

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

EFFECTIVE DATE: September 15, 2022

REVISION DATES: December 20, 2022, April 21, 2023, July 24, 2023, November 6, 2023

ISSUED TO

**Corteva Agriscience, LLC
and
Clean Harbors Industrial Services**

State Registration Number (SRN): P1028

LOCATED AT

Corteva Agriscience, LLC, 701 Washington Street, Midland, Midland County, Michigan 48667
and

Clean Harbors Industrial Services, Building 492, J Street, Midland, Midland County, Michigan 48642

The stationary source consists of Corteva Agriscience LLC (Corteva) (SRN P1028), Clean Harbors Industrial Services (Clean Harbors) (P1028), DDP Specialty Electronic Materials US, Inc. (DDP) (SRN P1027), Nutrition & Biosciences USA 1, LLC (N&B) (P1027), The Dow Chemical Company (Dow Chemical) (SRN: A4033), Dow Silicones (SRN: A4043), and Trinseo, LLC (Trinseo) (SRN: P1025).

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-P1028-2022d

Expiration Date: September 15, 2027

Administratively Complete ROP Renewal Application Due Between
March 15, 2026 and March 15, 2027

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

SOURCE-WIDE PERMIT TO INSTALL

Permit Number: MI-PTI-P1028-2022d

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

Chris Hare, Bay City 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
Corteva Agriscience, LLC

ROP No: MI-ROP-P1028-2022d
Expiration Date: September 15, 2027
PTI No: MI-PTI-P1028-2022d

SECTION 1 – CORTEVA AGRISCIENCE, LLC

A. GENERAL CONDITIONS

Permit Enforceability

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

General Provisions

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

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

Equipment & Design

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

Emission Limits

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

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

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

Testing/Sampling

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

Monitoring/Recordkeeping

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

Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**
19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604-3507. **(R 336.1213(4)(c))**
20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**
21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
 - a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
 - b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
 - c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

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

Permit Shield

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

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

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

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

Revisions

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

Reopenings

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

Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(9))**

Stratospheric Ozone Protection

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

Risk Management Plan

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

Emission Trading

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

Permit to Install (PTI)

- 43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.² **(R 336.1201(1))**
- 44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA.² **(R 336.1201(8), Section 5510 of Act 451)**
- 45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, EGLE.² **(R 336.1219)**
- 46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, EGLE, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.² **(R 336.1201(4))**
- 47. Each Responsible Official shall certify annually the compliance status of the stationary source with all stationary Source-Wide conditions. This certification shall be included as part of the annual certification of compliance as required in the General Conditions in Part A and Rule 213(4)(c). **(R 336.1213(4)(c))**

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 stationary source consists of Corteva Agriscience, LLC (SRN P1028), Clean Harbors Industrial Services (P1028), DDP Specialty Electronic Materials US, Inc. (SRN P1027), Nutrition & Biosciences USA 1, LLC (P1027), The Dow Chemical Company (SRN A4033), Dow Silicones Corporation (SRN A4043), and Trinseo, LLC (SRN P1025). The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.

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

SOURCE-WIDE CONDITIONS

DESCRIPTION

All process equipment at the stationary source including equipment covered by other permits, grandfathered equipment, and exempt equipment.

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))**

1. For any condition specified in the ROP which requires the permittee to monitor and record an operational parameter (e.g., flow rate, pH, pressure drop, etc.) on a "continuous basis" pursuant to AQD R 336.1213(3), monitoring and recording of data "on a continuous basis" is defined as an instantaneous data point recorded at least once every 15 minutes for at least 90% of the operating time during an operating calendar day. In the event the permittee collects more than one data point during the 15-minute period, the data point recorded may be the average (rolling or block) of all data points collected during the 15-minute period. Any response to an excursion of the corresponding operational parameter set point or range specified in the ROP pursuant to R 336.1213(3), shall be based upon these 15-minute values. Unless otherwise noted in the ROP, the permittee is not required to monitor and record operational parameter data during periods of non-operation of the device resulting in cessation of the emissions to which the monitoring applies. **(R 336.1213(3))**
2. The permittee shall maintain waste shipment records for all asbestos-containing waste material transported off-site as per 40 CFR Part 61, Subpart M, Section 61.150(d). **(40 CFR Part 61, Subpart M)**

See Appendix 3-1

VII. REPORTING

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

2. 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 follow the applicable notification requirements in 40 CFR Part 61, Subpart M, Section 61.145(b) prior to any applicable demolition or renovation activity. **(40 CFR Part 61, Subpart M)**
5. The permittee shall file a report any time a copy of the waste shipment record, signed by the off-site waste disposal site, is not received in a timely manner, in accordance with 40 CFR Part 61, Subpart M, Section 61.150(d)(4). **(40 CFR Part 61, Subpart M)**
6. An Initial Report shall be filed, according to the requirements of 40 CFR Part 61, Subpart M, Section 61.153, within 90 days of startup for any new source subject to Section 61.154. **(40 CFR Part 61, Subpart M)**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. For any emission unit in the ROP subject to the applicable sections of 40 CFR Part 63, Subpart A (General Provisions) that require a startup, shutdown and malfunction plan, the owner or operator shall adopt a startup, shutdown, and malfunction plan which conforms to the provisions of Part 63. The owner or operator shall operate and maintain the source in accordance with the procedures specified in the current startup, shutdown, and malfunction plan. Any revisions made to the startup, shutdown, and malfunction plan in accordance with the procedures established by Part 63 shall not be deemed to constitute permit revisions under Part 70 or Part 71 of Chapter I. **(40 CFR Part 63, Subpart A, Section 63.6(e)(3)(ix))**
2. The permittee shall comply with the applicable provisions of 1994 PA 451, Section 324.5524 (Fugitive dust sources or emissions) and with the provisions of the most-recently approved operating program received by the AQD, Saginaw Bay District Office. The operating program shall be amended by the permittee so that the operating program is current and reflects any significant change in the fugitive dust source or fugitive dust emissions. An amendment to an operating program shall be consistent with the requirements of Section 324.5524 and shall be submitted to the department for its review and approval. **(1994 PA 451, Section 324.5524)**
3. The permittee shall comply with the applicable requirements of 40 CFR Part 61, Subparts A and M (National Emission Standards for Asbestos). The applicable sections of Subpart M may include: **(40 CFR Part 61, Subparts A and M)**
 - a. 61.140 Applicability
 - b. 61.141 Definitions
 - c. 61.145 Standard for demolition and renovation
 - d. 61.148 Standard for insulating materials
 - e. 61.150 Standard for waste disposal for manufacturing, fabricating, demolition, renovation and spraying operations
 - f. 61.152 Air cleaning
 - g. 61.153 Reporting
 - h. 61.154 Standard for active waste disposal sites
 - i. 61.156 Cross-reference to other asbestos regulations

j. Appendix A (Interpretive Rule Governing Roof Removal Operations)

4. The permittee shall follow the applicable procedures for asbestos emission control in 40 CFR Part 61, Subpart M, Section 61.145(c) during any demolition or renovation activity. **(40 CFR Part 61, Subpart M)**
5. The permittee shall not install or reinstall on a facility component any insulating materials that contain commercial asbestos (other than spray-applied insulating materials) if the materials are either molded and friable or wet-applied and friable after drying, as per 40 CFR Part 61, Subpart M, Section 61.148. **(40 CFR Part 61, Subpart M)**
6. The permittee shall follow the applicable waste disposal requirements in 40 CFR Part 61, Subpart M, Section 61.150 for any asbestos removed during demolition or renovation activities. **(40 CFR Part 61, Subpart M)**
7. The permittee shall follow the applicable requirements of 40 CFR Part 61, Subpart M, Section 61.152 if air cleaning is used as part of the method of compliance with Sections 61.145 or 61.150. **(40 CFR Part 61, Subpart M)**
8. The permittee shall comply with the applicable requirements of 40 CFR Part 61, Subpart M, Section 61.154 for any active waste disposal site that receives asbestos-containing waste material. **(40 CFR Part 61, Subpart M)**
9. The permittee shall comply with any other applicable asbestos regulation listed in 40 CFR Part 61, Subpart M, Section 61.156. **(40 CFR Part 61, Subpart M)**
10. The permittee shall comply with the applicable requirements of 40 CFR Part 61, Subpart M, Appendix A for any regulated roof removal operation. **(40 CFR Part 61, Subpart M)**
11. For any performance test required pursuant to AQD Part 10 rules, the permittee may submit as a part of their stack test plan, a request to use existing performance test data where such data exists. The AQD will evaluate as a part of the stack test plan review, whether or not such existing data can be used in lieu of conducting a new performance test. For any performance test required by a federal standard, existing performance test data can only be used in lieu of a required stack test if allowed by the standard. **(R 336.2001, R 336.2003, R 336.2004)**
12. The permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart A, 40 CFR 82.13 (Protection of Stratospheric Ozone, Production and Consumption Controls). **(40 CFR 82.13)**
13. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart GGGGG (Site Remediation NESHAP). **(40 CFR Part 63, Subpart GGGGG)**

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).

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
EU01	<p>EU01 is an agricultural multi-product plant consisting of reactors, distillation and fractionation columns, separators, storage tanks and silos, and related equipment. Manufacturing equipment is located in Building 1. End products include pesticide active ingredients (PAIs), commercial products, and intermediates that require further processing at other facilities.</p> <p>PAI processes within EU01 are subject to the requirements of 40 CFR Part 63, Subparts A, MMM (National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production), and EEEE. In addition, processes subject to MMM are also subject to the equipment leak provisions of 40 CFR Part 63, Subpart H (National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks) as specified in Section 63.1363(b), as applicable.</p> <p>This emission unit was permitted in PTI No. 194-08.</p>	09-15-2008	FG954THROX FGHONFUGITIVES FGPESTICIDES FGOLDMACT
EU02	<p>Emission Unit 2 produces Sulfoxaflor. Manufacturing equipment is located in Building 827 and consists of reactors, distillation and fractionation columns, separators, storage tanks, and related equipment.</p> <p>EU02 is subject to the requirements of 40 CFR Part 63, Subparts A, EEEE, and MMM (National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production). In addition, processes subject to MMM are also subject to the</p>	02-24-2010 02-05-2021	FGHONFUGITIVES FGPESTICIDES FGOLDMACT FG954THROX

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
	<p>equipment leak provisions of 40 CFR Part 63, Subpart H (National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks) as specified in Section 63.1363(b), as applicable.</p> <p>This emission unit was permitted in PTI No. 95-20.</p>		
EU03	<p>The 2,4-D (2,4-dichlorophenoxyacetic acid) salt herbicide process. Equipment includes reactors, distillation equipment, storage tanks, rail car loading and unloading stations, and related equipment. Manufacturing equipment is located in the 959 Building. Process vents are treated by the THROX located in 963 Building and a backup carbon control system in EU12b. The tank farm and rail car station also support production of the 2,4-D salt in the EU09 process in 489 Building.</p> <p>This emission unit is subject to the requirements of 40 CFR Part 63, Subparts A and MMM. In addition, processes subject to MMM are also subject to the equipment leak provisions of the HON (40 CFR Part 63, Subpart H).</p> <p>This emission unit was permitted in PTI No. 147-20A.</p>	<p>08-25-2014 02-05-2021 04-23-2023</p>	<p>FG963THROX (See SRN P1027) FGPESTICIDES FGHONFUGITIVES</p>
EU05	<p>Aqueous HCl (32%) storage and distribution process at 954 Building. Aqueous HCl is brought in via railcar and offloaded into two storage tanks, V-2126 and V-2127. Aqueous HCl is loaded into rail cars and trucks from tank nos. V-2126 & V-2127. Vents on the aqueous HCl storage tanks, rail cars, and tank trucks in EU05 are connected to the T-101 Scrubber (See SRN P1027) prior to venting to the atmosphere. In some circumstances, the Backup Venturi Scrubber (See SRN P1027) is used as a back-up control device if the T-101 Scrubber is down.</p> <p>This emission unit was permitted in PTI No. 160-19.</p>	<p>03-26-2019</p>	<p>FGHCLSCRUBBER (See SRN P1027)</p>
EU09	<p>489 Building, multi-product herbicide formulation and packaging process, including raw material storage and handling, active ingredient finishing, formulations, and packaging. The process receives raw materials by rail cars, tank trucks, pipelines, and drums. Finishing operations include</p>	<p>09-12-2005</p>	<p>FGPESTICIDES FGMONMACT FGOLDMACT FGHONFUGITIVES</p>

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
	<p>transforming active ingredients into salts or esters, as well as solidification and flaking. Formulation operations include mixing and blending active ingredients with other materials to meet final product specifications. Packaging operations involve portable containers, drums, and bulk packaging.</p> <p>This emission unit is subject to the requirements of 40 CFR Part 63, Subparts A, MMM, EEEE, and FFFF. By virtue of being subject to Subpart MMM and FFFF, this emission unit is also subject to the applicable equipment leak provisions of 40 CFR Part 63, Subpart H as referenced by these subparts.</p> <p>This emission unit was permitted in PTI No. 98-05A.</p>		
EU10	<p>941 Building herbicide production process that will produce Clopyralid, Clopyralid K-salt, Aminopyralid, and Aminopyralid K-salt. The herbicide production process includes the following major equipment and other associated equipment: storage tanks, process vessels, vacuum equipment, filters, solids handling equipment, pumps, and portable containers.</p> <p>This emission unit is subject to the requirements of 40 CFR Part 63, Subparts A and MMM. By virtue of being subject to Subpart MMM, this emission unit is also subject to the equipment leak provisions of the HON (i.e., 40 CFR Part 63, Subpart H).</p> <p>Supersack loading activities are controlled by water scrubber SK-4010 (SVEG10V3). Drying and packaging operations are controlled by baghouse FL-4900 (SVEG10V30).</p> <p>This emission unit was permitted in PTI No. 116-08B.</p>	02-04-2005 03-30-2012 04-03-2018	FGPESTICIDES FGHONFUGITIVES
EU12b	<p>The EU12b 2,4-D process unit is a phenoxy herbicide manufacturing plant. Equipment includes: reactors, distillation/fractionation columns, separators, storage tanks/silos and related equipment. Manufacturing equipment is located in 948 Building. Process vents are treated by the VS-1011/T-1010 scrubbing system and then by either the THROX located in 963 Building or the 948 carbon adsorber</p>	09-14-1990 05-02-2007 09-17-2014 12-18-2019 02-05-2021	FG963THROX (See SRN P1027) FGPESTICIDES FGHONFUGITIVES FGOLDMACT

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
	<p>system. The 948 carbon adsorber system is also used as a backup control device for the 2,4-D salt herbicide process located in 959 Building (EU03).</p> <p>This emission unit is subject to the requirements of 40 CFR Part 63, Subparts A, EEEE, and MMM. In addition, processes subject to MMM are also subject to the equipment leak provisions of 40 CFR Part 63, Subpart H (National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks) as specified in Section 63.1363(b), as applicable.</p> <p>This emission unit was permitted in PTI No. 108-19A.</p>		
EU1028	<p>The Spinetoram manufacturing process at 1028 Building includes reactors, storage tanks, and other process vessels and receivers, along with ancillary equipment. Emission controls include three condensers, as well as dust collectors for emissions from solids loading and product packaging. This emission unit is subject to 40 CFR Part 63, Subparts A, F, and MMM and to the equipment leak provisions of 40 CFR Part 63, Subpart H.</p> <p>This emission unit was permitted in PTI No. 84-21.</p>	11-01-2021	FG954THROX FGPESTICIDES FGHONFUGITIVES
EU1200	<p>The spinosyns manufacturing process at 1200 Building with storage tanks, transfer racks, and equipment for fermentation, crystallization, filtration, product drying, water treatment, and extraction. Process vents are exhausted to a regenerative thermal oxidizer. Product drying includes a recovery filter followed by an emission control fabric filter dust collector that exhausts to a regenerative thermal oxidizer. Product packaging is exhausted through a venturi style dust collector with a HEPA filter to the ambient air. This emission unit is subject to the requirements of 40 CFR Part 63, Subpart FFFF (MON) and 40 CFR Part 63, Subpart EEEE (OLD). EU1200 is also subject to the equipment leak provisions of the HON (i.e., 40 CFR Part 63, Subpart H).</p>	06-02-2020 10-01-2023	FGHONFUGITIVES FGMONMACT FGOLDMACT

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
	<p>EU1200 is a CAM subject emission unit for VOCs and HAPs subject to the requirements of 40 CFR Part 64.</p> <p>This emission unit was permitted in PTI No. 37-20B.</p>		
EURULE290	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.	NA	FGRULE290 FGHONFUGITIVES FGPESTICIDES FGBOILERMACT<10 MMBTU FGOLDMACT FGMONMACT
EUCOLDCLEANER	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.	NA	FGCOLDCLEANERS
EURULE703	<p>Any new or future storage vessel subject to the requirements of R 336.1703 (Rule 703). Storage vessels subject to AQD Rule 703 are those which:</p> <p>(1) Receive gasoline from a delivery vessel into any new stationary vessel of more than 2000 gallon capacity located at any gasoline dispensing facility; AND</p> <p>(2) Were placed into operation on or after July 1, 1979, or for which an application for a permit to install, pursuant to the provisions of Part 2 of Act 451 is made to the EGLE on or after July 1, 1979, or both, except for any process or process equipment which is defined as an “existing source” under R 336.1601.</p>	NA	FGRULE703
EUBOILER21	Backup package boiler No. 21 used to supply the Midland Dow I-park with steam. Boiler burns natural gas and has a maximum design heat input capacity equal to 357 MMBTU/hr. Equipment located at 879 Building.	1985	FGBOILERS21&22 FGBOILERMACT>10 MMBTU
EUBOILER22	Backup package boiler No. 22 used to supply the Midland Dow I-park with steam. Boiler burns natural gas and has a maximum design heat input capacity equal to 357 MMBTU/hr. Equipment located at 879 Building.	1985	FGBOILERS21&22 FGBOILERMACT>10 MMBTU
EUEMERGCIRICE	Emergency diesel fuel engines subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines	NA	FGEMERGCIRICE

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
	(RICE). Title 40 of the Code of Federal Regulations (CFR) Part 63, Subpart ZZZZ (40 CFR 63.6580-6675). The engines are regulated as existing compression (CI) emergency RICE with a maximum site rate of less than 500 brake horsepower (HP) and greater than 500 brake horsepower (HP) located at a Major Source of HAP emissions.		
EUEMERGSIRICE	Emergency generators subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE). Title 40 of the Code of Federal Regulations (CFR) Part 63, Subpart ZZZZ. The engines are regulated as existing spark ignition (SI) emergency RICE with a maximum site rate of less than 500 brake horsepower (HP) located at a Major Source of HAP emissions.	NA	FGEMERGSIRICE

EU01 EMISSION UNIT CONDITIONS

DESCRIPTION

EU01 is an agricultural multi-product plant consisting of reactors, distillation and fractionation columns, separators, storage tanks and silos, and related equipment. Manufacturing equipment is located in Building 1. End products include pesticide active ingredients (PAIs), commercial products, and intermediates that require further processing at other facilities.

PAI processes within EU01 are subject to the requirements of 40 CFR Part 63, Subparts A, EEEE, and MMM (National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production). In addition, processes subject to MMM are also subject to the equipment leak provisions of 40 CFR Part 63, Subpart H (National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks) as referenced in FGHONFUGITIVES (as specified by 63.1363(b)), as applicable.

This emission unit was permitted in PTI No. 194-08.

Flexible Group ID: FGHONFUGITIVES, FGPESTICIDES, FGOLDMACT, FG954THROX

POLLUTION CONTROL EQUIPMENT

- FG954THROX (Thermal Treatment Unit 954, including absorber/quench T-3601 and scrubber T-3602)
- Dust collectors (DC-405, DC-530, DC-320, DC-700, & DC-600)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Aggregate Category 1 Pollutants with annual averaging (avg) time ^A	17 lb/yr ¹	12-month rolling time period as determined at the end of each calendar month	EU01	SC VI.1 and VI.2	R 336.1225
2. Aggregate Category 2 Pollutants with annual avg time ^A	175 lb/yr ¹	12-month rolling time period as determined at the end of each calendar month	EU01	SC VI.1 and VI.2	R 336.1225
3. Aggregate Category 3 Pollutants with annual avg time ^A	1750 lb/yr ¹	12-month rolling time period as determined at the end of each calendar month	EU01	SC VI.1 and VI.2	R 336.1225
4. Aggregate Category 4 Pollutants with annual avg time ^A	5 tpy ¹	12-month rolling time period as determined at the end of each calendar month	EU01	SC VI.1 and VI.2	R 336.1225

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
5. Aggregate Category 5 Pollutants with annual avg time ^A	5 tpy ¹	12-month rolling time period as determined at the end of each calendar month	EU01	SC VI.1, VI.2	R 336.1225
6. Aggregate Category 6 Pollutants with annual avg time ^A	5 tpy ¹	12-month rolling time period as determined at the end of each calendar month	EU01	SC VI.1, VI.2	R 336.1225
7. Aggregate Category 3 Pollutants with 24-hr avg time ^A	0.016 pph ¹	24-Hour Average	EU01	SC VI.1, VI.2	R 336.1225
8. Aggregate Category 4 Pollutants with 24-hr avg time ^A	0.16 pph ¹	24-Hour Average	EU01	SC VI.1, VI.2	R 336.1225
9. Aggregate Category 5 Pollutants with 24-hr avg time ^A	1.6 pph ¹	24-Hour Average	EU01	SC VI.1, VI.2	R 336.1225
10. Aggregate Category 6 Pollutants with 24-hr avg time ^A	16 pph ¹	24-Hour Average	EU01	SC VI.1, VI.2	R 336.1225
11. Aggregate Category 3 Pollutants with 8-hr avg time ^A	0.008 pph ¹	8-Hour Average	EU01	SC VI.1, VI.2	R 336.1225
12. Aggregate Category 4 Pollutants with 8-hr avg time ^A	0.08 pph ¹	8-Hour Average	EU01	SC VI.1, VI.2	R 336.1225
13. Aggregate Category 5 Pollutants with 8-hr avg time ^A	0.8 pph ¹	8-Hour Average	EU01	SC VI.1, VI.2	R 336.1225
14. Aggregate Category 6 Pollutants with 8-hr avg time ^A	8 pph ¹	8-Hour Average	EU01	SC VI.1, VI.2	R 336.1225

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
15. Aggregate Category 3 Pollutants with 1-hr avg time ^A	0.005 pph ¹	Hourly	EU01	SC VI.1, VI.2	R 336.1225
16. Aggregate Category 4 Pollutants with 1-hr avg time ^A	0.05 pph ¹	Hourly	EU01	SC VI.1, VI.2	R 336.1225
17. Aggregate Category 5 Pollutants with 1-hr avg time ^A	0.5 pph ¹	Hourly	EU01	SC VI.1, VI.2	R 336.1225
18. Aggregate Category 6 Pollutants with 1-hr avg time ^A	5 pph ¹	Hourly	EU01	SC VI.1, VI.2	R 336.1225
19. VOC	6 tpy ²	12-month rolling time period as determined at the end of each calendar month	EU01	SC VI.1	R 336.1702(a)

^A For the purposes of EU01:

- Category 1 Pollutants are all compounds with a screening level of 0.001 to <0.01
- Category 2 Pollutants are all compounds with a screening level of 0.01 to <0.1
- Category 3 Pollutants are all compounds with a screening level of 0.1 to <1
- Category 4 Pollutants are all compounds with a screening level of 1 to <10
- Category 5 Pollutants are all compounds with a screening level of 10 to <100
- Category 6 Pollutants are all compounds with a screening level of 100 or greater.

The permittee shall use current screening levels from the EGLE Michigan Air Toxics System Toxic Screening Level Database.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall immediately cease the input feed to EU01, consistent with safe operating procedures, upon initiation of the 954THROX shutdown, unless input feed to EU01 does not generate emissions. Input feed to EU01 shall not restart until the TTU-954 is back online and operating in a satisfactory manner.² (**R 336.1225, R 336.1331, R 336.1702(a), R 336.1910**)

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate emission generating portions of EU01 unless the 954THROX is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes, but is not limited to, maintaining the 954THROX in accordance with FG954THROX.² (**R 336.1225, R 336.1331, R 336.1702(a), R 336.1910**)

V. TESTING/SAMPLING

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

1. Performance tests on FG954THROX may be required in accordance with an AQD approved test plan to verify the emission rates from portions of EU01 venting to 954THROX. **(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))**

See Appendix 5-1

VI. MONITORING/RECORDKEEPING

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

1. Within 30 days following the end of each calendar month, the permittee shall keep in a satisfactory manner, monthly and 12-month rolling time period emission calculation records of VOCs and all TACs listed in the Emission Limit Table for EU01. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1225, R 336.1702(a))**
2. The permittee shall maintain a current list of the materials used in EU01 and the associated EGLE Screening Level or if the default screening level value of 0.1 µg/m³ will be used for that material. The list shall include the compound name and CAS number and a calculation demonstrating the emission rate of each material. This list will be used to determine the Emission Limit Category Value for each material. The permittee shall keep all records on file at the facility and make them available to the Department upon request.¹ **(R 336.1225, R 336.1901)**
3. The permittee shall monitor, in a satisfactory manner, the visible emissions from the following pieces of equipment on a monthly basis.
 - a. Vent No. SVEU01DC405 (associated with dust collector DC-405)
 - b. Vent No. SVEU01DC530 (associated with dust collector DC-530)
 - c. Vent No. SVEU01DC320 (associated with dust collector DC-320)
 - d. Vent No. SVEU01DC600 (associated with dust collector DC-600)
 - e. Vent No. SVEU01DC700 (associated with dust collector DC-700)

The permittee shall monitor visible emissions during routine operation. For the purposes of this condition, such monitoring does not have to be in accordance with Method 9. If monitoring reveals any visible emissions, the permittee shall inspect the dust collector(s) and perform any maintenance required to eliminate visible emissions. **(R 336.1213(3))**

4. The permittee shall keep, in a satisfactory manner, monthly records of the results of the visible emissions monitoring of dust collector Nos. DC-405, DC-530, DC-320, DC-600, and DC-700 and of any maintenance performed after visible emissions are observed. The permittee shall keep these records on file and make them available to the Department upon request. **(R 336.1213(3))**

See Appendix 3-1

VII. REPORTING

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

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV954THROX (FG954THROX) ^A	24 ²	60 ²	R 336.1225 40 CFR 52.21(c) and (d)

^A This stack's requirements also appear in the conditions for FG954THROX (SRN P1028).

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).

**EU02
EMISSION UNIT CONDITIONS**

DESCRIPTION

Emission Unit 2 produces Sulfoxaflo. Manufacturing equipment is located in Building 827 and consists of reactors, distillation and fractionation columns, separators, storage tanks, and related equipment.

EU02 is subject to the requirements of 40 CFR Part 63, Subparts A, EEEE, and MMM (National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production). In addition, processes subject to MMM are also subject to the equipment leak provisions of 40 CFR Part 63, Subpart H (National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks) as specified in Section 63.1363(b), as applicable.

This emission unit was permitted in PTI No. 95-20.

Flexible Group ID: FGHONFUGITIVES, FGPESTICIDES, FGOLDMACT, FG954THROX

POLLUTION CONTROL EQUIPMENT

- FG954THROX (Thermal Treatment Unit 954, including absorber/quench T-3601 and scrubber T-3602)
- Particulate filter for emissions exhausted through SVEU02-01
- 827 Building Scrubbers:
 - T-1 Scrubber
 - T-14 Scrubber
 - T-16 Scrubber

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.05 lb/ 1000 lb gas ²	Hourly	EU02 emissions exhausted through SVEU02-01	SC VI.3, VI.4	R 336.1225 R 336.1331
2. VOC	6 tpy ²	12-month rolling time period as determined at the end of each calendar month	EU02	SC VI.1	R 336.1702(a)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall immediately cease operation of EU02, consistent with safe operating procedures, upon initiation of a FG954THROX shutdown or malfunction, unless operation of EU02 does not generate emissions or emissions are vented to surge control tank V-401. Surge control tank V-401 may be used to collect and store vent gas during periods when the FG954THROX is shut down. Vent gas stored in V-401 shall be sent to the 954 THROX for treatment prior to venting to the atmosphere. Input feed to EU02 shall not restart until the 954 THROX is back online and operating in a satisfactory manner or emissions from the process are vented to surge control tank V-401.² (**R 336.1225, R 336.1331, R 336.1702(a), R 336.1910**)

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. Except as allowed in EU02 SC III.1, the permittee shall not operate emission generating portions of EU02 which vent to the FG954THROX unless the FG954- THROX is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes, but is not limited to, maintaining the 954 THROX in accordance with the requirements of FG954THROX.² **(R 336.1225, R 336.1331, R 336.1702(a), R 336.1910)**
2. The permittee shall not operate particulate emission generating portions of EU02 which vent to the particulate filters unless the particulate filters are installed, maintained, and operated in a satisfactory manner.² **(R 336.1225, R 336.1301, R 336.1331, R 336.1910)**
3. The permittee shall not operate equipment in EU02 causing emissions from the A-wing process vents or equipment exhausting emissions to the B-wing acid vent header or the B-wing basic vent header unless the associated equipment listed below is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the associated equipment includes the following.² **(R 336.1224, R 336.1225, R 336.1910)**

4.

	Subset of EU02 operations	Device	Operating Parameter	Required Value
a.	Equipment causing emissions from the A-wing process vents	T-1 Scrubber	Scrubber Liquid Flow Rate	16 gallons per minute (gpm) or greater
b.	Equipment causing emissions from the A-wing process vents	T-1 Scrubber	Scrubber Liquid pH	8 or greater
c.	Equipment exhausting emissions to the B-wing acid vent header	T-14 Scrubber	Scrubber Liquid Flow Rate	10 gpm or greater
d.	Equipment exhausting emissions to the B-wing acid vent header	T-14 Scrubber	Scrubber Liquid pH	8 or greater
e.	Equipment exhausting emissions to the B-wing acid vent header	T-16 Scrubber	Scrubber Liquid Flow Rate	42 gpm or greater

V. TESTING/SAMPLING

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

1. Performance tests on FG954THROX may be required in accordance with an AQD approved test plan to verify the emission rates from portions of EU02 venting to FG954THROX. **(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. Within 30 days following the end of each calendar month, the permittee shall calculate and record, in a satisfactory manner, the emissions of VOCs from EU02 for the calendar month and for the 12-month rolling time period ending that calendar month. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1225, R 336.1702(a))**
2. The permittee shall monitor and record, in a satisfactory manner, the time and duration of each use of the closed vent system surge control tank V-401 during a 954 THROX shutdown or malfunction.² **(R 336.1910)**
3. The permittee shall monitor the particulate filter emission points to verify the filters are operating properly, by taking visible emission readings for EU02 a minimum of once per calendar month. Either a certified or non-

certified reader shall take each visible emission reading during routine operating conditions. Such readings do not have to be conducted per the requirements of Method 9. Multiple stacks may be observed simultaneously. If any visible emissions (other than uncombined water vapor) are observed, the permittee shall immediately inspect the filters and perform any required maintenance.² **(R 336.1910)**

4. The permittee shall keep, in a satisfactory manner, records of all visible emission readings for the EU02 particulate filter emission points. At a minimum, records shall include the date, the name or initials of the observer, the status of visible emissions, and any corrective action that was taken as appropriate. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1910)**
5. The permittee shall maintain a current list of the materials used in EU02 that are determined to be exempt from the health-based screening level requirement of Rule 225. The list shall include the compound name and CAS number and a calculation demonstrating the emission rate of each material. The permittee shall keep all records on file at the facility and make them available to the Department upon request.¹ **(R 336.1226(a))**
6. The permittee shall monitor and record, on a continuous basis, the following operational parameters for the devices listed below, in accord with the requirements of FGPESTICIDES. For the purpose of this condition, “on a continuous basis” is defined as an instantaneous data point recorded at least once every 15 minutes for at least 90% of the operating time during an operating calendar day. In the event the permittee collects more than one data point during the 15-minute period, the data point recorded may be the average (rolling or block) of all data points collected during the 15-minute period. Unless otherwise noted in this permit, the permittee is not required to monitor and record operational parameter data during periods of non-operation of the device resulting in cessation of the emissions to which the monitoring applies.² **(R 336.1910, 40 CFR Part 63, Subpart MMM)**

	Device	Operating Parameter
a.	T-1 Scrubber	Scrubber Liquid Flow Rate
b.	T-1 Scrubber	Scrubber Liquid pH
c.	T-14 Scrubber	Scrubber Liquid Flow Rate
d.	T-14 Scrubber	Scrubber Liquid pH
e.	T-16 Scrubber	Scrubber Liquid Flow Rate

See Appendix 3-1

VII. REPORTING

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

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV954THROX (FG954THROX) ^A	24 ²	60 ²	R 336.1225 40 CFR 52.21(c) and (d)
2. SVEU02-01 (DC-350 Spencer Vacuum)	2 ²	41 ²	R 336.1225 40 CFR 52.21(c) and (d)

^A This stack's requirements also appear in the conditions for FG954THROX (SRN P1028).

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).

EU03 EMISSION UNIT CONDITIONS
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DESCRIPTION

The 2,4-D (2,4-dichlorophenoxyacetic acid) salt herbicide process. Equipment includes reactors, distillation equipment, storage tanks, rail car loading and unloading stations, and related equipment. Manufacturing equipment is located in the 959 Building. Process vents are treated by the THROX located in 963 Building and a backup carbon control system in EU12b. The tank farm and rail car station also support production of the 2,4-D salt in the EU09 process in 489 Building.

This emission unit is subject to the requirements of 40 CFR Part 63, Subparts A and MMM. In addition, processes Subject to MMM are also subject to the equipment leak provisions of the HON (i.e., 40 CFR Part 63, Subpart H).

This emission unit was permitted in PTI No. 147-20A.

Flexible Group ID: FG963THROX, FGPESTICIDES , FGHONFUGITIVES

POLLUTION CONTROL EQUIPMENT

- Afterburner (FG963THROX – thermal heat recovery oxidation unit located in 963 Building followed by a quench and scrubber).
- Carbon adsorber system located near 948 Building, for a maximum of 31 days (744 hours) per year when the FG963THROX is not available.

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not exhaust process vents in EU03 to the carbon adsorber system in EU12b for more than 744 hours per 12-month rolling time period as determined at the end of each calendar month. "Process vents in EU03" includes all vents from EU03 except the following:² **(R 336.1225, R 336.1702(a))**
 - a. Vents from the storage tanks for the 2,4-D salt product.
 - b. Emissions from the rail stations for loading 2,4-D salt product.
2. The exhaust gases from the choline hydroxide storage tank shall be routed to the FG963THROX for incineration or to the carbon adsorber system in EU-12b.² **(R 336.1225, R 336.1702(a))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate equipment that causes emissions from the process vents in EU03 unless either the afterburner (FG963THROX) or the EU12b carbon adsorber system is installed, maintained, and operated in a satisfactory manner. Storage vessels in EU03 subject to 40 CFR Part 63, Subpart MMM are exempted from this requirement for up to 240 hours per rolling 12-month time period, to the extent allowed by 40 CFR 63.1362(c)(5). Satisfactory operation of the FG963THROX shall be determined according to the requirements of FG963THROX and FGPESTICIDES and includes attaining at least 99.9 percent destruction of organic compounds exhausted to the device. Satisfactory operation of the EU12b carbon adsorber system shall be determined according to the requirements of FGPESTICIDES and includes attaining at least 98 percent removal

of organic compounds exhausted to the device. "Process vents in EU03" includes all vents from EU03 except the following:² **(R 336.1225, R 336.1702(a), R 336.1910)**

- a. Vents from the storage tanks for the 2,4-D salt product.
- b. Emissions from the rail stations for loading 2,4-D salt product.

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. Within 30 days following the end of each calendar month, the permittee shall record, in a satisfactory manner, the monthly and 12-month rolling time period number of hours that process vents from EU03 exhausted to the carbon adsorber system in EU12b. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1225, R 336.1702(a))**
2. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of the time, in hours, that storage vessels in EU03 subject to 40 CFR Part 63, Subpart MMM operate under the exemption from emission control provided in SC IV.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1225, R 336.1702(a), R 336.1910)**
3. The permittee shall implement and maintain a plan identifying the operating parameters for FG963THROX that shall be obtained from the operator or owner of FG963THROX. All operating parameter data in the plan for FG963THROX shall be obtained within 30 days of the end of the month to which it pertains. If the plan fails to provide adequate information to demonstrate 99.9% destruction of organic compounds, the permittee shall amend the plan. The permittee shall also amend the plan within 45 days after receiving notification from the AQD District Supervisor that the plan does not provide adequate information to demonstrate 99.9% destruction of organic compounds. The permittee shall keep the plan and recorded parameter data on file at the facility and make them available to the Department upon request.² **(R 336.1910)**

See Appendix 3-1

VII. REPORTING

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

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV03001 ^A (product storage vent)	30 ²	20 ²	R 336.1225 40 CFR 52.21(c) and (d)
2. SV03002 ^A (product storage vent)	30 ²	20 ²	R 336.1225 40 CFR 52.21(c) and (d)
3. SV03003 (product rail car atmospheric vent)	30 ²	15 ²	R 336.1225 40 CFR 52.21(c) and (d)
4. SV03004 (product rail car atmospheric vent)	30 ²	15 ²	R 336.1225 40 CFR 52.21(c) and (d)
5. SV03005 (product rail car atmospheric vent)	30 ²	15 ²	R 336.1225 40 CFR 52.21(c) and (d)
6. SV03006 (product rail car atmospheric vent)	30 ²	15 ²	R 336.1225 40 CFR 52.21(c) and (d)
7. SV12005 ^B (carbon system atmospheric vent)	4 ²	20 ²	R 336.1225 40 CFR 52.21(c) and (d)
8. SV963THROX ^C	18 ²	80 ²	R 336.1225 40 CFR 52.21(c) and (d)
9. SVEG9A52 ^{A, D} (product storage)	20 ²	11 ²	R 336.1225 40 CFR 52.21(c) and (d)
10. SVEG9A44 ^{A, D} (product storage)	20 ²	11 ²	R 336.1225 40 CFR 52.21(c) and (d)
11. SVEG9A49-1 ^D	30 ²	15 ²	R 336.1225 40 CFR 52.21(c) and (d)
12. SVEG9A49-2 ^D	30 ²	15 ²	R 336.1225 40 CFR 52.21(c) and (d)
13. SVEG9A49-3 ^D	30 ²	15 ²	R 336.1225 40 CFR 52.21(c) and (d)
14. SVEG9A49-4 ^D	30 ²	15 ²	R 336.1225 40 CFR 52.21(c) and (d)

^A This vent is not required to discharge unobstructed vertically upwards.
^B This stack vent requirements also appear in the conditions for EU12b (SRN P1028)
^C This stack’s requirements also appear in the conditions for FG963THROX (SRN P1027).
^D This stack’s requirements also appear in the conditions for EU09 (SRN P1028).

IX. OTHER REQUIREMENT(S)

- 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 MMM, as they apply to EU03.² **(40 CFR Part 63, Subparts A and MMM)**

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).

EU05 EMISSION UNIT CONDITIONS
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DESCRIPTION

Aqueous HCl (32%) storage and distribution process at 954 Building. Aqueous HCl is brought in via railcar and offloaded into two storage tanks, V-2126 and V-2127. Aqueous HCl is loaded into rail cars and trucks from tank nos. V-2126 & V-2127. Vents on the aqueous HCl storage tanks, rail cars, and tank trucks in EU05 are connected to the T-101 Scrubber (SRN P1027) prior to venting to the atmosphere. In some circumstances, the Backup Venturi Scrubber (SRN P1027) is used as a back-up control device if the T-101 Scrubber is down.

This emission unit was permitted in PTI No. 160-19.

Flexible Group ID: FGHCLSCRUBBER-1 (SRN P1027)

POLLUTION CONTROL EQUIPMENT

FGHCLSCRUBBER (SRN P1027)

- T-101 Scrubber: This scrubber receives the exhaust from E-101 Absorber in FGHCLSCRUBBER-1 (See ROP for SRN P1027), which receives process exhaust from the anhydrous HCl distribution system in EU06 (all storage tanks and rail cars and the tank truck unloading facilities) and from the aqueous HCl storage and distribution system in EU05. The design vapor flow rate of the scrubber is 470 SCFM and the absorbing media used is recirculated water (approximately 6% HCl). The T-101 Scrubber vents to Vent No. SVHCLSCRUBBER01 in FGHCLSCRUBBER-1 (See ROP for SRN P1027).
- Backup Venturi Scrubber: In some circumstances, this scrubber in FGHCLSCRUBBER-1 (See ROP for SRN P1027) is used as backup to the T-101 Scrubber for exhaust vents from EU05. The scrubbing media of the Backup Venturi Scrubber is water. This scrubber vents to Vent No. SVHCLSCRUBBER02 in FGHCLSCRUBBER-1 (See ROP for SRN P1027).

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not exhaust EU05 emissions from the V-2126 and V-2127 storage tanks to the FGHCLSCRUBBER Backup Venturi Scrubber for more than 240 hours per year, based on a 12-month rolling time period as determined at the end of each calendar month. For this condition, "emissions from the V-2126 and V-2127 storage tanks" includes only the following:² **(R 336.1225, R 336.1910)**
 - a. Breathing losses
 - b. Working losses caused by receiving aqueous HCl from tank trucks or railcars

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not conduct the activities listed below in EU05 unless the equipment identified below is installed, maintained, and operated in a satisfactory manner.² **(R 336.1225, R 336.1910)**

Activity	Equipment required to be installed, maintained, and operated in a satisfactory manner
For up to 240 hours per year, as provided in SC III.1	
Unload tank trucks or railcars to V-2126 and V-2127 storage tanks	FGHCLSCRUBBER Backup Venturi Scrubber+
Breathing losses from V-2126 and V-2127 storage tanks	FGHCLSCRUBBER Backup Venturi Scrubber+
At all times other than the 240 hours per year addressed in SC III.1	
Unload tank trucks or railcars to V-2126 and V-2127 storage tanks	FGHCLSCRUBBER T-101 Scrubber++
Breathing losses from V-2126 and V-2127 storage tanks	FGHCLSCRUBBER T-101 Scrubber++
At all times	
Load tank trucks or railcars from V-2126 and V-2127 storage tanks	FGHCLSCRUBBER T-101 Scrubber++

+ Satisfactory operation of the Backup Venturi Scrubber includes the conditions outlined in FGHCLSCRUBBER-1 (See ROP for SRN P1027) that apply to the Backup Venturi Scrubber and attaining at least 80 percent removal of HCl.

++ Satisfactory operation of the T-101 Scrubber includes the conditions outlined in FGHCLSCRUBBER-1 (SRN P1027) that apply to the T-101 Scrubber and attaining at least 99.6 percent removal of HCl.

V. TESTING/SAMPLING

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

1. Performance tests on FGHCLSCRUBBER-1(See ROP for SRN P1027) may be required in accordance with an AQD approved test plan to verify the emission rates from portions of EU05 venting to FGHCLSCRUBBER-1. (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. Within 60 days after issuance of PTI No. 160-19, the permittee shall submit a plan to the AQD District Supervisor identifying the operating parameters for FGHCLSCRUBBER-1 (SRN P1027) that shall be obtained from the operator or owner of FGHCLSCRUBBER-1 (SRN P1027). All operating parameter data in the plan for FGHCLSCRUBBER-1 (SRN P1027) shall be obtained within 30 days of the end of the month to which it pertains. If the plan fails to provide adequate information to demonstrate the HCl removal required by SC IV.1, the permittee shall amend the plan. The permittee shall also amend the plan within 45 days after receiving notification from the AQD District Supervisor that the plan does not provide adequate information to demonstrate the HCl removal required by SC IV.1. The permittee shall keep the plan and recorded parameter data on file at the facility and make them available to the Department upon request.² (R 336.1910)
2. The permittee shall record, in a satisfactory manner, the amount of time, in hours, during which EU05 exhausts to the backup venturi scrubber on a monthly basis and shall calculate and record the total hours for the 12-month rolling time period ending that calendar month.² (R 336.1225, R 336.1910)

See Appendix 3-1

VII. REPORTING

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

2. 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 8-1

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVHCLSCRUBBER01 (T-101 scrubber) ^A	6 ²	60 ²	R 336.1225 40 CFR 52.21(c) and (d)
2. SVHCLSCRUBBER02 (backup venturi scrubber) ^A	6 ²	60 ²	R 336.1225 40 CFR 52.21(c) and (d)

^A This stack's requirements also appear in the conditions for FGHCLSCRUBBER-1 (SRN P1027).

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).

EU09
EMISSION UNIT CONDITIONS

DESCRIPTION

489 Building, multi-product herbicide formulation and packaging process, including raw material storage and handling, active ingredient finishing, formulations, and packaging. The process receives raw materials by rail cars, tank trucks, pipelines, and drums. Finishing operations include transforming active ingredients into salts or esters, as well as solidification and flaking. Formulation operations include mixing and blending active ingredients with other materials to meet final product specifications. Packaging operations involve portable containers, drums, and bulk packaging.

This emission unit is subject to the requirements of 40 CFR Part 63, Subparts A, MMM, EEEE, and FFFF. In addition, processes subject to MMM and FFFF are also subject to the equipment leak provisions of 40 CFR Part 63, Subpart H (National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks) as referenced in FGHONFUGITIVES (as specified by 63.1363(b)), as applicable.

This emission unit was permitted in PTI No. 98-05A.

Flexible Group ID: FGPESTICIDES, FGMONMACT, FGOLDMACT, FGHONFUGITIVES

POLLUTION CONTROL EQUIPMENT

- Flaker Production and Packing Scrubber (SVEG9V47) – packed tower, scrubbing with caustic soda solution
- Flaker Production and Packing Particulate Filter (SVEG9V48) – reverse pulse jet fabric filter collector
- Amine Process Scrubber (SVEG9V51) – packed tower, scrubbing with water

I. EMISSION LIMIT(S)

Pollutant ^A	Limit ^{B,C}	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Category 1 Pollutants with annual averaging (avg) time	139 lb/yr ¹	12-month rolling time period ^{**}	EU09	SC IV.1, IV.2, IV.3, VI.9	R 336.1225 R 336.1227(2)
2. Category 2 Pollutants with annual avg time	695 lb/yr ¹	12-month rolling time period ^{**}	EU09	SC IV.1, IV.2, IV.3, VI.9	R 336.1225 R 336.1227(2)
3. Category 3 Pollutants with annual avg time	6,950 lb/yr ¹	12-month rolling time period ^{**}	EU09	SC IV.1, IV.2, IV.3, VI.9	R 336.1225 R 336.1227(2)
4. Category 4 Pollutants with annual avg time	12,000 lb/yr ¹	12-month rolling time period ^{**}	EU09	SC IV.1, IV.2, IV.3, VI.9	R 336.1225 R 336.1227(2)
5. Category 5 Pollutants with annual avg time	12,000 lb/yr ¹	12-month rolling time period ^{**}	EU09	SC IV.1, IV.2, IV.3, VI.9	R 336.1225 R 336.1227(2)

Pollutant^A	Limit^{B,C}	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
6. Category 6 Pollutants with annual avg time	12,000 lb/yr ¹	12-month rolling time period**	EU09	SC IV.1, IV.2, IV.3, VI.9	R 336.1225 R 336.1227(2)
7. Category 1 Pollutants with 24-hour avg time	0.038 lb per 24 hrs ⁺¹	24-Hour Average	EU09	SC IV.1, IV.2, IV.3	R 336.1225 R 336.1227(2)
8. Category 2 Pollutants with 24-hour avg time	0.2 lb per 24 hrs ⁺¹	24-Hour Average	EU09	SC IV.1, IV.2, IV.3	R 336.1225 R 336.1227(2)
9. Category 3 Pollutants (with 24-hour avg time)	1.9 lb per 24 hrs ⁺¹	24-Hour Average	EU09	SC IV.1, IV.2, IV.3	R 336.1225 R 336.1227(2)
10. Category 4 Pollutants with 24-hour avg time	19 lb per 24 hrs ⁺¹	24-Hour Average	EU09	SC IV.1, IV.2, IV.3	R 336.1225 R 336.1227(2)
11. Category 5 Pollutants with 24-hour avg time	57 lb per 24 hrs ⁺¹	24-Hour Average	EU09	SC IV.1, IV.2, IV.3	R 336.1225 R 336.1227(2)
12. Category 6 Pollutants with 24-hour avg time	228 lb per 24 hrs ⁺¹	24-Hour Average	EU09	SC IV.1, IV.2, IV.3	R 336.1225 R 336.1227(2)
13. Category 1 Pollutants with 8-hour avg time	0.005 lb per 8 hrs ⁺¹	8-Hour Average	EU09	SC IV.1, IV.2, IV.3	R 336.1225 R 336.1227(2)
14. Category 2 Pollutants with 8-hour avg time	0.025 lb per 8 hrs ⁺¹	8-Hour Average	EU09	SC IV.1, IV.2, IV.3	R 336.1225 R 336.1227(2)
15. Category 3 Pollutants with 8-hour avg time	0.25 lb per 8 hrs ⁺¹	8-Hour Average	EU09	SC IV.1, IV.2, IV.3	R 336.1225 R 336.1227(2)
16. Category 4 Pollutants with 8-hour avg time	2.5 lb per 8 hrs ⁺¹	8-Hour Average	EU09	SC IV.1, IV.2, IV.3	R 336.1225 R 336.1227(2)
17. Category 5 Pollutants with 8-hour avg time	7.6 lb per 8 hrs ⁺¹	8-Hour Average	EU09	SC IV.1, IV.2, IV.3	R 336.1225 R 336.1227(2)

Pollutant ^A	Limit ^{B,C}	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
18. Category 6 Pollutants with 8-hour avg time	30.5 lb per 8 hrs ⁺¹	8-Hour Average	EU09	SC IV.1, IV.2, IV.3	R 336.1225 R 336.1227(2)
19. Category 1 Pollutants with 1-hour avg time	0.0002 pph ¹	Hourly	EU09	SC IV.1, IV.2, IV.3	R 336.1225
20. Category 2 Pollutants with 1-hour avg time	0.001 pph ¹	Hourly	EU09	SC IV.1, IV.2, IV.3	R 336.1225
21. Category 3 Pollutants with 1-hour avg time	0.01 pph ¹	Hourly	EU09	SC IV.1, IV.2, IV.3	R 336.1225
22. Category 4 Pollutants with 1-hour avg time	0.1 pph ¹	Hourly	EU09	SC IV.1, IV.2, IV.3	R 336.1225
23. Category 5 Pollutants with 1-hour avg time	0.28 pph ¹	Hourly	EU09	SC IV.1, IV.2, IV.3	R 336.1225
24. Category 6 Pollutants with 1-hour avg time	1.12 pph ¹	Hourly	EU09	SC IV.1, IV.2, IV.3	R 336.1225
25. VOC and perchloro-ethylene combined	10 pph ²	Hourly	EU09	SC IV.1, IV.2, IV.3	R 336.1702(a)
26. VOC	1,000 lb per month ²	Monthly	EU09	SC IV.1, IV.2, IV.3, VI.9	R 336.1702(a)
27. Particulate matter	0.10 lb / 1000 lbs of dry exhaust gases ²	Hourly ⁺⁺	EU09 (each stack)	SC IV.1, IV.2, IV.3	R 336.1331
28. Ethylene Oxide	0.0006 pph ¹	Hourly	EU09	SC V.1	R 336.1225

^A For the purposes of EU09:

- Category 1 Pollutants are all compounds with a screening level (SL) of 0.02 to <0.1
- Category 2 Pollutants are all compounds with a SL of 0.1 to <1
- Category 3 Pollutants are all compounds with a SL of 1 to <10
- Category 4 Pollutants are all compounds with a SL of 10 to <50
- Category 5 Pollutants are all compounds with a SL of 50 to <100
- Category 6 Pollutants are all compounds with a SL of 100 or greater.
- Screening levels and category criteria are in micrograms per cubic meter.

Screening levels shall be determined according to Rules 231 and 232. The permittee shall use current screening levels determined and listed by the AQD, unless none is listed.

^B For emission limits 1.1 through 1.24 each emission limit applies to the total emission of all pollutants with a screening level with the specified averaging time and falling within the stated category.

^C Each emission limit applies to process vents only and does not include fugitive emissions from the process.

- ** Based on a rolling 12-month time period as determined at the end of each calendar month.
- + This emission limit represents an average over the time stated and is not necessarily the peak one-hour emission rate.
- ++ Based on stack test period for each vent tested.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the portions of EU09 vented to the Flaker Production and Packing Particulate Filter (SVEG9V48) unless the particulate filter is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes, but is not limited to, maintaining the pressure drop across the particulate filter within the range determined by good engineering practice or manufacturer's specifications.² **(R 336.1224, R 336.1225, R 336.1301 R 336.1331, R 336.1910)**
2. The permittee shall not operate the portions of EU09 vented to the Flaker Production and Packing Scrubber (SVEG9V47) unless the scrubber is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes, but is not limited to, a scrubber medium flow rate no less than 10 gallons per minute over a 15-minute average.² **(R 336.1225, R 336.1910)**
3. The permittee shall not operate the portions of EU09 vented to the Amine Process Scrubber (SVEG9V51) unless the scrubber is installed, maintained, and operated in a satisfactory manner. Storage tanks normally venting to the Amine Process Scrubber and operating in compliance with AQD Rule 284 (R 336.1284) may operate during periods when the Amine Process Scrubber is out of service. Satisfactory operation includes, but is not limited to, a scrubber medium flow rate no less than two gallons per minute over a 15-minute average.² **(R 336.1225, R 336.1901, R 336.1910)**
4. The permittee shall equip and maintain the Flaker Production and Packing Particulate Filter (SVEG9V48) with a pressure drop indicator capable of indicating a range that includes the minimum and maximum pressure drop for satisfactory operation.² **(R 336.1910)**
5. The permittee shall equip and maintain the Flaker Production and Packing Scrubber (SVEG9V47) with a liquid flow rate indicator capable of indicating the full range of scrubbing medium flow rates corresponding to satisfactory operation.² **(R 336.1910)**
6. The permittee shall equip and maintain the Amine Process Scrubber (SVEG9V51) with a liquid flow rate indicator capable of indicating the full range of scrubbing medium flow rates corresponding to satisfactory operation.² **(R 336.1910)**

V. TESTING/SAMPLING

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

1. Upon request from the AQD District Supervisor, the permittee shall verify the ethylene oxide emission rates from EU09 by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 63, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan

prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.² **(R 336.1225, 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 monitor, in a satisfactory manner, the pressure drop across the Flaker Production and Packing Particulate Filter (SVEG9V48) on a continuous basis. Monitoring and recording of data "on a continuous basis" is defined as an instantaneous data point recorded at least once every 15 minutes for at least 90% of the operating time during an operating calendar day. In the event the permittee collects more than one data point during the 15-minute period, the data point recorded may be the average (rolling or block) of all data points recorded during the 15-minute period. Any response to an excursion of the corresponding operational parameter set point or range specified in this permit shall be based upon these 15-minute values. Unless otherwise noted in this permit, the permittee is not required to monitor and record operational parameter data during periods of non-operation of the device resulting in cessation of the emissions to which the monitoring applies.² **(R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1910)**
2. The permittee shall conduct a monthly visible emissions check of the Flaker Production and Packing Particulate Filter (SVEG9V48) during routine operating conditions. For the purposes of this condition, such checks do not have to be in accordance with Method 9. If a check reveals any visible emissions, the permittee shall inspect the particulate filter and perform any maintenance required to eliminate visible emissions.² **(R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1910)**
3. The permittee shall monitor, in a satisfactory manner, the scrubbing medium flow rates for the Flaker Production and Packing Scrubber (SVEG9V47) and the Amine Process Scrubber (SVEG9V51) on a continuous basis. Monitoring and recording of data "on a continuous basis" is defined as an instantaneous data point recorded at least once every 15 minutes for at least 90% of the operating time during an operating calendar day. In the event the permittee collects more than one data point during the 15-minute period, the data point recorded may be the average (rolling or block) of all data points recorded during the 15-minute period. Any response to an excursion of the corresponding operational parameter set point or range specified in this permit shall be based upon these 15-minute values. Unless otherwise noted in this permit, the permittee is not required to monitor and record operational parameter data during periods of non-operation of the device resulting in cessation of the emissions to which the monitoring applies.² **(R 336.1910)**
4. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of all materials used in EU09. The records shall include the identity and amount of each material used.² **(R 336.1225, R 336.1702(a))**
5. The permittee shall keep, in a satisfactory manner, a record showing the worst-case dispersion analysis for EU09. The permittee shall keep this record on file for the life of EU09 and for a period of five years after EU09 ceases operations permanently and make the record available to the Department upon request.¹ **(R 336.1225)**
6. The permittee shall keep, in a satisfactory manner, a record of the Flaker Production and Packing Particulate Filter (SVEG9V48) pressure drop, as required by SC VI.1, and of actions taken to prevent reoccurrence.² **(R 336.1910)**
7. The permittee shall keep, in a satisfactory manner, monthly records of the results of the visible emissions checks of the Flaker Production and Packing Particulate Filter (SVEG9V48), as required by SC VI.2, and of any maintenance performed after visible emissions are observed.² **(R 336.1910)**

8. The permittee shall keep, in a satisfactory manner, continuous records of the Flaker Production and Packing Scrubber (SVEG9V47) scrubbing medium flow rate and the Amine Process Scrubber (SVEG9V51) scrubbing medium flow rate, as required by SC VI.3, and of actions taken to prevent reoccurrence.² **(R 336.1910)**
9. Within 30 days following the end of each calendar month, the permittee shall calculate and record emissions from EU09 for the previous calendar month to demonstrate compliance with the monthly and 12-month rolling time period emission limits specified in SC I.1 through I.6 and I.26.² **(R 336.1225, R 336.1702(a))**

See Appendix 3-1

VII. REPORTING

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

VIII. STACK/VENT RESTRICTION(S)

1. The stack height and diameter of each stack or vent in EU09 that emits a toxic air contaminant shall result in emission impacts from the stack or Vent No greater than those specified below. For the purpose of this condition, emission impacts shall be determined using dispersion modeling that complies with Rule 241.¹ **(R 336.1225)**
 - a. One-hour averaging time – 900 micrograms per cubic meter for each gram of pollutant emitted per second ($\mu\text{g}/\text{m}^3$ per g/s)
 - b. Eight-hour averaging time – 300 $\mu\text{g}/\text{m}^3$ per g/s
 - c. 24-hour averaging time – 100 $\mu\text{g}/\text{m}^3$ per g/s
 - d. Annual averaging time – 10 $\mu\text{g}/\text{m}^3$ per g/s

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).

EU10 EMISSION UNIT CONDITIONS

DESCRIPTION

941 Building herbicide production process that will produce Clopyralid, Clopyralid K-salt, Aminopyralid, and Aminopyralid K-salt. The herbicide production process includes the following major equipment and other associated equipment: storage tanks, process vessels, vacuum equipment, filters, solids handling equipment, pumps, and portable containers.

This emission unit is subject to the requirements of 40 CFR Part 63, Subparts A and MMM. In addition, processes subject to Subpart MMM, are also subject to the equipment leak provisions of 40 CFR Part 63, Subpart H, the HON (National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production) as referenced in FGHONFUGITIVES (as specified by 63.1363(b)), as applicable. .

This emission unit was permitted in PTI No. 116-08B.

Flexible Group ID: FGPESTICIDES, FGHONFUGITIVES

POLLUTION CONTROL EQUIPMENT

- Supersack loading activities are controlled by water scrubber SK-4010 (SVEG10V3).
- Drying and packaging operations are controlled by baghouse FL-4900 (SVEG10V30).

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.10 lb / 1,000 lbs of exhaust gases on a dry gas basis ²	Hourly	Portions of EU10 vented through baghouse FL-4900 and water scrubber SK-4010	SC VI.1, VI.2, VI.3, VI.4	R 336.1331
2. Uncontrolled HCL	6.8 Mg/yr (14,991 lb/yr) ²	365 day rolling time period	EU10	SC VI.8	40 CFR Part 63, Subpart MMM

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the portions of EU10 vented to the FL-4900 baghouse unless the baghouse is installed, maintained, and operated in a satisfactory manner. Satisfactory manner includes maintaining the baghouse pressure drop within the range of 0.5 - 9 inches of water (or as otherwise specified by the manufacturer) or any other pressure drop limit demonstrated during stack testing.² (**R 336.1225, R 336.1301, R 336.1331, R 336.1910**)

2. The permittee shall equip and maintain the FL-4900 baghouse with a pressure drop indicator capable of indicating a range that includes the minimum and maximum pressure drop for satisfactory operation.² **(R 336.1331, R 336.1910)**
3. The permittee shall not operate the portions of EU10 vented to the SK-4010 water scrubber unless the water scrubber is installed, maintained, and operated in a satisfactory manner. Satisfactory manner includes maintaining the water flow rate at 4.5 gallons per minute or less, or any other water flow rate demonstrated during stack testing.² **(R 336.1225, R 336.1301, R 336.1331, R 336.1910)**
4. The permittee shall equip and maintain the water scrubber with a water flow rate indicator capable of indicating a range that includes the maximum water flow rate for satisfactory operation.² **(R 336.1331, R 336.1910)**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall monitor the FL-4900 baghouse pressure drop on a continuous basis. Monitoring and recording of data “on a continuous basis” is defined as an instantaneous data point recorded at least once every 15 minutes for at least 90% of the operating time during an operating calendar day. In the event the permittee records more than one data point during the 15-minute period, the data point recorded may be the average (rolling or block) of all data points recorded during the 15-minute period. Any response to an excursion of the corresponding operational parameter set point or range shall be based upon these 15-minute values. Unless otherwise noted in this table, the permittee is not required to monitor and record operational parameter data during periods of non-operation of the device resulting in cessation of the emissions to which the monitoring applies.² **(R 336.1225, R 336.1331, R 336.1910)**
2. The permittee shall keep, in a satisfactory manner, a record of the monitored baghouse pressure drop, and of all actions taken to restore the baghouse to satisfactory operation. The permittee shall keep these records on file and make them available to the Department upon request.² **(R 336.1225, R 336.1331, R 336.1910)**
3. The permittee shall monitor, in a satisfactory manner, the visible emissions from the baghouse (vent no. SVEG10V30) on a monthly basis. The permittee shall monitor visible emissions during routine operation. For the purposes of this condition, such monitoring does not have to be in accordance with Method 9. If monitoring reveals any visible emissions, the permittee shall inspect the baghouse and perform any maintenance required to eliminate visible emissions.² **(R 336.1225, R 336.1331, R 336.1910)**
4. The permittee shall keep, in a satisfactory manner, monthly records of the results of the visible emissions monitoring of the baghouse and of any maintenance performed after visible emissions are observed. The permittee shall keep these records on file and make them available to the Department upon request.² **(R 336.1225, R 336.1331, R 336.1910)**
5. The permittee shall monitor the water scrubber water flow rate on a continuous basis. Monitoring and recording of data “on a continuous basis” is defined as an instantaneous data point recorded at least once every 15 minutes for at least 90 percent of the operating time during an operating calendar day. In the event the permittee records more than one data point during the 15-minute period, the data point recorded may be the average (rolling or block) of all data points recorded during the 15-minute period. Any response to an excursion of the corresponding operational parameter set point or range shall be based upon these 15-minute values. Unless otherwise noted in this table, the permittee is not required to monitor and record operational parameter data during periods of non-operation of the device resulting in cessation of the emissions to which the monitoring applies.² **(R 336.1225, R 336.1331, R 336.1910)**

6. The permittee shall keep, in a satisfactory manner, a record of the monitored SK-4010 water scrubber water flow rate, and of all actions taken to restore the water scrubber to satisfactory operation. The permittee shall keep these records on file and make them available to the Department upon request.² **(R 336.1225, R 336.1331, R 336.1910)**
7. The permittee shall maintain a current list of the materials used in EU10 that are determined to be exempt from the health-based screening level requirement of Rule 225. The list shall include the compound name and CAS Registry Number and a calculation demonstrating the emission rate of each material. The permittee shall keep these records on file and make them available to the Department upon request.¹ **(R 336.1225, R 336.1901)**
8. The permittee shall maintain, in a satisfactory manner, a record of the uncontrolled HCl emission from the sum of all process vents within the process demonstrating compliance with the 6.8 Mg/yr (14,991 lb/yr) emission requirement per 40 CFR 63.1362(b)(3). Within 30 days following the end of the calendar month, the permittee shall calculate and record HCl emissions demonstrating compliance with the 6.8 Mg/yr standard. The permittee shall keep these records on file and make them available to the Department upon request.² **(40 CFR Part 63, Subpart MMM)**

See Appendix 3-1

VII. REPORTING

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

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVEG10V1 ^a (Raw material prep filling loss)	2 ²	3 ²	R 336.1225 40 CFR 52.21(c) and (d)
2. SVEG10V3 ^a (Raw material prep wet scrubber SK-4010)	12 ²	52 ²	R 336.1225 40 CFR 52.21(c) and (d)
3. SVEG10V8 (Reaction area filling loss)	4 ²	55 ²	R 336.1225 40 CFR 52.21(c) and (d)
4. SVEG10V9 (Reaction area filling loss)	4 ²	55 ²	R 336.1225 40 CFR 52.21(c) and (d)
5. SVEG10V10 (Reaction area filling loss)	4 ²	62 ²	R 336.1225 40 CFR 52.21(c) and (d)
6. SVEG10V11 (Reaction area filling loss)	4 ²	62 ²	R 336.1225 40 CFR 52.21(c) and (d)

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
7. SVEG10V12 ^a (Reaction area filling loss)	2 ²	2 ²	R 336.1225 40 CFR 52.21(c) and (d)
8. SVEG10V15 ^a (Production purification filling losses)	2 ²	61 ²	R 336.1225 40 CFR 52.21(c) and (d)
9. SVEG10V18 ^a (Production purification filling losses)	1 ²	48 ²	R 336.1225 40 CFR 52.21(c) and (d)
10. SVEG10V19 ^a (Production purification filling losses)	1 ²	48 ²	R 336.1225 40 CFR 52.21(c) and (d)
11. SVEG10V20 ^a (Product isolation & filling losses)	2 ²	52 ²	R 336.1225 40 CFR 52.21(c) and (d)
12. SVEG10V21 ^a (Product isolation & filling losses)	4 ²	64 ²	R 336.1225 40 CFR 52.21(c) and (d)
13. SVEG10V22 ^a (Product isolation & filling losses)	4 ²	65 ²	R 336.1225 40 CFR 52.21(c) and (d)
14. SVEG10V24 ^a (Waste treatment filling losses)	8 ²	3 ²	R 336.1225 40 CFR 52.21(c) and (d)
15. SVEG10V25 ^a (Waste treatment filling losses)	6 ²	3 ²	R 336.1225 40 CFR 52.21(c) and (d)
16. SVEG10V30 (Product drying baghouse FL-4900)	12 ²	65 ²	R 336.1225 40 CFR 52.21(c) and (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).

**EU12b
EMISSION UNIT CONDITIONS**

DESCRIPTION

The EU12b 2,4-D process unit is a phenoxy herbicide manufacturing plant. Equipment includes: reactors, distillation/fractionation columns, separators, storage tanks/silos and related equipment. Manufacturing equipment is located in 948 Building. Process vents are treated by the VS-1011/T-1010 scrubbing system and then by either the THROX located in 963 Building or the 948 carbon adsorber system. The 948 carbon adsorber system is also used as a backup control device for the 2,4-D salt herbicide process located in 959 Building (EU03).

This emission unit is subject to the requirements of 40 CFR Part 63, Subparts A, EEEE, and MMM. In addition, processes subject to MMM are also subject to the equipment leak provisions of 40 CFR Part 63, Subpart H (National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks) as specified in Section 63.1363(b), as applicable.

This emission unit was permitted in PTI 108-19A.

Flexible Group ID: FG963THROX (SRN P1027), FGPESTICIDES , FGHONFUGITIVES , FGOLDMACT

POLLUTION CONTROL EQUIPMENT

- Caustic scrubber system consisting of VS-1011 and T-1010, a two-stage scrubber system consisting of a venturi scrubber and a packed tower scrubber in series. The caustic scrubber system is part of a device train that typically vents to the 963 THROX (SRN P1027). When the TTU is not available, this scrubber is used to comply with HCl/Cl₂ emission requirements of 40 CFR Part 63, Subpart MMM, and the device train vents to the carbon adsorber system.
- Afterburner (THROX – thermal heat recovery oxidation unit located in 963 Building followed by a quench and scrubber).
- Carbon adsorber system located near 948 Building, for a maximum of 31 days (744 hours) per year when the THROX is not available.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	10 lb/yr ^{2, A}	12-month rolling time period as determined at the end of each calendar month	EU12b	SC VI.3	R 336.1702(a)

^A This limit does not include fugitive emissions (i.e., emissions from leaking valves, flanges, etc.) from the emission unit.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall replace the carbon in the carbon adsorber system as needed in order to maintain a minimum organic hazardous air pollutants control efficiency of 98% and to comply with the requirements of 40 CFR Part 63, Subpart MMM. Compliance with this condition shall be determined according to the requirements of FGPESTICIDES.² **(40 CFR Part 63, Subpart MMM)**

2. The permittee shall not start unloading perchloroethylene from any tank truck unless the afterburner (THROX) is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the THROX shall be determined according to the requirements of FG963THROX (SRN P1027) and FGPESTICIDES . If the THROX goes off-line after a perchloroethylene unload has started, the unload may proceed provided the emissions generated by the unload are stored and vented to the THROX when the control device resumes normal operation as defined in FG963THROX (SRN P1027).² **(R 336.1910)**
3. The permittee shall not exhaust emissions from EU12b to the carbon adsorber system for more than 744 hours per year, based on a 12-month rolling time period as determined at the end of each calendar month.² **(R 336.1225, R 336.1702(a))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain the caustic scrubber system (VS-1011 and T-1010) with liquid flow indication devices in a configuration that allows the determination of the liquid flow to each stage of the caustic scrubber system.² **(R 336.1910)**
2. The permittee shall not operate equipment that causes emissions from EU12b unless the caustic scrubber system (VS-1011 and T-1010) is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the caustic scrubber system shall include maintaining the minimum flow rate through each stage of the scrubber system that complies with the operating parameters established for the scrubber system under 40 CFR Part 63, Subpart MMM. The equipment and emissions listed below are not subject to this requirement.² **(R 336.1224, R 336.1910, 40 CFR Part 63 Subpart MMM)**
 - a. Emissions from the water recycle tanks (V-905, V-4305E, and V-4305W).
 - b. Emissions from V-1010 liquid neutralization.
3. The permittee shall not operate equipment that causes emissions from the process vents in EU12b unless either the afterburner (THROX) or the carbon adsorber system is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the THROX shall be determined according to the requirements of FG963THROX (SRN P1027) and FGPESTICIDES and includes attaining at least 99.9 percent destruction of organic compounds exhausted to the device. Satisfactory operation of the carbon adsorber system shall be determined according to the requirements of FGPESTICIDES and includes attaining at least 98 percent removal of organic compounds exhausted to the device.² **(R 336.1225, R 336.1702(a), R 336.1910, 40 CFR Part 63 Subpart MMM)**

V. TESTING/SAMPLING

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

1. Performance tests on FG963THROX-1(See ROP for SRN P1027) may be required in accordance with an AQD approved test plan to verify the emission rates from portions of EU12b venting to FG963THROX-1. **(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 monitor and record, on a continuous basis, the liquid flow rate for each stage of the caustic scrubber system (VS-1011 and T-1010) in accordance with the requirements of FGPESTICIDES. Unless otherwise noted in this permit, the permittee is not required to monitor and record operational parameter data during periods of non-operation of the device resulting in cessation of the emissions to which the monitoring applies.² **(R 336.1910, 40 CFR Part 63, Subpart MMM)**

2. The permittee shall monitor and record, on a continuous basis, the flow indicators at the entrance to any bypass line that could divert the vent stream from the afterburner closed vent line to the carbon adsorption system. The flow indicator used to comply with this provision will be the bypass vent valve position. For the purpose of this condition, "on a continuous basis" is defined as an instantaneous data point recorded at least once every 15 minutes.² **(R 336.1910)**
3. Within 30 days following the end of each calendar month, the permittee shall calculate and record emissions from EU12b for the previous calendar month to demonstrate compliance with the emission limit specified in SC I.1. The permittee shall keep these records on file at the facility and make them available to the AQD upon request.² **(R 336.1702(a))**
4. Within 30 days following the end of each calendar month, the permittee shall record, in a satisfactory manner, the monthly and 12-month rolling time period number of hours that process vents from EU12b exhausted to the carbon adsorber system. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1225, R 336.1702(a))**
5. The permittee shall implement and maintain a plan identifying the operating parameters for FG963THROX that shall be obtained from the operator or owner of FG963THROX. All operating parameter data in the plan for FG963THROX shall be obtained within 30 days of the end of the month to which it pertains. If the plan fails to provide adequate information to demonstrate 99.9% destruction of organic compounds, the permittee shall amend the plan. The permittee shall also amend the plan within 45 days after receiving notification from the AQD District Supervisor that the plan does not provide adequate information to demonstrate 99.9% destruction of organic compounds. The permittee shall keep the plan and recorded parameter data on file at the facility and make them available to the Department upon request.² **(R 336.1910)**

See Appendix 3-1

VII. REPORTING

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

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV12005 (carbon system atmospheric vent)	4 ²	20 ²	R 336.1225 40 CFR 52.21(c) and (d)

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
2. SV963THROX ^A	18 ²	80 ²	R 336.1225 40 CFR 52.21(c) and (d)

^A This stack's requirements also appear in the conditions for FG963THROX (SRN P1027).

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).

EU1028 EMISSION UNIT CONDITIONS

DESCRIPTION

The Spinetoram manufacturing process at 1028 Building includes reactors, storage tanks, and other process vessels and receivers, along with ancillary equipment. Emission controls include vents to FG954THROX, condensers, dust collectors for emissions from solids loading and product packaging. This emission unit is subject to 40 CFR Part 63, Subparts A, F, and MMM and to the equipment leak provisions of 40 CFR Part 63, Subpart H.

This emission unit was permitted in PTI No. 84-21.

Flexible Group ID: FGPESTICIDES, FGHONFUGITIVES, FG954THROX

POLLUTION CONTROL EQUIPMENT

- FG954THROX (Thermal Treatment Unit 954, including absorber/quench T-3601 and scrubber T-3602)
- Two condensers
 - E-226 – V-226 hydrogenation vent exhausts to SVEU102801 from one vessel
 - E-435 and knock-out pots prior to exhausting to 954 THROX from several vessels, filtration, and drying
- Two HEPA filters in series
 - DC-215 and DC-216 – exhaust to SVEU102802 from raw material handling
- One dust collector with a HEPA filter
 - DC-235 – exhausts to SVEU102803 from packaging operations

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.10 pph ²	Hourly	EU1028 operations exhausted through SVEU102802	SC VI.3, VI.4	R 336.1224, R 336.1225, R 336.1331, 40 CFR 52.21(c) and (d)
2. PM	0.41 pph ²	Hourly	EU1028 operations exhausted through SVEU102803	SC VI.3, VI.4	R 336.1224, R 336.1225, R 336.1331, 40 CFR 52.21(c) and (d)
3. VOC	1.2 tpy ²	12-month rolling time period as determined at the end of each calendar month	EU1028	SC VI.2	R 336.1702(a)
4. Ethyl bromide (CAS 74-96-4)	30.3 lbs/month ¹	Calendar month	EU1028	SC VI.5	R 336.1225

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not charge solids to V-215 unless the DC-215 and DC-216 dust collectors are installed, maintained, and operated in a satisfactory manner acceptable to the AQD District Supervisor.² **(R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) and (d))**
2. The permittee shall not dry or package product in EU1028 unless the DC-235 dust collector and the DC-235 HEPA filter are installed, maintained, and operated in a satisfactory manner acceptable to the AQD District Supervisor.² **(R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) and (d))**
3. The permittee shall not operate equipment in EU1028 that vents to the 954 THROX unless condenser E-435 and the FG954THROX and scrubber are installed, maintained, and operated in a satisfactory manner acceptable to the AQD District Supervisor. Satisfactory operation of condenser E-435 includes maintaining a coolant return temperature less than 5 degrees Celsius. Satisfactory operation of the FG954THROX and scrubber includes meeting the requirements of FG954THROX and attaining at least 99.0% destruction of organic compounds in the FG954THROX and at least 99% removal of hydrogen bromide in the absorber/quench and scrubber.² **(R 336.1224, R 336.1225, R 336.1702(a), R 336.1910)**
4. The permittee shall not operate equipment in EU1028 that vents to condenser E-226 unless condenser E-226 is installed, maintained, and operated in a satisfactory manner acceptable to the AQD District Supervisor.² **(R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain E-435 condenser with a device to indicate the coolant return temperature.² **(R 336.1224, R 336.1225, R 336.1702(a), R 336.1910)**
2. The permittee shall equip and maintain E-226 condenser with a device to indicate the coolant return temperature.² **(R 336.1910)**

V. TESTING/SAMPLING

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

1. Upon request from the AQD District Supervisor, the permittee shall verify hydrogen bromide emission rates and/or removal efficiency from EU1028 by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A or 40 CFR Part 63, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.² **(R 336.1224, R 336.1225, R 336.2001)**
2. Performance tests on FG954THROX may be required in accordance with an AQD approved test plan to verify the emission rates from portions of EU01 venting to FG954THROX. **(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 before testing of the time and place performance tests will be conducted. **(R 336.1213(3))**

See Appendix 5-1

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 and 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 336.1224, R 336.1225, R 336.1702(a), R 336.1910)**
2. The permittee shall calculate the VOC emission rates from EU1028 for each calendar month and for the 12-month rolling time period ending that month 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))**
3. The permittee shall monitor SVEU102802 and SVEU102803 to verify the dust collectors are operating properly, by taking visible emission readings for each a minimum of once per calendar month. Either a certified or non-certified reader shall take each visible emission reading during routine operating conditions. Such readings do not have to be conducted per the requirements of Method 9. Multiple stacks may be observed simultaneously. If any visible emissions (other than uncombined water vapor) are observed, the permittee shall immediately inspect the pertinent dust collector and perform any required maintenance.² **(R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) and (d))**
4. The permittee shall keep, in a satisfactory manner, records of all visible emission readings for SVEU102802 and SVEU102803. At a minimum, records for each reading shall include the date, the name or initials of the observer, the status of visible emissions, and any corrective action that was taken. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) and (d))**
5. The permittee shall calculate the ethyl bromide (CAS 74-96-4) emission rates from EU1028 for each calendar month 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)**
6. The permittee shall maintain a current list of the materials used in EU1028 that are determined to be exempt from the health-based screening level requirement of Rule 225. The list shall include the compound name and CAS number and a calculation demonstrating the emission rate of each material. The permittee shall keep all records on file at the facility and make them available to the Department upon request.¹ **(R 336.1901)**
7. The permittee shall monitor and record, on a continuous basis, the coolant return temperature of condenser E-435 with instrumentation acceptable to the AQD. For the purposes of this condition, "on a continuous basis" is defined as an instantaneous data point recorded at least once every 15 minutes for at least 90% of the operating time. The permittee may record block average values for 15 minute or shorter periods calculated from all measured data values during each period. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1224, R 336.1225, R 336.1702(a), R 336.1910)**
8. The permittee shall monitor and record, on a continuous basis, the coolant return temperature of condenser E-226 with instrumentation acceptable to the AQD. For the purposes of this condition, "on a continuous basis" is defined as an instantaneous data point recorded at least once every 15 minutes for at least 90% of the operating time. The permittee may record block average values for 15 minute or shorter periods calculated from all measured data values during each period. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1910)**

See Appendix 3-1

VII. REPORTING

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

2. 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 8-1

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV954THROX (954 THROX) ^A	24 ²	60 ²	R 336.1225 40 CFR 52.21(c) and (d)
2. SVEU102801 (E-226 vent)	1.5 ²	89 ²	R 336.1225 40 CFR 52.21(c) and (d)
3. SVEU102802* (DC-216 vent)	1.5 ²	57 ²	R 336.1225 40 CFR 52.21(c) and (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).

EU1200 EMISSION UNIT CONDITIONS

DESCRIPTION

The spinosyns manufacturing process at 1200 Building with storage tanks, transfer racks, and equipment for fermentation, crystallization, filtration, product drying, water treatment, and extraction. Process vents are exhausted to a regenerative thermal oxidizer. Product drying includes a recovery filter followed by an emission control fabric filter dust collector that exhausts to a regenerative thermal oxidizer. Product packaging is exhausted through a venturi style dust collector with a HEPA filter to the ambient air. This emission unit is subject to the requirements of 40 CFR Part 63, Subpart FFFF (MON) and 40 CFR Part 63, Subpart EEEE (OLD). EU1200 is also subject to the equipment leak provisions of the HON (i.e., 40 CFR Part 63, Subpart H).

This emission unit was permitted in PTI No. 37-20B.

Flexible Group ID: FGHONFUGITIVES, FGMONMACT, FGOLDMACT

POLLUTION CONTROL EQUIPMENT

Two identical regenerative thermal oxidizers (RTOs), each with a maximum heat input rating of 5.78 MMBTU/hr and an average heat input rating of 3.83 MMBTU/hr. One RTO provides adequate capacity for the process emissions. The process normally operates with both RTOs online to ensure continuous process operation if one must be shut down.

- a. RTO-1870
- b. RTO-1875

The F-1586 filter is a cartridge filter using pulsed nitrogen to knock down accumulated dust. The F-1586 filter receives the exhaust from the product recovery filter. The exhaust from the F-1586 filter is pulled through a vacuum pump and sent to the RTOs.

The DC-1583A industrial hygiene filter exhausts to ambient air. It is a venturi style dust collector industrial vacuum the in-plant environment. It is an industrial vacuum equipped with a HEPA filter.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Organic HAP ^A	20 ppmv or 98% destruction ²	Hourly	EU1200 emissions exhausted through RTO-1870	SC VI.2	40 CFR 63.2455(a)
2. Organic HAP ^A	20 ppmv or 98% destruction ²	Hourly	EU1200 emissions exhausted through RTO-1875	SC VI.2	40 CFR 63.2455(a)
3. VOC and acetone combined	20 ppmv ²	Hourly	EU1200 process vents	SC VI.2	R 336.1205(1) R 336.1702(a)
4. VOC and acetone combined	18.5 tpy ^{2,B}	12-month rolling time period as determined at the end of each calendar month	EU1200	SC VI.3	R 336.1224 R 336.1702(a)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
5. PM	0.006 lb/1000 lb of exhaust gas, calculated on a dry gas basis ²	Hourly	EU1200 emissions exhausted through RTO-1870	SC V.1	R 336.1331
6. PM	0.006 lb/1000 lb of exhaust gas, calculated on a dry gas basis ²	Hourly	EU1200 emissions exhausted through RTO-1875	SC V.1	R 336.1331
7. PM10	8.9 tpy ²	12-month rolling time period as determined at the end of each calendar month	EU1200	SC VI.5	40 CFR 52.21(c) and (d)
8. PM2.5	8.9 tpy ²	12-month rolling time period as determined at the end of each calendar month	EU1200	SC VI.5	40 CFR 52.21(c) and (d)
9. Ammonia (CAS Number 7664-41-7)	0.75 lb/hr ^{1,B}	Hourly	EU1200	SC V.2	R 336.1224 R 336.1225
10. Formic acid (CAS Number 64-18-6)	1,889 lb/yr ^{1,B}	12-month rolling time period as determined at the end of each calendar month	EU1200	SC VI.6	R 336.1225
11. Formaldehyde (CAS Number 50-00-0)	0.40 lb/hr ^{1,B}	Hourly	EU1200	SC V.1	R 336.1225 R 336.1226(d)

^A "Organic HAP" refers to organic HAP listed in section 112(b) of the federal Clean Air Act.

^B This emission limit does not include fugitive emissions (i.e., emissions from leaking valves, flanges, etc.) from the emission unit.

12. Visible emissions from EU1200 emissions exhausted through SV12003 shall not exceed a six-minute average of 5 percent opacity.² (R 336.1301, R 336.1331)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate equipment that vents to the following control devices unless a malfunction abatement plan (MAP), as described in Rule 911(2), is implemented and maintained for each control device:

Control Device	Description
RTO-1870	Regenerative Thermal Oxidizer w/maximum heat input rate of 5.78 MMBTU/hr
RTO-1875	Regenerative Thermal Oxidizer w/maximum heat input rate of 5.78 MMBTU/hr
F-1586	Process dryer cartridge filter using pulsed nitrogen to knock down accumulated dust. F-1586 exhausts to the RTOs
DC-1583A	Venturi style dust collector industrial vacuum equipped with a HEPA filter.

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 336.1224, R 336.1225, R 336.1226(d), R 336.1331, R 336.1702(a), R 336.1910, R 336.1911, 40 CFR 52.21(c) and (d))**

2. The permittee shall not operate the portions of EU1200 ducted to the RTOs unless at least one RTO is installed, maintained, and operated in a satisfactory manner, as described below. Satisfactory operation of each RTO includes all the following:² **(R 336.1224, R 336.1225, R 336.1226(d), R 336.1702(a), R 336.1331, R 336.1910)**
 - a. A maximum combined VOC and acetone outlet concentration of 20 ppmv;
 - b. Maintaining a minimum combustion chamber temperature as specified in the approved MAP;
 - c. Maintaining within the ranges specified in the MAP as indicating satisfactory operation of an RTO any other operating parameters identified in the MAP as pertaining to satisfactory operation of an RTO.
3. The permittee shall not operate the product dryer unless dust collector F-1586 and at least one RTO are installed, maintained, and operated in a satisfactory manner. Satisfactory operation of dust collector F-1586 includes a pressure drop across the filter within the range specified in the MAP as representing satisfactory operation of the dust collector. Satisfactory operation of any RTO includes meeting the requirements in SC III.2.b and III.2.c for that RTO.² **(R 336.1331, R 336.1910)**
4. The permittee shall not operate the product packaging unless dust collector DC-1583A and the HEPA filter are installed, maintained, and operated in a satisfactory manner. Satisfactory operation of dust collector DC-1583 includes performing maintenance activities and operation of DC-1583A as specified in the MAP.² **(R 336.1331, R 336.1910, 40 CF 52.21 (c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a device to monitor and record the temperature of each RTO on a continuous basis. For the purpose of this condition, monitoring and recording of data "on a continuous basis" is defined as an instantaneous data point recorded at least once every 15 minutes for at least 90% of the operating time during an operating calendar day. In the event the permittee collects more than one data point during the 15-minute period, the data point recorded may be the average (rolling or block) of all data points recorded during the 15-minute period. Any response to an excursion of the corresponding operational parameter set point or range specified in this permit shall be based upon these 15-minute values. Unless otherwise noted in this permit, the permittee is not required to monitor and record operational parameter data during periods of non-operation of the device resulting in cessation of the emissions to which the monitoring applies.² **(R 336.1224, R 336.1225, R 336.1226(d), R 336.1331, R 336.1702(a), R 336.1910, 40 CFR 64.6(c), 40 CFR 64.7(b)64.9(b)(1))**
2. The permittee shall equip and maintain dust collector F-1586 with a pressure drop indicator.² **(R 336.1331, R 336.1910)**
3. The permittee shall equip and maintain dust collector DC-1583A with a vacuum indicator.² **(R 336.1331, R 336.1910, 40 CFR 52.21 (c) & (d))**

V. TESTING/SAMPLING

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

1. Within 365 days after transfer of an inoculated broth to the first fermenter, and upon request of the AQD District Supervisor thereafter, the permittee shall verify the PM emission rate, the PM10 emission rate, the PM2.5 emission rate, the formaldehyde emission rate, and the combined VOC and acetone emission rate from each RTO by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below.

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
PM10 / PM2.5	40 CFR Part 51, Appendix M
Formaldehyde	40 CFR Part 60, Appendix A; 40 CFR Part 63, Appendix A
Combined VOC and acetone	40 CFR Part 60, Appendix A, 40 CFR Part 63, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.² (R 336.1205, R 336.1224, R 336.1226(d), R 336.1702(a), R 336.1902, R 336.2001, R 336.2003, R 336.2004)

- No later than 365 days after transfer of an inoculated broth to the first fermenter, and upon request of the AQD District Supervisor thereafter, the permittee shall conduct a one-time test at owner's expense, in accordance with Department requirements, to verify the ammonia emission rate and determine the emission factor for formic acid (CAS Number 64-18-6) from each RTO. Testing shall be performed using an approved EPA Method listed in the table below.

Pollutant	Test Method Reference
Ammonia	40 CFR Part 63, Appendix A, ASTM D6348, Conditional Test Method 027
Formic acid	Method M320 or ASTM D6348

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.² (R 336.1224, R 336.1225, R 336.1902, R 336.2001, R 336.2003, R 336.2004)

- 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))

- The permittee shall complete all required calculations and 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 336.1224, R 336.1226(d), R 336.1702(a), R 336.1910)
- The permittee shall monitor and record, in a satisfactory manner, the combustion chamber temperature for each RTO. The frequency of monitoring and recording of temperatures shall be as described in SC IV.1.² (R 336.1226(d), R 336.1910)
- The permittee shall calculate the combined VOC and acetone emission rate from EU1200 monthly, for the preceding 12-month rolling time period, using a method acceptable to the AQD District Supervisor.² (R 336.1224, R 336.1702(a))

4. The permittee shall maintain a current list of the materials emitted from EU1200 that are determined to be exempt from the health-based screening level requirement of Rule 225 pursuant to Rule 226(a). The list shall include the compound name and CAS number and a calculation demonstrating the emission rate of each material. The permittee shall keep all records on file at the facility and make them available to the Department upon request.¹ **(R 336.1225)**
5. The permittee shall calculate the PM10 and PM2.5 emission rates from EU1200 monthly, for the preceding 12-month rolling time period, using a method acceptable to the AQD District Supervisor.² **(40 CFR 52.21(c)&(d))**
6. The permittee shall calculate the emission rate of formic acid (CAS Number 64-18-6) from EU1200 monthly, for the preceding 12-month rolling time period, using a method acceptable to the AQD District Supervisor.¹ **(R 336.1225)**
7. The permittee shall monitor dust collector DC-1583A to verify it is operating properly, by taking visible emission readings for its exhaust a minimum of once each shift during packaging activities. Either a certified or non-certified reader shall take each visible emission reading during routine operating conditions. If any visible emissions (other than uncombined water vapor) are observed, the permittee shall immediately inspect dust collector DC-1583A and perform any required maintenance.² **(R 336.1910)**
8. The permittee shall keep, in a satisfactory manner, records of all visible emission readings for dust collector DC-1583A. At a minimum, records shall include the date, time, name of observer/reader, whether the reader is certified, the status of visible emissions, and any maintenance performed as a result of the visible emissions reading. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1910)**
9. The permittee shall monitor and record, in a satisfactory manner, the pressure drop across dust collector F-1586. The frequency of monitoring and recording of pressure drop shall be as described in the MAP.² **(R 336.1331, R 336.1910)**
10. The permittee shall monitor and record, in a satisfactory manner, the vacuum indicator of dust collector DC-1583A. The frequency of monitoring, operating range, and recording of vacuum shall be as described in the MAP.² **(R 336.1331, R 336.1910)**

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))**
5. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than transfer of an inoculated broth to the first fermenter.² **(R 336.1201(7)(a))**
6. The permittee shall notify the Department if a change in land use occurs for the Tittabawassee River to the southwest of the TTU vents, where this classification was relied upon to demonstrate compliance with Rule 225.

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. The plan shall require compliance with Rule 225 no later than one year after the due date of the plan submittal.¹ **(R 336.1226(d))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-12001 (RTO-1870)	36 × 78 ²	35 ²	R 336.1225, R 336.1226(d), 40 CFR 52.21(c) and (d)
2. SV-12002 (RTO-1875)	36 × 78 ²	35 ²	R 336.1225, R 336.1226(d), 40 CFR 52.21(c) and (d)
3. SV-12003 (DC-1583A)*	8 ²	6.6 ²	40 CFR 52.21(c)&(d)

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

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 FFFF for Miscellaneous Organic Chemical Manufacturing by the compliance date.² **(40 CFR Part 63, Subparts A and FFFF)**
2. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart EEEE for Organic Liquid Distribution by the compliance date.² **(40 CFR Part 63, Subparts A and EEEE)**

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
FG954THROX	<p>The FG954THROX control consists of the 954 TTU with absorber/quench and packed bed caustic and sodium thiosulfate scrubber located at 954 building. The 954 TTU is a 20,000 BTU/hr fire tube boiler located at 954 Building referred to as TTU-954. This boiler burns natural gas and process waste from various emission units at the Dow iPark. The design vapor flow rate of the absorber/quench is 4470 SCFM and the absorbing media used is water. The design vapor flow rate of the scrubber is 6050 scfm and the absorbing media used is water, caustic, and sodium thiosulfate</p> <p>This THROX is subject to 40 CFR Part 63, Subparts MMM, FFFF, UUUU, and U. In addition, by virtue of being subject to these regulations, FG954THROX is also subject to the equipment leak provisions of the HON (i.e., 40 CFR Part 63, Subpart H).</p> <p>FG954THROX is a CAM subject emission unit subject to the requirements of 40 CFR Part 64. The CAM subject pollutants for this emission unit are VOC and HAPs.</p> <p>This flexible group was permitted in PTI No. 345-06.</p>	EU01, EU02, EU06-LOWPURITY (See SRN:P1027), EU06-HIGHPURITY (See SRN P1027), EU08 (See SRN: P1027), EU91 (See SRN: P1025), EU1028, EUB2 (See SRN: P1027-backup control), EUB5 (See SRN: P1027)
FGPESTICIDES	Emission units subject to the requirements of 40 CFR Part 63, Subparts A (General Provisions) and MMM (National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production).	EU01, EU02,EU03, EU09, EU10, EU12b, EU1028, EURULE290, FG954THROX
FGRULE703	<p>Any new or future storage vessel subject to the requirements of R 336.1703 (Rule 703). Storage vessels subject to AQD Rule 703 are those which meet the following criteria:</p> <ol style="list-style-type: none"> 1. Receive gasoline from a delivery vessel into any new stationary vessel of more than 2000-gallon capacity located at any gasoline dispensing facility; <p>AND</p>	EURULE703

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
	2. Were placed into operation on or after July 1, 1979, or for which an application for a permit to install, pursuant to the provisions of Part 2 of Act 451 is made to EGLE on or after July 1, 1979, or both, except for any process or process equipment which is defined as an "existing source" under R 336.1601.	
FGRULE290	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rule 278, Rule 278a, and Rule 290. Emission units installed/modified before December 20, 2016, may show compliance with Rule 290 in effect at the time of installation/modification.	EURULE290
FGCOLDCLEANERS	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.	EUCOLDCLEANER
FGHONFUGITIVES	Emission units subject to the requirements of 40 CFR Part 63, Subparts A (General Provisions) and H (HON for Equipment Leaks).	EU01, EU02, EU03, EU09, EU10, EU12b, EU1200, EU1028, EURULE290, FG954THROX
FGOLDMACT	Each new, reconstructed, or existing Organic Liquid Distribution (OLD) (non-gasoline) operation that is part of an emission unit subject to the requirements of 40 CFR Part 63, Subpart EEEE. The 40 CFR Part 63, Subpart EEEE affected source is comprised of storage tanks, transfer racks, equipment leak components associated with storage tanks, transfer racks and pipelines, transport vehicles, and all containers while loading or unloading at transfer racks subject to Subpart EEEE. Equipment listed in 40 CFR 63.2338(c) that is part of an affected source under another National Emission Standards for Hazardous Air Pollutants is excluded from the affected source.	EU01, EU02, EU09, EU12b, EU1200, EURULE290
FGMONMACT	These conditions apply to miscellaneous organic chemical manufacturing process units (MCPU) that are located at, or are part of, a major source as defined in section 112(a) of the Clean Air Act and that meet all the criteria specified in 40 CFR Part 63, Subpart FFFF (40 CFR 63.2435). Specified processes are further defined in 40 CFR 63.2440.	EU09, EU1200, EURULE290, FG954THROX
FGBOILERS21&22	<p>Backup package boilers nos. 21 and 22 used to supply the Midland Dow I-park with steam. Boilers burn natural gas. Each boiler has a maximum design heat input capacity equal to 357 MMBTU/hr. Equipment located at 879 Building.</p> <p>FGBOILERS21&22 is subject to 40 CFR Part 63, Subparts A and DDDDD (Industrial, Commercial and Institutional Boilers and Process Heaters – Major Sources).</p> <p>This flexible group was permitted in PTI No. 916-84.</p>	EUBOILER21, EUBOILER22, FGBOILERMACT>10MMB TU

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGBOILERMACT>10MMBTU	Requirements for 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	EUBOILER21, EUBOILER22
FGBOILERMACT <10MMBTU	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.	EU-FH-1000 in Garlon, EURULE290
FGEMERGCIRICE	Emergency diesel fuel engines subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE). Title 40 of the Code of Federal Regulations (CFR) Part 63, Subpart ZZZZ (40 CFR 63.6580-6675). The engines are regulated as existing compression (CI) emergency RICE with a maximum site rate of less than 500 brake horsepower (HP) and greater than 500 brake horsepower (HP) located at a Major Source of HAP emissions.	EUEMERGCIRICE
FGEMERGSIRICE	Emergency generators subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE). Title 40 of the Code of Federal Regulations (CFR) Part 63, Subpart ZZZZ. The engines are regulated as existing spark ignition (SI) emergency RICE with a maximum site rate of less than 500 brake horsepower (HP) located at a Major Source of HAP emissions.	EUEMERGSIRICE

FG954THROX FLEXIBLE GROUP CONDITIONS

DESCRIPTION

The FG954THROX control consists of the 954 TTU with absorber/quench and packed bed caustic and sodium thiosulfate scrubber located at 954 building. The 954 TTU is a 20,000 BTU/hr fire tube boiler located at 954 Building referred to as TTU-954. This boiler burns natural gas and process waste from various emission units at the Dow iPark. The design vapor flow rate of the absorber/quench is 4470 SCFM and the absorbing media used is water. The design vapor flow rate of the scrubber is 6050 scfm and the absorbing media used is water, caustic, and sodium thiosulfate.

Processes venting to the FG954THROX include:

- Corteva SRN P1028 ROP Emission units: EU01, EU02, EU1028
- DPP SRN P1027 ROP Section 1 Emission Unit: EU06-LOWPURITY (Back up control)
- N&B SRN P1027 ROP Section 2 Emission units: EU06-HIGHPURTIY, EUB2, EUB5, EU08 (All these EUs in SRN P1027 ROP Section 2 emission units use FG954THROX as back up control)
- Trinseo SRN P1025 ROP Emission unit: EU91 (Only for Sphere maintenance)

FG954THROX operations are controlled by Corteva SRN P1028. The operator control room is located in the 954 building.

FG954THROX control equipment sequence is the 954 THROX (thermal heat recovery oxidizer), followed by the 954 THROX Absorber/Quench (T-3601), followed by the 954 THROX Scrubber T-3602.

The absorber/quench receives the exhaust from the 954 THROX and can also receive exhaust directly from the anhydrous HCl distribution system in EU06-LOWPURITY in Section 1 ROP for SRN P1027) and EU06-HIGHPURITY in Section 2 ROP for SRN P1027.

The 954THROX is subject to 40 CFR Part 63, Subparts MMM, FFFF, UUUU, and U. In addition, by virtue of being subject to these regulations, FG954THROX is also subject to the equipment leak provisions of the HON (i.e., 40 CFR Part 63, Subpart H).

FG954THROX is a CAM subject emission unit subject to the requirements of 40 CFR Part 64. The CAM subject pollutants for this emission unit are VOC and HAPs. CAM subject emission units included in the ROP for SRN P1027 at the DDP and N&B facilities use the FG954THROX as backup control in the event the emission units process emission control devices normally used for CAM subject emission units are not available.

EUB2 (SRN P1027 Section 2) is CAM subject for VOCs and PM10 but only vents processes subject to CAM for VOCs to FG954THROX as a backup control when 963THROX (SRN P1027 Section 1) is unavailable.

The anhydrous HCl distribution system in EU06-LOWPURITY (SRN P1027 Section 1) and EU06-HIGHPURITY (SRN P1027 Section 2) are CAM subject for HAPs/HCL but only vent to FG954THROX as a backup control when FGHCLSCRUBBER (SRN P1027 Section 1) is unavailable.

EUB5 (SRN P1027 Section 2) is CAM subject for PM10 but does not exhaust any CAM subject vents to FG954THROX.

FG954THROX was most recently permitted in PTI No. 345-06. Emission units that vent to it were permitted in other PTIs and incorporated into an ROP issued to the emission unit owner.

Emission Units:

Corteva SRN P1028 ROP Emission units: EU01, EU02, EU1028
DPP SRN P1027 ROP Section 1 Emission Unit: EU06-LOWPURITY (Back up control)
N&B SRN P1027 ROP Section 2 Emission units: EU06-HIGHPURTIY, EUB2, EUB5 EU08 (all SRN P1027 ROP Section 2 emission units use FG954THROX as back up control)
Trinseo (SRN P1025) ROP Emission units: EU91 (only for Sphere maintenance)

POLLUTION CONTROL EQUIPMENT

- 954-TTU (Thermal Treatment Unit 954) This is a CAM Subject Control device for VOC and HAPs
- Absorber/Quench T-3601 (water quench column “No. 1”)
- Scrubber T-3602 (packed bed caustic and sodium thiosulfate scrubber “No. 1”). This is a CAM subject control device for HAPs.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Hydrogen Chloride	12 mg / m ³ corrected to 70°F and 29.92 inches Hg ¹	Hourly	FG954THROX	SC VI.1	R 336.1224 R 336.1225
2. Chlorine	140 mg / m ³ corrected to 70°F and 29.92 inches Hg ¹	Hourly	FG954THROX	SC VI.1	R 336.1224 R 336.1225
3. PCDDs & PCDFs*	7.0 ng / dscm ¹	Hourly	FG954THROX	SC VI.1	R 336.1224 R 336.1225
4. PCDDs & PCDFs**	1.35 x 10 ⁻⁷ pph ¹	Hourly	FG954THROX	SC VI.1	R 336.1224 R 336.1225

* Total Polychlorinated Dibenzo-p-dioxins (PCDDs), including all tetra through octa isomers, and total Polychlorinated Dibenzofurans (PCDFs), including all tetra through octa isomers, as 2,3,7,8-TCDD Toxic Equivalents. To be calculated using the U.S. EPA toxic equivalency factors in Appendix 7-1.

** Total Polychlorinated Dibenzo-p-dioxins (PCDDs), including all tetra through octa isomers, and total Polychlorinated Dibenzofurans (PCDFs), including all tetra through octa isomers, as 2,3,7,8-TCDD Toxic Equivalent Factor (I-TEFs/89).

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The exit gas temperature of TTU-954 shall be maintained at a minimum of 760°C (1400°F), or any other limit demonstrated during stack testing. Compliance with this limit shall be determined per the applicable federal standard. An excursion of the exit gas temperature limit is the exceedance of the operational parameter limit or acceptable range defined in this condition or demonstrated during stack testing. Upon detecting an excursion of the exit gas temperature limit, the permittee shall restore operation of the 954 TTU to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown, or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions).² (R 336.1225, R 336.1702(a), R 336.1910, 40 CFR Part 63, Subparts U, MMM, FFFF, UUUU)

2. The excess oxygen in the exhaust gases of TTU-954 shall be maintained at a minimum of 3%, based on a 15-minute average, or any other limit demonstrated during stack testing. An excursion of the excess oxygen limit is the exceedance of the operational parameter limit or acceptable range defined in this condition or demonstrated during stack testing. Upon detecting an excursion of the excess oxygen limit, the permittee shall restore operation of the 954 TTU to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown, or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions).² **(R 336.1702(a), R 336.1225, R 336.1910)**
3. The exit gas temperature from Absorber/Quench Column (T-3601) shall not exceed a maximum of 80°C.² **(R 336.1702(a), R 336.1225, R 336.1901, R 336.1910)**
4. The liquid flow rate for Scrubber (T-3602) shall be maintained at a minimum of 23.8 gallons per minute, or any other limit demonstrated during stack testing. Compliance with this limit shall be determined per the applicable federal standard. An excursion of the liquid flow rate limit is the exceedance of the operational parameter limit or acceptable range defined in this condition or demonstrated during stack testing. Upon detecting an excursion of the liquid flow rate limit, the permittee shall restore operation of Scrubber (T-3602) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown, or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions).² **(R 336.1225, R 336.1702(a), R 336.1910, 40 CFR Part 63, Subparts MMM and FFFF)**
5. The pH of the scrubbing solution for the Scrubber (T-3602) recirculation line shall not be less than 8.4, or any other limit demonstrated during stack testing. Compliance with this limit shall be determined per the applicable federal standard. An excursion of the pH limit is the exceedance of the operational parameter limit or acceptable range defined in this condition or demonstrated during stack testing. Upon detecting an excursion of the pH limit, the permittee shall restore operation of Scrubber (T-3602) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown, or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). **(R 336.1213(3), 40 CFR Part 63, Subparts MMM and FFFF)**
6. When the concentration of excess oxygen in the exhaust gases drops below 3%, the permittee shall automatically cease waste feed to the incinerator within 15 minutes, unless the adjustments have brought about a return to 3% or above. Furthermore, the permittee shall automatically cease waste feed to the boiler, consistent with safe operating procedures, if the oxygen content drops below 2.5%.² **(R 336.1201(3))**
7. When the exhaust gas temperature of the combustion chamber drops below 760°C (1400°F), the permittee shall automatically cease waste feed to the boiler within 15 minutes, unless adjustments have brought a return to 760°C (1400°F) or above. Furthermore, the permittee shall automatically cease waste feed to the boiler, consistent with safe operating procedures, if the temperature drops below 1200°F.² **(R 336.1201(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain TTU-954 with excess oxygen and temperature meter devices for monitoring the exhaust gas (at the outlet of combustion chamber) for these parameters. This includes, but is not limited to, maintaining necessary parts for routine repairs of the monitoring equipment, and maintaining the devices according to manufacturer's specifications (e.g., equipment calibration, etc.).² **(R 336.1910, 40 CFR 64.6(c), 40 CFR 64.7(b))**
2. The excess oxygen monitoring system shall be equipped with an audio alarm which shall be activated by concentrations of oxygen less than 3%.² **(R 336.1201(3))**

3. The permittee shall equip and maintain Scrubber (T-3602) with pH and liquid flow meter devices. This includes, but is not limited to, maintaining necessary parts for routine repairs of the monitoring equipment, and maintaining the devices according to manufacturer's specifications (e.g., equipment calibration, etc.).² **(R 336.1910, 40 CFR 64.6(c), 40 CFR 64.7(b))**
4. The permittee shall equip and maintain Absorber/Quench Column (T-3601) with a liquid flow meter.² **(R 336.1910)**

V. TESTING/SAMPLING

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

1. Performance tests on FG954THROX may be required in accordance with an AQD approved test plan. **(R 336.1213(3))**
2. 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)**
3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. **(R 336.1213(3), R 336.2001(4))**
4. For each emission unit venting to FG954THROX that is not part of SRN P1028, the permittee shall provide, to each emission unit that sent emissions to FG954THROX, a complete test report of the test results within 60 days of following the last test date. **(R 336.1910)**
5. The permittee shall provide to the Air Quality Division District Supervisor, and to each emission unit venting to FG954THROX that is not part of SRN P1028, confirmation of the percent organic destruction removal efficiency (DRE) required to treat each emission unit's vent, the SCIII.1 operating temperature being used to achieve the required DRE, and the basis for that operating temperature. **(R 336.1213(3))**

See Appendix 5-1

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 following process parameters on a continuous basis. For the purpose of this condition, monitoring and recording of data "on a continuous basis" is defined as an instantaneous data point recorded at least once every 15 minutes for at least 90% of the operating time during an operating calendar day. In the event the permittee records more than one data point during the 15-minute period, the data point recorded may be the average (rolling or block) of all data points recorded during the 15-minute period. Unless otherwise noted in this table, the permittee is not required to monitor and record operational parameter data during periods of non-operation of the device resulting in cessation of the emissions to which the monitoring applies. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for 40 CFR Part 64 compliance, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, in frequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.² **(R 336.1910)**
 - a. Exhaust gas temperature of the TTU-954 (at outlet of combustion chamber)

- b. Excess oxygen in the exhaust gases at TTU-954
 - c. Exit gas temperature of Absorber/Quench Column (T-3601)
 - d. Liquid flow rate of Scrubber (T-3602)
 - e. Scrubber (T-3602) recirculation line scrubbing solution pH
2. The permittee shall continuously monitor combustion chamber temperature and record every 15 minutes for an hourly average as an indicator of proper operation of the 954 TTU. The exit gas temperature of TTU-954 shall be maintained at a minimum of 760°C (1400°F), or any other limit demonstrated during stack testing. **(40 CFR 64.6(c)(1)(i) and (ii))**
 3. The permittee shall continuously monitor excess oxygen and record every 15 minutes for an hourly average as an indicator of proper operation of the 954 TTU. The excess oxygen of TTU-954 shall be maintained at a minimum of 3%, or any other limit demonstrated during stack testing. **(40 CFR 64.6(c)(1)(i) and (ii))**
 4. The permittee shall equip and maintain Absorber/Quench Column (T-3601) with an exit gas temperature measurement device.² **(R 336.1901, R 336.1910)**
 5. The permittee shall continuously monitor the Absorber/Quench Column (T-3601) outlet gas temperature and record every 15 minutes for an hourly average as an indicator of proper operation of the scrubber. The indicator range is a maximum temperature of 80°C or any other limit demonstrated during stack testing. **(40 CFR 64.6(c)(1)(i) and (ii))**
 6. The permittee shall continuously monitor the Scrubber (T-3602) liquid flow rate and every 15 minutes for an hourly average as an indicator of proper operation of the scrubber. The indicator range is a pH of not less than 8.4, or any other limit demonstrated during stack testing. **(40 CFR 64.6(c)(1)(i) and (ii))**
 7. The permittee shall continuously monitor the pH of the Scrubber (T-3602) water and every 15 minutes for an hourly average as an indicator of proper operation of the scrubber. The indicator range is a minimum of 23.8 gallons per minute, or any other limit demonstrated during stack testing. **(40 CFR 64.6(c)(1)(i) and (ii))**
 8. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown, or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance. In addition to corrective actions required per Special Conditions in the FG954THROX Process/Operational Restrictions of this ROP Table, necessary actions are included in the CAM plan or ROP EU table for each EU subject to CAM that vents to FG954THROX. **(40 CFR 64.7(d))**
 9. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c))**
 10. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**

11. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan if required by the Administrator pursuant to 40 CFR 64.8, and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**
12. For each emission unit venting to FG954THROX that is not part of SRN P1028, within 30 days of the end of each month, the permittee shall provide, to each emission unit that sent emissions to FG954THROX during that calendar month, the FG954THROX operating parameter data required by the emission unit's permit conditions. The permittee shall keep a record of the data provided for each calendar month and make the record available to the Department upon request. **(R 336.1910)**

See Appendix 4-1

VII. REPORTING

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

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV954THROX	24 ²	60 ²	R 336.1225 40 CFR 52.21(c) and (d)

IX. OTHER REQUIREMENT(S)

1. When treating streams from pesticide manufacturing process units, the permittee shall comply with the applicable requirements of 40 CFR Part 63, Subparts A (General Provisions) and MMM (NESHAP for Pesticide Active Ingredient Production). Compliance is determined as per FGPESTICIDES. **(40 CFR Part 63, Subparts A and MMM)**
2. When treating streams from miscellaneous organic NESHAP (MON) units, the permittee shall comply with the applicable requirements of 40 CFR Part 63, Subparts A (General Provisions) and FFFF (National Emission Standard for Hazardous Air Pollutant Emissions for Miscellaneous Organic Chemical Process Units). Compliance is determined as per FGMONMACT. **(40 CFR Part 63, Subparts A and FFFF)**
3. When treating streams from cellulose products manufacturing NESHAP (Cellulosics MACT) units, the permittee shall comply with the applicable requirements of 40 CFR Part 63, Subparts A (General Provisions) and UUUU (National Emission Standard for Hazardous Air Pollutant Emissions for Cellulose Products Manufacturing). Compliance is determined as per FGCELLULOSICS. **(40 CFR Part 63, Subparts A and UUUU)**
4. When treating streams from Group I Polymers and Resins NESHAP (P&RI MACT) units, the permittee shall comply with the applicable requirements of 40 CFR Part 63, Subparts A (General Provisions) and U (National Emission Standard for Hazardous Air Pollutant Emissions for Group I Polymers and Resins). Compliance is determined as per FGLATEX. **(40 CFR Part 63, Subparts A and U)**
5. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subparts A (General Provisions) and H (National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks). Compliance is determined as per FGHONFUGITIVES. **(40 CFR Part 63, Subparts A and H)**
6. The permittee shall comply with all applicable requirements of 40 CFR Part 64. **(40 CFR Part 64)**
7. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the AQD and if necessary, submit a proposed modification of the CAM Plan to address the necessary monitoring changes. Such a modification may include but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. **(40 CFR 64.7(e))**

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).

FGPESTICIDES FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Emission units subject to the requirements of 40 CFR Part 63, Subparts A (General Provisions) and MMM (National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production).

Emission Units: EU01, EU02, EU03, EU09, EU10, EU12b, EURULE290, FG954THROX, FG963THROX (See SRN P1027)

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall set operational parameters, as applicable, in accordance with 40 CFR Part 63, Subpart MMM, Section 63.1366(b)(3). **(40 CFR Part 63, Subpart MMM)**
2. Whenever a parameter monitoring excursion occurs, as defined in 63.1366(b)(7), these excursions shall be reported in the Periodic Reports required in SC VII.6. **(40 CFR Part 63, Subpart MMM)**

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 conduct testing in accordance with the applicable requirements of 40 CFR Part 63, Subpart MMM, Section 63.1365 (Test methods and initial compliance procedures), and with the applicable testing requirements of 40 CFR Part 63, Subpart G, Section 63.145 (Process wastewater provisions – test methods and procedures to determine compliance), as referenced in 40 CFR Part 63, Subpart MMM, Section 63.1362(d). **(40 CFR Part 63, Subpart MMM)**
2. The permittee shall comply with the heat exchange system provisions of 40 CFR Part 63, Subpart F, Section 63.104 (Heat exchange system requirements), as referenced in 40 CFR Part 63, Subpart MMM, Section 63.1362(f) (Standards). **(40 CFR Part 63, Subpart MMM)**
3. The permittee shall use the test methods and procedures referenced in 40 CFR Part 63, Subpart MMM, Section 63.1365(b) (Test methods and initial compliance procedures), and with the applicable testing methods listed in 40 CFR Part 63, Subpart G, Section 63.145 (Process wastewater provisions – test methods and procedures to determine compliance), as referenced in 40 CFR Part 63, Subpart MMM, Section 63.1362(d). **(40 CFR Part 63, Subpart MMM)**

4. Performance testing is required to be performed in such a timeframe as to be submitted with the Notification of Compliance Status Report, as per 40 CFR Part 63, Subpart A, Section 63.7(a)(2)(ix) and 40 CFR Part 63, Subpart MMM, Table 1. **(40 CFR Part 63, Subpart MMM)**
5. Heat exchange system testing shall be performed monthly for the first six months following the compliance date of the standard, and quarterly thereafter, in accordance with 40 CFR Part 63, Subpart F, Section 63.104(b)(1), as referenced in 40 CFR Part 63, Subpart MMM, Section 63.1362(f). **(40 CFR Part 63, Subpart MMM)**

See Appendix 5-1

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 comply with the applicable parametric monitoring requirements of 40 CFR Part 63, Subpart MMM, Section 63.1366 (Monitoring and inspection requirements) and Table 3 (Monitoring Requirements for Control Devices) and with the applicable parametric monitoring requirements of 40 CFR Part 63, Subpart G, Section 63.143 (Process wastewater provisions – inspections and monitoring of operations), as referenced in 40 CFR Part 63, Subpart MMM, Section 63.1362(d). **(40 CFR Part 63, Subpart MMM)**
2. The permittee shall comply with the equipment leak provisions of 40 CFR Part 63, Subpart H (National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks) as specified in Section 63.1363(b) Compliance with this section shall be determined using FGHONFUGITIVES, with the revisions listed in 63.1363. **(40 CFR Part 63, Subpart MMM)**
3. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart MMM, Sections 63.1363(g) (Standards for equipment leaks) and 63.1367 (Recordkeeping requirements); with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart F, Section 63.104(f)(1) as referenced in 40 CFR Subpart MMM, Section 63.1362(f) (heat exchanger requirements); and with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart G, Section 63.147 (Process wastewater provisions – recordkeeping), as referenced in 40 CFR Part 63, Subpart MMM, Section 63.1362(d). **(40 CFR Part 63, Subpart MMM)**.

See Appendix 3-1

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. 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. Changes to information submitted in the Precompliance Report must be submitted 90 days before the planned change is to be implemented in accordance with 63.1368(e). Changes to activities covered by the Precompliance report must be submitted 60 days before implementation, as per 63.1368(h)(2)(i). **(40 CFR Part 63, Subpart MMM)**
5. A Notification of Compliance Status Report is due on or before May 21, 2004, in accordance with 63.1368(f). **(40 CFR Part 63, Subpart MMM)**
6. Semiannual Periodic Reports are due March 15 and September 15 of each year in accordance with sections 63.1363(h)(3), 63.1368(g) and 63.10(a)(7). Startup, shutdown, and malfunction reports shall be submitted at the same time, in accordance with 63.1368(i). **(40 CFR Part 63, Subpart MMM)**

7. Process change reports shall be submitted as applicable, in accordance with 63.1368(h). **(40 CFR Part 63, Subpart MMM)**
8. The permittee shall submit any performance test reports, including RATA 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 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart A (General Provisions). The applicable sections of Subpart A are listed in Table 1 of Subpart MMM. **(40 CFR Part 63, Subparts A and MMM)**
2. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart MMM (National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production). The applicable sections of Subpart MMM may include: **(40 CFR Part 63, Subpart MMM)**
 - a. 63.1360 Applicability
 - b. 63.1361 Definitions
 - c. 63.1362 Standards
 - d. 63.1363 Standards for equipment leaks
 - e. 63.1364 Compliance dates
 - f. 63.1365 Test methods and initial compliance procedures
 - g. 63.1366 Monitoring and inspection requirements
 - h. 63.1367 Recordkeeping requirements
 - i. 63.1368 Reporting requirements

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).

FGRULE703 FLEXIBLE GROUP CONDITIONS
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DESCRIPTION

Any new or future storage vessel subject to the requirements of R 336.1703 (Rule 703). Storage vessels subject to AQD Rule 703 are those which meet the following criteria:

1. Receive gasoline from a delivery vessel into any new stationary vessel of more than 2000-gallon capacity located at any gasoline dispensing facility; AND
2. Were placed into operation on or after July 1, 1979, or for which an application for a permit to install, pursuant to the provisions of Part 2 of Act 451 is made to EGLE on or after July 1, 1979, or both, except for any process or process equipment which is defined as an "existing source" under R 336.1601.

Emission Unit: EURULE703

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))

1. The permittee shall maintain an up-to-date record of all storage vessels subject to the requirements of AQD Rule 703. (R 336.1213(3))

See Appendix 3-1

VII. REPORTING

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

2. 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 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall not load or allow the loading of gasoline from a delivery vessel into any new stationary vessel of more than 2000-gallon capacity located at any gasoline dispensing facility, unless such stationary vessel is equipped with a permanent submerged fill pipe. **(R 336.1703(1))**
2. A new stationary vessel at a gasoline dispensing facility shall be constructed in a manner that will allow the vessel to be retrofitted according to AQD Rule 703(2) and (3). **(R 336.1703(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).

FGRULE290 FLEXIBLE GROUP CONDITIONS

DESCRIPTION

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

Emission Units installed on or after December 20, 2016: EU-RULE290 and any future emission unit that meets the requirements of this flexible group.

Emission Units installed prior to December 20, 2016: EURULE290 - One or more of these emission units is subject to 40 CFR Part 63, Subparts A, H, UU, MMM, EEEE, FFFF, and DDDDD

Current Rule 290 emission units at this facility are listed in the table below:

Emission Unit Identification	Plant/Process	Control device	NESHAP Subject Flexible Group
B477-FG290 (Garlon)	Garlon	T-409 water scrubber	FGPESTICIDESMACT (Group 2 Vents) FGHONFUGITIVES FGOLDMACT
B499-FG290 (HCl tank)	Energy and Utilities HCl storage	S-6003 scrubber	NA
B827 Pilot Plant FG290 Isoclast/Spineter am Rework	827 Pilot Plant rework	NA	NA
B954-FG290 (Chlorine)	Distribution - Chlorine	T-511 scrubber	NA
B1233-FG290 (Garlon EE)	Garlon EE	T-803 water scrubber followed by 2 Carbon ventsorb drums (drums are in parallel) with one joint vent at discharge	FGMONMACT (Group 2 vents) FGHONFUGITIVES FGOLDMACT

POLLUTION CONTROL EQUIPMENT

See R290 list and associated control.

I. EMISSION LIMIT(S)

1. Each emission unit that emits only noncarcinogenic volatile organic compounds or noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, if the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively. **(R 336.1290(2)(a)(i))**
2. Any emission unit for which CO2 equivalent emissions are not more than 6,250 tons per month and for which the total uncontrolled or controlled emissions of all other air contaminants are not more than 1,000 or 500 pounds per month, respectively, and all the following criteria listed below are met: **(R 336.1290(2)(a)(ii))**
 - a. For toxic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 0.04 micrograms per cubic meter and less than 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(2)(a)(ii)(A))**

- b. For toxic air contaminants with initial risk screening levels greater than or equal to 0.04 microgram per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(2)(a)(ii)(B))**
 - c. The emission unit shall not emit any toxic air contaminants, excluding non-carcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with an initial threshold screening level or initial risk screening level less than 0.04 microgram per cubic meter. **(R 336.1290(2)(a)(ii)(C))**
 - d. For total mercury, the uncontrolled or controlled emissions shall not exceed 0.01 pounds per month from emission units installed on or after December 20, 2016. **(R 336.1290(2)(a)(ii)(D))**
 - e. For lead, the uncontrolled or controlled emissions shall not exceed 16.7 pounds per month from emission units installed on or after December 20, 2016. **(R 336.1290(2)(a)(ii)(E))**
3. Any emission unit that emits only particulate air contaminants without initial risk screening levels and other air contaminants that are exempted under Rule 290(2)(a)(i) or Rule 290(2)(a)(ii), if all the following provisions are met: **(R 336.1290(2)(a)(iii))**
- a. The particulate emissions are controlled by an appropriately designed and operated fabric filter collector or an equivalent control system which is designed to control particulate matter to a concentration of less than or equal to 0.01 pound of particulate per 1,000 pounds of exhaust gases and which does not have exhaust gas flow rate more than 30,000 actual cubic feet per minute. **(R 336.1290(2)(a)(iii)(A))**
 - b. The visible emissions from the emission unit are not more than 5% opacity in accordance with the methods contained in Rule 303. **(R 336.1290(2)(a)(iii)(B))**
 - c. The initial threshold screening level for each particulate toxic air contaminant, excluding nuisance particulate, is more than 2.0 micrograms per cubic meter. **(R 336.1290(2)(a)(iii)(C))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

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

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall maintain records of the following information for each emission unit for each calendar month using the methods outlined in the EGLE, AQD Rule 290; Permit to Install Exemption Record form (EQP 3558) or in a format that is acceptable to the AQD District Supervisor. **(R 336.1213(3))**
 - a. Records identifying each air contaminant that is emitted **(R 336.1213(3))**
 - b. Records identifying if each air contaminant is controlled or uncontrolled **(R 336.1213(3))**
 - c. Records identifying if each air contaminant is either carcinogenic or non-carcinogenic **(R 336.1213(3))**
 - d. Records identifying the ITSL and IRSL, if established, of each air contaminant that is being emitted under the provisions of Rules 290(2)(a)(ii) and (iii) **(R 336.1213(3))**
 - e. Records of material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions in 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 4-1

VII. REPORTING

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

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. When an emission unit under FGRULE290 is also an affected process unit under an applicable Part 63 standard that requires compliance with the provisions of 40 CFR Part 63, Subpart H, the permittee shall comply with the applicable requirements of 40 CFR Part 63, Subparts A (General Provisions) and H (National emission standards for organic hazardous air pollutants for equipment leaks). Compliance is determined as per FGHONFUGITIVES unless otherwise specified in the applicable Part 63 standard. **(40 CFR Part 63, Subparts A and H)**
2. When an emission unit under FGRULE290 is also an affected pesticide active ingredient manufacturing process unit, the permittee shall comply with the applicable requirements of 40 CFR Part 63, Subparts A (General Provisions) and MMM (National emission standards for pesticides active ingredient production). Compliance is determined as per FGPESTICIDES. **(40 CFR Part 63, Subparts A and MMM)**
3. When an emission unit under FGRULE290 is also an affected miscellaneous organic chemical manufacturing process unit, the permittee shall comply with the applicable requirements of 40 CFR Part 63, Subparts A (General Provisions) and FFFF (National Emission Standards for Hazardous Air Pollutant Emissions for Miscellaneous Organic Chemical Manufacturing). Compliance is determined as per FGMONMACT. **(40 CFR Part 63, Subparts A and FFFF)**
4. When an emission unit under FGRULE290 is also an affected boiler or process heater, the permittee shall comply with the applicable requirements of 40 CFR Part 63, Subparts A (General Provisions) and DDDDD (National Emission Standard for Hazardous Air Pollutants: Industrial, Commercial and Institutional Boilers and Process Heaters – Major Sources). Compliance is determined as per FGBOILERMACT. **(40 CFR Part 63, Subparts A and DDDDD)**
5. When an air emission unit under FGRULE290 is an affected organic liquid distribution process unit, the permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart EEEE (Organic Liquid Distribution NESHAP). The requirements of this standard are outlined in table FGOLDMACT of the ROP. **(40 CFR Part 63, Subpart EEEE)**

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 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: EUCOLDCLEANER

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

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

III. PROCESS/OPERATIONAL RESTRICTION(S)

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

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The cold cleaner must meet one of the following design requirements:
 - a. The air/vapor interface of the cold cleaner is no more than ten square feet; **(R 336.1281(2)(h))**
 - b. The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment. **(R 336.1285(2)(r)(iv))**
2. The cold cleaner shall be equipped with a device for draining cleaned parts. **(R 336.1611(2)(b), R 336.1707(3)(b))**
3. All new and existing cold cleaners shall be equipped with a cover and the cover shall be closed whenever parts are not being handled in the cold cleaner. **(R 336.1611(2)(a), R 336.1707(3)(a))**
4. The cover of a new cold cleaner shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia or if the solvent is agitated or heated. **(R 336.1707(3)(a))**
5. If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia; or, if any solvent used in a new cold cleaner is heated above 120 degrees Fahrenheit, then the cold cleaner must comply with at least one of the following provisions:
 - a. The cold cleaner must be designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7; **(R 336.1707(2)(a))**

- b. The solvent bath must be covered with water if the solvent is insoluble and has a specific gravity of more than 1.0; **(R 336.1707(2)(b))**
- c. The cold cleaner must be controlled by a carbon adsorption system, condensation system, or other method of equivalent control approved by the AQD. **(R 336.1707(2)(c))**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

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

See Appendix 3-1

VII. REPORTING

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

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).

**FGHONFUGITIVES
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Emission units subject to the requirements of 40 CFR Part 63, Subparts A (General Provisions) and H (HON for Equipment Leaks).

Emission Unit: EU01, EU02, EU03, EU09, EU10, EU12b, EU1200, EURULE290,

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Organic HAP – Phase I	10,000 ppm	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	Pumps in light liquid service	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	40 CFR Part 63, Subpart H
2. Organic HAP – Phase II	5000 ppm	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	Pumps in light liquid service	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	40 CFR Part 63, Subpart H
3. Organic HAP – Phase III (general)	1000 ppm	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	Pumps in light liquid service	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	40 CFR Part 63, Subpart H
4. Organic HAP – Phase III (food/medical service)	2000 ppm	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	Pumps in light liquid service	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	40 CFR Part 63, Subpart H

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
5. Organic HAP – Phase III (polymerizing monomers)	5000 ppm	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	Pumps in light liquid service	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	40 CFR Part 63, Subpart H
6. Organic HAP	No Detectable Emissions (NDE) = 500 ppm above background	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	Compressors	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	40 CFR Part 63, Subpart H
7. Organic HAP	NDE	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	Pressure relief devices in gas/vapor service	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	40 CFR Part 63, Subpart H
8. Organic HAP - Phase I	10,000 ppm	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	Valves in gas/vapor or light liquid service	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	40 CFR Part 63, Subpart H
9. Organic HAP - Phase II and III	500 ppm	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	Valves in gas/vapor or light liquid service	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	40 CFR Part 63, Subpart H
10. Organic HAP	NDE	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	Pumps, valves, connectors & agitators in heavy liquid service; pressure relief devices in liquid service; and instrumentation systems	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	40 CFR Part 63, Subpart H

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
11. Organic HAP	NDE	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	Closed-vent systems	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	40 CFR Part 63, Subpart H
12. Organic HAP	10,000 ppm	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	Agitators in gas/vapor or light liquid service	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	40 CFR Part 63, Subpart H
13. Organic HAP	500 ppm	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	Connectors in gas/vapor or light liquid service	Defined in Method 21 of 40 CFR Part 60, Appendix A, except as otherwise allowed by the regulation	40 CFR Part 63, Subpart H

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall comply with the applicable design criteria for equipment subject to 40 CFR Part 63, Subpart H. Applicable design criteria may include: **(40 CFR Part 63, Subpart H)**
 - a. 63.163(e) Design criteria for pumps equipped with dual mechanical seal systems
 - b. 63.163(j) Criteria for designating pumps as unsafe-to-monitor
 - c. 63.164 Design criteria for compressors
 - d. 63.166 Design criteria for sampling systems
 - e. 63.168(h) Criteria for designating unsafe-to-monitor valves
 - f. 63.168(i) Criteria for designating difficult-to-monitor valves
 - g. 63.172(b)-(c) Design criteria for control devices
 - h. 63.173(d) Design criteria for agitators equipped with dual mechanical seal systems
 - i. 63.173(h) Criteria for designating agitators as difficult-to-monitor
 - j. 63.173(j) Criteria for designating agitators as unsafe-to-monitor
 - k. 63.174(f) Criteria for designating connectors as unsafe-to-monitor
 - l. 63.174(g) Criteria for designating connectors as unsafe-to-repair
 - m. 63.174(h) Criteria for designating connectors as inaccessible

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 conduct monitoring for equipment leaks, defined in SC I.1 through SC I.13 of this table, in accordance with 40 CFR Part 63, Subpart H, Sections 63.163 through 63.174, as applicable. **(40 CFR Part 63, Subpart H)**
2. The permittee shall conduct pressure testing, for batch processes using this option, in accordance with 40 CFR Part 63, Subpart H, Section 63.178 (Alternative means of emission limitation: Batch processes). **(40 CFR Part 63, Subpart H)**
3. The permittee shall use Method 21 (except as otherwise specified in 40 CFR Part 63, Subpart H, Section 63.180(b) or (c), or except as allowed under an alternative monitoring method approved by the US EPA in letters dated July 26, 2007 and August 19, 2008) when performing instrument monitoring of equipment, as per 40 CFR Part 63, Subpart H, Section 63.180(b) (Test methods and procedures). **(40 CFR Part 63, Subpart H)**
4. The permittee shall conduct instrument monitoring at the frequencies listed in 40 CFR Part 63, Subpart H, Sections 63.163 through 63.174, as applicable. **(40 CFR Part 63, Subpart H)**
5. Batch process pressure testing, when applicable, shall be conducted each time the process is reconfigured, or at a minimum of once per year, in accordance with 40 CFR Part 63, Subpart H, Section 63.178(b)(1). For processes subject to MON and complying with pressure testing, this provision is allowed for both batch and continuous processes per 40 CFR 63.2480(b)(1). **(40 CFR Part 63, Subpart H and FFFF)**
6. 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))**

See Appendix 5-1

VI. MONITORING/RECORDKEEPING

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

1. If applicable, control devices used to comply with the provisions of 40 CFR Part 63, Subpart H shall be monitored to ensure proper operation and maintenance, in accordance with 40 CFR Part 63, Subpart H, Section 63.172(e) (Standards: Closed-vent systems and control devices). **(40 CFR Part 63, Subpart H)**
2. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart H, Section 63.181 (Recordkeeping requirements). **(40 CFR Part 63, Subpart H)**.

See Appendix 3-1

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. 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 applicable, the permittee shall submit an Initial Notification within 120 days of promulgation of a referencing subpart, in accordance with 40 CFR Part 63, Subpart H, Section 63.182(b). **(40 CFR Part 63, Subpart H)**

5. If applicable, the permittee shall submit a Notification of Compliance Status Report within 90 days of any applicable compliance date, in accordance with 40 CFR Part 63, Subpart H, Section 63.182(c). **(40 CFR Part 63, Subpart H)**
6. If applicable, the permittee shall submit semiannual Periodic Reports, beginning six months after the date of the Notification of Compliance Status Report, in accordance with 40 CFR Part 63, Subpart H, Section 63.182(d). **(40 CFR Part 63, Subpart H)**
7. Semiannual periodic reports are due March 15 and September 15 of each year. Reports for rules not included in these date change agreements are due according to the schedule in their applicable flexible group table. Startup, shutdown, and malfunction reports shall be submitted at the same time. **(40 CFR Part 63, Subpart A, Sections 63.9(i), 63.10(a)(6), 63.10(d)(5)(i); 40 CFR Part 63, Subpart H, Section 63.182(d)(1))**
8. The permittee shall submit any performance test reports, including RATA 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 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart A (General Provisions). The applicable sections of Subpart A are listed in Table 4 of Subpart H. **(40 CFR Part 63, Subparts A & H)**
2. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart H (National Emission Standards for Organic Hazardous air Pollutants for Equipment Leaks). The applicable sections of Subpart H may include: **(40 CFR 63 Subpart H)**
 - a. 63.160 Applicability
 - b. 63.161 Definitions
 - c. 63.162 Standards: General
 - d. 63.163 Standards: Pumps in light liquid service
 - e. 63.164 Standards: Compressors
 - f. 63.165 Standards: Pressure relief devices in gas/vapor service
 - g. 63.166 Standards: Sampling connection systems
 - h. 63.167 Standards: Open-ended valves or lines
 - i. 63.168 Standards: Valves in gas/vapor service and in light liquid service
 - j. 63.169 Standards: Pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service
 - k. 63.170 Standards: Surge control vessels and bottoms receivers
 - l. 63.171 Standards: Delay of repair
 - m. 63.172 Standards: Closed-vent systems and control devices
 - n. 63.173 Standards: Agitators in gas/vapor service and in light liquid service
 - o. 63.174 Standards: Connectors in gas/vapor service and in light liquid service
 - p. 63.178 Alternative means of emission limitations: Batch processes
 - q. 63.180 Test methods and procedures
 - r. 63.181 Recordkeeping requirements
 - s. 63.182 Reporting requirements

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).

FGOLDMACT FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Each new, reconstructed, or existing Organic Liquid Distribution (OLD) (non-gasoline) operation that is part of an emission unit subject to the requirements of 40 CFR Part 63, Subpart EEEE. The 40 CFR Part 63, Subpart EEEE affected source is comprised of storage tanks, transfer racks, equipment leak components associated with storage tanks, transfer racks and pipelines, transport vehicles, and all containers while loading or unloading at transfer racks subject to Subpart EEEE. Equipment listed in 40 CFR 63.2338(c) that is part of an affected source under another National Emission Standards for Hazardous Air Pollutants is excluded from the affected source.

Emission Units: EU01, EU02, EU09, EU12b, EU1200, EURULE290

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Total organic HAP	Reduce emissions by 95 wt% OR ≤ 20ppmv* exhaust concentration	Defined in 40 CFR Part 63, Subparts A and EEEE	Storage Tanks See Table 2 of 40 CFR Part 63, Subpart EEEE	SC V.1 – V.8	40 CFR 63.2346(a)
2. Total organic HAP	Reduce emissions by 95 wt% OR ≤ 20ppmv* exhaust concentration	Defined in 40 CFR Part 63, Subparts A and EEEE	Transfer Racks See Table 2 of 40 CFR Part 63, Subpart EEEE	SC V.1 – V.8	40 CFR 63.2346(b)

* Corrected to 3% oxygen for combustion devices using supplemental combustion air

3. The permittee shall comply with the applicable requirements for storage tanks and transfer racks specified in 40 CFR Part 63, Subpart SS for meeting emission limits, substituting the term storage tank at each occurrence of the term storage vessel in Subpart SS. **(40 CFR 63.2346(a)(1))**
4. The permittee must be in compliance with the emission limitations at all times when the equipment identified in 40 CFR 63.2338(b)(1) through (4) is in OLD operation. The emission limitations apply during periods of Startup, Shutdown and Malfunction (SSM) except as provided in 40 CFR 63.2378(b)(2) and (3). **(40 CFR 63.2350(a), 40 CFR 63.2378(b)(1))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. For each storage tank identified in Table 2 of 40 CFR Part 63, Subpart EEEE, items 1 through 5, the permittee shall reduce the emissions of organic HAP using one of the following work practice standards:
 - a. Route emissions to a fuel gas system or back into a process as specified in 40 CFR Part 63, Subpart SS; **(40 CFR 63.2346(a)(2))**
 - b. Comply with 40 CFR Part 63, Subpart WW (control level 2); or **(40 CFR 63.2346(a)(3))**
 - c. Use a vapor balancing system that complies with 40 CFR 63.2346(a)(4)(i) through (vii) and with the recordkeeping requirements in 40 CFR 63.2390(e). **(40 CFR 63.2346(a)(4))**
2. For each storage tank identified in Table 2 of 40 CFR Part 63, Subpart EEEE, item 6, the permittee shall reduce the emissions of organic HAP using one of the following work practice standards:
 - a. Route emissions to a fuel gas system or back into a process as specified in 40 CFR Part 63, Subpart SS; or **(40 CFR 63.2346(a)(2))**
 - b. Use a vapor balancing system that complies with 40 CFR 63.2346(a)(4)(i) through (vii) and with the recordkeeping requirements in 40 CFR 63.2390(e). **(40 CFR 63.2346(a)(4))**
3. For each **new** transfer rack that meets the criterion for control in Table 2 of 40 CFR Part 63, Subpart EEEE, items 7 through 10, the permittee shall reduce the emissions of organic HAP during loading of organic liquids into transport vehicles or containers using one of the following work practice standards:
 - a. Route emissions to a fuel gas system or back into a process as specified in 40 CFR Part 63, Subpart SS; **(40 CFR 63.2346(b)(2))**
 - b. Use a vapor balancing system that routes organic HAP vapors displaced from the loading of organic liquids into transport vehicles to the storage tank from which the liquid being loaded originated or to another storage tank connected to a common header; and **(40 CFR 63.2346(b)(3)(i))**
 - c. Use a vapor balancing system that routes organic HAP vapors displaced from the loading of organic liquids into containers directly (e.g., no intervening tank or containment area such as a room) to the storage tank from which the liquid being loaded originated or to another storage tank connected to a common header. **(40 CFR 63.2346(b)(3)(ii))**
4. For each **existing** transfer rack that meets the criterion for control in Table 2 of 40 CFR Part 63, Subpart EEEE, items 7 through 10, the permittee shall reduce the emissions of organic HAP during loading of organic liquids into transport vehicles using one of the following work practice standards:
 - a. Route emissions to a fuel gas system or back into a process as specified in 40 CFR Part 63, Subpart SS; or **(40 CFR 63.2346(b)(2))**
 - b. Use a vapor balancing system that routes organic HAP vapors displaced from the loading of organic liquids into transport vehicles to the storage tank from which the liquid being loaded originated or to another storage tank connected to a common header. **(40 CFR 63.2346(b)(3)(i))**
5. For each pump, valve, and sampling connection that operates in organic liquids service for at least 300 hours per year at an affected source that has at least one storage tank or transfer rack that meets the applicability criteria for control in Table 2 of 40 CFR Part 63, Subpart EEEE, the permittee must comply with 40 CFR Part 63, Subpart TT (control level 1); 40 CFR Part 63, Subpart UU (control level 2); or 40 CFR Part 63, Subpart H. **(40 CFR 63.2346(c))**
6. For each transport vehicle equipped with vapor collection equipment that is loaded at a transfer rack subject to control based on the criteria specified in Table 2 of 40 CFR Part 63, Subpart EEEE, items 7 through 10, the permittee must follow the steps in 40 CFR 60.502(e) to ensure that organic liquids are loaded only into vapor-tight transport vehicles and comply with the provisions in 40 CFR 60.502(f) through (i), substituting the term "transport vehicle" at each occurrence of the term "tank truck" or "gasoline tank truck". **(40 CFR 63.2346(d)(1))**
7. For each transport vehicle without vapor collection equipment that is loaded at a transfer rack subject to control based on the criteria specified in Table 2 of 40 CFR Part 63, Subpart EEEE, items 7 through 10, the permittee must ensure that organic liquids are loaded only into transport vehicles that have current certification in accordance with the U.S. Department of Transportation (DOT) pressure test requirements in 49 CFR Part 180 for cargo tanks or 49 CFR 173.31 for tank cars. **(40 CFR 63.2346(d)(2))**

8. For each existing, new and reconstructed high throughput transfer rack routing emissions to a control device to comply with an emission limit in Table 2 of 40 CFR Part 63, Subpart EEEE, the permittee shall meet the operating limits specified in Table 3 of 40 CFR Part 63, Subpart EEEE as identified below. The permittee must establish the operating limits during the initial performance test or design evaluation. The operating limits shall be met at all times after they are established, when the equipment identified in 40 CFR 63.2338(b)(1) through (4) is in OLD operation. **(40 CFR 63.2346(e), 40 CFR 63.2350(a), 40 CFR 63.2370(b) and Table 3)**

Control Device	Operating Limit
Thermal oxidizer	Maintain the daily average fire box or combustion zone temperature greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.
Catalytic oxidizer	<ul style="list-style-type: none"> a. Replace the existing catalyst bed before the age of the bed exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND b. Maintain the daily average temperature at the inlet of the catalyst bed greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND c. Maintain the daily average temperature difference across the catalyst bed greater than or equal to the minimum temperature difference established during the design evaluation or performance test that demonstrated compliance with the emission limit.
Absorber	<ul style="list-style-type: none"> a. Maintain the daily average concentration level of organic compounds in the absorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR b. Maintain the daily average scrubbing liquid temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND c. Maintain the difference between the specific gravities of the saturated and fresh scrubbing fluids greater than or equal to the difference established during the design evaluation or performance test that demonstrated compliance with the emission limit.
Condenser	<ul style="list-style-type: none"> a. Maintain the daily average concentration level of organic compounds at the condenser exit less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR b. Maintain the daily average condenser exit temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.
Adsorption system with adsorbent regeneration	<ul style="list-style-type: none"> a. Maintain the daily average concentration level of organic compounds in the adsorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR b. Maintain the total regeneration stream mass flow during the adsorption bed regeneration cycle greater than or equal to the reference stream mass flow established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND c. Before the adsorption cycle commences, achieve and maintain the temperature of the adsorption bed after regeneration less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND d. Achieve a pressure reduction during each adsorption bed regeneration cycle greater than or equal to the pressure reduction established during the design evaluation or performance test that demonstrated compliance with the emission limit.

Control Device	Operating Limit
Adsorption system without adsorbent regeneration	a. Maintain the daily average concentration level of organic compounds in the adsorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR b. Replace the existing adsorbent in each segment of the bed with an adsorbent that meets the replacement specifications established during the design evaluation or performance test before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND c. Maintain the temperature of the adsorption bed less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.
Flare	a. Comply with the equipment and operating requirements in 40 CFR 63.987(a); AND b. Conduct an initial flare compliance assessment in accordance with 40 CFR 63.987(b); AND c. Install and operate monitoring equipment as specified in 40 CFR 63.987(c).
Another type of control	Submit a monitoring plan as specified in 40 CFR 63.995(c) and 40 CFR 63.2366(b), and monitor the control device in accordance with that plan.

9. For each storage tank and low throughput transfer rack, the permittee shall comply with the respective requirements for monitored parameters as specified in 40 CFR Part 63, Subpart SS. Alternatively, the permittee may comply with the operating limits in Table 3 of 40 CFR Part 63, Subpart EEEE. **(40 CFR 63.2346(e))**
10. For noncombustion devices using total organic compounds (TOC) rather than organic HAP to demonstrate compliance with a percent reduction requirement in Table 2 to 40 CFR Part 63, Subpart EEEE, the permittee must first demonstrate, subject to the approval of the Administrator, that TOC is an appropriate surrogate for organic HAP (i.e., for storage tank(s) and/or transfer rack(s), the percent destruction of organic HAP is equal to or higher than the percent destruction of TOC). This demonstration must be conducted prior to or during the initial compliance test. **(40 CFR 63.2346(f))**
11. When electing to comply with 40 CFR Part 63, Subpart EEEE by combining emissions from different emission sources into a single control device, the permittee must comply with the provisions in 40 CFR 63.982(f). **(40 CFR 63.2346(j))**
12. The permittee shall develop a written SSM plan according to the provisions in 40 CFR 63.6(e)(3), except for sources not required to be controlled as specified in 40 CFR 63.2343. The permittee must follow the requirements in 40 CFR 63.6(e)(1) and (3) during periods of startup, shutdown, malfunction or nonoperation of the affected source or any part thereof. In addition, the provisions of 40 CFR 63.2378(b)(1) through (3) apply. **(40 CFR 63.2350(c), 40 CFR 63.2378(b))**
13. The permittee must be in compliance with the operating limits at all times when the equipment identified in 40 CFR 63.2338(b)(1) through (4) is in OLD operation. **(40 CFR 63.2350(a))**
14. The permittee shall operate and maintain the affected source, including air pollution control and monitoring equipment, according to the provisions in 40 CFR 63.6(E)(l)(i). **(40 CFR 63.2350(b))**

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 demonstrate initial compliance with each applicable emission limitation and work practice standard as specified in Tables 6 and 7 of 40 CFR Part 63, Subpart EEEE. **(40 CFR 63.2370(a))**
2. The permittee shall demonstrate continuous compliance with each applicable emission limitation, operating limit, and work practice standard in Tables 2 through 4 of 40 CFR Part 63, Subpart EEEE according to the methods specified in 40 CFR Part 63, Subpart SS and in Tables 8 through 10 of 40 CFR Part 63, Subpart EEEE, as applicable. **(40 CFR 63.2378(a))**
3. For each performance test, design evaluation, and/or compliance determination conducted, the permittee shall use the following procedures:
 - a. Performance tests according to the procedures in 40 CFR Part 63, Subpart SS and the provisions specified in 40 CFR 63.2354(b); **(40 CFR 63.2354(a)(1))**
 - b. Design evaluations according to the procedures in 40 CFR Part 63, Subpart SS; **(40 CFR 63.2354(a)(2))**
 - c. Performance evaluations of a continuous emission monitoring system (CEMS) according to the requirements in 40 CFR 63.8(e); **(40 CFR 63.2354(a)(3))**
 - d. Compliance determination of the organic HAP or Total Organic Compounds (TOC) emission limit according to either of the following (in addition to EPA Method 25 or 25A):
 - i. Method 18 of 40 CFR Part 60, Appendix A; as specified in 40 CFR 63.2354(b)(3)(i); or **(40 CFR 63.2354(b)(3))**
 - ii. Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry under the conditions specified in 40 CFR 63.2354(b)(3)(ii). **(40 CFR 63.2354(b)(3))**
 - e. Compliance determination of the HAP content of organic liquids according to either EPA Method 311 of 40 CFR Part 63, Appendix A or other method approved by the Administrator. **(40 CFR 63.2354(c))**
4. The permittee shall conduct initial performance tests and design evaluations by the following dates, whichever is earlier: **(40 CFR 63.2358(a))**
 - a. According to the schedule in 40 CFR 63.7(a)(2); or
 - b. The compliance date specified in any applicable State or Federal new source review construction permit.
5. For storage tanks and transfer racks choosing to comply with the emission limits in Table 2 of 40 CFR Part 63, Subpart EEEE, the permittee shall demonstrate initial compliance according to the following schedule:
 - a. For existing transfer racks, by August 4, 2007; **(40 CFR 63.2358(b)(1))**
 - b. For existing storage tanks with a floating roof, the next time the tank is emptied and degassed, but not later than February 3, 2014 **(40 CFR 63.2358(b)(1)(i))**
 - c. For reconstructed and new sources, within 180 days after initial start up. **(40 CFR 63.2358(b)(2))**
6. For storage tanks at existing sources choosing to comply with the work practice standards in Table 4 of 40 CFR Part 63, Subpart EEEE, the permittee shall conduct the initial compliance demonstration the next time the tank is emptied and degassed but not later than February 3, 2014. **(40 CFR 63.2358(c)(1))**
7. For transfer racks and equipment leak components at existing sources that are complying with the work practice standards in Table 4 of 40 CFR Part 63, Subpart EEEE, the permittee shall conduct the initial compliance demonstration by August 4, 2007. **(40 CFR 63.2358(c)(2))**
8. For storage tanks, transfer racks and equipment leak components at reconstructed or new sources that are complying with the work practice standards in Table 4 of 40 CFR Part 63, Subpart EEEE, the permittee shall conduct the initial compliance demonstration within 180 days after the initial start up date for the affected source. **(40 CFR 63.2358(d))**
9. For nonflare control devices, the permittee shall conduct subsequent performance tests required in Table 5 of 40 CFR Part 63, Subpart EEEE, item 1 at any time EPA requests. **(40 CFR 63.2362(a))**

10. For each owned transport vehicle that is equipped with vapor collection equipment that is loaded with organic liquids at transfer racks subject to control based on the criteria in Table 2 of 40 CFR Part 63, Subpart EEEE, items 7 through 10, the permittee shall perform the vapor tightness testing required in Table 5 of 40 CFR Part 63, Subpart EEEE, item 2 at least once per year. **(40 CFR 63.2362(b)(1))**
11. For each owned transport vehicle that does not have vapor collection equipment, the permittee shall maintain current certification in accordance with the U.S. DOT pressure test requirements in 49 CFR Part 180 for cargo tanks or 49 CFR 173.31 for tank cars. **(40 CFR 63.2362(b)(2))**
12. 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))**

See Appendix 5-1

VI. MONITORING/RECORDKEEPING

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

1. For each storage tank with a capacity less than 5,000 gallons and each transfer rack that only unloads organic liquids, the permittee shall keep documentation that verifies that each storage tank and transfer rack identified in 40 CFR 63.2343(a) is not required to be controlled. The documentation must be kept up-to-date and must be in a form suitable and readily available for expeditious inspection and review according to 40 CFR 63.10(b)(1). **(40 CFR 63.2343(a))**
2. For each storage tank using a vapor balancing system per 40 CFR 63.2346(a)(4), the permittee shall keep the following records:
 - a. Current certification in accordance with the U.S. DOT pressure test requirements of 49 CFR Part 180 – cargo tanks; **(40 CFR 63.2390(e)(1))**
 - b. Current certification in accordance with the U.S. DOT pressure test requirements of 49 CFR 173.31 – tank cars, **(40 CFR 63.2390(e)(1))**
 - c. Pressure relief vent setting specified in 40 CFR 63.2346(a)(4)(v), **(40 CFR 63.2390(e)(2))**
 - d. A record of the equipment to be used and procedures to be followed when reloading cargo tanks or tank cars and displacing vapors back to the storage tank from which the liquid originates. **(40 CFR 63.2390(e)(3)(i))**
 - e. A record of each time the vapor balancing system is used to comply with 40 CFR 63.2346(a)(4)(vi)(B) **(40 CFR 63.2390(e)(3)(ii))**
3. For each transport vehicle into which organic liquids are loaded at a transfer rack that is subject to control based on the criteria in Table 2 of 40 CFR Part 63, Subpart EEEE, items 7 through 10, the permittee shall keep the following records:
 - a. The documentation described in 40 CFR 60.505(b) for transport vehicles equipped with vapor collection; **(40 CFR 63.2390(c)(1))**
 - b. Current certification in accordance with U.S. DOT pressure test requirements in 49 CFR Part 180 for cargo tanks without vapor collection equipment; **(40 CFR 63.2390(c)(2))**
 - c. Current certification in accordance with U.S. DOT pressure test requirements in 49 CFR Part 173 for tank cars without vapor collection equipment. **(40 CFR 63.2390(c)(2))**

Alternatively, the permittee may record that the verification of U.S. DOT tank certification or Method 27 in 40 CFR Part 60, Appendix A has been performed. **(40 CFR 63.2390(c)(3))**

4. The permittee shall keep records of the total actual annual facility-level organic liquid loading volume as defined in 40 CFR 63.2406 through transfer racks to document the applicability, or lack thereof, of the emission limitations in Table 2 of 40 CFR Part 63, Subpart EEEE, items 7 through 10. **(40 CFR 63.2390(d))**
5. For each control device required to comply with 40 CFR Part 63, Subpart EEEE, the permittee shall install, operate, and maintain a Continuous Monitoring System (CMS). If using a Continuous Parameter Monitoring System (CPMS), the permittee shall comply with the applicable requirements in 40 CFR Part 63, Subpart SS. If

using a Continuous Emission Monitoring System (CEMS), the permittee shall comply with the applicable requirements in 40 CFR 63.8. **(40 CFR 63.2366(a))**

6. For nonflare control devices controlling storage tanks and low throughput transfer racks, the permittee shall submit a monitoring plan according to the requirements in 40 CFR Part 63, Subpart SS. **(40 CFR 63.2366(b))**
7. When using a control device to comply with 40 CFR Part 63, Subpart EEEE, the permittee shall monitor continuously or collect data at all required intervals at all times the emission source and control device are in OLD operation to demonstrate continuous compliance. The permittee is not required to monitor and collect data during the following situations:
 - a. Malfunctions of the Continuous Monitoring System; **(40 CFR 63.2374(b))**
 - b. Repairs of the Continuous Monitoring System; **(40 CFR 63.2374(b))**
 - c. Required quality assurance or control activities (including calibration checks and required zero span adjustments). **(40 CFR 63.2374(b))**

Furthermore, the permittee shall not use data recorded during the above situations in data averages and calculations used to report emission and operating levels. **(40 CFR 63.2374(c))**

8. The permittee shall keep records in a form suitable and readily available for expeditious inspection and review according to 40 CFR 63.10(b)(1) including records stored in electronic form at a separate location. **(40 CFR 63.2394(a))**
9. The permittee shall keep records of all information for five years following the date of each occurrence, measurement, maintenance, corrective action, report or record as specified in 40 CFR 63.10(b)(1). **(40 CFR 63.2394(b))**
10. The permittee shall keep each record on site for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report or record as specified in 40 CFR 63.10(b)(1). These same records may be kept off site for the remaining three years. **(40 CFR 63.2394(c))**
11. The permittee shall keep all records required by 40 CFR 63.2343 for each emission source that does not require control under 40 CFR Part 63, Subpart EEEE. **(40 CFR 63.2390(a))**
12. The permittee shall keep all of the following records for each emission source that requires control under 40 CFR Part 63, Subpart EEEE:
 - a. All records in 40 CFR Part 63, Subpart SS; **(40 CFR 63.2390(b))**
 - b. All records in Table 12 of 40 CFR Part 63, Subpart EEEE; **(40 CFR 63.2390(b))**
 - c. All records required to show continuous compliance as required in 40 CFR Part 63, Subpart SS and in Tables 8 through 10 of 40 CFR Part 63, Subpart EEEE. **(40 CFR 63.2390(b))**

See Appendix 3-1

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. 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. For each storage tank having a capacity greater than or equal to 5,000 gallons that is not subject to control based on the criteria specified in Table 2 of 40 CFR Part 63, Subpart EEEE, items 1 through 6, the permittee shall comply with the requirements specified in 40 CFR 63.2343(b)(1) through (b)(3). **(40 CFR 63.2343(b))**
5. For each transfer rack that loads organic liquids and is not subject to control based on the criteria in Table 2 of 40 CFR Part 63, Subpart EEEE, items 7 through 10, the permittee shall comply with the requirements specified in 40 CFR 63.2343(c)(1) through (c)(3). **(40 CFR 63.2343(c))**
6. The permittee must submit a subsequent Compliance report as specified in paragraphs 40 CFR 63.2343(b)(3) and (c)(3) if one or more of the following events occur since the filing of the Notification of Compliance Status or the last Compliance report:
 - a. Any storage tank or transfer rack became subject to control under this Subpart EEEE; **(40 CFR 63.2343(d)(1))**
 - b. Any storage tank equal to or greater than 18.9 cubic meters (5,000 gallons) became part of the affected source but is not subject to any of the emission limitations, operating limits, or work practice standards of this subpart; **(40 CFR 63.2343(d)(2))**
 - c. Any transfer rack (except those racks at which only unloading of organic liquids occurs) became part of the affected source; **(40 CFR 63.2343(d)(3))**
 - d. Any of the information required in 40 CFR 63.2386(c)(1), (2) or (3) has changed. **(40 CFR 63.2343(d)(4))**
7. The permittee shall submit the following notifications according to the schedule in Table 12 of 40 CFR Part 63, Subpart EEEE:
 - a. Each notification in 40 CFR Part 63, Subpart SS; **(40 CFR 63.2382(a))**
 - b. Each notification in Table 12 of 40 CFR Part 63, Subpart EEEE; **(40 CFR 63.2382(a))**
 - c. Initial notification according to the schedule specified in 40 CFR 63.2382(b); **(40 CFR 63.2382(b))**
 - d. Notification of Intent to conduct a performance test as required in 40 CFR 63.7(b)(1); **(40 CFR 63.2382(c))**
 - e. Notification of Compliance Status including the information required in 40 CFR 63.999(b) and 40 CFR 63.2382(d)(2)(i) through (viii). **(40 CFR 63.2382(d))**

These notifications must be submitted according to the schedule in Table 12 of 40 CFR Part 63, Subpart EEEE and as specified in paragraphs (b) through (d) of 40 CFR 63.2382.

8. The permittee shall submit all applicable reports in 40 CFR 63.2386 according to the schedule in Table 11 of 40 CFR Part 63, Subpart EEEE and by the dates specified in 40 CFR 63.2386(b)(1) through (3). These reports include, but are not limited to, the following:
 - a. Each report in 40 CFR Part 63, Subpart SS; **(40 CFR 63.2386(a))**
 - b. Each report in Table 11 of 40 CFR Part 63, Subpart EEEE; **(40 CFR 63.2386(a))**
 - c. Each report in Table 12 of 40 CFR Part 63, Subpart EEEE; **(40 CFR 63.2386(a))**
 - d. First Compliance Report containing the information specified in 40 CFR 63.2386(c)(1) through (10); **(40 CFR 63.2386(c))**
 - e. Subsequent Compliance Reports containing the information specified in 40 CFR 63.2386(c)(1) through (9) and 40 CFR 63.2386(d)(1) through (4) where applicable; **(40 CFR 63.2386(d))**
 - f. Report of all deviations for each affected source that has obtained a Renewable Operating Permit. **(40 CFR 63.2386(e))**
9. The permittee shall submit any performance test reports, including RATA 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 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

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

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).

FGMONMACT FLEXIBLE GROUP CONDITIONS

DESCRIPTION

These conditions apply to miscellaneous organic chemical manufacturing process units (MCPU) that are located at, or are part of, a major source as defined in section 112(a) of the Clean Air Act and that meet all the criteria specified in 40 CFR Part 63, Subpart FFFF (40 CFR), 63.2435. Specified processes are further defined in 40 CFR 63.2440.

Emission Unit: EU09, EU1200, EURULE290, FG954THROX

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

1. The permittee shall comply with the emission limits in Tables 1 through 5 of Subpart FFFF at all times, except during periods of startup, shutdown, and malfunction, or the alternative emission limits specified in 40 CFR 63.2495, 40 CFR 63.2500, or 40 CFR 63.2505, except as specified in 40 CFR 63.2450 (b) through (s). **(40 CFR 63.2450(a))**
2. The permittee shall comply with each applicable emission limit in Table 1 of Subpart FFFF for continuous process vents. **(40 CFR 63.2455(a))**
3. The permittee shall comply with each applicable emission limit in Table 2 of Subpart FFFF for batch process vents. **(40 CFR 63.2460(a))**
4. The permittee shall comply with each applicable emission limit in Table 3 of Subpart FFFF for process vents that emit hydrogen halide and halogen HAP or HAP metals. **(40 CFR 63.2465(a))**
5. The permittee shall comply with each applicable emission limit in Table 4 of Subpart FFFF for storage tanks. **(40 CFR 63.2470(a))**
6. The emission limits in Table 4 to Subpart FFFF for control devices used to control emissions from storage tanks do not apply during periods of planned routine maintenance. **(40 CFR 63.2470(d))**
7. As an alternative to the emission limits specified in Table 4 to Subpart FFFF, the permittee may elect to implement vapor balancing in accordance with 40 CFR 63.1253(f), except as specified in 40 CFR 63.2470(e)(1) through (3). The permittee may comply with the vapor balancing alternative in 40 CFR 63.1253(f) when the storage tank is filled from a barge. All requirements for tank trucks and railcars specified in 40 CFR 63.1253(f) also apply to barges, except when 40 CFR 63.1253(f)(2) refers to pressure testing certifications, the requirements in 40 CFR 61.304(f) apply for barges. **(40 CFR 63.2470(e))**
8. For each surge control vessel or bottoms receiver that meets the capacity and vapor pressure thresholds for a Group 1 storage tank, the permittee shall comply with the emission limits specified in Table 4 of Subpart FFFF. **(40 CFR 63.2450(r))**
9. The permittee shall comply with each applicable emission limit in Table 5 of Subpart FFFF for transfer racks. **(40 CFR 63.2475(a))**
10. The permittee may elect to comply with the pollution prevention alternative requirements specified below in lieu of the emission limitations and work practice standards contained in Tables 1 through 7 to Subpart FFFF for any MCPU for which initial startup occurred before April 4, 2002. The permittee may comply with the requirements

- of 40 CFR 63.2495(a)(1) for a series of processes, including situations where multiple processes are merged, if the permittee demonstrates to the satisfaction of the Administrator that the multiple processes were merged after the baseline period into an existing process or processes. **(40 CFR 63.2495(a))**
- a. The permittee must reduce the production-indexed HAP consumption factor (HAP factor) by at least 65% from a 3-year average baseline beginning no earlier than the 1994 through 1996 calendar years. For any reduction in the HAP factor achieved by reducing HAP that are also volatile organic compounds (VOC), the permittee must demonstrate an equivalent reduction in the production-indexed VOC consumption factor (VOC factor) on a mass basis. For any reduction in the HAP factor achieved by reducing a HAP that is not a VOC, the permittee may not increase the VOC factor. **(40 CFR 63.2495(a)(1))**
 - b. Any MCPU for which the permittee seeks to comply by using the pollution prevention alternative must begin with the same starting material(s) and end with the same product(s). The permittee may not comply by eliminating any steps of a process by transferring the step offsite (to another manufacturing location). The permittee may also not merge a solvent recovery step conducted offsite to onsite and as part of an existing process as a method of reducing consumption. **(40 CFR 63.2495(a)(2))**
 - c. The permittee may comply with the requirements of paragraph (a) above for a series of processes, including situations where multiple processes are merged, if the permittee demonstrates to the satisfaction of the Administrator that the multiple processes were merged after the baseline period into an existing process or processes. **(40 CFR 63.2495(a)(3))**
 - d. The permittee must comply with the emission limitations and work practice standards contained in Tables 1 through 7 of Subpart FFFF for all HAP that are generated in the MCPU and that are not included in consumption, as defined in 40 CFR 63.2550. If any vent stream routed to the combustion control is a halogenated vent stream, as defined in 40 CFR 63.2550, then hydrogen halides that are generated as a result of combustion control must be controlled according to the requirements of 40 CFR 63.994 and the requirements referenced therein. The permittee may not merge nondedicated formulation or nondedicated solvent recovery processes with any other processes. **(40 CFR 63.2495(b))**
 - e. To demonstrate initial compliance with the pollution prevention alternative requirements (40 CFR 63.2495(a)), the permittee must prepare a demonstration summary in accordance with 40 CFR 63.2495(c)(1) and calculate baseline and target annual HAP and VOC factors in accordance with 40 CFR 63.2495(c)(2) and (3). **(40 CFR 63.2495(c))**
11. For an existing source, the permittee may elect to comply with the percent reduction emission limitations in Tables 1, 2, 4, 5, and 7 to Subpart FFFF by complying with the emissions averaging provisions specified in 40 CFR 63.150, except as specified below. **(40 CFR 63.2500(a))**
- a. The batch process vents in an MCPU collectively are considered one individual emission point for the purposes of emissions averaging, except that only individual batch process vents must be excluded to meet the requirements of 40 CFR 63.150(d)(5). **(40 CFR 63.2500(b))**
 - b. References in 40 CFR 63.150 to 40 CFR 63.112 through 40 CFR 63.130 mean the corresponding requirements in 40 CFR 63.2450 through 40 CFR 63.2490, including applicable monitoring, recordkeeping, and reporting. **(40 CFR 63.2500(c))**
 - c. References to “periodic reports” in 40 CFR 63.150 mean “compliance report” for the purposes of Subpart FFFF. **(40 CFR 63.2500(d))**
 - d. For batch process vents, estimate uncontrolled emissions for a standard batch using the procedures in 40 CFR 63.1257(d)(2)(i) and (ii) instead of the procedures in 40 CFR 63.150(g)(2). Multiply the calculated emissions per batch by the number of batches per month when calculating the monthly emissions for use in calculating debits and credits. **(40 CFR 63.2500(e))**
 - e. References to “storage vessels” in 40 CFR 63.150 mean “storage tank” as defined in 40 CFR 63.2550 for the purposes of Subpart FFFF. **(40 CFR 63.2500(f))**
12. As an alternative to complying with the emission limits and work practice standards for process vents and storage tanks in Tables 1 through 4 to Subpart FFFF and the requirements in 40 CFR 63.2455 through 40 CFR 63.2470, the permittee may comply with the emission limits below and demonstrate compliance in accordance with the requirements in 40 CFR 63.2505(b). **(40 CFR 63.2505)**
- a. The permittee must route vent streams through a closed-vent system to a control device that reduces HAP emissions as specified in either paragraph below. **(40 CFR 63.2505(a)(1))**
 - i. If the permittee uses a combustion control device, it must reduce HAP emissions to an outlet TOC concentration of 20 parts per million by volume (ppmv) or less and to an outlet concentration of hydrogen

halide and halogen HAP of 20 ppmv or less, or as an alternative, if the permittee controls halogenated vent streams emitted from a combustion device followed by a scrubber, reduce the hydrogen halide and halogen HAP generated in the combustion device by greater than or equal to 95% by weight in the scrubber. **(40 CFR 63.2505(a)(1)(i))**

- ii. If the permittee uses a noncombustion control device(s), it must reduce HAP emissions to an outlet total organic HAP concentration of 50 ppmv or less, and an outlet concentration of hydrogen halide and halogen HAP of 50 ppmv or less. **(40 CFR 63.2505(a)(1)(ii))**
- b. Any Group 1 process vents within a process that are not controlled according to this alternative standard must be controlled according to the emission limits in Tables 1 through 3 to Subpart FFFF. **(40 CFR 63.2505(a)(2))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall comply with the work practice standards in Tables 1 through 7 of Subpart FFFF at all times, except during periods of startup, shutdown, and malfunction, and comply with the requirements specified in 40 CFR 63.2455 through 40 CFR 63.2490 (or the alternative means of compliance in 40 CFR 63.2495, 40 CFR 63.2500, or 40 CFR 63.2505), except as specified in 40 CFR 63.2450 (b) through (s). **(40 CFR 63.2450(a))**
2. When organic HAP emissions from different emission types (e.g., continuous process vents, batch process vents, storage tanks, transfer operations, and waste management units) are combined, the permittee shall comply with the requirements of either 40 CFR 63.2450(c)(1) or 40 CFR 63.2450(c)(2). **(40 CFR 63.2450(c))**
3. The permittee shall not use a flare to control halogenated vent streams or hydrogen halide and halogen HAP emissions. **(40 CFR 63.2450(o))**
4. Opening a safety device, as defined in 40 CFR 63.2550, is allowed at any time conditions require it to avoid unsafe conditions. **(40 CFR 63.2450(p))**
5. For each surge control vessel or bottoms receiver that meets the capacity and vapor pressure thresholds for a Group 1 storage tank, the permittee shall comply with the work practice standards specified in Table 4 of Subpart FFFF. **(40 CFR 63.2450(r))**
6. For the purposes of determining group status for continuous process vents, batch process vents, and storage tanks in 40 CFR 63.2455, 40 CFR 63.2460, and 40 CFR 63.2470, the permittee shall consider hydrazine to be an organic HAP. **(40 CFR 63.2450(s))**
7. Periods of planned routine maintenance of each control device used to control emissions from storage tanks, during which the control device does not meet the emission limit specified in Table 4 to Subpart FFFF, must not exceed 240 hours per year (hr/yr). The permittee may submit an application to the Administrator requesting an extension of this time limit to a total of 360 hr/yr. The application must explain why the extension is needed, it must indicate that no material will be added to the storage tank between the time the 240-hr limit is exceeded and the control device is again operational, and it must be submitted at least 60 days before the 240-hr limit will be exceeded. **(40 CFR 63.2470(d))**
8. The permittee must comply with each work practice standard in Table 5 to Subpart FFFF that applies to transfer racks, and the permittee must meet each applicable requirement in 40 CFR 63.2475(b) and (c). When the term "high throughput transfer rack" is used in 40 CFR Part 63, Subpart SS, the term "Group 1 transfer rack," as defined in 40 CFR 63.2550, applies for the purposes of Subpart FFFF. **(40 CFR 63.2475)**

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 requirements specified in 40 CFR 63.2450 (g)(1) through (5) apply instead of or in addition to the requirements specified in 40 CFR Part 63, Subpart SS. **(40 CFR 63.2450(g))**
2. To demonstrate compliance with the emission limit in Table 3 to Subpart FFFF for HAP metals at a new source, the permittee must conduct an initial performance test of each control device that is used to comply with the emission limit for HAP metals specified in Table 3 to Subpart FFFF. The permittee must conduct the performance test according to the procedures in 40 CFR 63.997. The permittee must use Method 29 of Appendix A of 40 CFR Part 60 to determine the HAP metals at the inlet and outlet of each control device, or use Method 5 of Appendix A of 40 CFR Part 60 to determine the total particulate matter (PM) at the inlet and outlet of each control device. The permittee has demonstrated initial compliance if the overall reduction of either HAP metals or total PM from the process is greater than or equal to 97% by weight. **(40 CFR 63.2465(d)(2))**
3. 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))**

See Appendix 5-1

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 comply with the recordkeeping requirements specified in 40 CFR 63.2515, 40 CFR 63.2520, and 40 CFR 63.2525. **(40 CFR 63.2450(a))**
2. Each continuous emissions monitoring system (CEMS) must be installed, operated, and maintained according to the requirements in 40 CFR 63.8 and 40 CFR 63.2450(j)(1) through (5). **(40 CFR 63.2450(j))**
3. The provisions in 40 CFR 63.2450(k)(1) through (6) of this section apply in addition to the requirements for continuous parameter monitoring system (CPMS) in 40 CFR Part 63, Subpart SS. **(40 CFR 63.2450(k))**
4. 40 CFR 63.152(f)(7)(ii) through (iv) and 40 CFR 63.998(b)(2)(iii) and (b)(6)(i)(A), which apply to the exclusion of monitoring data collected during periods of startup, shutdown, and malfunction from daily averages, do not apply for the purposes of 40 CFR Part 63, Subpart FFFF. **(40 CFR 63.2450(l))**
5. To demonstrate compliance with the emission limit in Table 3 to Subpart FFFF for HAP metals at a new source, the permittee must comply with the monitoring requirements specified in 40 CFR 63.1366(b)(1)(xi) for each fabric filter used to control HAP metals. **(40 CFR 63.2465(d)(3))**
6. The permittee must keep records of HAP and VOC consumption, production, and the rolling annual HAP and VOC factors for each MCPPU for which the permittee is complying with 40 CFR 63.2495(a), the pollution prevention standard. **(40 CFR 63.2495(e))**
7. The permittee shall keep each applicable record required by 40 CFR Part 63, Subpart A and in referenced subparts of 40 CFR 63 F, G, SS, UU, WW, and GGG and in referenced Subpart F of 40 CFR Part 63 **(40 CFR 63.2525(a))**
8. The permittee shall keep records of each operating scenario as specified below:
 - a. A description of the process and the type of process equipment used; **(40 CFR 63.2525(b)(1))**

- b. An identification of related process vents, including their associated emissions episodes if not complying with the alternative standard in 40 CFR 63.2505; wastewater point of determination (POD); storage tanks; and transfer racks; **(40 CFR 63.2525(b)(2))**
 - c. The applicable control requirements of Subpart FFFF, including the level of required control, and for vents, the level of control for each vent; **(40 CFR 63.2525(b)(3))**
 - d. The control device or treatment process used, as applicable, including a description of operating and/or testing conditions for any associated control device; **(40 CFR 63.2525(b)(4))**
 - e. The process vents, wastewater POD, transfer racks, and storage tanks (including those from other processes) that are simultaneously routed to the control device or treatment process(s); **(40 CFR 63.2525(b)(5))**
 - f. The applicable monitoring requirements of Subpart FFFF and any parametric level that assures compliance for all emissions routed to the control device or treatment process; **(40 CFR 63.2525(b)(6))**
 - g. Calculations and engineering analyses required to demonstrate compliance; **(40 CFR 63.2525(b)(7))**
 - h. For reporting purposes, a change to any of these elements not previously reported, except for 40 CFR 63.2525(b)(5), constitutes a new operating scenario. **(40 CFR 63.2525(b)(8))**
9. The permittee shall keep a schedule or log of operating scenarios for processes with batch vents from batch operations updated each time a different operating scenario is put into effect. **(40 CFR 63.2525(c))**
10. The permittee shall keep records of the information specified below for Group 1 batch process vents in compliance with a percent reduction emission limit in Table 2 to Subpart FFFF if some of the vents are controlled to less the percent reduction requirement: **(40 CFR 63.2525(d))**
- a. Records of whether each batch operated was considered a standard batch; **(40 CFR 63.2525(d)(1))**
 - b. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch. **(40 CFR 63.2525(d)(2))**
11. The permittee shall keep records of the information specified below, as applicable, for each process with Group 2 batch process vents or uncontrolled hydrogen halide and halogen HAP emissions from the sum of all batch and continuous process vents less than 1,000 lb/yr. No records are required if the permittee documented in the notification of compliance status report that the MCPU meets any of the situations described in 40 CFR 63.2525(e)(1)(i), (ii), or (iii). **(40 CFR 63.2525(e))**
- a. If the permittee documented in the notification of compliance status report that an MCPU has Group 2 batch process vents because the non-reactive organic HAP is the only HAP and usage is less than 10,000 lb/yr, as specified in 40 CFR 63.2460(b)(7), the permittee must keep records of the amount of HAP material used, and calculate the daily rolling annual sum of the amount used no less frequently than monthly. If a record indicates usage exceeds 10,000 lb/yr, the permittee must estimate emissions for the preceding 12 months based on the number of batches operated and the estimated emissions for a standard batch, and begin recordkeeping as specified in 40 CFR 63.2525(e)(4). After 1 year, the permittee may revert to recording only usage if the usage during the year is less than 10,000 lb. **(40 CFR 63.2525(e)(2))**
 - b. If the permittee documented in the notification of compliance status report that total uncontrolled organic HAP emissions from the batch process vents in an MCPU will be less than 1,000 lb/yr for the anticipated number of standard batches, then the permittee must keep records of the number of batches operated and calculate a daily rolling annual sum of batches operated no less frequently than monthly. If the number of batches operated results in organic HAP emissions that exceed 1,000 lb/yr, the permittee must estimate emissions for the preceding 12 months based on the number of batches operated and the estimated emissions for a standard batch, and begin recordkeeping as specified in 40 CFR 63.2525(e)(4). After one year, the permittee may revert to recording only the number of batches if the number of batches operated during the year results in less than 1,000 lb of organic HAP emissions. **(40 CFR 63.2525(e)(3))**
 - c. If none of the conditions specified in 40 CFR 63.2525(e)(1) through (3) are met, the permittee must keep records of the information specified below: **(40 CFR 63.2525(e)(4))**
 - i. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions; **(40 CFR 63.2525(e)(4)(i))**
 - ii. A record of whether each batch operated was considered a standard batch; **(40 CFR 63.2525(e)(4)(ii))**
 - iii. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch; **(40 CFR 63.2525(e)(4)(iii))**

- iv. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly. **(40 CFR 63.2525(e)(4)(iv))**
- 12. The permittee shall keep a record of each time a safety device is opened to avoid unsafe conditions in accordance with 40 CFR 63.2450(s). **(40 CFR 63.2525(f))**
- 13. The permittee shall keep record of the results of each CPMS calibration check and the maintenance performed, as specified in 40 CFR 63.2450(k)(1). **(40 CFR 63.2525(g))**
- 14. For each CEMS, The permittee must keep records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period. **(40 CFR 63.2525(h))**
- 15. For each PUG, the permittee must keep records specified below. **(40 CFR 63.2525(i))**
 - a. Descriptions of the MCPU and other process units in the initial PUG required by 40 CFR 63.2535(l)(1)(v). **(40 CFR 63.2525(i)(1))**
 - b. Rationale for including each MCPU and other process unit in the initial PUG (i.e., identify the overlapping equipment between process units) required by 40 CFR 63.2535(l)(1)(v). **(40 CFR 63.2525(i)(2))**
 - c. Calculations used to determine the primary product for the initial PUG required by 40 CFR 63.2535(l)(2)(iv). **(40 CFR 63.2525(i)(3))**
 - d. Descriptions of process units added to the PUG after the creation date and rationale for including the additional process units in the PUG as required by 40 CFR 63.2535(l)(1)(v). **(40 CFR 63.2525(i)(4))**
 - e. The calculation of each primary product redetermination required by 40 CFR 63.2535(l)(2)(iv). **(40 CFR 63.2525(i)(5))**
- 16. In the SSMP required by 40 CFR 63.6(e)(3), the permittee is not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment. **(40 CFR 63.2525(j))**
- 17. For each bag leak detector used to monitor PM HAP emissions from a fabric filter, maintain records of any bag leak detection alarm, including the date and time, with a brief explanation of the cause of the alarm and the corrective action taken. **(40 CFR 63.2525(k))**

See Appendix 3-1

VII. REPORTING

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
- 2. 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 comply with the notification and reporting requirements specified in 40 CFR 63.2515, 40 CFR 63.2520, and 40 CFR 63.2525. **(40 CFR 63.2450(a))**
- 5. When 40 CFR 63.2455 through 63.2490 reference other subparts in 40 CFR 63 that use the term "periodic report," it means "compliance report" for the purposes of 40 CFR Part 63, Subpart FFFF. The compliance report must include the information specified in 40 CFR 63.2520(e), as well as the information specified in referenced subparts. **(40 CFR 63.2450(m)(1))**

6. When there are conflicts between 40 CFR Part 63, Subpart FFFF and referenced subparts for the due dates of reports required by 40 CFR Part 63, Subpart FFFF, reports must be submitted according to the due dates presented in 40 CFR Part 63, Subpart FFFF. **(40 CFR 63.2450(m)(2))**
7. Excused excursions, as defined in 40 CFR Part 63, Subparts G and SS, are not allowed. **(40 CFR 63.2450(m)(3))**
8. If an emission stream contains energetics or organic peroxides that, for safety reasons, cannot meet an applicable emission limit specified in Tables 1 through 7 to Subpart FFFF, then the permittee must submit documentation in the precompliance report explaining why an undue safety hazard would be created if the air emission controls were installed, and the permittee must describe the procedures that will be implemented to minimize HAP emissions from these vent streams. **(40 CFR 63.2450(q))**
9. If complying with the pollution prevention standard, the permittee must include the pollution prevention demonstration plan in the precompliance report required by 40 CFR 63.2520(c). The permittee must identify all days when the annual factors were above the target factors in the compliance reports. **(40 CFR 63.2495(f))**
10. The permittee must submit each applicable report in Table 11 to Subpart FFFF. **(40 CFR 63.2520(a))**
11. Unless the Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report by the date in Table 11 to Subpart FFFF and according to 40 CFR 63.2520(b)(1) through (5). **(40 CFR 63.2520(b))**
12. The permittee must submit a precompliance report to request approval for any of the items in 40 CFR 63.2520(c)(1) through (7). The report will be approved or disapproved within 90 days after receipt. If it is disapproved, the permittee must still be in compliance with the emission limitations and work practice standards in Subpart FFFF by the compliance date. To change any of the information submitted in the report, the permittee must submit a notification 60 days before the planned change is to be implemented. **(40 CFR 63.2520(c))**
13. The permittee must submit a notification of compliance status report according to the schedule in 40 CFR 63.2520(d)(1), and the notification of compliance status report must contain the information specified in 40 CFR 63.2520(d)(2). **(40 CFR 63.2520(d))**
14. The compliance report must contain the information specified in 40 CFR 63.2520(e)(1) through (10). **(40 CFR 63.2520(e))**
15. The permittee must submit all of the notifications in 40 CFR 63.6(h)(4) and (5), 40 CFR 63.7(b) and (c), 40 CFR 63.8(e), (f)(4) and (6), and 40 CFR 63.9(b) through (h) that apply by the dates specified. **(40 CFR 63.2515(a))**
16. As specified in 40 CFR 63.9(b)(3), if the new affected source starts-up on or after November 10, 2003, the permittee must submit an initial notification not later than 120 calendar days after becoming subject to Subpart FFFF. **(40 CFR 63.2515(b)(2))**
17. If required to conduct a performance test, the permittee must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required in 40 CFR 63.7(b)(1). For any performance test required as part of the initial compliance procedures for batch process vents in Table 2 to Subpart FFFF, the permittee must also submit the test plan required by 40 CFR 63.7(c) and the emission profile with the notification of the performance test. **(40 CFR 63.2515(c))**
18. The permittee shall submit any performance test reports, including RATA 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 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A; Subpart FFFF for Miscellaneous Organic Chemical Manufacturing. **(40 CFR Part 63, Subparts A and FFFF)**
2. The permittee shall determine if an emission stream is a halogenated vent stream, as defined in 40 CFR 63.2550, by calculating the mass emission rate of halogen atoms in accordance with 40 CFR 63.115(d)(2)(v). Alternatively, the permittee may elect to designate the emission stream as halogenated. **(40 CFR 63.2450(b))**
3. Except when complying with 40 CFR 63.2485, if the permittee reduces organic HAP emissions by venting emissions through a closed-vent system to any combination of control devices (except a flare) or recovery devices, the permittee shall meet the requirements of 40 CFR 63.982(c) and the requirements referenced therein. **(40 CFR 63.2450(e)(1))**
4. Except when complying with 40 CFR 63.2485, if the permittee reduces organic HAP emissions by venting emissions through a closed-vent system to a flare, the permittee shall meet the requirements of 40 CFR 63.982(b) and the requirements referenced therein. **(40 CFR 63.2450(e)(2))**
5. If the permittee uses a halogen reduction device to reduce hydrogen halide and halogen HAP emissions from halogenated vent streams, the permittee shall meet the requirements of 40 CFR 63.994 and the requirements referenced therein. If the permittee uses a halogen reduction device before a combustion device, the permittee shall determine the halogen atom emission rate prior to the combustion device according to the procedures in 40 CFR 63.115(d)(2)(v). **(40 CFR 63.2450(e)(3))**
6. As part of a flare compliance assessment required in 40 CFR 63.987(b), the permittee has the option of demonstrating compliance with the requirements of 40 CFR 63.11(b) by complying with the requirements in either 40 CFR 63.11(b)(6)(i) or 40 CFR 63.987(b)(3)(ii). If the permittee elects to meet the requirements in 40 CFR 63.11(b)(6)(i), the permittee shall keep flare compliance assessment records as specified in 40 CFR 63.2450(f)(2)(i) and (ii). **(40 CFR 63.2450(f))**
7. To determine the percent reduction of a small control device that is used to comply with an emission limit specified in Table 1, 2, 3, or 5, the permittee may elect to conduct a design evaluation as specified in 40 CFR 63.1257(a)(1) instead of a performance test as specified in 40 CFR Part 63, Subpart SS. The permittee shall establish the value(s) and basis for the operating limits as part of the design evaluation. For continuous process vents, the design evaluation must be conducted at maximum representative operating conditions for the process, unless the Administrator specifies or approves alternate operating conditions. For transfer racks, the design evaluation must demonstrate that the control device achieves the required control efficiency during the reasonably expected maximum transfer loading rate. **(40 CFR 63.2450(h))**
8. When 40 CFR 63.997(e)(2)(iii)(C) requires correcting the measured concentration at the outlet of a combustion device to 3% oxygen if supplemental combustion air is added, the requirements in either (a) or (b) below apply for the purposes of 40 CFR Part 63, Subpart FFFF:
 - a. The permittee shall correct the concentration in the gas stream at the outlet of the combustion device to 3% oxygen if supplemental gases are added, as defined in 40 CFR 63.2550, to the vent stream; or **(40 CFR 63.2450(i)(1))**
 - b. The permittee shall correct the measured concentration for supplemental gases using Equation 1 of 40 CFR 63.2460; the permittee may use process knowledge and representative operating data to determine the fraction of the total flow due to supplemental gas. **(40 CFR 63.2450(i)(2))**

9. For each continuous process vent, the permittee shall either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in 40 CFR 63.115(d), except as specified in 40 CFR 63.2455(b)(1) through (3). **(40 CFR 63.2455(b))**
10. If the permittee uses a recovery device to maintain the TRE above a specified threshold, the permittee shall meet the requirements of 40 CFR 63.982(e) and the requirements referenced therein, except as specified in 40 CFR 63.2450 and 40 CFR 63.2455(c)(1). **(40 CFR 63.2455(c))**
11. If a process has batch process vents, as defined in 40 CR 63.2550, the permittee must determine the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process using the procedures specified in 40 CFR 63.1257(d)(2)(i) and (ii), except as specified in 40 CFR 63.2460(b)(1) through (7). **(40 CFR 63.2460(b))**
12. Exceptions to the requirements for batch process vents in 40 CFR Part 63, Subparts SS and WW are specified in 40 CFR 66.2460(c)(1) through (9). **(40 CFR 63.2460(c))**
13. If any process vents within a process emit hydrogen halide and halogen HAP, the permittee must determine and sum the uncontrolled hydrogen halide and halogen HAP emissions from each of the process vents within the process using the procedures specified in 40 CFR 63.1257(d)(2)(i) and/or (ii), as appropriate. When 40 CFR 63.1257(d)(2)(ii)(E) requires documentation to be submitted in the precompliance report, it means the notification of compliance status report for the purposes of 40 CFR 63.2465(b). **(40 CFR 63.2465(b))**
14. If collective uncontrolled hydrogen halide and halogen HAP emissions from the process vents within a process are greater than or equal to 1,000 pounds per year (lb/yr), the permittee must comply with 40 CFR 63.994 and the requirements referenced therein, except as specified in 40 CFR 63.2465(c)(1) through (3). **(40 CFR 63.2465(c))**
15. To demonstrate compliance with the emission limit in Table 3 to Subpart FFFF for HAP metals at a new source, the permittee must determine the mass emission rate of HAP metals based on process knowledge, engineering assessment, or test data. **(40 CFR 63.2465(d)(1))**
16. If the permittee conducts a performance test or design evaluation for a control device used to control emissions only from storage tanks, the permittee must establish operating limits, conduct monitoring, and keep records using the same procedures as required in 40 CFR Part 63, Subpart SS for control devices used to reduce emissions from process vents instead of the procedures specified in 40 CFR 63.985(c), 40 CFR 63.998(d)(2)(i), and 40 CFR 63.999(b)(2). **(40 CFR 63.2470(c)(1))**
17. When the term "storage vessel" is used in 40 CFR Part 63, Subparts SS and WW, the term "storage tank," as defined in 40 CFR 63.2550 applies for the purposes of Subpart FFFF. **(40 CFR 63.2470(c)(2))**
18. The permittee must meet each requirement in Table 6 to Subpart FFFF that applies to equipment leaks, except as specified in 40 CFR 63.2480(b) through (d). **(40 CFR 63.2480)**
19. The permittee must meet each requirement in Table 7 to Subpart FFFF that applies to wastewater streams and liquid streams in open systems within an MCPU, except as specified in 40 CFR 63.2485(b) through (o). **(40 CFR 63.2485)**
20. The permittee must meet each requirement in Table 10 to Subpart FFFF that applies to heat exchange systems, except that the phrase "a chemical manufacturing process unit meeting the conditions of 40 CFR 63.100 (b)(1) through (b)(3) of this section" in 40 CFR 63.104(a) means "an MCPU meeting the conditions of 40 CFR 63.2435" for the purposes of Subpart FFFF and that the reference to 40 CFR 63.100(c) in 40 CFR 63.104(a) does not apply for the purposes Subpart FFFF. **(40 CFR 63.2490)**
21. For each MCPU for which the permittee is complying with 40 CFR 63.2495(a), the pollution prevention standard, the permittee must calculate annual rolling average values of the HAP and VOC factors (annual factors) in accordance with the procedures specified below. To show continuous compliance, the annual factors must be

- equal to or less than the target annual factors calculated according to 40 CFR 63.2495(c)(3). **(40 CFR 63.2495(d))**
- a. To calculate the annual factors, the permittee must divide the consumption of both total HAP and total VOC by the production rate, per process, for 12-month periods at the frequency specified in either paragraph below, as applicable. **(40 CFR 63.2495(d)(1))**
 - i. For continuous processes, the permittee must calculate the annual factors every 30 days for the 12-month period preceding the 30th day (i.e., annual rolling average calculated every 30 days). A process with both batch and continuous operations is considered a continuous process for the purposes of this section. **(40 CFR 63.2495(d)(2))**
 - ii. For batch processes, the permittee must calculate the annual factors every 10 batches for the 12-month period preceding the 10th batch (i.e., annual rolling average calculated every 10 batches), except as specified if the permittee produces more than 10 batches during a month, the permittee must calculate the annual factors at least once during that month and, if the permittee produces less than 10 batches in a 12-month period, the permittee must calculate the annual factors for the number of batches in the 12-month period since the previous calculations. **(40 CFR 63.2495(d)(3))**
22. To demonstrate compliance with the alternative standard in 40 CFR 63.2505, the permittee must meet the requirements of 40 CFR 63.1258(b)(5) beginning no later than the initial compliance date specified in 40 CFR 63.2445, except as specified below. **(40 CFR 63.2505(b))**
- a. The permittee must comply with the requirements in 40 CFR 63.983 and the requirements referenced therein for closed-vent systems. **(40 CFR 63.2505(b)(1))**
 - b. When 40 CFR 63.1258(b)(5)(i) refers to 40 CFR 63.1253(d) and 40 CFR 63.1254(c), the requirements in paragraph 40 CFR 63.2505(a) apply for the purposes of Subpart FFFF. **(40 CFR 63.2505(b)(2))**
 - c. When 40 CFR 63.1258(b)(5)(i)(B) refers to "HCl," it means "total hydrogen halide and halogen HAP" for the purposes of Subpart FFFF. **(40 CFR 63.2505(b)(3))**
 - d. When 40 CFR 63.1258(b)(5)(ii) refers to 40 CFR 63.1257(a)(3), it means 40 CFR 63.2450(j)(5) for the purposes of Subpart FFFF. **(40 CFR 63.2505(b)(4))**
 - e. The permittee must submit the results of any determination of the target analytes of predominant HAP in the notification of compliance status report. **(40 CFR 63.2505(b)(5))**
 - f. If the permittee elects to comply with the requirement to reduce hydrogen halide and halogen HAP by greater than or equal to 95% by weight in 40 CFR 63.2505(a)(1)(i)(C), the permittee must meet the requirements below. **(40 CFR 63.2505(b)(6))**
 - i. Demonstrate initial compliance with the 95% reduction by conducting a performance test and setting a site-specific operating limit(s) for the scrubber in accordance with 40 CFR 63.994 and the requirements referenced therein. The permittee must submit the results of the initial compliance demonstration in the notification of compliance status report. **(40 CFR 63.2505(b)(6)(i))**
 - ii. Install, operate, and maintain CPMS for the scrubber as specified in 40 CFR 63.994(c) and 40 CFR 63.2450(k), instead of as specified in 40 CFR 63.1258(b)(5)(i)(C). **(40 CFR 63.2505(b)(6)(ii))**
 - g. If flow to the scrubber could be intermittent, the permittee you must install, calibrate, and operate a flow indicator as specified in 40 CFR 63.2460(c)(7). **(40 CFR 63.2505(b)(7))**
 - h. Use the operating day as the averaging period for CEMS data and scrubber parameter monitoring data. **(40 CFR 63.2505(b)(8))**
 - i. The requirements in 40 CFR 63.2505(a) do not apply to emissions from storage tanks during periods of planned routine maintenance of the control device that do not exceed 240 hr/yr. The permittee may submit an application to the Administrator requesting an extension of this time limit to a total of 360 hr/yr in accordance with the procedures specified in 40 CFR 63.2470(d). The permittee must comply with the recordkeeping and reporting specified in 40 CFR 63.998(d)(2)(ii) and 40 CFR 63.999(c)(4) for periods of planned routine maintenance. **(40 CFR 63.2505(b)(9))**
23. For any equipment, emission stream, or wastewater stream subject to the provisions of both 40 CFR Part 63, Subpart FFFF and another rule, the permittee may elect to comply only with the provisions as specified in 40 CFR 63.2535(a) through (I). The permittee also must identify the subject equipment, emission stream, or wastewater stream, and the provisions that will be complied with, in the notification of compliance status report required by 40 CFR 63.2520(d). **(40 CFR 63.2535)**

24. For any Group 2 emission point that becomes a Group 1 emission point after the compliance date for the facility, the permittee shall comply with the Group 1 requirements beginning on the date the switch occurs. An initial compliance demonstration, as specified in 40 CFR Part 63, Subpart FFFF, shall be conducted within 150 days after the switch occurs. **(40 CFR 63.2445(d))**
25. If, after the compliance date for the facility, hydrogen halide and halogen HAP emissions from process vents in a process increase to more than 1,000 lb/yr, or HAP metals emissions from a process at a new affected source increase to more than 150 lb/yr, the permittee shall comply with the applicable emission limits specified in Table 3 of 40 CFR Part 63, Subpart FFFF and the associated compliance requirements beginning on the date the emissions exceed the applicable threshold. An initial compliance demonstration, as specified in 40 CFR Part 63, Subpart FFFF, shall be conducted within 150 days after the switch occurs. **(40 CFR 63.2445(e))**
26. If the permittee has a small control device for process vent or transfer rack emissions that becomes a large control device, as defined in 40 CFR 63.2550(i), the permittee shall comply with monitoring and associated recordkeeping and reporting requirements for large control devices beginning on the date the switch occurs. An initial compliance demonstration, as specified in 40 CFR 63 Subpart FFFF, shall be conducted within 150 days after the switch occurs. **(40 CFR 63.2445(f))**

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).

**FGBOILERS21&22-S1
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Backup package boilers nos. 21 and 22 used to supply the Midland Dow I-park with steam. Boilers burn natural gas. Each boiler has a maximum design heat input capacity equal to 357 MMBTU/hr. Equipment located at 879 Building.

FGBOILERS21&22-S1 is subject to 40 CFR Part 63, Subparts A and DDDDD (Industrial, Commercial and Institutional Boilers and Process Heaters – Major Sources).

This flexible group was permitted in PTI No. 916-84.

Emission Units: EUBOILER21-S1, EUBOILER22-S1

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Sulfur Dioxide	1.11 lbs/MMBTU heat input ¹	24-hour period	Each Boiler	SC IX.3	R 336.1224 R 336.1225
2. Particulate Matter	0.076 lb/1000 lbs of exhaust gases, corrected to 50% excess air ²	Test protocol	Each Boiler	SC IX.3	R 336.1331(1)(c)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall use only pipeline quality natural gas. (R 336.1213(3))

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

NA

VII. REPORTING

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

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBOIL21&22-001	84 ²	100 ²	R 336.1201
2. SVBOIL21&22-002	84 ²	100 ²	R 336.1201

IX. OTHER REQUIREMENT(S)

1. The permittee shall meet the monitoring, recordkeeping, and reporting requirements of the NOx SIP Call during the ozone season (May 1 through September 30). **(40 CFR Part 96, Subpart H)**

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>10MMBTU FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Requirements for 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: EUBOILER21, EUBOILER22

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall conduct a tune-up of each emission unit that has an oxygen trim system installed in FGBOILERMACT>10,000MMBTU of the burner(s) and combustion controls, as applicable, every 5 years as specified in SC III.2. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. The permittee may delay the burner inspection until the next scheduled or unscheduled unit shutdown, but each burner must be inspected at least once every 72 months. **(40 CFR 63.7500(d), 40 CFR 63.7515(d), 40 CFR 63.7540(a)(12), Table 3 of 40 CFR Part 63 Subpart DDDDD)**
 - a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown. Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. **(40 CFR 63.7540(a)(10)(i))**
 - b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.7540(a)(10)(ii))**
 - c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection. **(40 CFR 63.7540(a)(10)(iii))**
 - d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**
 - e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as

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

2. At all times, the permittee must operate and maintain each existing gas 1 boiler or process heater, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

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 annual compliance report that the permittee submitted. **(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. **(40 CFR 63.7555(h))**
3. The permittee shall maintain on-site and submit, if requested by the AQD, an annual tune-up report containing the information listed below:
 - a. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater; **(40 CFR 63.7540(a)(10)(vi)(A))**
 - b. A description of any corrective actions taken as a part of the tune-up; **(40 CFR 63.7540(a)(10)(vi)(B))**
 - c. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. **(40 CFR 63.7540(a)(10)(vi)(C))**
4. The permittee's records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). **(40 CFR 63.7560(a))**
5. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5-years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.7560(b))**
6. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2-years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee can keep the records off site for the remaining 3-years. **(40 CFR 63.7560(c))**

See Appendix 3-1

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. 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 use a fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart of 40 CFR Part 63, Part 60, Part 61, or Part 65, or Other Gas 1 fuel to fire the affected unit during a period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575, the permittee must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575. The notification must include the information as listed below:
 - a. Company name and address; **(40 CFR 63.7545(f)(1))**
 - b. Identification of the affected unit; **(40 CFR 63.7545(f)(2))**
 - c. Reason the permittee is unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared, or the natural gas supply interruption began; **(40 CFR 63.7545(f)(3))**
 - d. Type of alternative fuel that the permittee intends to use; **(40 CFR 63.7545(f)(4))**
 - e. Dates when the alternative fuel use is expected to begin and end. **(40 CFR 63.7545(f)(5))**
5. 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 applicable reporting year(s). Compliance reports must also be submitted to EPA using the Compliance and Emissions Data Reporting Interface (CEDRI) which is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). **(40 CFR 63.7550(b))**
6. The permittee must submit a compliance report containing the following information:
 - a. Company and Facility name and address; **(40 CFR 63.7550(c)(5)(i))**
 - b. Process unit information, emissions limitations, and operating parameter limitations; **(40 CFR 63.7550(c)(5)(ii))**
 - c. Date of report and beginning and ending dates of the reporting period; **(40 CFR 63.7550(c)(5)(iii))**
 - d. Include the date of the most recent tune-up for each unit. Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown; **(40 CFR 63.7550(c)(5)(xiv))**
 - 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))**
7. The permittee must submit all reports required by Table 9 of this subpart electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, submit the report to the EPA Region V at the appropriate address listed in 40 CFR 63.13 and to the appropriate AQD District Office. **(40 CFR 63.7550(h)(3))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

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

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<10MMBTU
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

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.

Emission Unit: FGRULE290 (1233 Garlon fired heater EU-FH-1000)

Equal to or less than 5 MMBTU/hr and only burns gaseous or light liquid fuels	EU-FH-1000 is a one MMBTU boiler associated with a Rule 290 emission unit.
Greater than 5 MMBTU/hr and less than 10 MMBTU/hr that burns gaseous or light liquid fuels or any unit that is less than 10 MMBTU/hr and burns any heavy liquid or solid fuels	NA

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)(12))**
 - a. As applicable, inspect the burner and clean or replace any components of the burner as necessary. The permittee may perform the burner inspection any time prior to the tune-up or may delay the burner inspection until the next scheduled unit shutdown. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. **(40 CFR 63.7540(a)(10)(i))**
 - b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.7540(a)(10)(ii))**

- c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly. The permittee may delay the inspection until the next scheduled unit shutdown. **(40 CFR 63.7540(a)(10)(iii))**
 - d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**
 - e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. **(40 CFR 63.7540(a)(10)(v))**
3. If the unit is not operated on the required date for the tune-up, the tune-up must be conducted within 30 calendar days of startup. **(40 CFR 63.7540(a)(13))**
 4. At all times, the permittee must operate and maintain each existing small boiler or process heater, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee must keep a copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or 2- or 5-year compliance report or one-time energy assessment, as applicable, that the permittee submitted. **(40 CFR 63.7555(a)(1))**
2. The permittee must keep the records in a form suitable and readily available for expeditious review. **(40 CFR 63.7560(a))**
3. The permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.7560(b))**
4. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee can keep the records off site for the remaining 3 years. **(40 CFR 63.7560(c))**

See Appendix 3-1

VII. REPORTING

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

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee must submit boiler or process heater tune-up compliance reports to the appropriate AQD District Office and must be postmarked or submitted by March 15th of the year following the applicable 2- or 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 8-1

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).

FGEMERGCIRICE FLEXIBLE GROUP CONDITIONS
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DESCRIPTION

Emergency diesel fuel engines subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE). Title 40 of the Code of Federal Regulations (CFR), Part 63, Subpart ZZZZ (40 CFR 63.6580-6675). The engines are regulated as existing compression ignition (CI) emergency RICE with a maximum site rate of less than 500 brake horsepower (HP) and greater than 500 brake horsepower (HP) located at a Major Source of HAP emissions.

Emission Unit: EUEMERGCIRICE

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. An affected source that meets any of the criteria in paragraphs 40 CFR 63.6590(c)(1) through (7) must meet the requirements of this part by meeting the requirements of 40 CFR Part 60, Subpart IIII, for compression ignition engines. No further requirements apply for such engines under this part. **(40 CFR 63.6590(c))**
2. The permittee shall limit operation of each stationary emergency RICE with a site rating of less than or equal to 500 brake HP or greater than 500 brake HP as follows:
 - a. There is no time limit on the use of emergency stationary RICE in emergency situations. **(40 CFR 63.6640(f))**
 - b. Emergency stationary RICE may be operated for the purposes of maintenance checks and readiness testing up 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 permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. **(40 CFR 63.6640(f))**
 - c. Emergency stationary RICE may be operated up to 50 hours per year in non-emergency situations, but those hours are to be counted towards the 100 hours per year for maintenance and readiness testing. These 50 hours per year for non-emergency situations cannot be used for peak-shaving 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. Up to 15 hours per year can be used as part of a demand response program. **(40 CFR 63.6640(f))**
3. The permittee shall operate and maintain existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP according to the manufacturer's emission-related operation and maintenance instructions or a plan developed by the facility that provides for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 63.6625(e) and 40 CFR 63.6640(a) Table 6(9)(a))**

4. For existing emergency CI RICE with a site rating of less than or equal to 500 brake HP, the permittee shall inspect the air cleaner every 1000 hours of operation or annually, whichever comes first. **(40 CFR 63.6603(a) and Table 2d (4)(b))**
5. For existing emergency CI RICE with a site rating of less than or equal to 500 brake HP, the permittee shall change the oil and filter every 500 hours of operation or annually, whichever comes first. In lieu of changing the oil and filter, the permittee may implement an oil analysis program to have the oil analyzed at the same frequency specified for changing the oil as described in 40 CFR 63.6625(i). **(40 CFR 63.6603(a) and Table 2d (4)(a) and (5)(a))**
6. If implementing an oil analysis program and if the analytical results of the oil analysis program for emergency stationary CI engines with a site rate of less than or equal to 500 brake HP indicate any of the following limits are exceeded, the permittee shall change the oil within 2 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 shall change the oil within 2 days or before commencing operation, whichever is later. **(40 CFR 63.6625(i))**
 - a. Total Base Number is less than 30 percent of the Total Base Number of the oil when new.
 - b. Viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new.
 - c. Percent water content (by volume) is greater than 0.5.
7. For existing emergency CI RICE with a site rating of less than or equal to 500 brake HP, the permittee shall inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. **(40 CFR 63.6603(a) and Table 2d (4)(c) & (5)(c))**
8. If an existing emergency CI RICE with a site rating of less than or equal to 500 brake HP is operating during an emergency and it is not possible to shut down to perform the management practice requirements (change oil and filter, inspect air cleaner, and inspect hoses and belts) on the required schedule, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice shall be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. **(40 CFR 63.6603(a) and Table 2d footnote 2)**
9. 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 safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission standards apply. **(40 CFR 63.6625(h), 40 CFR 63.6640(a))**
10. Beginning January 1, 2015, an existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in 40 CFR 63.6640(f)(4)(ii), the permittee must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted. **(40 CFR 63.6604(b))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. For existing emergency CI RICE with a site rating of 500 brake HP or less, the permittee shall install a nonresettable hour meter. **(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 implementing an oil analysis program for emergency stationary CI engines with a site rating of less than or equal to 500 brake HP, the permittee shall at a minimum analyze the oil for the following three parameters: **(40 CFR 63.6625(i))**
 - a. Total Base Number

- b. Viscosity
- c. Percent water content (by volume).

See Appendix 5-1

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 a copy of each notification and report submitted, including supporting documentation. **(40 CFR 63.6655(a)(1))**
2. The permittee shall maintain a record of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. **(40 CFR 63.6655(a)(2))**
3. The permittee shall maintain a record of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. **(40 CFR 63.6655(a)(5))**
4. The permittee shall maintain records of the maintenance conducted on the stationary RICE in order to demonstrate that the stationary RICE was operated and maintained according to the facility maintenance plan. **(40 CFR 63.6655(e)(2))**
5. For existing emergency stationary RICE that do not meet the emission standards applicable to nonemergency stationary RICE, permittee shall maintain records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The records must document how many hours are spent for emergency operation; including what classified the operation as emergency; and how many hours are spent for nonemergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response. **(40 CFR 63.6655(f))**
6. If implementing an oil analysis program, the permittee shall 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) and (j))**

See Appendix 3-1

VII. REPORTING

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

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subparts A (General Provisions) and ZZZZ (NESHAP 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).

FGEMERGSIRICE FLEXIBLE GROUP CONDITIONS
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DESCRIPTION

Emergency spark ignition engines subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE). Title 40 of the Code of Federal Regulations (CFR) Part 63, Subpart ZZZZ. The engines are regulated as existing spark ignition (SI) emergency RICE with a maximum site rate of less than 500 brake horsepower (HP) located at a Major Source of HAP emissions.

Emission Unit: EUEMERGSIRICE

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. An affected source that meets any of the criteria in paragraphs 40 CFR 63.6590(c)(1) through (7) must meet the requirements of this part by meeting the requirements of 40 CFR Part 60, Subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part. **(40 CFR 63.6590(c))**
2. The permittee may operate EUEMERGSIRICE as necessary during emergencies with no time limit. **(40 CFR 63.6640(f)(1))**
3. The permittee may operate EUEMERGSIRICE for any combination of the following purposes for a maximum of 100 hours per calendar year: **(40 CFR 63.6640(f)(2))**
 - a. Maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the engine manufacturer or vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with EUEMERGSIRICE. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of EUEMERGSIRICE beyond 100 hours per calendar year;
 - b. Periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
4. The permittee may operate EUEMERGSIRICE for up to 50 hours per engine per year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours of operation allowed under SC III.2. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **(40 CFR 63.6640(f)(3))**

5. The permittee shall operate and maintain EUEMERGSIRICE 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 EUEMERGSIRICE in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 63.6625(e))**
6. The permittee shall comply with the following operational requirements:
 - a. Change oil and filter every 500 hours of operation or annually, whichever comes first, except as allowed in SC III.6;
 - b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;
 - c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

If EUEMERGSIRICE is being operated during an emergency and it is not possible to shut down EUEMERGSIRICE to perform the work practice standards 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 work practice standard can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. **(40 CFR 63.6602, 40 CFR Part 63, Subpart ZZZ, Table 2c, Item 6)**

7. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in SC III.6. The oil analysis must be performed at the same frequency specified for changing the oil in SC III.6. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content (by volume). The condemning limits for these parameters are as follows:
 - a. Total Acid Number has increased by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new;
 - b. Viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or
 - c. Percent water content (by volume) is greater than 0.5%.

If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee must change the oil within 2 business days or before commencing operation, whichever is later. The analysis program must be part of the maintenance plan for EUEMERGSIRICE. **(40 CFR 63.6625(j))**

8. The permittee shall minimize EUEMERGSIRICE's time spent at idle during startup and minimize the EUEMERGSIRICE's startup time to a period needed for appropriate and safe loading of EUEMERGSIRICE, not to exceed 30 minutes. **(40 CFR 63.6625(h))**
9. The permittee must be in compliance with the emission limitations and operating limitations in this subpart that apply to EUEMERGSIRICE at all times. **(40 CFR 63.6605(a))**
10. The permittee shall operate and maintain EUEMERGSIRICE in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of EUEMERGSIRICE. **(40 CFR 63.6605(b))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip EUEMERGSIRICE with a non-resettable hour meter. **(40 CFR 63.6625(f))**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep the following records: **(40 CFR 63.6655)**
 - a. A copy of each notification and report submitted to comply with Subpart ZZZZ of Part 63, including all documentation supporting any Initial Notification or Notification of Compliance status, according to the requirements of 40 CFR 63.10(b)(2)(xiv);
 - b. Records of the occurrence and duration of each malfunction of EUEMERGSIRICE;
 - c. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning equipment to its normal or usual manner of operation;
 - d. Records to demonstrate continuous compliance with operating limitations in SC III.4;
 - e. Records of the maintenance conducted on EUEMERGSIRICE in order to demonstrate that EUEMERGSIRICE is operated and maintained according to the maintenance plan;
 - f. Records of hours of operation recorded through the non-resettable hour meter. The permittee shall document how many hours were spent during emergency operation; including what classified the operation as emergency; and how many hours were spent during non-emergency operation.
2. The permittee must keep records of the parameters that are analyzed as part of the oil analysis program in SC III.7, the results of the analysis, and the oil changes for EUEMERGSIRICE. **(40 CFR 63.6625(j))**

See Appendix 3-1

VII. REPORTING

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

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subparts A (General Provisions) and ZZZZ (NESHAP 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 1-1. Acronyms and Abbreviations

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO ₂ e	Carbon Dioxide Equivalent
CEMS	Continuous Emission Monitoring System	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
COM	Continuous Opacity Monitoring	°F	Degrees Fahrenheit
Department/ department	Michigan Department of Environment, Great Lakes, and Energy	gr	Grains
EGLE	Michigan Department of Environment, Great Lakes, and Energy	HAP	Hazardous Air Pollutant
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 2-1. Schedule of Compliance

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

Appendix 3-1. Monitoring Requirements

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

Appendix 4-1. Recordkeeping

The permittee may use form EQP 3558 (Permit to Install Exemption Record form) provided by the Environmental Sciences and Services Division, for the recordkeeping requirements referenced in FGRULE290.

Appendix 5-1. 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 6-1. Permits to Install

PTIs rolled in since December 2018 ROP MI-ROP-A4033-2017b.

The Stationary Source was issued MI-ROP-A4033-2017b on December 14, 2018. On March 1, 2019, applications for ROP Significant Modifications were submitted for ROP MI-A4033-2017b to enable individual ROPs to be issued to each of the owners of facilities at the Stationary Source. Corteva is located at this single Stationary Source with Clean Harbors (P1028), DDP (SRN P1027), N&B (P1027), Dow Chemical (SRN: A4033), Dow Silicones (SRN: A4043), and Trinseo (SRN: P1025). Dow Chemical is considered the landlord of the industrial park or stationary source whereas the other facilities are considered tenants that will own and operate their assets.

The following table lists any PTIs issued or ROP revision applications received from Corteva since issuance of MI ROP-A4033-2017b. The following table lists any Permit to Install and/or Operate, that relate to the identified emission units or flexible groups as of the effective date of this ROP. This includes all Permits to Install and/or Operate that are hereby incorporated into Source-Wide PTI No. MI-PTI-P1028-2022d.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
NA	201900086	New ROP under SRN P1028 for assets owned by Corteva Agriscience, formerly in Dow Chemical ROP for SRN A4033.	Dow Chemical SRN A4033 ROP Significant Mod
108-19	202000004	Incorporation of PTI No. 108-19 into the ROP, which was to add Table EU12b into the ROP for the 948 Building 2, 4D production facility.	EU12b FG963THROX (See SRN P1027) FGPESTICIDES FGHONFUGITIVES FGOLDMACT

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
166-19	202000016	Incorporation of PTI No. 166-19, which is for the addition of EU07 for the vinylidene chloride storage and distribution process for the 954 Building.	EU07 FGHONFUGITIVES FGMONMACT FGOLDMACT FG954THROX
160-19	202000065	Incorporation of PTI No. 160-19, which is for the addition of EU05 for the HCl storage and distribution process for the 954 Building.	EU05 FGHCLSCRUBBER (See SRN P1027) FGHCLMACT
NA	202100012	Name change from Dow AgroScience to Corteva Agriscience.	All SRN P1028 assets at Midland Michigan Dow iPark
108-19A	202100028	Incorporation of PTI No. 108-19A which increased the amount of time the carbon could be used.	EU12b FG963THROX (See SRN P1027) FGPESTICIDES FGHONFUGITIVES FGOLDMACT
147-20	202100029	Incorporation of PTI No. 147-20 which is for the 2,4-D (2,4-dichlorophenoxyacetic acid) salt herbicide process.	EU03 FG963THROX (See SRN P1027) FGPESTICIDES FGHONFUGITIVES
95-20	202100055	Incorporation of PTI No. 95-20 which is for the sulfoxaflor manufacturing equipment located in Building 827.	EU02 FGHONFUGITIVES FGPESTICIDES FGOLDMACT FG954THROX
37-20	202100065	Incorporation of PTI No. 37-20 which is for the spinosyns manufacturing process at 1200 Building.	EU1200 FGHONFUGITIVES FGMONMACT FGOLDMACT
84-21	202100233	Incorporation of PTI No. 84-21 for spinetoram manufacturing process at 1028 Building.	EU1028 FGHONFUGITIVES FGPESTICIDES FG954THROX
NA	NA	Remove EU07 due to process shutdown.	EU07

The following table lists the ROP amendments or modifications issued after the effective date of ROP No. MI-ROP-P1028-2022.

Permit to Install Number	ROP Revision Application Number - Issuance Date	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
37-20A	202200130 / December 20, 2022	To incorporate PTI 37-20A into Section 1 of the ROP, which is to update emission unit EU1200 to account for additional formaldehyde emissions based on emission testing at the Harbor Beach facility.	EU1200

Permit to Install Number	ROP Revision Application Number - Issuance Date	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
98-05A	202200195 / December 20, 2022	To incorporate PTI 98-05A into Section 1 of the ROP, which is for emission unit EU09 in the 489 building Liquid Herbicide Formulation production facility to account for ethylene oxide emissions based on emission testing.	EU09
147-20A	202300084 / July 24, 2023	To incorporate PTI No. 147-20A into the ROP, which was to install a new rail car station at EU03, piping to allow EU03 to use an existing storage tank and existing rail car station that are part of EU09, and allowing pressurized loading, rather than vapor balance loading, of the choline hydroxide storage tank. These changes will allow a 42% increase in production. No permit changes were made to EU09, as EU09 is permitted as "flexible for toxics" and the changes fall within the parameters of the current EU09 permit conditions.	EU03
37-20B	202300130 / November 6, 2023	To incorporate PTI No. 37-20B into the ROP, which was to install additional equipment to expand production capacity of the fermenters and seed tanks to increase the capacity 1.5 times in EU1200, and to add a stack that previously was assumed to exhaust indoors.	EU1200

Appendix 7-1. 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 FG954THROX:

<u>Compound</u>	<u>Toxic Equivalency Factor</u>
Mono through tri CDD	0
2378-TCDD	1
other TCDDs	0.01
2378-PeCDDs	0.5
other PeCDDs	0.005
2378-HxCDDs	0.04
other HxCDDs	0.0004
2378-HpCDDs	0.001
other HpCDDs	0.00001
OCDD	0
Mono through tri CDF	0
2378-TCDFs	0.1

other TCDFs	0.001
<u>Compound</u>	<u>Toxic Equivalency Factor</u>
2378-PeCDFs	0.1
other PeCDFs	0.001
2378-HxCDFs	0.01
other HxCDFs	0.0001
2378-HpCDFs	0.001
other HpCDFs	0.00001
OCDF	0

Appendix 8-1. 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
Clean Harbors Industrial Services

ROP No: MI-ROP-P1028-2022d
Expiration Date: September 15, 2027
PTI No: MI-PTI-P1028-2022d

SECTION 2 – CLEAN HARBORS INDUSTRIAL SERVICES

A. GENERAL CONDITIONS

Permit Enforceability

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

General Provisions

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

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

Equipment & Design

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

Emission Limits

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

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

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

Testing/Sampling

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

Monitoring/Recordkeeping

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

Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**
19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604-3507. **(R 336.1213(4)(c))**
20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**
21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
 - a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
 - b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
 - c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

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

Permit Shield

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

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

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

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

Revisions

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

Reopenings

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

Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(9))**

Stratospheric Ozone Protection

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

Risk Management Plan

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

Emission Trading

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

Permit to Install (PTI)

- 43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.² **(R 336.1201(1))**
- 44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA.² **(R 336.1201(8), Section 5510 of Act 451)**
- 45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, EGLE.² **(R 336.1219)**
- 46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, EGLE, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.² **(R 336.1201(4))**
- 47. Each Responsible Official shall certify annually the compliance status of the stationary source with all stationary Source-Wide conditions. This certification shall be included as part of the annual certification of compliance as required in the General Conditions in Part A and Rule 213(4)(c). **(R 336.1213(4)(c))**

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 stationary source consists of Corteva Agriscience, LLC (SRN P1028), Clean Harbors Industrial Services (P1028), DDP Specialty Electronic Materials US, Inc. (SRN P1027), Nutrition & Biosciences USA 1, LLC (P1027), The Dow Chemical Company (SRN A4033), Dow Silicones Corporation (SRN A4043), and Trinseo, LLC (SRN P1025). The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.

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

SOURCE-WIDE CONDITIONS

DESCRIPTION

All process equipment at the stationary source including equipment covered by other permits, grandfathered equipment, and exempt equipment.

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))**

1. For any condition specified in the ROP which requires the permittee to monitor and record an operational parameter (e.g., flow rate, pH, pressure drop, etc.) on a "continuous basis" pursuant to AQD R 336.1213(3), monitoring and recording of data "on a continuous basis" is defined as an instantaneous data point recorded at least once every 15 minutes for at least 90% of the operating time during an operating calendar day. In the event the permittee collects more than one data point during the 15-minute period, the data point recorded may be the average (rolling or block) of all data points collected during the 15-minute period. Any response to an excursion of the corresponding operational parameter set point or range specified in the ROP pursuant to R 336.1213(3), shall be based upon these 15-minute values. Unless otherwise noted in the ROP, the permittee is not required to monitor and record operational parameter data during periods of non-operation of the device resulting in cessation of the emissions to which the monitoring applies. **(R 336.1213(3))**
2. The permittee shall maintain waste shipment records for all asbestos-containing waste material transported off-site as per 40 CFR Part 61, Subpart M, Section 61.150(d). **(40 CFR Part 61, Subpart M)**

See Appendix 3-2

VII. REPORTING

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

2. 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 follow the applicable notification requirements in 40 CFR Part 61, Subpart M, Section 61.145(b) prior to any applicable demolition or renovation activity. **(40 CFR Part 61, Subpart M)**
5. The permittee shall file a report any time a copy of the waste shipment record, signed by the off-site waste disposal site, is not received in a timely manner, in accordance with 40 CFR Part 61, Subpart M, Section 61.150(d)(4). **(40 CFR Part 61, Subpart M)**
6. An Initial Report shall be filed, according to the requirements of 40 CFR Part 61, Subpart M, Section 61.153, within 90 days of startup for any new source subject to Section 61.154. **(40 CFR Part 61, Subpart M)**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. For any emission unit in the ROP subject to the applicable sections of 40 CFR Part 63, Subpart A (General Provisions) that require a startup, shutdown and malfunction plan, the owner or operator shall adopt a startup, shutdown, and malfunction plan which conforms to the provisions of Part 63. The owner or operator shall operate and maintain the source in accordance with the procedures specified in the current startup, shutdown, and malfunction plan. Any revisions made to the startup, shutdown, and malfunction plan in accordance with the procedures established by Part 63 shall not be deemed to constitute permit revisions under Part 70 or Part 71 of Chapter I. **(40 CFR Part 63, Subpart A, Section 63.6(e)(3)(ix))**
2. The permittee shall comply with the applicable provisions of 1994 PA 451, Section 324.5524 (Fugitive dust sources or emissions) and with the provisions of the most-recently approved operating program received by the AQD, Saginaw Bay District Office. The operating program shall be amended by the permittee so that the operating program is current and reflects any significant change in the fugitive dust source or fugitive dust emissions. An amendment to an operating program shall be consistent with the requirements of Section 324.5524 and shall be submitted to the department for its review and approval. **(1994 PA 451, Section 324.5524)**
3. The permittee shall comply with the applicable requirements of 40 CFR Part 61, Subparts A and M (National Emission Standards for Asbestos). The applicable sections of Subpart M may include: **(40 CFR Part 61, Subparts A and M)**
 - a. 61.140 Applicability
 - b. 61.141 Definitions
 - c. 61.145 Standard for demolition and renovation
 - d. 61.148 Standard for insulating materials
 - e. 61.150 Standard for waste disposal for manufacturing, fabricating, demolition, renovation and spraying operations
 - f. 61.152 Air cleaning
 - g. 61.153 Reporting
 - h. 61.154 Standard for active waste disposal sites
 - i. 61.156 Cross-reference to other asbestos regulations

- j. Appendix A (Interpretive Rule Governing Roof Removal Operations)
4. The permittee shall follow the applicable procedures for asbestos emission control in 40 CFR Part 61, Subpart M, Section 61.145(c) during any demolition or renovation activity. **(40 CFR Part 61, Subpart M)**
 5. The permittee shall not install or reinstall on a facility component any insulating materials that contain commercial asbestos (other than spray-applied insulating materials) if the materials are either molded and friable or wet-applied and friable after drying, as per 40 CFR Part 61, Subpart M, Section 61.148. **(40 CFR Part 61, Subpart M)**
 6. The permittee shall follow the applicable waste disposal requirements in 40 CFR Part 61, Subpart M, Section 61.150 for any asbestos removed during demolition or renovation activities. **(40 CFR Part 61, Subpart M)**
 7. The permittee shall follow the applicable requirements of 40 CFR Part 61, Subpart M, Section 61.152 if air cleaning is used as part of the method of compliance with Sections 61.145 or 61.150. **(40 CFR Part 61, Subpart M)**
 8. The permittee shall comply with the applicable requirements of 40 CFR Part 61, Subpart M, Section 61.154 for any active waste disposal site that receives asbestos-containing waste material. **(40 CFR Part 61, Subpart M)**
 9. The permittee shall comply with any other applicable asbestos regulation listed in 40 CFR Part 61, Subpart M, Section 61.156. **(40 CFR Part 61, Subpart M)**
 10. The permittee shall comply with the applicable requirements of 40 CFR Part 61, Subpart M, Appendix A for any regulated roof removal operation. **(40 CFR Part 61, Subpart M)**
 11. For any performance test required pursuant to AQD Part 10 rules, the permittee may submit as a part of their stack test plan, a request to use existing performance test data where such data exists. The AQD will evaluate as a part of the stack test plan review, whether or not such existing data can be used in lieu of conducting a new performance test. For any performance test required by a federal standard, existing performance test data can only be used in lieu of a required stack test if allowed by the standard. **(R 336.2001, R 336.2003, R 336.2004)**
 12. The permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart A, 40 CFR 82.13 (Protection of Stratospheric Ozone, Production and Consumption Controls). **(40 CFR 82.13)**
 13. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart GGGGG (Site Remediation NESHAP). **(40 CFR Part 63, Subpart GGGGG)**

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).

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
EUTANKCLEANING	A storage tank cleaning facility consisting of a blast-cleaning wand that is inserted into tanks to clean the interior. Emissions (which include VOCs and acetone) are mainly controlled by a non-regenerative carbon absorption system. Particulate emissions are controlled by a wet scrubber, which occurs before the carbon system. This emission unit was permitted in PTI No. 32-21A.	07-01-2021 04-19-2022	NA

EUTANKCLEANING EMISSION UNIT CONDITIONS

DESCRIPTION

A storage tank cleaning facility consisting of a blast-cleaning wand that is inserted into tanks to clean the interior. Emissions (which include VOCs and acetone) are mainly controlled by a non-regenerative carbon absorption system. Particulate emissions are controlled by a wet scrubber, which occurs before the carbon system.

Flexible Group ID: NA

This emission unit was permitted in PTI No. 32-21A.

POLLUTION CONTROL EQUIPMENT

- Wet scrubber
- Non-regenerative single canister carbon absorption system.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	7.85 tpy ²	12-month rolling time period as determined at the end of each calendar month	EUTANKCLEAN	SC VI.5	R 336.1205(3) R 336.1702(a)
2. VOC	1.79 pph ²	Hourly	EUTANKCLEAN	SC V.1	R 336.1702(a)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall limit the total volume of containers containing waste materials processed in EUTANKCLEAN to not more than 30,000 gallons per calendar day.² (**R 336.1205, R 336.1224, R 336.1225, R 336.1702**)
2. The permittee shall not operate any equipment associated with EUTANKCLEAN once breakthrough in the carbon absorption system has been detected. Breakthrough is considered an outlet concentration from the carbon absorption system of 5,000 ppmv or more.² (**R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1910**)
3. The permittee shall not operate EUTANKCLEAN unless a malfunction abatement plan (MAP) as described in Rule 911(2), for EUTANKCLEAN, has been submitted within 45 days of permit issuance, and is implemented and maintained. The MAP shall, at a minimum, specify the following:
 - a. A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement;
 - b. An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures;
 - 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, R 336.1224, R 336.1225, R 336.1702, R 336.1910, R 336.1911)

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUTANKCLEAN unless the wet scrubber and carbon absorption system are installed, maintained, and operated in a satisfactory manner acceptable to the AQD District Supervisor, which includes meeting the requirements of SC III.1 through SC III.3.² (R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1910)

V. TESTING/SAMPLING

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

1. Upon request of the AQD District Supervisor, the permittee shall verify the VOC emission rates from EUTANKCLEAN by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below.

Pollutant	Test Method Reference
VOC	40 CFR Part 60, Appendix A

An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.² (R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)

See Appendix 5-2

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 336.1205, R 336.1224, R 336.1225, R 336.1702(a), R 226.1910)
2. The permittee shall monitor and record the outlet concentration of the carbon absorption system for breakthrough at least once on each calendar day EUTANKCLEAN is operated, during operation, with instrumentation acceptable to the AQD District Supervisor. If breakthrough is detected, the permittee shall not operate the system until the carbon has been replaced. The permittee shall keep these records on file at the facility and make them available to the Department upon request.² (R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), R 336.1910)
3. The permittee shall record the volume of each container cleaned and the total volume of all containers cleaned on a daily basis. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² (R 336.1205, R 336.1224, R 336.1225, R 336.1702(a))

4. The permittee shall keep, in a satisfactory manner, all records of the carbon breakthrough monitoring and carbon replacement for the carbon absorption system on file at the facility and make them available to the Department upon request. ² **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), R 336.1910)**
5. The permittee shall calculate and keep, in a satisfactory manner, records of monthly and 12-month rolling time period VOC emissions for EUTANKCLEAN using production records, operating records, records of container volume cleaned, records of waste processed, and/or other data 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, R 336.1702(a))**

See Appendix 3-2

VII. REPORTING

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

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVTANKCLEAN (Carbon Absorber Stack)	4 ²	12 ²	R 336.1225 40 CFR 52.21(c) and (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).

E. NON-APPLICABLE REQUIREMENTS

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

APPENDICES

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

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

Appendix 3-2. Monitoring Requirements

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 4-2. Recordkeeping

The permittee may use form EQP 3558 (Permit to Install Exemption Record form) provided by the Environmental Sciences and Services Division, for the recordkeeping requirements referenced in FGRULE290.

Appendix 5-2. Testing Procedures

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

Appendix 6-2. Permits to Install

PTIs rolled in since December 2018 ROP MI-ROP-A4033-2017b.

The Stationary Source was issued MI-ROP-A4033-2017b on December 14, 2018. On March 1, 2019, applications for ROP Significant Modifications were submitted for ROP MI-A4033-2017b to enable individual ROPs to be issued to each of the owners of facilities at the Stationary Source. Corteva is located at this single Stationary Source with Clean Harbors (P1028), DDP (SRN P1027), N&B (P1027), Dow Chemical (SRN: A4033), Dow Silicones (SRN: A4043), and Trinseo (SRN: P1025). Dow Chemical is considered the landlord of the industrial park or stationary source whereas the other facilities are considered tenants that will own and operate their assets.

The following table lists any PTIs issued or ROP revision applications received from Clean Harbors since issuance of MI-ROP-A4033-2017b. The following table lists any Permit to Install and/or Operate, that relate to the identified emission units or flexible groups as of the effective date of this ROP. This includes all Permits to Install and/or Operate that are hereby incorporated into Source-Wide PTI No. MI-PTI-P1028-2022d.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
NA	201900086	New ROP under SRN P1028 for assets owned by Corteva Agriscience, formerly in Dow Chemical ROP for SRN A4033.	Dow Chemical SRN A4033 ROP Significant Mod
34-21	202200031	Incorporation of PTI No. 34-21 which is for a storage tank cleaning facility owned by Clean Harbors. Required adding Section 2 to ROP.	EUTANKCLEANING
34-21A	202200101	Updated conditions pertaining to the wet scrubber, MAP, and add new waste profiles	EUTANKCLEANING

Appendix 7-2. Emission Calculations

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

Appendix 8-2. Reporting

A. Annual, 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.