active Pharmaceutical Ingredients (API)

ROP No: MI-ROP-B3610-2021a
 Expiration Date: October 18, 2026
 PTI No: MI-PTI-B3610-2021a

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUCR138-S3	All equipment in or around Building 38 located in (Active Pharmaceutical Ingredients) API Region I. Particulate emissions are controlled by a number of pollution control equipment, including a new W-Rotoclone (038ROTO0214-1).	01-01-1946/ 11-30-2010/ 09-08-2020	FGCRALLPART-S3 FGCRALLTOX-S3 FGCFUG-S3 FGPHARMAMACT-S3
EUCR1127-S3	All equipment in or around Building 127 located in API Region I.	01-01-1964/ 11-30-2010	FGCRALLPART-S3 FGCRALLTOX-S3 FGCFUG-S3 FGPHARMAMACT-S3
EUCR1155-S3	All equipment in or around Building 155 located in API Region I.	01-01-1966/ 12-11-1995	FGCRALLPART-S3 FGCRALLTOX-S3 FGCFUG-S3 FGPHARMAMACT-S3
EUCR1166-S3	All equipment in or around Building 166 located in API Region I.	01-01-1966/ 12-11-1995	FGCRALLPART-S3 FGCFUG-S3 FGPHARMAMACT-S3
EUCR1195-S3	All equipment in or around Building 195 located in API Region I. (PTI No. 81-15)	01-01-1971/ 12-11-1995/ 06-02-2015	FGCRALLPART-S3 FGCRALLTOX-S3 FGCFUG-S3 FGPHARMAMACT-S3
EUCR244-S3	All equipment in or around Building 44 located in API Region II.	01-01-1938 06-01-1996	FGCRALLPART-S3 FGCRALLTOX-S3 FGCFUG-S3 FGPHARMAMACT-S3
EUCR2149-S3	All equipment in or around Building 149 located in API Region II.	01-01-1965/ 06-01-1996	FGCRALLPART-S3 FGCRALLTOX-S3 FGCFUG-S3 FGPHARMAMACT-S3
EUCR373-S3	All equipment in or around Building 73 located in API Region III. Permit to Install No. 82-16 added Column 10, Tank1830-1, Tank1831-1, and Tank 1832-1 to the emission unit.	01-01-1952/ 06-14-1995 06-28-2016	FGCRALLPART-S3 FGCRALLTOX-S3 FGCFUG-S3 FGPHARMAMACT-S3
EUCR3173-S3	All equipment in or around Building 173, located in KAPI Region III.	01-01-1967/ 06-14-1995/ 08-13-19 07-16-2021	FGCRALLPART-S3 FGCRALLTOX-S3 FGCFUG-S3 FGPHARMAMACT-S3
EUCR3207-S3	All equipment in or around Building 207 located in API Region III.	01-01-1975/ 06-14-1995	FGCRALLPART-S3 FGCRALLTOX-S3 FGCFUG-S3 FGPHARMAMACT-S3
EUCR3225-S3	All equipment in or around Building 225. Located in API Region III.	01-01-1976/ 06-14-1995 03-15-2016 02-07-2019 09-13-2021 01-31-2022	FGCRALLPART-S3 FGCRALLTOX-S3 FGCFUG-S3 FGPHARMAMACT-S3

Section 3 – Active Pharmaceutical Ingredients (API)

ROP No: MI-ROP-B3610-2021a
 Expiration Date: October 18, 2026
 PTI No: MI-PTI-B3610-2021a

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUCR466-S3	All equipment in or around Building 66 located in API Region IV.	01-01-1951/ 12-28-1995	FGCRALLPART-S3 FGCRALLTOX-S3 FGCFUG-S3 FGPHARMAMACT-S3
EUCR476-S3	All equipment in or around Building 76 located in API Region IV.	01-01-1954/ 12-28-1995	FGCRALLPART-S3 FGCRALLTOX-S3 FGCFUG-S3 FGPHARMAMACT-S3
EUCR491COM-S3	All equipment in or around Building 91, commercial area, located in KAPI Region IV.	01-01-1961/ 12-28-1995/ 03-31-2015 08-27-2021 01-31-2022	FGCRALLPART-S3 FGCRALLTOX-S3 FGCFUG-S3 FGPHARMAMACT-S3
EUCR4172-S3	Storage tanks in or around Building 172 located in API Region IV.	01-01-1967/ 12-28-1995	FGCRALLTOX-S3 FGPHARMAMACT-S3 FGCFUG-S3
EUCR4335-S3	All equipment in or around Building 335 located in API Region IV (PTI No. 21-19). Particulate emissions are controlled by a number of pollution control equipment, including a new dust collector (335DUST5000-1).	01-01-1991/ 08-14-1996/ 04-15-2019	FGCRALLPART-S3 FGCRALLTOX-S3 FGCFUG-S3 FGPHARMAMACT-S3
EUC38R6ALL-S3	Equipment in or around building 38, (located in API Region VI), used to manufacture fermentation intermediates and products, which includes the installation of two replacement acetone tanks (ID#TANK1022-1 and TANK1022-2). Emissions from the replacement tanks are controlled by a thermal oxidizer.	01-01-1946/ 11-30-2010/ 10-23-2017/ 05-21-2018/ 9-21-2020	FGCRALLPART-S3 FGCR6FERM-S3 FGCFUG-S3 FGPHARMAMACT-S3 FGCRALLTOX-S3
EUC120R6ALL-S3	Equipment in or around Building 120, part of API region VI, used to manufacture fermentation intermediates and products. Also includes the silos.	01-01-1962/ 07-31-1996	FGCRALLPART-S3 FGCFUG-S3 FGPHARMAMACT-S3
EUC121R6ALL-S3	Equipment in or around Building 121, part of API region VI, used to manufacture fermentation intermediates and products.	01-01-1962/ 07-31-1996/ 10-23-2017 04-30-2018	FGCR6FERM-S3 FGCFUG-S3 FGPHARMAMACT-S3
EUC41MICH33-S3	Exhaust hood in micronizing in B41.	09-01-2006	FGRULE290-S3
EUC76TIS254-S3	UIC surge tank.	01-01-1980	FGRULE290-S3
EUCR1127CENTRIFUGE-S3	Centrifuge.	01-01-2003	FGRULE290-S3
EUCR1127CLEANING-S3	Cleaning station.	01-01-2005	FGRULE290-S3
EUCR1127FILT1268-S3	Sparkler filter.	01-01-2002	FGRULE290-S3
EUCR1155CLEANING-S3	Cleaning station.	01-01-2007	FGRULE290-S3
EUCR1195OT380-S3	Storage tank.	01-01-1971	FGRULE290-S3
EUCR1195SHKRA-S3	Shaker separator.	01-01-1971	FGRULE290-S3
EUCR1195HKRB-S3	Shaker separator.	01-01-1971	FGRULE290-S3

Section 3 – Active Pharmaceutical Ingredients (API)

ROP No: MI-ROP-B3610-2021a
 Expiration Date: October 18, 2026
 PTI No: MI-PTI-B3610-2021a

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUCR1195HKRC-S3	Shaker separator.	01-01-1971	FGRULE290-S3
EUCR1195T195-S3	Process vessel.	01-01-1971	FGRULE290-S3
EUCR138DRUMFILLING-S3	Solvent filling into drums.	01-01-2008	FGRULE290-S3
EUCR1DRUMPUMPING-S3	Solvent transfer from drums.	01-01-2002	FGRULE290-S3
EUCR244DRUMPUMPING-S3	Solvent transfer from drums.	01-01-2002	FGRULE290-S3
EUCR3173DRUMFILLING-S3	Solvent filling into drums.	01-01-2002	FGRULE290-S3
EUCR3173DRUMPUMPING-S3	Solvent transfer from drums.	01-01-2002	FGRULE290-S3
EUCR173CLEANING-S3	Cleaning station in B173.	01-01-2013	FGRULE290-S3
EUCR3225DRUMFILLING-S3	Solvent filling into drums.	01-01-2002	FGRULE290-S3
EUCR3225DRUMPUMPING-S3	Solvent transfer from drums.	01-01-2002	FGRULE290-S3
EUCR4335DRUMPUMPING-S3	Solvent transfer from drums.	01-01-2002	FGRULE290-S3
EUCR466DRUMPUMPING-S3	Solvent transfer from drums.	01-01-2002	FGRULE290-S3
EUCR491CONTAINER-S3	Container material transfer.	01-01-2002	FGRULE290-S3
EUCR491DRUMFILLING-S3	Solvent filling into drums.	01-01-2002	FGRULE290-S3
EUCR491DRUMPUMPING-S3	Solvent transfer from drums.	01-01-2002	FGRULE290-S3
EUCR491SPAT-S3	Portable tank.	01-01-2002	FGRULE290-S3
EUCR2149DRUMPUMPING-S3	Solvent transfer from drums.	01-01-2002	FGRULE290-S3
EUCR1195TANK1060-S3	Wastewater tank emissions	01-01-2014	FGRULE290-S3
EUAPIMANUALCLN-S3	Manual solvent cleaning of emission unit in section 3 of ROP	01-01-2020	FGRULE290-S3
EUCR138FILT0034-S3	Cleaning of Building 38 Filter 0034.	01-01-2020	FGRULE290-S3
EUCR138FILT2479-S3	Cleaning of Building 38 Filter 2479.	01-01-2010	FGRULE290-S3
EUCR138T-112-S3	T-112 is a screened beer storage tank.	01-01-2003	FGRULE290-S3
EUCR138OT-316-S3	Filling of tanker from Building 38 OT-316 for cleaning or maintenance.	01-01-2017	FGRULE290-S3
EUCR138T-VENT-S3	T-Vent is a 500 liter catch tank for the Incomyc process. COL-13, COL-14, COL-15 and COL-16 vent through T-VENT.	01-01-2002	FGRULE290-S3
EUCR491CAB-S3	Glassware use in pilot plant for 1CAB.	01-01-2003	FGRULE290-S3
EUCR491WASTE-S3	Building 91 waste receiver for SIHI vacuum pump.	01-01-2015	FGRULE290-S3
EUCR127OT-600-S3	OT-600 is an outside storage tank used to store spent magnasol and cake slurries from various fermentation processes.	01-01-1998	FGRULE290-S3
EUCR2149TOTEFILL-S3	Totes are filled with MRAA filtrate to recover residual MRAA in future processing.	01-01-2013	FGRULE290-S3
EUCR1166FEINC1-S3	Building 166 FEINC1 Process.	01-01-1996	FGRULE290-S3
EU1166OT356-S3	Building 166 Whole Beer Tank OT356.	01-01-1996	FGRULE290-S3
EU1166OT357-S3	Building 166 Beer is filter and held in OT-357 for pod extraction.	01-01-2005	FGRULE290-S3

Section 3 – Active Pharmaceutical Ingredients (API)

ROP No: MI-ROP-B3610-2021a
 Expiration Date: October 18, 2026
 PTI No: MI-PTI-B3610-2021a

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUCR1173CLN-S3	Acetone cleaning station.	01-01-2013	FGRULE290-S3
EUB173CHILLER-S3	Building 173 Ammonia Chillers.	01-01-2020	FGRULE290-S3
EUCR3173T-BUTY-S3	Building 173 use of T-BUTYL.	01-01-1996	FGRULE290-S3
EUCR1035T1035-S3	Acetone emissions piping during cake transfers from Tumble Dryers 1035 and 1032 and reslurry tank 1967 vent.	01-01-2018	FGRULE290-S3
EUB665CHILLER-S3	Building 665 Ammonia Chillers.	01-01-2021	FGRULE290-S3
EUB91HANDSAN-S3	Building 91 hand sanitizer for the site.	01-01-2020	FGRULE290-S3

**EUC41MILLING-S3
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Portable equipment used for milling, sieving, screening, and bolting, located within the milling rooms 1-4. Located in Building 41.

Flexible Group ID: FGC41PSDREGIONIII-S3, FGC41MICVOC-S3

POLLUTION CONTROL EQUIPMENT

W-Rotoclone on T-18.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	0.044 pph ¹	Hourly	EUC41MILLING-S3	SC VI.1	R 336.1225
2. Particulate	0.2 tpy ¹	Based on a 12-month rolling time period	EUC41MILLING-S3	SC VI.1	R 336.1225
3. Particulate	0.006 lb / 1000 lbs of exhaust gas, calculated on a dry gas basis ²	Hourly	EUC41MILLING-S3	SC VI.1	R 336.1331(1)(c)
4. Opacity	5 % ²	6-Minute Average	EUC41MILLING-S3	SC VI.2	R 336.1301

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate the EUC41MILLING-S3 equipment unless the W-Rotoclone is installed, maintained, and operated properly.² **(R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip and maintain the W-Rotoclone with a water flow rate gauge.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))**

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 calculate and record the actual particulate emission rates on a monthly and 12-month rolling time period basis, determined at the end of each calendar month.² **(R 336.1201(3))**
2. The permittee shall conduct and record the results of a visible emission observation (described in Appendix 3-S3) of the W-Rotoclone exhaust. The reading shall be performed once per calendar month during a period when the rotoclone is being operated. **(R 336.1213(3))**
3. The permittee shall monitor and keep a separate record for each calendar month of the W-Rotoclone water flow rate according to the program described in Appendix 9-S3. The reading shall be compared to the acceptable ranges detailed in Appendix 12-S3. The reading shall be performed once per calendar month during a period when the rotoclone is being operated.² **(R 336.1201)**

See Appendices 3-S3, 9-S3, and 12-S3

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-S3

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVPFT-18	10.5 ¹	41.8 ¹	R 336.1225

IX. OTHER REQUIREMENTS

1. The permittee shall implement the Malfunction Abatement Program, detailed in Appendix 9-S3, when either of the following occurs: **(R 336.1911)**
 - a Visible emissions have been observed from the W-Rotoclone exhaust according to the requirement in SC VI.2.
 - b The water flow rate is observed outside the acceptable operating range listed in Appendix 12-S3 according to the requirement in SC VI.3.

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).

**EUC41NEOSTOR&HANDL-S3
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Storage and handling equipment located in the neomycin area. Located in Building 41.

Flexible Group ID: FGC41PSDREGIONIII-S3

POLLUTION CONTROL EQUIPMENT

W-Rotoclone on G-26.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	1.5 pph ¹	Hourly	EUC41NEOSTOR&HANDL-S3	SC VI.4	R 336.1225
2. Particulate	500 lbs ¹	Per month	EUC41NEOSTOR&HANDL-S3	SC VI.4	R 336.1225
3. Particulate	0.08 lb / 1,000 lbs of exhaust gases calculated on a dry gas basis ²	Hourly	EUC41NEOSTOR&HANDL-S3	SC VI.4	R 336.1331(1)(c)
4. Particulate	Not more than 16.1 lbs of particulate per lot of product produced ¹	Per lot produced	EUC41NEOSTOR&HANDL-S3	SC VI.4	R 336.1225
5. Opacity	10% ²	6-Minute- Average	Storage bins, ribbon blender, receivers, and filters exhausted through SVCN41G26	SC VI.2	R 336.1301(c)

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Product	Not more than 31 lots ¹	Per month	EUC41NEOSTOR&HANDL-S3	SC VI.1	R 336.1225

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETERS

- The permittee shall not operate the EUC41NEOSTOR&HANDL-S3 equipment unless the W-Rotoclone is installed, maintained, and operated properly.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))**

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep a separate record for each calendar month of the lots of raw material weighed or processed per month in the EUC41NEOSTOR&HANDL-S3 equipment.² **(R 336.1201(3))**
2. The permittee shall conduct and record the results of a visible emission observation (described in Appendix 3-S3) of the W-Rotoclone exhaust. The reading shall be performed once per calendar month during a period when the W-Rotoclone is being operated. **(R 336.1213(3))**
3. The permittee shall monitor and keep a separate record for each calendar month of the W-Rotoclone water flow rate according to the program described in Appendix 9-S3. The reading shall be compared to the acceptable ranges detailed in Appendix 12-S3. The reading shall be performed once per calendar month during a period when the W-Rotoclone is being operated. **(R 336.1213(3))**
4. The permittee shall calculate the particulate emission rate in pounds for the neomycin storage and handling operations for each calendar month using the actual lots of material processed and the pounds of particulate per lot emission rate factor.² **(R 336.1201(3))**

See Appendices 3-S3, 9-S3, and 12-S3

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-S3

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVCN41G26	18 ¹	37.6 ¹	R 336.1225

IX. OTHER REQUIREMENTS

1. The permittee shall implement the Malfunction Abatement Program, detailed in Appendix 9-S3, when either of the following occurs: **(R 336.1911)**
 - a. Visible emissions have been observed from the W-Rotoclone exhaust according to the requirement in SC VI.2.
 - b. The water flow rate is observed outside the acceptable operating range listed in Appendix 12-S3 according to the requirement in SC VI.3.

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).

**EUC41NEOSPRAYDRYER-S3
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Spray dryer located within the neomycin area. Located in Building 41.

Flexible Group ID: FGC41PSDREGIONIII-S3

POLLUTION CONTROL EQUIPMENT

Rotoclone on T-26.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	1.0 pph ¹	Hourly	EUC41NEOSPRAYDRYER-S3	SC VI.4	R 336.1225
2. Particulate	740 lbs ¹	Per month	EUC41NEOSPRAYDRYER-S3	SC VI.4	R 336.1225
3. Particulate	0.02 lb / 1,000 lbs of exhaust gases calculated on a dry gas basis ²	Hourly	EUC41NEOSPRAYDRYER-S3	SC VI.4	R 336.1331(1)(c)
4. Opacity	5% ²	6-Minute Average	EUC41NEOSPRAYDRYER-S3	SC VI.1	R 336.1301(c)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate the EUC41NEOSPRAYDRYER-S3 equipment unless the W-Rotoclone is installed, maintained, and operated properly.² **(R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip and maintain the W-Rotoclone with a water flow rate gauge.² **(R 336.1201(3))**

V. TESTING/SAMPLING

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

1. During the term of this permit, the permittee shall verify PM emission rates from EUC41NEOSPRAYDRYER-S3 by testing at the owner’s expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A; 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 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)**

2. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days before testing of the time and place performance tests will be conducted. **(R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall conduct and record the results of a visible emission observation (described in Appendix 3-S3) of the W-Rotoclone exhaust. The reading shall be performed once per calendar month during a period when the W-Rotoclone is being operated. **(R 336.1213(3))**
2. The permittee shall monitor and keep a separate record for each calendar month of the W-Rotoclone water flow rate according to the program described in Appendix 9-S3. The reading shall be compared to the acceptable ranges detailed in Appendix 12-S3. The reading shall be performed once per calendar month during a period when the W-Rotoclone is being operated. **(R 336.1213(3))**
3. The permittee shall keep a separate record for each calendar month of the lots of raw material processed per month in the EUC41NEOSPRAYDRYER-S3. **(R 336.1213(3))**
4. The permittee shall calculate the particulate emission rate in pounds for the neomycin storage and handling operations for each calendar month using the actual lots of material processed and the pounds of particulate per lot emission rate factor.² **(R 336.1201(3))**

See Appendices 3-S3, 9-S3, and 12-S3

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-S3

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVCN41T26	36 ¹	40 ¹	R 336.1225

IX. OTHER REQUIREMENTS

1. The permittee shall implement the Malfunction Abatement Program, detailed in Appendix 9-S3, when either of the following occurs: **(R 336.1911)**
 - a. Visible emissions have been observed from the W-Rotoclone exhaust according to the requirement in SC VI.1.
 - b. The water flow rate is observed outside the acceptable operating range listed in Appendix 12-S3 according to the requirement in SC VI.2.

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).

**EUC41MICRONIZING-S3
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Equipment in the micronizing area located in Building 41. This includes the equipment in micronizing area module #1 venting to stack EE-33, the equipment in micronizing area modules #3, #4 and #5 venting to stack G-33 and to stack Y-32; and the equipment in the washer/dryer area for the micronizing area, which also vents to stack Y-32. The modules are controlled by five HEPA filters (one venting to EE-33 and four venting to Y-32) and a W-Rotoclone (G-33). The emission units that now make up this emission unit were formerly known as EUC41MICEE33-S3 and EUC41MICG33-S3. (PTI No. 149-19)

Flexible Group ID: FGC41PSDREGIONIII-S3, FGC41MICVOC-S3

POLLUTION CONTROL EQUIPMENT

Five HEPA filters (one venting to EE-33 and four venting to Y-32) and W-Rotoclone (G-33).

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Particulate matter (PM)	1.98×10^{-5} pph ¹	Hourly	EE-33	SC VI.4	R 336.1225
2. PM	7.35×10^{-6} lb per 1,000 lbs of exhaust gases calculated on a dry gas basis ²	Hourly	EE-33	SC VI.4	R 336.1331(1)(c)
3. PM	0.14 pph ¹	Hourly	G-33	SC VI.4	R 336.1225
4. PM	0.008 lb per 1,000 lbs of exhaust gases calculated on a dry gas basis ²	Hourly	G-33	SC VI.4	R 336.1331(1)(c)
5. PM	8.58×10^{-5} pph ¹	Hourly	Y-32	SC VI.4	R 336.1225
6. PM	1.91×10^{-6} lb per 1,000 lbs of exhaust gases calculated on a dry gas basis ²	Hourly	Y-32	SC VI.4	R 336.1331(1)(c)
7. PM10	112 lb per month ²	Calendar month	EUC41MICRONIZING-S3	SC VI.4	40 CFR 52.21(c) and (d)
8. PM2.5	112 lb per month ²	Calendar month	EUC41MICRONIZING-S3	SC VI.4	40 CFR 52.21(c) and (d)
9. Opacity	5% ²	6-Minute Average	EE-33, Y-32, G-33	SC VI.1	R 336.1301(c)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate the particulate emitting equipment in EUC41MICRONIZING-S3 unless the exhaust gases are vented through the HEPA filter systems or W-Rotoclone and each control device is installed, maintained, and operated in a satisfactory manner.² (**R 336.1910**)

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each of the HEPA filter systems in EUC41MICRONIZING-S3 with a differential pressure gauge.² **(R 336.1910)**
2. The permittee shall equip and maintain the W-Rotoclone in EUC41MICRONIZING-S3 with a water flow rate gauge.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))**

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 conduct and record the results of a visible emission observation (described in Appendix 3-S3) for each of the particulate control device exhausts in EUC41MICRONIZING-S3. The readings shall be performed once per calendar month during a period when each of the control devices is operating.² **(R 336.1301)**
2. The permittee shall monitor and keep a separate record for each calendar month of the HEPA filter differential pressure according to the program described in Appendix 9-S3. The reading shall be compared to the acceptable ranges detailed in Appendix 12-S3. The reading shall be performed once per calendar month during a period when the HEPA filters are being operated.² **(R 336.1225, R 336.1331, R 336.1910)**
3. The permittee shall monitor and keep a separate record for each calendar month of the W-Rotoclone water flow rate according to the program described in Appendix 9-S3. The reading shall be compared to the acceptable ranges detailed in Appendix 12-S3. The reading shall be performed once per calendar month during a period when the W-Rotoclone is being operated.² **(R 336.1225, R 336.1331, R 336.1910)**
4. The permittee shall calculate and record the total pounds of PM, PM10, and PM2.5 emitted for EUC41MICRONIZING-S3 on a monthly basis.² **(R 336.1225, R 336.1331)**

See Appendices 3-S3, 9-S3, and 12-S3

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-S3

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. SVCM41EE33	9 ¹	39 ¹	R 336.1225
2. SVCM41G33a	20 ²	32 ²	R 336.1225, 40 CFR 52.21(c) and (d)
3. SVCM41G33b	8 ²	32 ²	R 336.1225, 40 CFR 52.21(c) and (d)
4. SVCM41Y32 ^a	36 ¹	43 ¹	R 336.1225

^aStack exhausts horizontally

IX. OTHER REQUIREMENT(S)

1. The permittee shall implement the Malfunction Abatement Program, detailed in Appendix 9-S3, when either of the following occurs: **(R 336.1911)**
 - a. Visible emissions have been observed from any of the particulate control device exhaust vents in EUC41MICRONIZING-S3, according to the requirement in SC VI.1.
 - b. The differential pressure is observed outside the acceptable operating range listed in Appendix 12-S3, according to the requirement in SC VI.2.
 - c. The water flow rate is observed outside the acceptable operating range listed in Appendix 12-S3, according to the requirement in SC VI.3.

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).

**EUC41MICKK33-S3
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Equipment in micronizing area JETPHAR1 module venting to stack KK-33. Located in Building 41.

Flexible Group ID: FGC41PSDREGIONIII-S3, FGC41MICVOC-S3

POLLUTION CONTROL EQUIPMENT

HEPA Filter on KK-33.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	0.007 pph ¹	Hourly	EUC41MICKK33-S3	SC VI.1	R 336.1225
2. Particulate	57 lbs ¹	Per year, based on a 12-month rolling time period	EUC41MICKK33-S3	SC VI.1	R 336.1225
3. Particulate	0.001 lb / 1,000 lbs of exhaust gases calculated on a dry gas basis ²	Hourly	EUC41MICKK33-S3	SC VI.1	R 336.1331(1)(c)
4. Opacity	5% ²	6-Minute Average	EUC41MICKK33-S3	SC VI.2	R 336.1301(c)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate the EUC41MICKK33-S3 equipment unless the HEPA filter is installed, maintained, and operated properly.² **(R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip and maintain the HEPA filter with a differential pressure gauge. **(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. The permittee shall calculate and record the actual particulate emission rates on a monthly and 12-month rolling time period basis, determined at the end of each calendar month. **(R 336.1213(3))**

2. The permittee shall conduct and record the results of a visible emission observation (described in Appendix 3-S3) of the HEPA filter exhaust. The reading shall be performed once per calendar month during a period when the HEPA filter is being operated. **(R 336.1213(3))**
3. The permittee shall monitor and keep a separate record for each calendar month of the HEPA filter differential pressure according to the program described in Appendix 9-S3. The reading shall be compared to the acceptable ranges detailed in Appendix 12-S3. The reading shall be performed once per calendar month during a period when the HEPA filter is being operated. **(R 336.1213(3))**

See Appendices 3-S3, 9-S3, and 12-S3

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-S3

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVCM41KK33	10 ¹	44.8 ¹	R 336.1225

IX. OTHER REQUIREMENTS

1. The permittee shall implement the Malfunction Abatement Program, detailed in Appendix 9-S3, when either of the following occurs: **(R 336.1911)**
 - a. Visible emissions have been observed from the HEPA filter exhaust according to the requirement in SC VI.2.
 - b. The differential pressure is observed outside the acceptable operating range listed in Appendix 12-S3 according to the requirement in SC VI.3.

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).

**EUCR138-S3
 EMISSION UNIT CONDITIONS**

DESCRIPTION

All equipment in or around Building 38. Located in API Region I. Particulate emissions are controlled by a number of pollution control equipment, including a new W-Rotoclone (038ROTO0214-1).

Flexible Group ID: FGCRALLPART-S3, FGCRALLTOX-S3, FGCFUG-S3, FGPHARMAMACT-S3

POLLUTION CONTROL EQUIPMENT

W-Rotoclones on EX104, 038ROTO0214-1; N-Rotoclones on EXT245, EXOT354; Exhaust Fan on EX216, EX309, EX310, EX316, EX322; Dust Collector on DUST1018; Condensers, connected to TOX (thermal oxidizer).

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate matter (PM)	1180 lbs/month ¹	Calendar month	All process vents combined	SC VI.2	R 336.1225, R 336.1227(2)
2. PM	Limits in the table below: ²	Hourly	All EUCR373-S3 vents combined	SC VI.2	R 336.1225, 40 CFR 52.21(c)&(d)
3. PM10	1,180 lbs/month ¹	Calendar month	All process vents combined	SC VI.2	R 336.1225, R 336.1227(2)
4. PM10	Limits in the table below: ²	Hourly	All EUCR373-S3 vents combined	SC VI.2	R 336.1225, 40 CFR 52.21(c)&(d)
5. PM2.5	1,180 lbs/month ¹	Calendar month	All process vents combined	SC VI.2	R 336.1225, R 336.1227(2)
6. PM2.5	Limits in the table below: ²	Hourly	All EUCR373-S3 vents combined	SC VI.2	R 336.1225, 40 CFR 52.21(c)&(d)

Exhaust ID	Lbs Particulate Per Hour By Size Category			Lbs Particulate Per 1000 Lbs Of Dry Exhaust Gas			Maximum Gas Flow Rate (dscfm)
	A	B	C	A	B	C	
1. EX-104	1.30	0.33	0.33	0.08	0.02	0.02	3,800
2. 038ROTO0214-1	-	0.36	0.36	-	0.02	0.02	4,250
3. EX-216	-	0.52	0.31	-	0.10	0.06	1,222
4. EX-T245	0.49	0.12	0.12	0.08	0.02	0.02	1,416
5. EX-309	-	1.18	0.71	-	0.10	0.06	2,750
6. EX-310	-	1.54	0.93	-	0.10	0.06	3,600
7. EX-316	-	2.00	1.20	-	0.10	0.06	4,660
8. EX-322	-	0.91	0.55	-	0.10	0.06	2,130
9. EX-OT354	0.49	0.12	0.12	0.08	0.02	0.02	1,416
10. DUST1018	0.29	0.21	0.12	0.01	0.01	0.01	4,800

*See Appendix 10-S3 for approved procedures for determination of the particle size category.

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Lots of product produced	295 lots/month ¹	Calendar month	All process vents combined	SC VI.3	R 336.1225, R 336.1227(2)

- The permittee shall not exhaust particulate emissions from the handling of category size A materials in EUCR138-S3 through the W-Rotoclone (038ROTO0214-1).² **(R 336.1225, 40 CFR 52.21(c) and (d))**

III. PROCESS/OPERATIONAL RESTRICTION

- The permittee shall not operate equipment located in EUCR138-S3 in vacuum service, while processing a VOC, unless a vacuum pump connected to the thermal oxidizer control is installed and operated properly.² **(R 336.1224, 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))**

- The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1225, R 336.1702(a), R 336.1910)**
- The permittee shall calculate and record the actual PM, PM10, and PM2.5 emission rates on a monthly basis using a method similar to that described in Appendix 4-S3.² **(R 336.1225, 40 CFR 52.21(c)&(d))**
- The permittee shall monitor and record, in a satisfactory manner, the number of lots of material produced in PM-emitting processes run in EUCR138-S3 on a calendar month basis.¹ **(R 336.1225, R 336.1227(2))**
- The permittee shall monitor and record, in a satisfactory manner, the mean particle size and category of each lot of processed material controlled through the W-Rotoclone (038ROTO0214-1) on a calendar month basis. The permittee shall keep the records on file at the facility, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request.² **(R 336.1225, 40 CFR 52.21(c) and (d))**

See Appendix 4-S3

VII. REPORTING

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

- 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-S3

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVC38EX104	14 ²	56 ²	R 336.1225, 40 CFR 52.21 (c)&(d)
2. SV038ROTO0214-1	28 ²	60 ²	R 336.1225, 40 CFR 52.21 (c)&(d)
3. SVC38EX216	8 ²	43 ²	R 336.1225, 40 CFR 52.21 (c)&(d)
4. SVC38EX309	14 ²	55 ²	R 336.1225, 40 CFR 52.21 (c)&(d)
5. SVC38EX310	14 ²	55 ²	R 336.1225, 40 CFR 52.21 (c)&(d)
6. SVC38EX316	22 ²	50 ²	R 336.1225, 40 CFR 52.21 (c)&(d)
7. SVC38EX322	20 ²	45 ²	R 336.1225, 40 CFR 52.21 (c)&(d)
8. SVC38DUST1018*	47 ²	45	R 336.1225, 40 CFR 52.21 (c)&(d)
9. SVC38EXOT354**	9 ²	47.5 ²	R 336.1225, 40 CFR 52.21 (c)&(d)
10. SVC38EXT245**	9 ²	52 ²	R 336.1225, 40 CFR 52.21 (c)&(d)

* may be discharged horizontally
 ** may be discharged with a rain cap

IX. OTHER REQUIREMENT(S)

- The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subparts A and GGG for Pharmaceuticals Production by the initial compliance date.² **(40 CFR Part 63, Subparts A and GGG)**

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).

**EUCR1127-S3
 EMISSION UNIT CONDITIONS**

DESCRIPTION

All equipment in or around Building 127. Located in API Region I. (PTI No. 225-15)

Flexible Group ID: FGCRALLPART-S3, FGCRALLTOX-S3, FGCFUG-S3, FGPHARMAMACT-S3

POLLUTION CONTROL EQUIPMENT

Rotoclones on 127ROTO3127-1, 127ROTO3128-1.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate matter (PM)	570 lbs ¹	Per calendar month	All process EUCR1127-S3 vents combined	EUCR1127-S3, SC VI.1	R 336.1225, R 336.1227(2)
2. PM	Lbs per hour emission limit in the table below for the particle size category that applies to the materials used ²	Hourly	EUCR1127-S3	FGCRALLPART-S3, SC III.1 and III.3	R 336.1225, R 336.1331(c)
3. PM10	570 lbs per month ²	Per Calendar month	All EUCR1127-S3 vents combined	EUCR1127-S3, SC VI.1	40 CFR 52.21(c) and (d)
4. PM10	Lbs per hour emission limit in the table below for the particle size category that applies to the materials used ²	Hourly	EUCR1127-S3	FGCRALLPART-S3, SC III.1 and III.3	40 CFR 52.21(c) and (d)
5. PM2.5	570 lbs per month ²	Per Calendar month	All EUCR1127-S3 vents combined	EUCR1127-S3, SC VI.1	40 CFR 52.21(c) and (d)
6. PM2.5	Lbs per hour emission limit in the table below for the particle size category that applies to the materials used ²	Hourly	EUCR1127-S3	FGCRALLPART-S3, SC III.1 and III.3	40 CFR 52.21(c) and (d)

Emission Limits for PM, PM10, and PM2.5							
Exhaust ID	Lbs Particulate Per Hour By Size Category			Lbs Particulate Per 1000 Lbs Of Dry Exhaust Gas			Maximum Gas Flow Rate (dscfm)
	A	B	C	A	B	C	
1. EX-1	-	2.14	1.29	-	0.10	0.06	16,290
2. EX-2	-	2.74	1.65	-	0.10	0.06	6,400
3. 127ROTO3127-1	1.65	0.41	0.41	0.08	0.02	0.02	4,800
4. FANS1644	-	6.00	3.6	-	0.10	0.06	14,000
5. 127ROTO3128-1	0.89	0.22	0.22	0.076	0.019	0.019	2,600

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Material produced in PM-emitting processes	152 lots per month ¹	Calendar month	EUCR1127-S3	SC VI.2	R 336.1225, R 336.1227(2)

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate equipment located in EUCR1127-S3 in vacuum service, while processing a VOC, unless a vacuum pump connected to the thermal oxidizer control is installed and operated properly.² (R 336.1224, 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 calculate and record the actual PM, PM10, and PM2.5 emission rates on a monthly basis using a method similar to that described in Appendix 4-S3. (R 336.1225, R 336.1227(2), R 336.1331(c), 40 CFR 52.21(c)&(d))
2. The permittee shall monitor and record, in a satisfactory manner, the number of lots of material produced in PM-emitting processes run in EUCR1127-S3 on a calendar month basis.¹ (R 336.1225, R 336.1227(2))

See Appendix 4-S3

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-S3

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVC127EX001	47 ¹	44 ¹	R 336.1225
2. SVC127EX002	36 ¹	42 ¹	R 336.1225
3. SV127ROTO3127-1	16 ²	44 ²	40 CFR 52.21(c) and (d), R 336.1225
4. SVC127FANS1644	52 ¹	49.3 ¹	R 336.1225
5. SV127ROTO3128-1	12 ¹	46 ¹	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).

**EUCR1155-S3
 EMISSION UNIT CONDITIONS**

DESCRIPTION

All equipment in or around Building 155. Located in API Region I.

Flexible Group ID: FGCRALLPART-S3, FGCRALLTOX-S3, FGCFUG-S3, FGPHARMAMACT-S3

POLLUTION CONTROL EQUIPMENT

Particle Scrubber on SCRB1044 and Condensers connected to TOX.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	400 lbs ¹	Per month	from all process vents combined	SC VI.1	R 336.1225, R 336.1227(2)
2. Opacity	5% ²	6-Minute Average	from stack/vents	FGCRALLPART-S3, SC VI.4	R 336.1301(c)
3. Particulate	Limits in the table below: ²	Hourly	EUCR1155-S3	SC VI.1	R 336.1225, R 336.1331(c)

Exhaust ID	Lbs Particulate Per Hour By Size Category			Lbs Particulate Per 1000 Lbs Of Dry Exhaust Gas			Maximum Gas Flow Rate (dscfm)
	A	B	C	A	B	C	
4. SCRB1044	0.27	0.14	0.07	0.008	0.004	0.002	8,000

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Lots of product produced in TSP processes.	160 lots ¹	Per month	EUCR1155-S3	SC VI.1	R 336.1225, R 336.1227(2)

III. PROCESS/OPERATIONAL RESTRICTIONS

- The permittee shall not operate equipment located in EUCR1155-S3 in vacuum service, while processing a VOC, unless a vacuum pump connected to the thermal oxidizer control is installed and operated properly.² (**R 336.1224, 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 calculate and record the actual particulate emission rates on a monthly basis using a method similar to that described in Appendix 4-S3.² (R 336.1225, R 336.1227(2), R 336.1331(c))

See Appendix 4-S3

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-S3

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVC155SCRB1044	20 ¹	58.7 ¹	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).

**EUCR1166-S3
 EMISSION UNIT CONDITIONS**

DESCRIPTION

All equipment in or around Building 166. Located in API Region I.

Flexible Group ID: FGCRALLPART-S3, FGCFUG-S3, FGPHARMAMACT-S3

POLLUTION CONTROL EQUIPMENT

N-Rotoclones on EXOT356, EXT288, and EXT289.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	25 lbs ¹	Per month	All process vents combined	SC VI.1	R 336.1225, R 336.1227(2)
2. Particulate	Limits in the table below: ²	Hourly	EUCR1166-S3	SC VI.1	R 336.1225, R 336.1331(c)

Exhaust ID	Lbs Particulate Per Hour By Size Category			Lbs Particulate Per 1000 Lbs Of Dry Exhaust Gas			Maximum Gas Flow Rate (dscfm)
	A	B	C	A	B	C	
3. EX-T288	0.49	0.12	0.12	0.08	0.02	0.02	1,416
4. EX-T289	0.49	0.12	0.12	0.08	0.02	0.02	1,416
5. EX-OT356	0.49	0.12	0.12	0.08	0.02	0.02	1,416

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Lots of product produced in TSP processes.	50 lots ¹	Per month	EUCR1166-S3	SC VI.1	R 336.1225, R 336.1227(2)

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall calculate and record the actual particulate emission rates on a monthly basis using a method similar to that described in Appendix 4-S3.² (R 336.1225, R 336.1227(2), R 336.1331(c))

See Appendix 4-S3

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-S3

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVC166EXOT356*	9 ¹	51 ¹	R 336.1225
2. SVC166EXT288*	9 ¹	51 ¹	R 336.1225
3. SVC166EXT289*	9 ¹	51 ¹	R 336.1225

* may have a rain 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).

**EUCR1195-S3
 EMISSION UNIT CONDITIONS**

DESCRIPTION

All equipment in or around Building 195. Located in API Region I. (PTI No. 81-15)

Flexible Group ID: FGCRALLPART-S3, FGCRALLTOX-S3, FGCFUG-S3, FGPHARMAMACT-S3

POLLUTION CONTROL EQUIPMENT

W-Rotoclone on EX-17; Bag house on EX-19; Exhaust Fan on EX9; Condensers connected to TOX.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	240 lbs ¹	Per month	EUCR1195-S3	SC VI.1	R 336.1225, R 336.1227(2)
2. Particulate	Limits in the table below: ²	Hourly	EUCR1195-S3	SC VI.1	R 336.1225, R 336.1331(c)

Exhaust ID	Lbs Particulate Per Hour By Size Category			Lbs Particulate Per 1000 Lbs Of Dry Exhaust Gas			Maximum Gas Flow Rate (dscfm)
	A	B	C	A	B	C	
3. EX-9	-	1.04	0.62	-	0.10	0.06	2,430
4. EX-19	0.10	0.07	0.04	0.01	0.01	0.006	1,600
5. EX-17	1.06	0.27	0.27	0.08	0.02	0.02	3,100

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Lots of product produced in TSP processes.	120 lots ¹	Per month	EUCR1195-S3	SC VI.1	R 336.1225, R 336.1227(2)

III. PROCESS/OPERATIONAL RESTRICTIONS

- The permittee shall not operate equipment located in EUCR1195-S3 in vacuum service, while processing a VOC, unless a vacuum pump connected to the thermal oxidizer control is installed and operated properly.²
(R 336.1224, 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 calculate and record the actual particulate emission rates on a monthly basis using a method similar to that described in Appendix 4-S3.² (R 336.1225, R 336.1227(2), R 336.1331(c))

See Appendix 4-S3

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-S3

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Diameter/ Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVC195EX9	15 ¹	47 ¹	R 336.1225
2. SVC195EX17	14 ²	50 ²	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
3. SVC195EX19	10 ¹	50 ¹	R 336.1225

IX. OTHER REQUIREMENT(S)

NA

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).

**EUCR244-S3
 EMISSION UNIT CONDITIONS**

DESCRIPTION

All equipment in or around Building 44. Located in API Region II.

Flexible Group ID: FGCRALLPART-S3, FGCRALLTOX-S3, FGCFUG-S3, FGPHARMAMACT-S3

POLLUTION CONTROL EQUIPMENT

W-Rotoclone on EX-31; Exhaust Fans on EX14, EX17, and EX32; Condensers connected to TOX.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	300 lbs ¹	Per month	All process vents combined	SC VI.1	R 336.1225, R 336.1227(2)
2. Particulate	Limits in the table below: ²	Hourly	EUCR244-S3	SC VI.1	R 336.1225, R 336.1331(c)

Exhaust ID	Lbs Particulate Per Hour By Size Category			Lbs Particulate Per 1000 Lbs Of Dry Exhaust Gas			Maximum Gas Flow Rate (dscfm)
	A	B	C	A	B	C	
3. EX-14	-	2.57	1.54	-	0.10	0.06	6,000
4. EX-17	-	0.43	0.26	-	0.10	0.06	1,000
5. EX-31	1.03	0.26	0.26	0.08	0.02	0.02	3,000
6. EX-32	-	2.57	1.54	-	0.10	0.06	6,000

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Lots of product produced in TSP processes.	60 lots ¹	Per month	EUCR244-S3	SC VI.1	R 336.1225, R 336.1227(2)

III. PROCESS/OPERATIONAL RESTRICTIONS

- The permittee shall not operate equipment located in EUCR244-S3 in vacuum service, while processing a VOC, unless a vacuum pump connected to the thermal oxidizer control is installed and operated properly.²
(R 336.1224, 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 calculate and record the actual particulate emission rates on a monthly basis using a method similar to that described in Appendix 4-S3.² (R 336.1225, R 336.1227(2), R 336.1331(c))

See Appendix 4-S3

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-S3

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVC44EX14*	18x24 ¹	24.5 ¹	R 336.1225
2. SVC44EX17	10 ¹	22.1 ¹	R 336.1225
3. SVC44EX31	26 ¹	45.5 ¹	R 336.1225
4. SVC44EX32	18 ¹	35.5 ¹	R 336.1225

* may have a rain 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).

**EUCR2149-S3
 EMISSION UNIT CONDITIONS**

DESCRIPTION

All equipment in Building 149. Located in API Region II.

Flexible Group ID: FGCRALLPART-S3, FGCRALLTOX-S3, FGCFUG-S3, FGPHARMAMACT-S3

POLLUTION CONTROL EQUIPMENT

W-Rotoclones on EX-9, EX-10, EX-28; Particle Scrubbers on SCRB-1003, SCRB-1004, SCRB-1005; Condensers connected to TOX.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	675 lbs ¹	Per month	All process vents combined	SC VI.1	R 336.1225, R 336.1227(2)
2. Particulate	Limits in the table below: ²	Hourly	EUCR2149-S3	SC VI.1	R 336.1225, R 336.1331(c)

Exhaust ID	Lbs Particulate Per Hour By Size Category			Lbs Particulate Per 1000 Lbs Of Dry Exhaust Gas			Maximum Gas Flow Rate (dscfm)
	A	B	C	A	B	C	
3. EX-9	0.44	0.11	0.11	0.08	0.02	0.02	1,285
4. EX-10	0.48	0.12	0.12	0.08	0.02	0.02	1,400
5. EX-28	0.48	0.12	0.12	0.08	0.02	0.02	1,400
6. SCRB1003	0.30	0.15	0.08	0.008	0.004	0.002	8,800
7. SCRB1004	0.82	0.41	0.21	0.008	0.004	0.002	24,000
8. SCRB1005	0.62	0.31	0.15	0.008	0.004	0.002	18,000

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Lots of product produced in TSP processes.	225 lots ¹	Per month	EUCR2149-S3	SC VI.1	R 336.1225, R 336.1227(2)

III. PROCESS/OPERATIONAL RESTRICTIONS

- The permittee shall not operate equipment located in EUCR2149-S3 in vacuum service, while processing a VOC, unless a vacuum pump connected to the thermal oxidizer control is installed and operated properly.²
(R 336.1224, 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 calculate and record the actual particulate emission rates on a monthly basis using a method similar to that described in Appendix 4-S3.² (R 336.1225, R 336.1227(2), R 336.1331(c))

See Appendix 4-S3

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-S3

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVC149EX9	8 ¹	49 ¹	R 336.1225
2. SVC149EX10	8 ¹	25 ¹	R 336.1225
3. SVC149EX28	8 ¹	46.5 ¹	R 336.1225
4. SV149SCRB1003	20 ¹	73 ¹	R 336.1225
5. SV149SCRB1004	34 ¹	73 ¹	R 336.1225
6. SVC149SCRB1005	30 ¹	73 ¹	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).

**EUCR373-S3
 EMISSION UNIT CONDITIONS**

DESCRIPTION

All equipment in or around Building 73. Located in API Region III. Includes Column 10, Tank1830-1, Tank1831-1, and Tank 1832-1.

Flexible Group ID: FGCRALLPART-S3, FGCRALLTOX-S3, FGCUG-S3, FGPHARMAMACT-S3

POLLUTION CONTROL EQUIPMENT

Dust Collector on DUST1008 and Condensers connected to TOX.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity	5% ²	6-Minute Average	Equipment venting to SVC73DUST1008	FGCRALLPART-S3, SC VI.4	R 336.1301
2. Particulate	0.8 lbs ¹	Per month	All process vents combined	SC VI.1	R 336.1225, R 336.1227(2)
3. Particulate	Limits in the table below: ²	Hourly	EUCR373-S3	SC VI.1	R 336.1225, R 336.1331(c)

Exhaust ID	Lbs Particulate Per Hour By Size Category			Lbs Particulate Per 1000 Lbs Of Dry Exhaust Gas			Maximum Gas Flow Rate (dscfm)
	A	B	C	A	B	C	
4. DUST1008	0.18	0.13	0.08	0.01	0.01	0.006	3,000

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Lots of product produced in TSP processes	20 lots ¹	Per month	EUCR373-S3	SC VI.1	R 336.1225, R 336.1227(2)

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall calculate and record the actual particulate emission rates on a monthly basis using a method similar to that described in Appendix 4-S3.² (R 336.1225, R 336.1227(2), R 336.1331(c))

See Appendix 4-S3

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-S3

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVC73DUST1008*	9 ¹	58 ¹	R 336.1225

* may be discharged horizontally

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).

**EUCR3173-S3
 EMISSION UNIT CONDITIONS**

DESCRIPTION

All equipment in or around Building 173, located in KAPI Region III.

Flexible Group ID: FGCRALLPART-S3, FGCRALLTOX-S3, FGCFUG-S3, FGPHARMAMACT-S3

POLLUTION CONTROL EQUIPMENT

W-Rotoclones on EX6, EX25, EX34; Particle Scrubber on SCRB1002; Exhaust Fans on FANS3345, FANS3346; Scrubbers, connected to TOX; Condensers, connected to TOX.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	240 lbs ¹	Per month	All process vents combined	SC V.1, SC VI.2	R 336.1225, R 336.1227(2)
2. PM	Limits in the table below: ²	Hourly	EU3173-S3	SC V.1	R 336.1225, R 336.1331(c)

Exhaust ID	Lbs Particulate Per Hour By Size Category			Lbs Particulate Per 1000 Lbs Of Dry Exhaust Gas			Maximum Gas Flow Rate (dscfm)
	A	B	C	A	B	C	
3. EX-6	0.69	0.17	0.17	0.08	0.02	0.02	2,000
4. EX-25	1.37	0.34	0.34	0.08	0.02	0.02	4,000
5. EX-34	0.93	0.23	0.23	0.08	0.02	0.02	2,700
6. SCRB1002	1.17	0.58	0.29	0.008	0.004	0.002	34,000
7. FANS3345	-	0.29	0.17	-	0.10	0.06	670
8. FANS3346	-	0.29	0.17	-	0.10	0.06	670

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Lots of product produced in TSP processes.	150 lots ¹	Per month	EUCR3173-S3	SC VI.2	R 336.1225, R 336.1227(2)

III. PROCESS/OPERATIONAL RESTRICTIONS

- The permittee shall not operate equipment located in EUCR3173-S3 in vacuum service, while processing a VOC, unless a vacuum pump connected to the thermal oxidizer control is installed and operated properly.²
(R 336.1702, 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 complete all required records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² (R 336.1702(a), R 336.1910)
2. The permittee shall calculate and record the actual particulate emission rates on a monthly basis using a method similar to that described in Appendix 4-S3.² (R 336.1225, R 336.1227(2), R 336.1331(c))

See Appendix 4-S3

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-S3

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVC173HBEX6	10 ²	42 ²	R 336.1225, 40 CFR 52.21(c)&(d)
2. SVC173HBEX25	14 ²	45 ²	R 336.1225, 40 CFR 52.21(c)&(d)
3. SVC173HBEX34	13 ²	40 ²	R 336.1225, 40 CFR 52.21(c)&(d)
4. SVC173HBSCR1002	38 ²	66 ²	R 336.1225, 40 CFR 52.21(c)&(d)
5. SVC173HBFANS3345*	13 ²	36 ²	R 336.1225, 40 CFR 52.21(c)&(d)
6. SVC173HBFANS3346*	13 ²	36 ²	R 336.1225, 40 CFR 52.21(c)&(d)

* may have rain caps

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).

**EUCR3207-S3
 EMISSION UNIT CONDITIONS**

DESCRIPTION

All equipment in or around Building 207. Located in API Region III.

Flexible Group ID: FGCRALLPART-S3, FGCRALLTOX-S3, FGCFUG-S3, FGPHARMAMACT-S3

POLLUTION CONTROL EQUIPMENT

Dust Collector on DC1/207 and Particle Scrubber on SCRB1036.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	105 lbs ¹	Per month	All process vents combined	SC VI.1	R 336.1225
2. Particulate	Limits in the table below: ²	Hourly	EUCR3207-S3	SC VI.1	R 336.1225, R 336.1331(c)

Exhaust ID	Lbs Particulate Per Hour By Size Category			Lbs Particulate Per 1000 Lbs Of Dry Exhaust Gas			Maximum Gas Flow Rate (dscfm)
	A	B	C	A	B	C	
3. DC-1/207	0.18	0.13	0.08	0.01	0.01	0.006	3,000
4. SCRB1036	0.62	0.31	0.15	0.008	0.004	0.002	18,000

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Lots of product produced in TSP processes.	70 lots ¹	Per month	EUCR3207-S3	SC VI.1	(R 336.1225, R 336.1227(2))

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall calculate and record the actual particulate emission rates on a monthly basis using a method similar to that described in Appendix 4-S3.² (R 336.1225, R 336.1227(2), R 336.1331(c))

See Appendix 4-S3

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-S3

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVC207DC1/207	15 ¹	69 ¹	R 336.1225
2. SVC207SCRB1036*	32 X 30 ¹	66 ¹	R 336.1225

* may have rain cap, flapper valve or gooseneck configuration

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).

**EUCR3225-S3
 EMISSION UNIT CONDITIONS**

DESCRIPTION

All equipment in or around Building 225, located in API Region III.

Flexible Group ID: FGCRALLPART-S3, FGCRALLTOX-S3, FGCFUG-S3, FGPHARMAMACT-S3

POLLUTION CONTROL EQUIPMENT

Particle Scrubbers on SCRB1006, SCRB1007; HEPA Filters on EF1C1HB1, EX27, EX30, EX34; Scrubbers connected to the TOX. TOX: Two parallel thermal oxidizer, quench, and scrubber trains-one in use and one as a backup.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC (total)	75 lbs/month ²	Calendar month	When emitting from unconnected vent T-K271	SC VI.3	R 336.1702(a)
2. Diisobutyl Aluminum Hydride	0.01 pph ¹	Hourly	T-K271 while emitting from the unconnected bypass vent	SC VI.3	R 336.1225
3. Toluene	2.00 pph ¹	Hourly	T-K271 while emitting from the unconnected bypass vent	SC VI.3	R 336.1225
4. Isobutylene	0.01 pph ¹	Hourly	T-K271 while emitting from the unconnected bypass vent	SC VI.3	R 336.1225
5. Isobutane	0.01 pph ¹	Hourly	T-K271 while emitting from the unconnected bypass vent	SC VI.3	R 336.1225
6. Particulate matter (PM)	188.6 lbs/month ¹	Calendar month	All EUCR3225-S3 vents combined	SC VI.2	R 336.1225
7. PM	Limits in the table below: ²	Hourly	EUCR3225-S3	SC VI.2	R 336.1225, R 336.1331(c)
8. PM10	188.6 lbs ²	Calendar month	All EUCR3225-S3 vents combined	SC VI.2	40 CFR 52.21(c) and (d)
9. PM10	Limits in the table below: ²	Hourly	EUCR3225-S3	SC VI.2	40 CFR 52.21(c) and (d)
10. PM2.5	188.6 lbs ²	Calendar month	All vents in EUCR3225-S3 combined	SC VI.2	40 CFR 52.21(c) and (d)
11. PM2.5	Limits in the table below: ²	Hourly	EUCR3225-S3	SC VI.2	40 CFR 52.21(c) and (d)
12. VOC (total)	3.91 tpy ²	12-month rolling time period as determined at the end of each calendar month	Unconnected silica slurry exhaust hood	SC VI.6	R 336.1702(a)

Emission Limits for PM, PM10, and PM2.5							
Exhaust ID	PM, PM10, and PM2.5			PM only			Maximum Gas Flow Rate (dscfm)
	Lbs Per Hour By Size Category ⁺			Lbs Particulate Per 1000 Lbs Of Dry Exhaust Gas			
	A	B	C	A	B	C	
13. EF1C1HB1	0.14	0.1	0.06	0.01	0.01	0.006	2,400
14. SCRB1006	0.82	0.41	0.21	0.01	0.01	0.006	24,000
15. SCRB1007	0.41	0.21	0.1	0.01	0.01	0.006	12,000
16. EX-27	0.33	0.24	0.14	0.01	0.01	0.006	5,500
17. EX-30	0.12	0.09	0.05	0.01	0.01	0.006	2,000
18. EX-34	0.34	0.24	0.15	0.01	0.01	0.006	5,700

⁺See Appendix 10-S3 for approved procedures for determination of the particle size category.

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Material produced in PM-emitting activities	115 lots/month ¹	Calendar month	EUCR3225-S3	SC VI.5	R 336.1225, R 336.1227(2)
2. Lots of product produced in VOC processes.	30 lots/month ²	Calendar month	EUCR3225-S3	SC VI.7	R 336.1225, R 336.1227(2), R 336.1702(a)

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate equipment located in EUCR3225-S3 in vacuum service while processing a VOC unless the vacuum pump is connected to the thermal oxidizer control and the thermal oxidizer control is installed, maintained, and operated in a satisfactory manner.² (R 336.1224, R 336.1225, R 336.1702(a), R 336.1910)
2. The permittee shall capture all waste materials from the solvent cleaning of the solids drum charging glove boxes and shall store them in closed containers. The permittee shall dispose of all these materials in an acceptable manner in compliance with all applicable state rules and federal regulations.² (R 336.1224, R 336.1225, R 336.1702(a))
3. The permittee shall capture all waste materials from the solvent cleaning of the lipid storage tanks and shall store them in closed containers. The permittee shall dispose of all these materials in an acceptable manner in compliance with all applicable state rules and federal regulations.² (R 336.1224, R 336.1225, R 336.1702(a))
4. The permittee shall handle all materials for EUCR3225-S3 activities containing volatile compounds other than water in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary.² (R 336.1224, R 336.1225, R 336.1702(a))

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

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 complete all required records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² (R 336.1225, R 336.1702(a), R 336.1331(c), R 336.1910)
2. The permittee shall calculate and record the actual PM, PM10, and PM2.5 emission rates on a monthly basis using a method similar to that described in Appendix 4-S3.² (R 336.1225, R 336.1227(2), R 336.1331(c))
3. The permittee shall calculate the actual VOC emissions from each process for unconnected VOC equipment while emitting from the unconnected bypass vent of T-K271 for each calendar month using the method detailed in Appendix 4-S3.² (R 336.1702(a))
4. The permittee shall conduct and record the results of a visible emission observation (described in Appendix 3-S3) of the particulate control device exhausts once per calendar month during a period when the particulate control devices are being operated.² (R 336.1331)
5. The permittee shall monitor and record, in a satisfactory manner, the amount of material, in lots, produced in PM-emitting activities in EU3225-S3 on a calendar month basis.¹ (R 336.1225, R 336.1227(2))
6. The permittee shall calculate the actual VOC emissions from the silica slurry exhaust hood for each calendar month and 12-month rolling time period, as determined at the end of each calendar month, in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and shall make them available to the department upon request.² (R 336.1702(a))
7. The permittee shall monitor and record, in a satisfactory manner, the amount of material, in lots, produced in VOC-emitting activities in EU3225-S3 on a calendar month basis.¹ (R 336.1225, R 336.1227(2))

See Appendix 4-S3

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-S3

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVC225EF1C1HB1	14 ²	55 ²	R 336.1225, 40 CFR 52.21(c) and (d)
2. SVC225EX27	29 ²	68 ²	R 336.1225, 40 CFR 52.21(c) and (d)
3. SVC225EX30	17 ²	54 ²	R 336.1225, 40 CFR 52.21(c) and (d)
4. SVC225EX34	25 ²	53 ²	R 336.1225, 40 CFR 52.21(c) and (d)
5. SVC225SCRB1006	35 ²	79 ²	R 336.1225, 40 CFR 52.21(c) and (d)
6. SVC225SCRB1007	25 ²	80 ²	R 336.1225, 40 CFR 52.21(c) and (d)
7. SVC225TK271	4 ¹	61 ¹	R 336.1225

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart GGG for Pharmaceuticals Production by the initial compliance date.² **(40 CFR Part 63, Subparts A and GGG)**

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).

**EUCR466-S3
 EMISSION UNIT CONDITIONS**

DESCRIPTION

All equipment in or around Building 66. Located in API Region IV.

Flexible Group ID: FGCRALLPART-S3, FGCRALLTOX-S3, FGCFUG-S3, FGPHARMAMACT-S3

POLLUTION CONTROL EQUIPMENT

HEPA Filter on FILT1, FILT3114, dry filter HEPE1517 in line to SCRB1001, and FILT1543; Condensers connected to TOX.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	475 lbs ¹	Per month	All process vents combined	SC VI.1	R 336.1225, R 336.1227(2)
2. Particulate	Limits in the table below: ²	Hourly	EUCR466-S3	SC VI.1	R 336.1225, R 336.1331(c)

Exhaust ID	Lbs Particulate Per Hour By Size Category			Lbs Particulate Per 1000 Lbs Of Dry Exhaust Gas			Maximum Gas Flow Rate (dscfm)
	A	B	C	A	B	C	
3. FILT-1	0.60	0.43	0.26	0.013	0.010	0.002	10,000
4. SCRB1001	0.21	0.10	0.05	0.008	0.004	0.002	6,000
5. FILT3114	0.02	0.01	0.01	0.013	0.010	0.006	250
6. FILT1543	0.39	0.28	0.17	0.013	0.010	0.006	6,500

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Lots of product produced in TSP processes.	190 lots ¹	Per month	EUCR466-S3	SC VI.1	R 336.1225, R 336.1227(2)

III. PROCESS/OPERATIONAL RESTRICTIONS

- The permittee shall not operate equipment located in EUCR466-S3 in vacuum service, while processing a VOC, unless a vacuum pump connected to the thermal oxidizer control is installed and operated properly.²
(R 336.1224, 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 calculate and record the actual particulate emission rates on a monthly basis using a method similar to that described in Appendix 4-S3.² (R 336.1225, R 336.1227(2), R 336.1331(c))

See Appendix 4-S3

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-S3

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVC66FILT1	20 ¹	58 ¹	R 336.1225
2. SVC66SCRB1001	16 ¹	80 ¹	R 336.1225
3. SVC66FILT3114	5 ¹	50 ¹	R 336.1225
4. SVC66FILT1543	24 ¹	50 ¹	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).

**EUCR476-S3
 EMISSION UNIT CONDITIONS**

DESCRIPTION

All equipment in or around Building 76. Located in API Region IV.

Flexible Group ID: FGCRALLPART-S3, FGCRALLTOX-S3, FGCFUG-S3, FGPHARMAMACT-S3

POLLUTION CONTROL EQUIPMENT

W-Rotoclone on EX23 and Condensers connected to TOX.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	14.5 lbs ¹	Per month	from all process vents combined	SC VI.1	R 336.1225, R 336.1227(2)
2. Particulate	Limits in the table below: ²	Hourly	EUCR476-S3	SC VI.1	R 336.1225, R 336.1331(c)

Exhaust 1D	Lbs Particulate Per Hour By Size Category			Lbs Particulate Per 1000 Lbs Of Dry Exhaust Gas			Maximum Gas Flow Rate (dscfm)
	A	B	C	A	B	C	
3. EX-23	1.37	0.34	0.34	0.08	0.02	0.02	4,000

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Product produced in TSP processes.	100,000 lbs	Per month	EUCR476-S3	SC VI.1	R 336.1225, R 336.1227(2)

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall calculate and record the actual particulate emission rates on a monthly basis using a method similar to that described in Appendix 4-S3.² (R 336.1225, R 336.1227(2), R 336.1331(c))

See Appendix 4-S3

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-S3

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVC76EX23*	14 X 14 ¹	13.5 ¹	R 336.1225

* may have an orientation 45° below horizontal

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).

**EUCR491COM-S3
 EMISSION UNIT CONDITIONS**

DESCRIPTION

All equipment in or around Building 91, commercial area, located in API Region IV.

Flexible Group ID: FGCRALLPART-S3, FGCRALLTOX-S3, FGCFUG-S3, FGPHARMAMACT-S3

POLLUTION CONTROL EQUIPMENT

HEPA Filters on DUST1010, EX27 filters 1049 and 1056, EX117, EX118, EX119, Exhaust Fans on EX107, EX124; Condensers, connected to TOX; Scrubbers, connected to TOX.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	50 lbs per month ¹	Calendar month	TANK1615 not controlled by the thermal oxidizer	SC VI.3	R 336.1225, R 336.1227(2)
2. VOC	10 lbs per lot ¹	Each lot	Unconnected VOC processes	SC VI.3	R 336.1225, R 336.1227(2)
3. Methanol	0.1 pph ¹	Hourly	TANK1615 not controlled by the thermal oxidizer	SC VI.3	R 336.1225, R 336.1227(2)
4. Methylene Chloride	1 pph ¹	Hourly	TANK1615 not controlled by the thermal oxidizer	SC VI.3	R 336.1225, R 336.1227(2)
5. Ozone	0.2 pph ¹	Hourly	TANK1615 not controlled by the thermal oxidizer	SC VI.3	R 336.1225, R 336.1227(2)
6. Particulate	90 lbs per month ¹	Calendar month	All process vents combined	SC VI.2	R 336.1225, R 336.1227(2)
7. Particulate	Limits in the table below: ²	Hourly	EUCR491COM-S3	SC VI.2	R 336.1225, R 336.1331(c)

Exhaust ID	Lbs Particulate Per Hour By Size Category+			Lbs Particulate Per 1000 Lbs Of Dry Exhaust Gas			Maximum Gas Flow Rate (dscfm)
	A	B	C	A	B	C	
8. DUST1010	0.19	0.13	0.08	0.01	0.01	0.006	3,090
9. EX-27	0.23	0.17	0.10	0.01	0.01	0.006	4,000
10. EX-107	-	1.44	0.86	-	0.10	0.06	3,360
11. EX-117	0.06	0.043	0.026	0.01	0.01	0.006	1,000
12. EX-118	0.06	0.043	0.026	0.01	0.01	0.006	1,000
13. EX-119	0.06	0.043	0.026	0.01	0.01	0.006	1,000
14. EX-124	-	1.37	0.82	-	0.10	0.06	3,200

+ See Appendix 10-S3 for approved procedures for determination of the particle size category.

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Lots of product produced in TSP processes.	30 lots per month ¹	Calendar month	EUCR491COM-S3	SC VI.6	R 336.1225, R 336.1227(2)
2. Lots of VOC emitting product produced in equipment not controlled by the thermal oxidizer	5 lots per month ¹	Calendar month	EUCR491COM-S3	SC VI.7	R 336.1225, R 336.1227(2)

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate equipment located in EUCR491COM-S3 in vacuum service, while processing a VOC, unless a vacuum pump connected to the thermal oxidizer control is installed, maintained, and operated in a satisfactory manner acceptable to the AQD District Supervisor.² **(R 336.1224, R 336.1910)**
2. The permittee shall capture all waste materials from the solvent cleaning of the lipid storage tanks and shall store them in closed containers. The permittee shall dispose of all these materials in an acceptable manner in compliance with all applicable state rules and federal regulations.² **(R 336.1224, R 336.1225, R 336.1702(a))**
3. The permittee shall handle all materials for EUCR491COM-S3 activities containing volatile compounds other than water in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary.² **(R 336.1224, R 336.1225, R 336.1702(a))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

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 complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1225, R 336.1227(2), R 336.1331(c), R 336.1702(a))**
2. The permittee shall calculate and record the actual particulate emission rates on a monthly basis using a method similar to that described in Appendix 4-S3.² **(R 336.1225, R 336.1227(2), R 336.1331(c))**
3. The permittee shall calculate the actual VOC emissions from each process for unconnected VOC equipment for each calendar month using the method detailed in Appendix 4-S3.² **(R 336.1702(a))**
4. The permittee shall complete all required records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1225, R 336.1702(a), R 336.1331(c), R 336.1910)**

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 PTI No: MI-PTI-B3610-2021a

5. The permittee shall conduct and record the results of a visible emission observation (described in Appendix 3-S3) of the particulate control device exhausts once per calendar month during a period when the particulate control devices are being operated.² **(R 336.1331)**
6. The permittee shall monitor and record, in a satisfactory manner, the amount of material, in lots, produced in PM-emitting activities in EUCR491COM-S3 on a calendar month basis.¹ **(R 336.1225, R 336.1227(2))**
7. The permittee shall monitor and record, in a satisfactory manner, the amount of material, in lots, produced in VOC-emitting activities in EUCR491COM-S3 on a calendar month basis.¹ **(R 336.1225, R 336.1227(2))**

See Appendix 4-S3

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-S3

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVC91EX107	16 ²	23 ²	R 336.1225 40 CFR 52.21(c)&(d)
2. SVC91EX117	10 ²	23 ²	R 336.1225 40 CFR 52.21(c)&(d)
3. SVC91EX118	10 ²	23 ²	R 336.1225 40 CFR 52.21(c)&(d)
4. SVC91EX119	10 ²	23 ²	R 336.1225 40 CFR 52.21(c)&(d)
5. SVC91EX124	18 ²	40 ²	R 336.1225 40 CFR 52.21(c)&(d)
6. SVC91EX27*	25 x 19 ²	37 ²	R 336.1225 40 CFR 52.21(c)&(d)
7. SVC91DUST1010	24 ²	62 ²	R 336.1225 40 CFR 52.21(c)&(d)

* may have an orientation 45° below horizontal

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart GGG for Pharmaceuticals Production by the initial compliance date. **(40 CFR Part 63, Subparts A and GGG)**

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).

**EUCR4335-S3
 EMISSION UNIT CONDITIONS**

DESCRIPTION

All equipment in or around Building 335. Located in API Region IV (PTI No. 21-19). Particulate emissions are controlled by a number of pollution control equipment, including a new dust collector (335DUST500-1).

Flexible Group ID: FGCRALLPART-S3, FGCRALLTOX-S3, FGCFUG-S3, FGPHARMAMACT-S3

POLLUTION CONTROL EQUIPMENT

Dust Collector on 335DUST5000-1; Particle Scrubber on SB385; Ventilation Scrubber on SB180; HEPA Filters on DC25C, DC22C, portable filters DUST242 and DC39; that vent through SVC335PORTFILTER; Condensers, connected to TOX; Scrubbers, connected to TOX; FILT0841-1 Bag-in/Bag-out HEF filter system; FILT0842-1 Bag-in/Bag-out hopper and Bag-in/Bag-out HEF filter system; FANE0210-1 Dust Collector; 335DUST3007-1 Dust Collector; DUST3010 Bag-in/Bag-out HEF filter system.

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Particulate matter (PM)	Limits in the table below ² :	Hourly	EUCR4335-S3	SC VI.2	R 336.1225, 40 CFR 52.21 (c)&(d)
2. PM10	Limits in the table below ² :	Hourly	EUCR4335-S3	SC VI.2	R 336.1225, 40 CFR 52.21 (c)&(d)
3. PM2.5	Limits in the table below ² :	Hourly	EUCR4335-S3	SC VI.2	R 336.1225, 40 CFR 52.21 (c)&(d)
4. Isoflupredone acetate (CAS No. 338-98-7)	38 lb/yr ¹	12-month rolling time period as determined at the end of each calendar month	Process vent 335DUST5000-1	SC VI.3	R 336.1224, R 336.1225
5. Opacity	10% ²	Six-minute Average	From all stack/vents	FGCRALLPART-S3 SC VI.4	R 336.1301

Exhaust ID	Emission Limits for PM, PM10, and PM2.5						Maximum Gas Flow Rate (dscfm)
	PM, PM10, and PM2.5			PM only			
	Lbs Per Hour By Size Category ⁺			Lbs Particulate Per 1,000 Lbs Of Dry Exhaust Gas			
	A	B	C	A	B	C	
6. PORTFILT	0.07	0.05	0.030	0.015	0.015	0.006	NA
7. DC-2-5C	0.012	0.009	0.005	0.015	0.015	0.006	200
8. DC-2-2C	0.012	0.009	0.005	0.015	0.015	0.006	200
9. 335DUST5000-1	0.60	0.43	0.26	0.013	0.01	0.006	10,000
10. SB-385	0.073	0.039	0.02	0.008	0.004	0.002	2,285

Exhaust ID	Emission Limits for PM, PM10, and PM2.5						Maximum Gas Flow Rate (dscfm)
	PM, PM10, and PM2.5			PM only			
	Lbs Per Hour By Size Category ⁺			Lbs Particulate Per 1,000 Lbs Of Dry Exhaust Gas			
	A	B	C	A	B	C	
11. FANE0210-1	0.027	0.014	0.007	0.008	0.004	0.002	800
12. FILT0841-1	0.574	0.410	0.246	0.013	0.010	0.006	9,560
13. FILT0842-1	0.212	0.152	0.091	0.013	0.010	0.006	3,540
14. 335DUST3007-1	0.36	0.26	0.15	0.013	0.01	0.006	6,000
15. DUST3010	0.270	0.140	0.070	0.008	0.004	0.002	8,000

⁺See Appendix 10-S3 for approved procedures for determination of the particle size category.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate the equipment in the MOD 1 while processing hydrogen cyanide unless the ventilation scrubber is installed, maintained and operated in a satisfactory manner.² **(R 336.1702(a) R 336.1901, R 336.1910)**
2. The permittee shall not operate the equipment in EUCR4335-S3 unless the associated packed tower process vent scrubber is installed, maintained, and operated in a satisfactory manner. Vent streams containing dimethyl sulfate and dimethyl sulfide may bypass the vent scrubber and vent directly to the thermal oxidizer.² **(R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall monitor and keep a separate record for each calendar month of the recirculating water flow rate for the particle scrubber and the ventilation scrubber. The reading shall be compared to the acceptable ranges detailed in Appendix 12-S3. The reading shall be performed once per calendar month during a period when the ventilation scrubber or particle scrubber is being operated.² **(R 336.1910)**
2. The permittee shall calculate and record the total pounds of particulate emitted on a monthly basis.² **(R 336.1225, R 336.1331(c))**
3. The permittee shall keep the following information on a monthly basis for process vent 335DUST5000-1:
 - a. Hours of operation of the dust collector while handling isoflupredone acetate-containing materials.

- b. Hours of operation of the dust collector per 12-month rolling time period, as determined at the end of each calendar month while handling isoflupredone acetate-containing materials.
- c. Isoflupredone acetate emission calculations determining the monthly emission rate in pounds per calendar month.
- d. Isoflupredone acetate emission calculations determining the annual emission rate in pounds per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records on file at the facility, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request.¹ **(R 336.1224, R 336.1225)**

- 4. The permittee shall conduct and record the results of a visible emission observation (described in Appendix 3-S3) of the particulate control device exhausts once per calendar month during a period when the particulate control devices are being operated.² **(R 336.1331)**

See Appendices 3-S3 and 12-S3

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-S3

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVC335DC22C	6 ²	110 ²	R 336.1225, 40 CFR 52.21 (c)&(d)
2. SVC335DC25C ^A	15 x 15 ²	110 ²	R 336.1225, 40 CFR 52.21 (c)&(d)
3. SVC335DUST5000-1 ^A	24 ²	114 ²	R 336.1225, 40 CFR 52.21 (c)&(d)
4. SVC335SB385 ^B	12 ²	130 ²	R 336.1225, 40 FR 52.21 (c)&(d)
5. SVC335SB180	NA	NA	R 336.1225, 40 CFR 52.21 (c)&(d)
6. SVC335PORTFILTER ^C	8 ²	40 ²	R 336.1225, 40 CFR 52.21 (c)&(d)
7. SVC335FILT0841-1 ^A	60 x 48 ²	65 ²	R 336.1225, 40 CFR 52.21 (c)&(d)
8. SVC335FILT0842-1 ^A	36 x 30 ²	30 ²	R 336.1225, 40 CFR 52.21 (c)&(d)
9. SVC335FANE0210-1 ^A	6 ²	85 ²	R 336.1225, 40 CFR 52.21 (c)&(d)

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
10. SVC335DUST3007-1 ^A	60 X 78 ²	60.3 ²	R 336.1225, 40 CFR 52.21 (c)&(d)
11. SVC335DUST3010 ^A	24 ²	60.3 ²	R 336.1225, 40 CFR 52.21 (c)&(d)

- ^A may be discharged horizontally
- ^B may have a rain cap
- ^C may have an orientation 45° below vertical

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subparts A and GGG for Pharmaceuticals Production by the initial compliance date.² **(40 CFR Part 63, Subparts A and GGG)**

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).

**EUC38R6ALL-S3
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Equipment in or around building 38 (located in API Region VI) used to manufacture fermentation intermediates and products, which includes the installation of two replacement acetone tanks (ID# TANK1022-1 and TANK1022-1). Emissions from the replacement tanks are controlled by a thermal oxidizer.

Flexible Group ID: FGCRALLPART-S3, FGCR6FERM-S3, FGCFUG-S3, FGPHARMAMACT-S3, FGCRALLTOX-S3

POLLUTION CONTROL EQUIPMENT

W-Rotoclone (038ROTO0217-1) and TOX (thermal oxidizer) for emissions control of TANK1022-1 and TANK1022-2.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	428 lb/month ¹	Calendar Month	EUC38R6ALL-S3	SC VI.2	R 336.1225
2. PM	Limits in the table below: ²	Hourly	EUC38R6ALL-S3	SC VI.2	R 336.1225, R 336.1331(c)
3. PM10	428 lb/month ²	Calendar Month	EUC38R6ALL-S3	SC VI.2	40 CFR 52.21(c) and (d)
4. PM10	Limits in the table below: ²	Hourly	EUC38R6ALL-S3	SC VI.2	R 336.1225, R 336.1331(c)
5. PM2.5	428 lb/month ²	Calendar Month	EUC38R6ALL-S3	SC VI.2	40 CFR 52.21(c) and (d)
6. PM2.5	Limits in the table below: ²	Hourly	EUC38R6ALL-S3	SC VI.2	R 336.1225, R 336.1331(c)

Emission Limits for PM, PM10, and PM2.5							
Exhaust ID	PM, PM10, and PM2.5			PM only			Maximum Gas Flow Rate (dscfm)
	Lbs Per Hour By Size Category ⁺			Lbs Particulate Per 1,000 Lbs Of Dry Exhaust Gas			
	A	B	C	A	B	C	
a. 038ROTO0217-1	1.49	0.37	0.37	0.08	0.02	0.02	4,345

⁺See Appendix 10-S3 for approved procedures for determination of the particle size category.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Material produced in PM-emitting processes	95 lots per month ¹	Calendar month	EUC38R6ALL-S3	SC VI.3	R 336.1225, R 336.1227(2)

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUC38R6ALL-S3 unless the rotoclone is installed, maintained, and operated in a satisfactory manner.² (R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) and (d))

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 complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² (R 336.1225, 40 CFR 52.21(c)&(d))
2. The permittee shall calculate and record the actual PM, PM10, and PM2.5 emission rates on a monthly basis using a method similar to that described in Appendix 4-S3.² (R 336.1225, 40 CFR 52.21(c)&(d))
3. The permittee shall monitor and record, in a satisfactory manner, the number of lots of material produced in PM-emitting processes run in EUC38R6ALL-S3 on a calendar month basis.¹ (R 336.1225, R 336.1227(2))

See Appendix 4-S3

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-S3

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. SVC38R6EX217	24 ²	60 ²	R 336.1225, 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).

**EUC120R6ALL-S3
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Equipment in or around Building 120. Located in API Region VI.

Flexible Group ID: FGCRALLPART-S3, FGCFUG-S3, FGPHARMAMACT-S3

POLLUTION CONTROL EQUIPMENT

Wet Venturi Scrubber on SCRB1047

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	1,493 lbs ¹	Per month	EUC120R6ALL-S3	SC VI.1	R 336.1225
2. Particulate	Limits in the table below: ²	Hourly	EUC120R6ALL-S3	SC VI.1	R 336.1225, R 336.1331(c)

Exhaust ID	Lbs Particulate Per Hour By Size Category			Lbs Particulate Per 1000 Lbs Of Dry Exhaust Gas			Maximum Gas Flow Rate (dscfm)
	A	B	C	A	B	C	
3. SCRB1047	0.27	0.14	0.07	0.08	0.04	0.02	8,000

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Lots of product produced in TSP processes.	279 lots ¹	Per month	EUC120R6ALL-S3	SC VI.2	R 336.1225

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall calculate and record the actual particulate emission rates on a monthly basis using a method similar to that described in Appendix 4-S3.² (R 336.1225, R 336.1227(2), R 336.1331(c))
2. On a monthly basis the permittee shall monitor and record the actual lots produced in the EUC120R6ALL-S3 equipment. (R 336.1213(3))

See Appendix 4-S3

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-S3

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVC120R6SCRB1047	20 ¹	72 ¹	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).

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
FGCRALLPART-S3	All particulate control equipment located in Region I, Buildings 38, 127, 155, 166, 195; Region II, Buildings 44, 149; Region III, Buildings 73, 173, 207, 225; Region IV, Buildings 66, 76, 91 commercial, 335; and Region VI, Buildings 38 and 120.	EUCR138-S3 EUCR1127-S3 EUCR1155-S3 EUCR1166-S3 EUCR1195-S3 EUCR244-S3 EUCR2149-S3 EUCR373-S3 EUCR3173-S3 EUCR3207-S3 EUCR3225-S3 EUCR466-S3 EUCR476-S3 EUCR491COM-S3 EUCR4335-S3 EUC38R6ALL-S3 EUC120R6ALL-S3
FGC41PSDREGIONIII-S3	FGC41PSDREGIONIII-S3	EUC41MILLING-S3 EUC41NEOSTOR&HANDL-S3 EUC41NEOSPRAYDRYER-S3 EUC41MICRONIZING-S3 EUC41MICKK33-S3
FGC41MICVOC-S3	Entire Building 41 micronizing and milling area VOC requirements.	EUC41MILLING-S3 EUC41MICRONIZING-S3 EUC41MICKK33-S3

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGCRALLTOX-S3	All of the equipment located in Region I, Process Buildings 38, 127, 155, 195; Region II, Process Buildings 44, 149; Region III, Process Buildings 73, 173, 207, 225; and Region IV, Process Buildings 66, 76, 91 commercial, 172, 335, that is “connected” to the regional TOX.	EUCR138-S3 EUCR1127-S3 EUCR1155-S3 EUCR1195-S3 EUCR244-S3 EUCR2149-S3 EUCR373-S3 EUCR3173-S3 EUCR3207-S3 EUCR3225-S3 EUCR466-S3 EUCR476-S3 EUCR491COM-S3 EUCR4172-S3 EUCR4335-S3 EUC38R6ALL-S3
FGCR6FERM-S3	Fermentation processes common to Buildings 38 and 121.	EUC121R6ALL-S3 EUC38R6ALL-S3
FGCFUG-S3	Pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, instrumentation systems, control devices, and closed vent systems intended to operate in organic hazardous air pollutant service 300 hours or more during the calendar year, subject to regulation for equipment leaks under 40 CFR Part 63, Subpart GGG.	EUCR138-S3 EUCR1127-S3 EUCR1155-S3 EUCR1166-S3 EUCR1195-S3 EUCR244-S3 EUCR2149-S3 EUCR373-S3 EUCR3173-S3 EUCR3207-S3 EUCR3225-S3 EUCR466-S3 EUCR476-S3 EUCR491COM-S3 EUCR4335-S3 EUCR4172-S3 EUC38R6ALL-S3 EUC120R6ALL-S3 EUC121R6ALL-S3

Section 3 – Active Pharmaceutical Ingredients (API)

ROP No: MI-ROP-B3610-2021a
 Expiration Date: October 18, 2026
 PTI No: MI-PTI-B3610-2021a

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGPHARMAMACT-S3	Equipment and processes subject to the pharmaceutical MACT.	EUCR138-S3 EUCR1127-S3 EUCR1155-S3 EUCR1166-S3 EUCR1195-S3 EUCR244-S3 EUCR2149-S3 EUCR373-S3 EUCR3173-S3 EUCR3207-S3 EUCR3225-S3 EUCR466-S3 EUCR476-S3 EUCR491COM-S3 EUCR4172-S3 EUCR4335-S3 EUC38R6ALL-S3 EUC120R6ALL-S3 EUC121R6ALL-S3

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGRULE290-S3	Equipment exempted by Rule 290.	EUC41MICH33-S3 EUC76TIS254-S3 EUCR1127CENTRIFUGE-S3 EUCR1127CLEANING-S3 EUCR1127FILT1268-S3 EUCR1155CLEANING-S3 EUCR1195OT380-S3 EUCR1195SHKRA-S3 EUCR1195SHKRB-S3 EUCR1195SHKRC-S3 EUCR1195T195-S3 EUCR138DRUMFILLING-S3 EUCR1DRUMPUMPING-S3 EUCR244DRUMPUMPING-S3 EUCR3173DRUMFILLING-S3 EUCR3173DRUMPUMPING-S3 EUCR3173CLEANING-S3 EUCR3225DRUMFILLING-S3 EUCR3225DRUMPUMPING-S3 EUCR4335DRUMPUMPING-S3 EUCR466DRUMPUMPING-S3 EUCR491CONTAINER-S3 EUCR491DRUMFILLING-S3 EUCR491DRUMPUMPING-S3 EUCR491SPAT-S3 EUCR2149DRUMPUMPING-S3 EUCR1195TANK1060-S3 EUAPIMANUALCLN-S3 EUCR138FILT0034-S3 EUCR138FILT2479-S3 EUCR138T-112-S3 EUCR138OT-316-S3 EUCR138T-VENT-S3 EUCR491CAB-S3 EUCR491WASTE-S3 EUCR127OT-600-S3 EUCR2149TOTEFILL-S3 EUCR1166FEINC-S3 EU1166OT356-S3 EU1166OT357-S3 EUCR1173CLN-S3 EUB173CHILLER-S3 EUCR3173T-BUTY-S3 EUCR1035T1035-S3 EUB665CHILLER-S3 EUB91HANDSAN-S3

**FGCRALLPART-S3
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

All particulate control equipment located in Region I Buildings 38, 127, 155, 166, 195; Region II Buildings 44, 149; Region III Buildings 73, 173, 207, 225; Region IV Buildings 66, 76, 91 commercial, 335 and Region VI Building 120.

Emission Units: EUCR138-S3, EUCR1127-S3, EUCR1155-S3, EUCR1166-S3, EUCR1195-S3, EUCR244-S3, EUCR2149-S3, EUCR373-S3, EUCR3173-S3, EUCR3207-S3, EUCR3225-S3, EUCR466-S3, EUCR476-S3, EUCR491COM-S3, EUCR4335-S3, EUC38R6ALL-S3, EUC120R6ALL-S3

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate the equipment in FGCRALLPART-S3, which is a source of particulate matter emissions, unless the exhaust gases are vented to the proper particulate control device as specified, and the control devices are installed, maintained and operated properly.² **(R 336.1224, R 336.1910)**
2. The permittee shall exhaust crystalline silica containing materials through a particulate control device permitted to control category size A materials (See Appendix10-S3).¹ **(R 336.1901)**
3. The permittee shall not operate the particulate emitting equipment exhausted through the W-Rotoclones when the water pressure is measured below the values listed in Appendix 12-S3.² **(R 336.1910)**
4. The permittee shall not operate the particulate emitting equipment exhausted through the N-Rotoclones when the water level is measured below the values listed in Appendix 12-S3.² **(R 336.1910)**
5. The permittee shall not operate the particulate emitting equipment exhausted through the scrubber when the water flow rate is measured below the values listed in Appendix 12-S3.² **(R 336.1910)**
6. The permittee shall not operate the particulate emitting equipment exhausted through the bag houses, dust collectors, fabric filters or HEPA filter systems when the differential pressure is outside the values listed in Appendix 12-S3.² **(R 336.1910)**

See Appendices 10-S3 and 12-S3

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip and maintain the W-Rotoclones with automatic low water pressure shut-off switches.² **(R 336.1910)**
2. The permittee shall equip and maintain the N-Rotoclones with automatic low water level shut-off switches.² **(R 336.1910)**
3. The permittee shall equip and maintain each scrubber with a line water flow gauge. All recirculating scrubbers shall have gauges capable of measuring the recirculation rate in gallons per minute for the entire design recirculation range of the wet scrubber.² **(R 336.1910)**
4. The permittee shall equip and maintain each bag house, dust collector, fabric filter or HEPA filter system with a differential pressure gauge.² **(R 336.1910)**
5. The appropriate control equipment shall be used to control the size category of particles as defined in Appendix 10-S3.² **(R 336.1224, R 336.1910)**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep records of the calculation methods or actual test data used to determine the particulate diameter for each emitted raw material listed in the permit application. This shall be made available to the AQD upon request.² **(R 336.1225, R 336.1331(c))**
2. For each particulate Toxic Air Contaminant (TAC) emitted from the particulate processes, the permittee shall record the associated screening and averaging time and the predicted ambient impact based on dispersion modeling. Particulate TAC's first used in a process building covered by this permit before April 17, 1992, shall be excluded from this requirement.¹ **(R 336.1225, R 336.1227(2))**
3. The permittee shall keep records of the chemical steps performed to make each lot of product.¹ **(R 336.1227(2), R 336.1225)**
4. The permittee shall conduct and record the results of a visible emission observation (described in Appendix 3-S3 of the particulate control device exhausts once per calendar month during a period when the particulate control devices are being operated.² **(R 336.1331)**
5. The permittee shall conduct and record the results of a water level gauge inspection of the N-Rotoclones once per calendar month during a period when the N-Rotoclones are being operated. The reading shall be compared to the acceptable range detailed in Appendix 12-S3.² **(R 336.1910)**
6. The permittee shall conduct and record the results of a water pressure gauge inspection of the W-Rotoclones once per calendar month during a period when the W-Rotoclones are being operated. The reading shall be compared to the acceptable range detailed in Appendix 12-S3.² **(R 336.1910)**
7. The permittee shall conduct and record the results of a recirculating water flow rate inspection of the particle scrubbers once per calendar month during a period when the particle scrubbers are being operated. The reading shall be compared to the acceptable range detailed in Appendix 12-S3.² **(R 336.1910)**

8. The permittee shall conduct and record the results of a differential pressure gauge inspection of the bag houses, dust collectors, fabric filters or HEPA filter systems once per calendar month during a period when the bag houses, dust collectors, fabric filters or HEPA filter systems are being operated. The reading shall be compared to the acceptable range detailed in Appendix 12-S3.² **(R 336.1225, R 336.1227(2), R 336.1702(a))**

See Appendices 4-S3 and 12-S3

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-S3

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENTS

1. The permittee shall implement the Malfunction Abatement Program, detailed in Appendix 9-S3, when the following occurs: **(R 336.1911)**
 - a. Visible emissions are observed according to the requirement in SC VI.4.
 - b. N-Rotoclone water levels are observed outside the acceptable range according to the requirements in SC VI.5.
 - c. W-Rotoclone operating pressures are observed outside the acceptable range according to the requirement SC VI.6.
 - d. The recirculating water flow rate in the particle scrubbers are outside the acceptable operating range listed in Appendix 12-S3 according to the requirements in SC VI.7.
 - e. The differential pressure across the bag houses, dust collectors, fabric filters or HEPA filters are outside the acceptable operating range listed in Appendix 12-S3 according to the requirements in SC VI.8.

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).

**FGC41PSDREGIONIII-S3
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

FGC41PSDREGIONIII-S3

Emission Units: EUC41MILLING-S3, EUC41NEOSTOR&HANDL-S3, EUC41NEOSPRAYDRYER-S3, EUC41MICKK33-S3, EUC41MICRONIZING-S3

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)

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-S3

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENTS

1. The equipment in this flexible emission group “Building 41 Region III” shall constitute a stationary source for the purposes of Federal Prevention of Significant Deterioration regulations, 40 CFR Part 52.21 et. seq.² **(R 336.1201(3))**

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).

**FGC41MICVOC-S3
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Entire Building 41 micronizing and milling area VOC requirements.

Emission Units: EUC41MILLING-S3, EUC41MICKK33-S3, EUC41MICRONIZING-S3

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	174.6 lbs ²	Per month	FGC41MICVOC-S3	SC VI.1	R 336.1201(3)

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Alcohol	4365 lbs ²	Per month	FGC41MICVOC-S3	SC VI.1	R 336.1201(3)

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep a separate record for each calendar month of the following:
 - a. Alcohol based cleaner usage.² (R 336.1201(3))
 - b. Calculations determining the VOC emissions. (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-S3

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**FGCRALLTOX-S3
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

All of the equipment located in Region I process Buildings 38, 127, 155, 195; Region II process Buildings 44, 149; Region III process Buildings 73, 173, 207, 225; and Region IV process Buildings 66, 76, 91 commercial, 172, 335 that is “connected” to the regional TOX.

Emission Units: EUCR138-S3, EUCR1127-S3, EUCR1155-S3, EUCR1195-S3, EUCR244-S3, EUCR2149,-S3, EUCR373-S3, EUCR3173-S3, EUCR3207-S3, EUCR3225-S3, EUCR466-S3, EUCR476-S3, EUCR491COM-S3, EUCR4172-S3, EUCR4335-S3, EUC38R6ALL-S3

POLLUTION CONTROL EQUIPMENT

Thermal Oxidizer System - (two parallel thermal oxidizer, quench, and scrubber trains-one in use and one as a backup).

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Other VOC (VOCs, Methylene Chloride and Acetone)	20 ppmv TOC as methane ²	24-hour average	Thermal oxidizer	SC VI.8	R 336.1225, R 336.1702(a), R 336.1901, 40 CFR 63.1258(b)(8)(iii)
2. Other VOC	37 tons ²	12-month rolling time period as determined at the end of each calendar month	Thermal oxidizer	SC VI.9	40 CFR 52.21
3. OVC (toxic air contaminants, as defined in Rule 120, other than methylene chloride, acetone and other VOC)	16 pph ¹	Before control with a thermal oxidizer	All Region I buildings combined	SC VI.10	R 336.1224, R 336.1225
4. OVC	30 pph ¹	Hourly, Before control with a thermal oxidizer	All Region II buildings combined	SC VI.10	R 336.1224, R 336.1225
5. OVC	113 pph ¹	Hourly, Before control with a thermal oxidizer	All Region III buildings combined	SC VI.10	R 336.1224, R 336.1225
6. OVC	38 pph ¹	Hourly, Before control with a thermal oxidizer	All Region IV buildings combined	SC VI.10	R 336.1224, R 336.1225
7. OVC	21 pph ¹	Hourly, After control	Thermal oxidizer	SC VI.8	R 336.1224, R 336.1225
8. HCl	27 pph ¹	Hourly, After control	Thermal oxidizer, scrubber	SC VI.8	R 336.1225
9. HCl	95% reduction in emissions	Hourly	Thermal oxidizer, scrubber	SC VI.8	40 CFR 63.1252(g)(1)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
10. Halogens	95% reduction in emissions	Hourly	Thermal oxidizer, scrubber	SC VI.8	40 CFR 63.1252(g)(1)
11. Total Dioxins and Furans (total polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans, tetrachloro- through octachloro- isomers, measured as toxic equivalents of 2,3,7,8- tetrachlorodibenzo- p-dioxin	0.050 microgram per second after control ¹	Hourly	Thermal oxidizer	SC VI.8	R 336.1901
12. Total Dioxins and Furans	15.3 nanograms per cubic meter, corrected to 70°F and 29.92 inches Hg, after control ¹	Hourly	Thermal oxidizer	SC VI.8	R 336.1901

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate the equipment “connected” to the TOX while processing a VOC or OVC unless all provisions of Rule 910 are met.² **(R 336.1910)**
2. The permittee shall not operate the connected equipment included in FGCRALLTOX-S3 while processing a VOC or an OVC unless a minimum temperature of 1,635°F and a minimum retention time of 0.75 second is maintained in the operating thermal oxidizer.² **(R 336.1910, 40 CFR63.1258(b)(5)(ii))**
3. The permittee shall not operate the connected equipment included in FGCRALLTOX-S3 while processing a VOC or an OVC if the inlet gas flow rate to the thermal oxidizer system is greater than 5200 scfm.² **(R 336.1910)**
4. The permittee shall not operate the connected equipment included in FGCRALLTOX-S3 while processing a halogenated compound unless a minimum water flow rate of 750 gal/min, as averaged over the calendar day, is maintained to the top of the operating caustic scrubber.² **(R 336.1224, R 336.1910, 40 CFR 63.1258(b))**
5. The permittee shall not operate the connected equipment included in FGCRALLTOX-S3 while processing a halogenated compound unless a minimum daily average pH of 7.0 is maintained in the scrubber liquid effluent.² **(R 336.1224, R 336.1910, 40 CFR 63.1258(b))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip and maintain the inlet to the thermal oxidizer system with a gas flow rate indicator acceptable to the AQD.² **(R 336.1225, R 336.1910)**

2. The permittee shall equip and maintain each thermal oxidizer with a combustion temperature indicator acceptable to the AQD.² **(R 336.1225, R 336.1910)**
3. The permittee shall equip and maintain the fresh water make-up and recirculation lines on each quench section with in-line water flow gauges and audible low-flow alarms acceptable to the AQD. Each water flow gauge shall be capable of measuring the flow rate in gallons per minute for the entire design flow rate range of the water line it serves.² **(R 336.1225, R 336.1910)**
4. The permittee shall equip and maintain the fresh water make-up and recirculation lines on each scrubber with in-line water flow gauges and audible low-flow alarms acceptable to the AQD. Each water flow gauge shall be capable of measuring the flow rate in gallons per minute for the entire design flow rate range of the water line it serves.² **(R 336.1225, R 336.1910)**
5. The permittee shall equip and maintain the thermal oxidizer system with audible and/or visible alarms that will activate when the inlet gas flow rate to the thermal oxidizer is greater than 4680 scfm.² **(R 336.1224, R 336.1910)**
6. The permittee shall maintain the TOC CEMs according to 40 CFR 63.1258(b)(x). **(40 CFR 63.1258(b)(x))**
7. The permittee shall equip and maintain all open top vessels, tanks, and other equipment containing VOCs with a top which is closed during normal operations.² **(R 336.1702(a))**

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 all storage vessels subject to 40 CFR Part 60, Subpart Kb; records shall be kept of the operating plan and of the measured values of the parameters monitored in accordance with the plan.² **(40 CFR 60.115b(c))**
2. For all storage vessels subject to 40 CFR Part 60, Subpart Kb; records shall be kept for the life of the source showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel.² **(40 CFR 60.116b(b))**
3. The permittee shall monitor and record the combined inlet gas flow rate to the thermal oxidizer system on a continuous basis and with instrumentation acceptable to the AQD.² **(R 336.1224, R 336.1910)**
4. The permittee shall keep calendar quarterly records of the following:² **(R 336.1224, R 336.1910)**
 - a. Duration in minutes of each alarm occurrence whereby the design flow rate for the thermal oxidizer was exceeded.
 - b. The reason for each alarm occurrence.
 - c. The corrective action taken to rectify each alarm occurrence that is associated with process equipment malfunctions, operator error, control equipment malfunction, or exceedance of the design flow rate.
5. The permittee shall monitor and record the combustion temperature in each operating thermal oxidizer train on a continuous basis and with instrumentation acceptable to the AQD.² **(R 336.1910)**
6. The permittee shall monitor and record the total water flow rate to the top of the caustic scrubber on a continuous basis and with instrumentation acceptable to the AQD.² **(R 336.1910)**
7. The permittee shall monitor and record the pH of the scrubber liquid effluent on a continuous basis and with instrumentation acceptable to the AQD.² **(R 336.1910)**

8. The permittee shall keep records of the pounds per hour and method of calculation for each toxic air contaminant (including HCl), Other VOC, and OVC, after control by a thermal oxidizer.¹ **(R 336.1225)**
9. The permittee shall calculate other VOC (Volatile Organic Compounds and Methylene Chloride and Acetone) emissions after control per 12-month rolling time period as determined at the end of each calendar month. **(R 336.1213(3))**
10. For connected equipment the permittee shall keep records of the calculated emission rates prior to thermal oxidizer control in pounds per lot and pounds per hour of OVC other than methylene chloride, acetone and other VOC and the method of calculation.² **(R 336.1227(2), R 336.1702(a))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. 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-S3

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Dimensions(inches)	Minimum Height Above Ground(feet)	Underlying Applicable Requirements
1. SVCTOX1	36 ¹	135 ¹	R 336.1225, R 336.901
2. SVCTOX2	36 ¹	135 ¹	R 336.1225, R 336.901

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all applicable requirements of the NSPS general provisions and storage tank regulations in 40 CFR Part 60, Subparts A, K, Ka, and Kb. **(40 CFR Part 60, Subparts A, K, Ka, and Kb)**
2. The permittee shall implement the corrective actions detailed in Appendix 11-S3 upon activation of the alarm required in SC IV.6.² **(R 336.1224, R 336.1910)**

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).

**FGCR6FERM-S3
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Fermentation processes common to Buildings 38 and 121.

Emission Units: EUC38R6ALL-S3, EUC121R6ALL-S3

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC and acetone	34.5 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGCR6FERM-S3 operations other than KCF production	SC VI.2	R 336.1224, R 336.1702(a)
2. VOC	45.7 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGCR6FERM-S3	SC VI.3	R 336.1224, R 336.1702(a)
3. VOC	24.0 tons ²	Calendar months April through September of each calendar year, as determined at the end of each calendar month	FGCR6FERM-S3	SC VI.4	40 CFR 52.21(d)
4. Acetaldehyde	9.6 tons per year ¹	12-month rolling time period as determined at the end of each calendar month	FGCR6FERM-S3	SC VI.5	R 336.1225(3)
5. Formaldehyde	1.9 tons per year ¹	12-month rolling time period as determined at the end of each calendar month	FGCR6FERM-S3	SC VI.5	R 336.1225(3)

II. MATERIAL LIMIT(S)

1. The permittee shall not produce more than 14 lots of product code KCF in EUC121R6ALL-S3 per year, based on a 12-month rolling time period as determined at the end of each calendar month.² **(R 336.1205(3), R 336.1702(a))**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not exceed a maximum aeration rate of 150,000 standard cubic feet per minute supplied to all fermentation vessels combined.² **(R 336.2902)**
2. The permittee shall limit concurrent operations in FGCR6FERM-S3 as follows:¹ **(R 336.1225)**
 - a. No more than 13 fermentation operations for product code NM shall occur at the same time.

- b. No more than 4 fermentation operations for product code AX or product code 1DF shall occur at the same time.
- c. No more than 4 fermentation operations for product code KCF shall occur at the same time.

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 continuously monitor and record, in a satisfactory manner, the aeration rate supplied to all fermentation vessels combined during operation of FGCR6FERM-S3. Aeration rate data monitoring shall consist of measurements made at least every 15 seconds during aeration and the maximum aeration rate shall be recorded once each calendar month that aeration occurs.² **(R 336.2902)**
- 2. To demonstrate compliance with SC I.1, the permittee shall calculate the VOC and acetone emission rate from FGCR6FERM-S3 operations other than KCF production monthly, for the preceding 12-month rolling time period, using a method 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), R 336.2902)**
- 3. To demonstrate compliance with SC I.2, the permittee shall calculate the VOC emission rate from FGCR6FERM-S3 monthly, for the preceding 12-month rolling time period, using a method 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 336.1205(3), R 336.1702(a))**
- 4. The permittee shall calculate the cumulative VOC emissions from FGCR6FERM-S3 monthly, for calendar months April through September of each calendar year, using a method acceptable to the AQD District Supervisor. The calculated emission total from a calendar year shall not carry forward to the next calendar year; the calculated emission total shall begin at zero each calendar year. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(40 CFR 52.21(d))**
- 5. The permittee shall calculate the acetaldehyde and formaldehyde emission rates from FGCR6FERM-S3 monthly, for the preceding 12-month rolling time period, using a method 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.¹ **(R 336.1225(3))**
- 6. To demonstrate compliance with SC III.2, the permittee shall keep the following records:¹ **(R 336.1225(3))**
 - a. The number of fermentation operations for product NM that occur during each calendar day.
 - b. The number of fermentation operations for product AX and for product 1DF that occur during each calendar day.
 - c. The number of fermentation operations for product KCF that occur during each calendar day.
- 7. The permittee shall keep a record for each lot of KCF produced in FGCR6FERM-S3, identifying the vessel and building in which the lot was produced.¹ **(R 336.1225)**
- 8. The permittee shall record the number of lots of product code KCF produced in EUC121R6ALL-S3 monthly, for the preceding 12-month rolling time period, using a method 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 336.1205(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))**
4. The permittee shall notify the Department if a change in land use occurs for property classified as industrial or as a public roadway, where this classification was relied upon to demonstrate compliance with Rule 225(1). The permittee shall submit the notification to the AQD District Supervisor, within 30 days of the actual land use change. Within 60 days of the land use change, the permittee shall submit to the AQD District Supervisor a plan for complying with the requirements of Rule 225(1). The plan shall require compliance with Rule 225(1) no later than one year after the due date of the plan submittal.¹ **(R 336.1225(4))**

See Appendix 8-S3

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-F56	19.5 ²	72.6 ²	R 336.1225, 40 CFR 52.21(c) and (d)
2. SV-F54	19.5 ²	72.6 ²	R 336.1225, 40 CFR 52.21(c) and (d)
3. SV-F52	19.5 ²	72.6 ²	R 336.1225, 40 CFR 52.21(c) and (d)
4. SV-F50	19.5 ²	72.6 ²	R 336.1225, 40 CFR 52.21(c) and (d)
5. SV-F48	19.5 ²	72.6 ²	R 336.1225, 40 CFR 52.21(c) and (d)
6. SV-F46	19.5 ²	72.6 ²	R 336.1225, 40 CFR 52.21(c) and (d)
7. SV-F55	40.4 ²	72.6 ²	R 336.1225, 40 CFR 52.21(c) and (d)
8. SV-F53	40.4 ²	82.6 ²	R 336.1225, 40 CFR 52.21(c) and (d)
9. SV-F51	19.5 ²	82.6 ²	R 336.1225, 40 CFR 52.21(c) and (d)
10. SV-F47	19.5 ²	72.6 ²	R 336.1225, 40 CFR 52.21(c) and (d)
11. SV-F45	19.5 ²	72.6 ²	R 336.1225, 40 CFR 52.21(c) and (d)
12. SV-F33	19.5 ²	72.6 ²	R 336.1225, 40 CFR 52.21(c) and (d)
13. SV-F34	40.4 ²	72.6 ²	R 336.1225, 40 CFR 52.21(c) and (d)
14. SV-F35	40.4 ²	72.6 ²	R 336.1225, 40 CFR 52.21(c) and (d)

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
15. SV-F36	40.4 ²	72.6 ²	R 336.1225, 40 CFR 52.21(c) and (d)
16. SV-F37	19.5 ²	72.6 ²	R 336.1225, 40 CFR 52.21(c) and (d)
17. SV-F38	19.5 ²	72.6 ²	R 336.1225, 40 CFR 52.21(c) and (d)
18. SV-F39	19.5 ²	72.6 ²	R 336.1225, 40 CFR 52.21(c) and (d)
19. SV-F40	19.5 ²	72.6 ²	R 336.1225, 40 CFR 52.21(c) and (d)

IX. OTHER REQUIREMENT(S)

NA

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).

FGCFUG-S3 FLEXIBLE GROUP CONDITIONS
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DESCRIPTION

Pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, instrumentation systems, control devices, and closed vent systems intended to operate in organic hazardous air pollutant service 300 hours or more during the calendar year, subject to regulation for equipment leaks under 40 CFR Part 63, Subpart GGG.

Emission Units: EUCR138-S3, EUCR1127-S3, EUCR1155-S3, EUCR1166-S3, EUCR1195-S3, EUCR244-S3, EUCR2149-S3, EUCR373-S3, EUCR3173-S3, EUCR3207-S3, EUCR3225-S3, EUCR466-S3, EUCR476-S3, EUCR491COM-S3, EUCR4335-S3, EUCR4172-S3, EUC38R6ALL-S3, EUC120R6ALL-S3, EUC121R6ALL-S3

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMITS

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall identify the equipment applicable to FGCFUG-S3 such that it can be distinguished readily from equipment that is not subject. **(40 CFR Part 63, Subpart GGG, 40 CFR 63.1255)**

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 perform fugitive leak monitoring and recording using instrumentation in compliance with Method 21 of 40 CFR Part 60, Appendix A or other acceptable EPA test methods. **(40 CFR Part 63, Subpart GGG, 63.1255)**
2. The permittee may alternately perform fugitive leak monitoring and recording on process equipment using pressure testing instrumentation and acceptable methods detailed in 40 CFR Part 63, Subpart H. **(40 CFR Part 63, Subpart GGG, 40 CFR 63.1255)**
3. The permittee shall keep records of any delay of repair pursuant to 40 CFR 63.1259(f). **(40 CFR 63.1259)**

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. Prior to or on November 15, 2003, the permittee shall submit the first periodic report for reporting period March 21, 2003 to September 20, 2003. Thereafter, reports shall be postmarked or delivered by July 30 for reporting period January 1 to June 30, and January 30 for reporting period July 1 to December 31, unless more frequent reporting is requested or required. **(40 CFR Part 63, Subpart GGG, 40 CFR 63.1260(g))**

See Appendix 8-S3

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENTS

1. In all cases where provisions of the regulation require an owner or operator to repair leaks by a specified time after the leak is detected, it is a violation to fail to take action by a specified time. If action is taken to repair the leaks within a specified time, failure of that action to successfully repair the leak is not a violation. However, if the repairs are unsuccessful, a leak is detected and the owner or operator shall take further action as required by applicable provisions of 40 CFR Part 63, Subpart GGG. **(40 CFR Part 63, Subpart GGG, 40 CFR 63.1255)**
2. The permittee must comply with all applicable provisions of 40 CFR 63.1255. **(40 CFR Part 63, Subpart GGG, 40 CFR 63.1255)**

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).

**FGPHARMAMACT-S3
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Equipment and processes subject to the pharmaceutical MACT.

Emission Units: EUCR138-S3, EUCR1127-S3, EUCR1155-S3, EUCR1166-S3, EUCR1195-S3, EUCR244-S3, EUCR2149-S3, EUCR373-S3, EUCR3173-S3, EUCR3207-S3, EUCR3225-S3, EUCR466-S3, EUCR476-S3, EUCR491COM-S3, EUCR4172-S3, EUCR4335-S3, EUC38R6ALL-S3, EUC120R6ALL-S3, EUC121R6ALL-S3

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

1. The permittee shall not exceed the general, storage tank, process vent, equipment leak, or wastewater standards described in 40 CFR 63.1252, 40 CFR 63.1253, 40 CFR 63.1254, 40 CFR 63.1255, and 40 CFR 63.1256. **(40 CFR Part 63, Subpart GGG)**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. The permittee shall test for HAPs using the methods and procedures described in 40 CFR 63.1257. **(40 CFR Part 63, Subpart GGG, 40 CFR 63.1257)**

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 begin quarterly monitoring to assure compliance with the provisions of 40 CFR 63.104 regarding heat exchange systems. **(40 CFR 63.1252(c))**
2. The permittee shall begin monitoring to assure compliance with the provisions of 40 CFR 63.1258. **(40 CFR 63.1258)**
3. The permittee shall keep the startup, shutdown, and malfunction records pursuant to 40 CFR 63.1259(a)(3). **(40 CFR 63.1259, 40 CFR 63.6)**
4. The permittee shall keep records of the equipment operation up to date and readily accessible pursuant to 40 CFR 63.1259(b). **(40 CFR 63.1259)**

5. The permittee shall keep records of each operating scenario which demonstrates compliance with 40 CFR Part 63, Subpart GGG. New or changed scenarios for HAP containing processes not connected to the TOX or containing Point of Determinations (POD's) shall be reported in the periodic report as per SC VI.4. Processes connected to the TOX (utilizing the alternative standard) and containing no POD's shall keep the records in the On-Site Implementation Log (OSIL). Wastewater designated as affected and sent to the UIC option (40 CFR 63.1256(g)(13)) shall also be maintained in the OSIL. **(40 CFR 63.1259)**

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. Periodic reports shall be postmarked or delivered by July 30 for reporting period January 1 to June 30, and January 30 for reporting period July 1 to December 31, unless more frequent reporting is requested or required. **(40 CFR 63.1260(g))**
5. Periodic reports regarding startup, shutdown, and malfunction, if applicable, shall be postmarked or delivered by July 30 for reporting period January 1 to June 30, and January 30 for reporting period July 1 to December 31, unless more frequent reporting is requested or required. **(40 CFR 63.1260(i))**

See Appendix 8-S3

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the NESHAP (National Emission Standards for Hazardous Air Pollutants) for Pharmaceutical Production in 40 CFR Part 63, Subpart GGG. **(40 CFR Part 63, Subpart GGG)**
2. The permittee shall maintain compliance with the general, storage tank, process vent, equipment leak, or wastewater standards detailed in 40 CFR 63.1252, 40 CFR 63.1253, 40 CFR 63.1254, 40 CFR 63.1255, and 40 CFR 63.1256. **(40 CFR 63.1253, 40 CFR 63.1254, 40 CFR 63.1255, 40 CFR 63.1256)**
3. The permittee implement a written startup, shutdown, and malfunction plan. **(40 CFR 63.1259)**
4. The permittee shall comply with the applicable requirements of 40 CFR, Subpart A that are referenced in Table 1 of 40 CFR Part 63, Subpart GGG. **(40 CFR 63.6, 40 CFR, Part 63, Subpart GGG)**

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).

FGRULE290-S3

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: EUAPIMANUALCLN-S3, EUCR138FILT0034-S3, EUCR138OT-316-S3, EUB173CHILLER-S3, EUCR1035T1035-S3, EUB665CHILLER-S3, EUB91HANDSAN-S3.

Emission Units installed prior to December 20, 2016: EUC41MICH33-S3, EUC76TIS254-S3, EUCR1127CENTRIFUGE-S3, EUCR1127CLEANING-S3, EUCR1127FILT1268-S3, EUCR1155CLEANING-S3, EUCR1195OT380-S3, EUCR1195SHKRA-S3, EUCR1195SHKRB-S3, EUCR1195SHKRC-S3, EUCR1195T195-S3, EUCR138DRUMFILLING-S3, EUCR1DRUMPUMPING-S3, EUCR244DRUMPUMPING-S3, EUCR3173DRUMFILLING-S3, EUCR3173DRUMPUMPING-S3, EUCR173CLEANING-S3, EUCR3225DRUMFILLING-S3, EUCR3225DRUMPUMPING-S3, EUCR4335DRUMPUMPING-S3, EUCR466DRUMPUMPING-S3, EUCR491CONTAINER-S3, EUCR491DRUMFILLING-S3, EUCR491DRUMPUMPING-S3, EUCR491SPAT-S3, EUCR2149DRUMPUMPING-S3, EUCR1195TANK1060-S3, EUCR138FILT2479-S3, EUCR138T-112-S3, EUCR138T-VENT-S3, EUCR491CAB-S3, EUCR491WASTE-S3, EUCR127OT-600-S3, EUCR2149TOTEFILL-S3, EUCR1166FEINC1-S3, EU166OT356-S3, EU1166OT357-S3, EUCR1173CLN-S3, EUCR3173T-BUTY-S3

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMITS

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

- 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 sufficient 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-S3

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-S3

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-S3. 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
EU	Emission Unit	Hg	Mercury
FG	Flexible Group	hr	Hour
GACS	Gallons of Applied Coating Solids	HP	Horsepower
GC	General Condition	H ₂ S	Hydrogen Sulfide
GHGs	Greenhouse Gases	kW	Kilowatt
HVLP	High Volume Low Pressure*	lb	Pound
ID	Identification	m	Meter
IRSL	Initial Risk Screening Level	mg	Milligram
ITSL	Initial Threshold Screening Level	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	NMOC	Non-methane Organic Compounds
MAP	Malfunction Abatement Plan	NO _x	Oxides of Nitrogen
MSDS	Material Safety Data Sheet	ng	Nanogram
NA	Not Applicable	PM	Particulate Matter
NAAQS	National Ambient Air Quality Standards	PM10	Particulate Matter equal to or less than 10 microns in diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR	New Source Review	ppm	Parts per million
PS	Performance Specification	ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight
PTE	Permanent Total Enclosure	%	Percent
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonable Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO ₂	Sulfur Dioxide
SDS	Safety Data Sheet	TAC	Toxic Air Contaminant
SNCR	Selective Non-Catalytic Reduction	Temp	Temperature
SRN	State Registration Number	THC	Total Hydrocarbons
TEQ	Toxicity Equivalence Quotient	tpy	Tons per year
USEPA/EPA	United States Environmental Protection Agency	µg	Microgram
VE	Visible Emissions	µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
		yr	Year

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

Appendix 2-S3. 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-S3. Monitoring Requirements

The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in EUC41MILLING-S3, EUC41NEOSTOR&HANDL-S3, EUC41NEOSPRAYDRYER-S3, EUC41MICKK33-S3, EUC41MICRONIZING-S3, EUCR138-S3, EUCR1127-S3, EUCR1155-S3, EUCR1195-S3, EUCR244-S3, EUCR2149-S3, EUCR373-S3, EUCR3173-S3, EUCR3207-S3, EUCR3225-S3, EUCR466-S3, EUCR476-S3, EUCR491COM-S3, EUCR4335-S3, EUC38R6ALL-S3, and EUC120R6ALL-S3. Alternative monitoring procedures, methods, or specifications must be approved by the AQD District Supervisor.

A “visible emissions observation” refers to a survey to be performed for the purpose of determining if there is the presence of visible emissions or if there are no visible emissions, other than uncombined water vapor. Visible emission observation shall be taken at least once per month, for a 1-minute duration, during daylight hours. This can be performed by either a certified or non-certified reader. A log of the required observations shall contain the following information: date, time, observer, status of visible emissions (Yes/No).

Appendix 4-S3. Recordkeeping

The permittee shall use the following approved formats and procedures for the recordkeeping requirements referenced in EUCR138-S3, EUCR1127-S3, EUCR1155-S3, EUCR1166-S3 and EUCR1195-S3. Alternative formats must be approved by the AQD District Supervisor. An alternative format has been approved.

MONTHLY RECORDKEEPING FORMAT- REGION I TSP PROCESSES			
Process Building	Particulate Maximum (lbs/lot)	Actual Number of lots/month	Estimated Particulate Emissions (lbs/month)
38	4		
127	3.75		
155	2.5		
166	0.5		
195	2		

The permittee shall use the following approved formats and procedures for the recordkeeping requirements referenced in EUCR244-S3, and EUCR2149-S3. Alternative formats must be approved by the AQD District Supervisor. An alternative format has been approved.

MONTHLY RECORDKEEPING FORMAT- REGION II TSP PROCESSES			
Process Building	Particulate Maximum (lbs/lot)	Actual Number of lots/month	Estimated Particulate Emissions (lbs/month)
44	5.0		
149	3.0		

Section 3 – Active Pharmaceutical Ingredients (API)

ROP No: MI-ROP-B3610-2021a
 Expiration Date: October 18, 2026
 PTI No: MI-PTI-B3610-2021a

The permittee shall use the following approved formats and procedures for the recordkeeping requirements referenced in EUCR373-S3, EUCR3173-S3, and EUCR3207-S3 and EUCR3225-S3. Alternative formats must be approved by the AQD District Supervisor. An alternative format has been approved.

MONTHLY RECORDKEEPING FORMAT- REGION III TSP PROCESSES			
Process Building	Particulate Maximum (lbs/lot)	Actual Number of lots/month	Estimated Particulate Emissions (lbs/month)
73	0.04		
173	1.6		
207	1.5		
225	1.64		

The permittee shall use the following approved formats and procedures for the recordkeeping requirements referenced in EUCR466-S3 and EUCR491COM-S3. Alternative formats must be approved by the AQD District Supervisor. An alternative format has been approved.

MONTHLY RECORDKEEPING FORMAT- REGION IV TSP PROCESSES			
Process Building	Particulate Maximum (lbs/lot)	Actual Number of lots/month	Estimated Particulate Emissions (lbs/month)
66	2.5		
91 Commercial	2.5		

The permittee shall use the following approved formats and procedures for the recordkeeping requirements referenced in EUCR476-S3. Alternative formats must be approved by the AQD District Supervisor. An alternative format has been approved.

MONTHLY RECORDKEEPING FORMAT- REGION IV TSP PROCESSES			
Process Building	Particulate Maximum (lbs/1000 lbs)	Actual Amount Charged lbs/month	Estimated Particulate Emissions (lbs/month)
76	0.000145		

The permittee shall use the following approved formats and procedures for the recordkeeping requirements referenced in EUC38R6ALL-S3 and EUC120R6ALL-S3. Alternative formats must be approved by the AQD District Supervisor. An alternative format has been approved.

MONTHLY RECORDKEEPING FORMAT- REGION VI TSP PROCESSES			
Process Building	Particulate Maximum (lbs/lot)	Actual Number of lots/month	Estimated Particulate Emissions (lbs/month)
38	4.5		
120	5.35		

The permittee shall use the following approved formats and procedures for the recordkeeping requirements referenced in EUCR3225-S3. Alternative formats must be approved by the AQD District Supervisor. An alternative format has been approved.

MONTHLY RECORDKEEPING FORMAT- REGION III UNCONNECTED VOC EQUIPMENT PROCESSES			
Process Building	VOC Maximum (lbs/lot)	Actual Number of lots/month	Estimated VOC Emissions (lbs/month)
225	2.5		

The permittee shall use the following approved formats and procedures for the recordkeeping requirements referenced in EUCR491COM-S3. Alternative formats must be approved by the AQD District Supervisor. An alternative format has been approved.

MONTHLY RECORDKEEPING FORMAT- REGION IV UNCONNECTED VOC EQUIPMENT PROCESSES			
Process Building	VOC Maximum (lbs/lot)	Actual Number of lots/month	Estimated VOC Emissions (lbs/month)
91	10		

Appendix 5-S3. 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-S3. 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-B3610-2014. 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-B3610-2014h is being reissued as Source-Wide PTI No. MI-PTI-B3610-2021a.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
66-14	201400136/ November 10, 2014	Incorporate PTI No. 66-14. PTI No. 66-14 is for installation of a new tank that will be used to produce steroid intermediate products including hydrocortisone, clindamycin, and hydroxyprednisolone. The new tank will be used for processes that were previously performed on other equipment in the same building, Building 225. No new products will be introduced with the installation of the tank. Neither the production rate nor the emissions rates will increase. No new emission points	EUCR3225-S3

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
		<p>will be created with the installation of the tank.</p> <p>The tank will include a primary condenser used for distillation (part of the process, not considered a control device). While solid materials are charged to the tank, an “elephant trunk” will be used to capture emissions. These PM emissions will be exhausted to the existing scrubber, SCR-1007. After materials are charged for each lot, the tank will be sealed. A new pump will be installed to provide vacuum to the tank. Emissions from the tank will be exhausted to the existing thermal oxidizer system (“TOX” - two parallel thermal oxidizer, quench, and scrubber trains – one in use, and one as a backup) that controls VOC, TAC, and HAP emission for many pieces of equipment on site.</p>	
125-12B	201400137/ November 10, 2014	<p>Incorporate PTI No. 125-12B.</p> <p>PTI No. 125-12B is for installation a new dust collecting filter to replace two existing filters. The new control device is a Bag-in/Bag-out HEF filter system, which is designed to minimize worker exposure when changing out filter bags. The two filters that will be removed (DC12C & DC35C) have been experiencing plugging issues. No new products or processes will be introduced with the installation of the new filter. The production rate will not increase. However, since the new filter has a higher flow rate than the combined flow rate of the existing two filters, the new emission calculation for particulate is higher. Also, a new emission point will be created for the new filter.</p>	EUCR4335-S3
174-14	201500065/ July 7, 2015	<p>PTI No. 174-14 is for a new control device to be installed in the micronizing area of Building 41. PTI No. 174-14 also combines emission units for the micronizing area of Building 41 into one EU and remove one of the existing EUs. The previous descriptions of the EUs that will be combined into EUC41MICRONIZING-S3 are EUC41MICEE33-S3 and</p>	EUC41MICRONIZING-S3

Section 3 – Active Pharmaceutical Ingredients (API)

ROP No: MI-ROP-B3610-2021a
 Expiration Date: October 18, 2026
 PTI No: MI-PTI-B3610-2021a

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
		EUC41MICG33-S3. EUC41MICL33-S3 will be demolished with this project. The Permittee will install four (4) new HEPA filters on the micronizing area (three for controlling the modules and one for controlling the washer/dryer room) which will all be vented through the same stack (Y-32).	
46-15	201500065/ July 7, 2015	PTI No. 46-15 is for a new 100 gallon waste receiver in Building 91, identified as 091TANK1008-1. The tank will be part of EUCR491COM-S3.	EUCR491COM-S3
NA	September 11, 2015	Removal of EX-32 from EUCR244-S3. This exhaust fan has only one particulate drop. There is a project in place to move that particulate drop to the rotoclone, EX-31, and convert Ex-32 for use as comfort ventilation.	EUCR244-S3
81-15	201500151/ September 29, 2016	Incorporate PTI No. 81-15. PTI No. 81-15 is for the installation of replacement rotoclone for the particulate control system in EUCR1195-S3, i.e. W-Rotoclone on EX-17 in Section 3.	EUCR1195-S3
178-15	201600071/ September 29, 2016	Incorporate PTI No. 178-15. PTI No. 178-15 is for an increase in the allowed number of lots produced in “TSP processes” for Building 225 in Region 3 (EUCR3225-S3), along with a corresponding change in the monthly allowed particulate matter (PM) emissions from the emission unit in Section 3.	EUCR3225-S3
NA	201600117/ September 29, 2016	Remove the emission limit in Flexible Group FGCFUG-S3 in Section 3 of the ROP. The emission limit is listed as “fugitive ppm”, which does not accurately describe the intent of the regulation, since the limits in the rule are actual work practice standards. If the “fugitive ppm” limit is exceeded, it doesn’t trigger an emission limit exceedance, it triggers repair and documentation requirements.	FGCFUG-S3
225-15	201600176/ February 2, 2017	Incorporate PTI No. 225-15, which replaces a Rotoclone in Building 127 in Region I. Activities in this building are covered under EUCR1127-S3 in the ROP. Rotoclones are wet cyclonic collectors that the facility uses on some vents to control particulate matter (PM) emissions. The new collector will have a higher exhaust flow rate and higher hourly PM emissions than the collector it	EUCR1127-S3

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
		replaces. The stack location and diameter are also proposed to change, while the height will remain the same. The proposal does not change either of the following: <ul style="list-style-type: none"> • The allowed concentration of PM emissions from the activities the new collector serves • The emission unit's allowed monthly emission rate for PM The proposal has no effect on the emission unit's volatile organic compound emissions.	
89-16	201700033/ May 25, 2017	Incorporate PTI No. 89-16, which was issued to install a new process holding tank (TANK313-1) in the Building 38 tank farm. The tank will hold a mixture of pharmaceutical product and either acetone or methylene chloride. The emissions consist of either acetone or methylene chloride. The tank will be vented to the facility's thermal oxidizer ("TOX"), which has a rated control efficiency of 98%. Monitoring conditions relevant to the permit application are in the ROP, under FGCRALLTOX-S3, which concerns the operation of the TOX, which is the control device for the new tank. No Conditions were changed in the ROP, except for adding "Test Protocol" to the Particulate emissions in EUCR138-S3.	EUCR138-S3
82-16	201700041/ May 25, 2017	Incorporate PTI No. 82-16 which installs a distillation process including three columns, several storage tanks, and associated equipment. The facility identifies the proposed distillation process as "Column 10," and the three columns, identified as 10A, 10B, and 10C, will operate continuously in series. The equipment will be part of the Building 73 production area, and therefore part of EUCR373-S3. The equipment would receive two types of feed/input streams: <ul style="list-style-type: none"> • Solvent streams from other processes at the facility that are currently treated as wastes. • Solvent streams from the facility's Solvent Recovery Division (referred to as SRD in the application). SRD processes 	EUCR373-S3

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
		<p>these streams to recover methylene chloride.</p> <p>From these input streams, the distillation process will produce the following output streams:</p> <ul style="list-style-type: none"> • Methylene chloride for re-use at the facility • A solvent mix the facility identifies as “ACS” for re-use at the facility. ACS has low methylene chloride content, and is currently produced by the facility in batch operations. • An organic solvent by-product the facility identifies as “FSA.” The facility currently recovers some FSA from existing distillation operations. • Solids to be treated as hazardous waste <p>Emissions from the process will exhaust to the facility’s thermal oxidizer.</p> <p>The associated equipment added by PTI No. 82-16 includes Column 10, Tank1830-1, Tank1831-1, and Tank 1832-1, which were included in EUCR373-S3 Emission Unit Description in Section 3 of the ROP.</p>	
30-17	201700116 / December 7, 2017	<p>To incorporate PTI No. 30-17, which is to replace the G-33 Rotoclone, which is used for particulate matter emission control in the micronizing area in Building 41. The facility will keep the G-33 name/label for the new Rotoclone. The change will involve moving the stack location and increasing the exhaust flow. The control efficiency and process operations will remain the same, and the application includes an analysis suggesting that the maximum emissions from the equipment will remain less than the existing limit. The applicant states there are no changes in the toxic air contaminants emitted from the operation. The rotoclone and the process equipment it serves are part of EUC41MICRONIZING-S3.</p>	EUC41MICRONIZING-S3
132-17	201700139 / February 6, 2018	<p>To incorporate PTI No. 132-17, which is to change the emissions limits for the fermentation operations flexible group,</p>	EUC38R6ALL-S3 EUC121R6ALL-S3 FGCR6FERM-S3

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
		<p>FGCR6FERM-S3. The Facility requests the change to accommodate a new fermentation product in Building 121 with greater emissions than those addressed in previous permitting actions. The fermentation operations flexible group consists of the equipment in two buildings (Buildings 38 and 121). Building 121 contains 19 fermenters, each with a capacity of 150,000 liters. The fermenters are temperature-controlled tanks designed to allow for air sparging through the bottom to aerate the contents. Each batch includes a mix of organic substrates needed for the process, such as sugars, yeast, flours, and oils, along with the specific active biologic culture needed to generate the product. The fermentation operation may produce volatile organic compound (VOC) such as methanol, ethanol, and acetaldehyde.</p> <p>Existing fermentation products involve VOC emissions ranging from 5 pounds per batch to 300 pounds per batch. However, the new product would have VOC emissions greater than 5,500 pounds per batch. The Facility plans no equipment changes to accommodate the new product, and no changes to emission units or their descriptions are needed.</p>	
132-17A	201800059 / July 24, 2018	<p>To incorporate PTI No. 132-17A into Section 3 of the ROP. PTI No. 132-17A is to increase the emission limits for FGCR6FERM-S3 to accommodate a new product in the Building 121 fermenters. Building 121, the building affected by the project, contains 19 fermenters, each with a capacity of 150,000 liters. The fermenters are temperature-controlled tanks designed to allow for air sparging through the bottom to aerate the contents. Each batch includes a mix of organic substrates needed for the process, such as sugars, yeast, flours, and oils, along with the specific active biologic culture needed to generate the product. The fermentation operation may produce VOC such as methanol, ethanol, and acetaldehyde. The project increased emissions from</p>	EUC121R6ALL-S3 FGCR6FERM-S3

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		FGCR6FERM-S3 for increased production of KCF. The project involves no equipment changes, and no changes to emission units or flexible groups.	
26-18*	NA	B38 Rotoclone (New Rotoclone 038ROTO0217-1)	EUC38R6ALL
NA	201900191*	To amend the dP range for FILT1 in EUCR466-S3. The range is listed in Appendix 12-S3. The new dP range for FILT1 is 0.05-2.5" H2O.	EUCR466-S3
NA	December 12, 2019	This modification is to remove EX-10 from EUCR2149-S3	EUCR2149-S3
NA	December 19, 2019	This modification is to remove EX-321 from EUCR138-S3	EUCR138-S3
NA	February 19, 2020	This modification is to remove FANS3345 & FANS3346 from EUCR3173-S3	EUCR3173-S3
149-19*	201900193*	To incorporate PTI No. 149-19, which is for a modification to rotoclone G-33 stack.	EUC41MICRONIZING-S3
1-19*	202000013*	To incorporate PTI No. 1-19, which is for a new waste receiver tank.	EUCR3225-S3
21-19*	202000080*	To incorporate PTI No. 21-19, which is for a new dust collector for particulate control in Building 335. This new dust collector replaces the existing DC-350 dust collector.	EUCR4335-S3
16-19A*	202000140*	To incorporate PTI No. 16-19A, which is for a replacement rotoclone for the particulate control system in Building 38.	EUCR138-S3
107-19*	202100071*	To incorporate PTI No. 107-19, which is for a new portable charge tank (ID# 173TANK1111-1).	EUCR3173-S3
26-18A*	202100108*	To incorporate PTI No. 26-18A, which is for two replacement acetone tanks (ID# TANK1022-1 and TANK1022-2). Emissions from the replacement tanks are controlled by a thermal oxidizer.	EUC38R6ALL-S3 FGCRALLTOX-S3

The following table lists the ROP amendments or modifications issued after the effective date of ROP No. MI-ROP-B3610-2021.

Permit to Install Number	ROP Revision Application Number - Issuance Date	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
30-21	202100113 / May 12, 2022	To incorporate PTI No. 30-21, which is for an additional slurry charge tank in Building 173 (under EUCR3173-S3). Emissions from this process tank are controlled by an existing thermal oxidizer (FGCRALLTOX-S3). The process tank will primarily be a source of PVOCs, TACs, and HAPs.	EUCR3173-S3

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Permit to Install Number	ROP Revision Application Number - Issuance Date	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
37-21	202100150 / May 12, 2022	<p>To incorporate PTI No. 37-21, which is to relocate existing equipment from Building 225 to Building 91, and add new equipment to Building 91, to allow the B91 9CPT process to continue operating. Some of the equipment the 9CPT process requires in Building 225 is currently supporting COVID-19 activities. Relocating the process, with new equipment in support, will allow 9CPT production to continue without interfering with the COVID activities. The PTI was not required to go through the public participation process because the project is not subject to PSD because total emissions of regulated NSR pollutants from the project are less than the significant emission rates.</p>	EUCR491COM-S3
66-21	202200029 / May 12, 2022	<p>To incorporate PTI No. 66-21, which is for a new HPLC system in EUCR3225-S3 in Building 225 (B225), which will be used to concentrate crude products run on the current chromatography columns in B225.</p> <p>The new HPLC system will have new tanks installed to support the process and there will be a HPLC controller that will determine the solvent feed rates into the HPLC column.</p> <p>The PTI was not required to go through the public participation process because the project is not subject to PSD because total emissions of regulated NSR pollutants from the project are less than the significant emission rates.</p>	EUCR3225-S3
116-21	202200030 / May 12, 2022	<p>To incorporate PTI No. 116-21, which is for the operation of two portable tanks (TANK3650 and TANK3660) in two existing emission units (EUCR3225-S3 and EUCR491COM-S3). The tanks will be used in support of the production of lipids for processes that occur in other buildings. Both tanks will be located in either Building 91 or Building 225, depending on the operational needs of each building, where process emissions will be emitted through vents in either building. Both tanks will be cleaned in either building and emissions from cleaning, which can also occur in either building, will be vented to FGCRALLTOX-S3.</p>	EUCR3225-S3 EUCR491COM-S3

Appendix 7-S3. 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-S3. 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-S3. Rotoclone/Wet Scrubber/Dry Filter Maintenance and Malfunction Abatement Program

The permittee shall use the following approved formats and procedures for the maintenance and malfunction abatement program requirements referenced in Tables EUC41MILLING-S3, EUC41NEOSTOR&HANDL-S3, EUC41NEOSPRAYDRYER-S3, EUC41MICKK33-S3, EUC41MICRONIZING-S3, EUCR138-S3, EUCR1127-S3, EUCR1155-S3, EUCR1166-S3, EUCR1195-S3, EUCR244-S3, EUCR2149-S3, EUCR373-S3, EUCR3173-S3, EUCR3207-S3, EUCR3225-S3, EUCR466-S3, EUCR476-S3, EUCR491COM-S3, EUCR4335-S3, EUC38R6ALL-S3, and EUC120R6AL-S3.

These procedures are in addition to the normal periodic preventative maintenance program that is to be performed on the control equipment. All records shall be maintained for a minimum of 5 years.

These procedures are to be implemented when the monthly control device operating parameter monitoring detailed in the emission group tables results in a pressure, water flow, differential pressure outside the acceptable range listed in Appendix 12-S3.

These procedures are also to be implemented when the monthly visible emission monitoring detailed in the emission group tables results in the presence of visible emissions, as defined in Appendix 3-S3.

DRY FILTER DEVICES (Dust Collector, Bag house, HEPA Filter, HEF Bag in/Bag out Filter)

If the observed differential pressure reading (mm Hg or inches H₂O) is outside the acceptable operating range, or visible emission are observed, implement the following Malfunction Abatement Program:

1. Initiate a root cause analysis for the device.
2. Issue a work order request for the appropriate repair.
3. Following repairs, re-inspect the device and document that it is operating properly, and the differential pressure is within the acceptable operating range.
4. Repeat the visible emissions observation for the respective stack.
5. Document any additional comments.
6. Submit completed documentation of the repairs and re-inspection to the appropriate Environmental Compliance personnel.

WET SCRUBBERS

If the water flow reading (GPM) is outside the acceptable operating range, or if visible emissions are observed, implement the following Malfunction Abatement Program:

1. Initiate a root cause analysis for the device.
2. Issue a work order request for the appropriate repair.
3. Following repairs, re-inspect the device and document that it is operating properly, and the water flow is within the acceptable operating range.
4. Repeat the visible emissions observation for the respective stack.
5. Document any additional comments.
6. Submit completed documentation of the repairs and re-inspection to the appropriate Environmental Compliance personnel.

W-ROTOCLONES

If the observed water pressure (psi) or water flow reading (gal/min) is below the acceptable minimum operating set point, or if visible emissions are observed, implement the following Malfunction Abatement Program:

1. Initiate a root cause analysis for the device.
2. Issue a work order request for the appropriate repair.
3. Following repairs, re-inspect the device and document that it is operating properly, the water pressure is above the acceptable minimum operating set point, and that the automatic low-pressure cutoff is working properly.
4. Repeat the visible emissions observation for the respective stack.
5. Document any additional comments.
6. Submit completed documentation of the repairs and re-inspection to the appropriate Environmental Compliance personnel.

N-ROTOCLONES

If the observed water level (inches) is below the acceptable operating range, or if visible emissions are observed, implement the following Malfunction Abatement Program:

1. Initiate a root cause analysis for the device.
2. Issue a work order request for the appropriate repair.
3. Following repairs, re-inspect the device and document that it is operating properly, the water level is within the acceptable operating range, and that the automatic low-level cutoff is working properly.
4. Repeat the visible emissions observation for the respective stack.
5. Document any additional comments.
6. Submit completed documentation of the repairs and re-inspection to the appropriate Environmental Compliance personnel.

Appendix 10-S3. Particle Size Categories

The permittee shall use the following approved procedures for determination of the particle size category and appropriate control equipment for the requirements referenced in Tables EUC38R6ALL-S3, EUCR138-S3, EUCR1127-S3, EUCR1155-S3, EUCR1166-S3, EUCR1195-S3, EUCR244-S3, EUCR2149-S3, EUCR373-S3, EUCR3173-S3, EUCR3207-S3, EUCR3225-S3, EUCR466-S3, EUCR476-S3, EUCR491COM-S3, EUCR4335-S3, and EUC120R6ALL-S3.

Category A	Mean particle size by weight <100 microns
Category B	Mean particle size by weight >100 microns but <200 microns
Category C	Mean particle size by weight >200 microns

Control Device	Particle Size/ Control Class
Rotoclone	A, B, C
Exhaust Fan	B, C
Scrubber	A, B, C
Baghouse	A, B, C
Dust Collector	A, B, C

Appendix 11-S3. Regional Control Device Alarm Response Program

The permittee shall use the following procedures for the Regional Control Device Alarm Response Program requirements referenced in Table FGCRALLTOX-S3.

Alarming of the regional control device and common vent header will be handled in a two-phase approach. Each building venting to the common vent header will have a message display located in an appropriate place within the production area. This message display will provide information on airflow for the building’s vents header. In addition to the message display, a common audible and/or visual alarm will be located in the production area. All alarming parameters will be centrally monitored in the building 76 control room, which will be staffed 24 hours a day.

The response to a peak regional flow alarm will be as follows:

1. The Building 76 operator will acknowledge the alarm.
2. The Building 76 operator will check the various building flows to determine which building(s) are contributing significantly to the alarm condition.
3. The Building 76 operator will contact the supervisor(s) of the building(s) in question to inform them that some operations must be slowed or discontinued (in a safe manner) so that the regional flow can be kept below 2000 scfm.
4. The Building 76 operator will then monitor the situation to ensure that the alarm condition is corrected and will make additional contacts of the building supervisors if needed.

Appendix 12-S3. Particulate Control Equipment Operating Ranges

Rotoclone/ Scrubber	Fabric Filter	Emission Unit	Acceptable min/max or min GPM water	Acceptable minimum water pressure (psi)	Acceptabl e min/max differential pressure (inches of water)	Acceptable minimum water level (inches)
	EE-33	EUC41MICRONIZING-S3			0.25/2.0	
	KK-33	EUC41MICKK33-S3			0.25/2.6	
G-33		EUC41MICRONIZING-S3	4			
	Y-32	EUC41MICRONIZING-S3			0.4/1.5	
T-18		EUC41MILLING-S3	1			
T-26		EUC41NEOSPRAYDRYER-S3	3			
G-26		EUC41NEOSTOR&HANDL-S3	2			
EX-104		EUCR138-S3		40		
038ROTO0214-1		EUCR138-S3		40		
EX-T245		EUCR138-S3				1

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Rotoclone/ Scrubber	Fabric Filter	Emission Unit	Acceptable min/max or min GPM water	Acceptable minimum water pressure (psi)	Acceptabl e min/max differental pressure (inches of water)	Acceptable minimum water level (inches)
EX-OT354		EUCR138-S3				1
	DUST1018	EUCR138-S3			0.6/8	
127ROTO3127-1		EUCR1127-S3		40		
127ROTO3128-1		EUCR1127-S3		40		
SCRB1044		EUCR1155-S3	30/70			7
EX-OT356		EUCR1166-S3				1
EX-T288		EUCR1166-S3				1
EX-T289		EUCR1166-Se				1
EX-17		EUCR1195-S3		40		
EX-19		EUCR1195-S3			0.1/10	
EX-31		EUCR244-S3		40		
EX-9		EUCR2149-S3		40		
EX-10		EUCR2149-S3		40		
EX-28		EUCR2149-S3		40		
SCRB-1003		EUCR2149-S3	40/100			
SCRB-1004		EUCR2149-S3	120/200			
SCRB-1005		EUCR2149-S3	70/150			
	DUST1008	EUCR373-S3			0.2/5.0	
EX-6		EUCR3173-S3		40		
EX-25		EUCR3173-S3		40		
EX-34		EUCR3173-S3		40		
SCRB1002		EUCR3173-S3	300/400			
	DC1/207	EUCR3207-S3			0.2/5.0	
SCRB1036		EUCR3207-S3	52/132 upper nozzle			
SCRB1036		EUCR3207-S3	52/132 lower nozzle			
SCRB1006		EUCR3225-S3	175/275			
SCRB1007		EUCR3225-S3	75/150			
	EF1C1HB1	EUCR3225-S3			0.1/2.5	
	EX-27	EUCR3225-S3			0.1/2.5	
	EX-30	EUCR3225-S3			0.1/2.5	
	EX-34	EUCR3225-S3			0.1/2.5	
	FILT1	EUCR466-S3			0.05/2.5	
	FILT3114	EUCR466-S3			0.1/2.5	
	FILT1543	EUCR466-S3			0.1/2.5	
	HEPE1517	EUCR466-S3			0.1/2.5	
EX-23		EUCR476-S3		15		
	DUST1010	EUCR491COM-S3			2.0/12.0	
	EX-27 1049	EUCR491COM-S3			0.1/2.5	
	EX-27 1056	EUCR491COM-S3			0.1/2.5	
	EX-117	EUCR491COM-S3			0.1/3	
	EX-118	EUCR491COM-S3			0.1/3	
	EX-119	EUCR491COM-S3			0.1/3	
	DC25C	EUCR4335-S3			0.1/2.5	

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Rotoclone/ Scrubber	Fabric Filter	Emission Unit	Acceptable min/max or min GPM water	Acceptable minimum water pressure (psi)	Acceptabl e min/max differential pressure (inches of water)	Acceptable minimum water level (inches)
	DC22C	EUCR4335-S3			0.1/2.5	
	DUST242	EUCR4335-S3			0.1/2.5	
	DC39	EUCR4335-S3			0.1/2.5	
	335DUST5 000-1	EUCR4335-S3			0.05/6.5	
	FANE0210 -1	EUCR4335-S3			0.2/3.0	
SB180		EUCR4335-S3	132/475			
SB385		EUCR4335-S3	20/50			
	FILT0841-1	EUCR4335-S3			0.1/4.0	
	FILT0842-1	EUCR4335-S3			0.1/4.0	
	335DUST3 007-1	EUCR4335-S3			0.2/8.0	
	DUST3010	EUCR4335-S3			0.2/8.0	
038ROTO0217-1		EUC38R6ALL-S3		40		
SCRB1047		EUC120R6ALL-S3	20/80			