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|  | **MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY**  **AIR QUALITY DIVISION** |  |
| EFFECTIVE DATE: May 4, 2023  ISSUED TO  **DGP Inc.**  State Registration Number (SRN): N2383  LOCATED AT  3260 Fenner Street, Marlette, Sanilac County, Michigan 48453 | | |
|  | | |
| **RENEWABLE OPERATING PERMIT**  Permit Number: MI-ROP-N2383-2023  Expiration Date: May 4, 2028  Administratively Complete ROP Renewal Application  Due Between November 4, 2026 and November 4, 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. | | |

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| **SOURCE-WIDE PERMIT TO INSTALL**  Permit Number: MI-PTI-N2383-2023  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 PTl 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

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Brad Myott, Field Operations Manager **TABLE OF CONTENTS**

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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.

# 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))**
   1. 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.
   2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
   3. Inspect, at reasonable times, any of the following:
      1. Any stationary source.
      2. Any emission unit.
      3. Any equipment, including monitoring and air pollution control equipment.
      4. Any work practices or operations regulated or required under the ROP.
   4. 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

1. 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)**
2. 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

1. 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))**
   1. A 6-minute average of 20% opacity, except for one 6-minute average per hour of not more than 27% opacity.
   2. A limit specified by an applicable federal new source performance standard.

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

1. 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:
   1. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.1 **(R 336.1901(a))**
   2. Unreasonable interference with the comfortable enjoyment of life and property.1**(R 336.1901(b))**

## Testing/Sampling

1. 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)**
2. 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))**
3. 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

1. 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))**
   1. The date, location, time, and method of sampling or measurements.
   2. The dates the analyses of the samples were performed.
   3. The company or entity that performed the analyses of the samples.
   4. The analytical techniques or methods used.
   5. The results of the analyses.
   6. The related process operating conditions or parameters that existed at the time of sampling or measurement.
2. 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

1. 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))**
2. 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))**
3. 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))**
4. 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))**
   1. 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).
   2. 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.
   3. 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.
5. 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))**
   1. 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.
   2. 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.
6. 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))**
7. 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))**
8. 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

1. 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))**
   1. The applicable requirements are included and are specifically identified in the ROP.
   2. 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.

1. Nothing in this ROP shall alter or affect any of the following:
   1. 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))**
   2. 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))**
   3. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**
2. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**
3. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
   1. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
   2. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
   3. 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))**
   4. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
   5. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**
4. 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

1. 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)**
2. 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))**
3. 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))**
4. 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

1. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
   1. 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))**
   2. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
   3. 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))**
   4. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

## Renewals

1. 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

1. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F.
2. 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

1. 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).
2. 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):
   1. June 21, 1999,
   2. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
   3. The date on which a regulated substance is first present above a threshold quantity in a process.
3. 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.
4. 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

1. 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)

1. 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))**
2. 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)**
3. 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)**
4. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, EGLE, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.2 **(R 336.1201(4))**

**Footnotes:**

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

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

# B. SOURCE-WIDE CONDITIONS

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

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

# C. EMISSION UNIT SPECIAL CONDITIONS

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

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

## EMISSION UNIT SUMMARY TABLE

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

| **Emission Unit ID** | **Emission Unit Description**  **(Including Process Equipment & Control Device(s))** | **Installation**  **Date/**  **Modification Date** | **Flexible Group ID** |
| --- | --- | --- | --- |
| EU-PATTERNSHOP | Process may be done in an open area of the facility or in one of the two spray booths used in EU-LAMINATION. Materials in this emission unit may include Bondo, catalyst, tooling gelcoat (air atomized, done in gelcoat spray booth), mold resin (hand layup) for making patterns. | 10-01-1984 | FG-FIBERGLASS  FG-MACT  FG-MACT-WWWW |
| EU-LAMINATION | Two dry filter spray booths utilized mostly for lamination processes. Materials used may include polyester resin and/or gelcoat, PVA, lacquer thinner, patch booster, catalyst, and lacquer primer. | 10-01-1984 | FG-FIBERGLASS  FG-MACT  FG-MACT-WWWW |
| EU-GELCOAT | One dry filter spray booth for gelcoat processes. Materials used may include gelcoats, tooling gelcoats, catalyst and primer surfacer. Gelcoating process may also be done in either lamination booth. | 10-01-1984 | FG-FIBERGLASS  FG-MACT  FG-MACT-WWWW |
| EU-CLEANUP | Acetone and miscellaneous solvent use throughout the facility for cleaning purposes. Acetone used throughout facility. Other solvents mainly used in lamination booths. | 10-01-1984 | FG-FIBERGLASS  FG-MACT  FG-MACT-WWWW |
| EU-ADHESIVE | Adhesive materials used throughout the facility. | 10-01-1984 | FG-FIBERGLASS  FG-MACT  FG-MACT-WWWW |
| EU-RTM | Resin transfer molding process-exempt from R 336.1201-Permit to Install requirements via R 336.1286(2)(b). This process is subject to the MACT standards for FRP sources (Subpart WWWW). | 09-1991 | FG-MACT  FG-MACT-WWWW |

## EU-PATTERNSHOP

**EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Process may be done in an open area of the facility or in one of the two spray booths used in EU-LAMINATION. Materials in this emission unit may include Bondo, catalyst, tooling gelcoat (air atomized, done in gelcoat spray booth), mold resin (hand layup) for making patterns.

**Flexible Group ID:** FG-FIBERGLASS, FG-MACT, FG-MACT-WWWW

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

| **Pollutant** | | **Limit** | **Time Period/ Operating Scenario** | **Equipment** | **Monitoring/**  **Testing Method** | **Underlying Applicable Requirements** | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1. Styrene | 6.0 tpy1 | | 12-month rolling time period as determined at the end of each calendar month. | EU-PATTERNSHOP | SC VI.3 | **R 336.1225** |
| 1. VOC (including styrene) | 278 lb/day2 | | Calendar day | EU-PATTERNSHOP | SC VI.3 | **R 336.1205(3)** |
| 1. VOC (including styrene) | 6.2 tpy2 | | 12-month rolling time period as determined at the end of each calendar month. | EU-PATTERNSHOP | SC VI.3 | **R 336.1702(a)** |
| 1. Acetone | 500 lb/yr1 | | 12-month rolling time periods as determined at the end of each calendar month. | EU-PATTERNSHOP | SC VI.3 | **R 336.1224** |

The emission limits are based upon the emission factors in SC I.5, I.6 and I.7.

| **Material** | **Application Method** | **Styrene**  **Content**  **(wt %)** | **MMA Content**  **(wt %)** | **Styrene Emission Factor**  **(lb emitted per**  **lb material applied)** | **MMA Emission Factor**  **(lb emitted per**  **lb material applied)** |
| --- | --- | --- | --- | --- | --- |
| 1. Mold resin | Manual | 502 | NA | 0.09 | NA |
| 1. Tooling gelcoat(s) | Atomized | 382 | 52 | 0.199 | 0.0375 |
| 1. Bondo | Manual | 222 | NA | 0.0277 | NA |

The emission factors listed are for worst case styrene and MMA content materials with the specified application method. The emission factors will vary depending on the application method and the styrene and MMA contents. Refer to the Unified Emission Factor (UEF) Table in Appendix 4 for further information.2 **(R 336.1225, R 336.1702(a))**

**II. MATERIAL LIMIT(S)**

1. The permittee shall not exceed the material usage rates or the monomer content limits listed in the following table for EU-PATTERNSHOP in order to demonstrate compliance with SC I.1 through I.3.2 **(R 336.1225, R 336.1702(a))**

| **Material Usage** | | | | |
| --- | --- | --- | --- | --- |
| **Material ID** | **Calendar day** | **12-month rolling time period** | **Maximum**  **Styrene Content**  **(wt %)** | **Maximum**  **MMA Content**  **(wt %)** |
| a. Tooling gelcoat | 216 lbs | 9,996 lbs. | 38 | 5 |
| b. Mold resin | 2,170 lbs | 103,956 lbs. | 50 | NA |
| c. Bondo body filler | 1,080 lbs | 18,000 lbs. | 22 | NA |
| d. Catalyst | 44 lbs | 2,279 lbs. | NA | NA |

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

NA

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

1. The permittee shall equip and maintain the spray booth(s) in EU-PATTERNSHOP with atomized applicators or technology with equivalent or lower styrene emission rates for the application of tooling gelcoat materials. Mold resin and Bondo materials are applied using hand layup techniques.2 **(R 336.1225, R 336.1702(a))**

**V. TESTING/SAMPLING**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

1. All records shall be completed and made available by the 15th day of each calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition.2 **(R 336.1201(3))**
2. The permittee shall keep a separate record of the styrene and MMA monomer contents (if applicable) for each shipment of resin and/or gelcoat received. All records shall be kept on file for a period of at least five years and made available to the Department upon request.2 **(R 336.1225, R 336.1702(a))**
3. The permittee shall keep the following information for each calendar month for EU-PATTERNSHOP:2 **(R 336.1224, R 336.1225, R 336.1702(a))**
4. The identity and amount (in pounds) of each material used on a daily and monthly basis.
5. The styrene content of each material used, as applicable.
6. The MMA content of each material used, as applicable.
7. The acetone content of the tooling gelcoat used.
8. The VOC content of each material used.
9. The VOC and MEK content of the catalyst used.
10. The appropriate emission factor for each raw material used (specify the application method and applicable monomer contents).
11. Calculations determining the total daily, monthly and annual usage rates for each material, as applicable, to demonstrate compliance with SC II.1 a through d. The annual usage rates shall be calculated based upon a 12-month rolling time period basis as determined at the end of each calendar month.
12. Styrene emission calculations determining the monthly emission rate in tons per calendar month, and the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.
13. VOC emission calculations determining the daily emission rate in pounds per calendar day.
14. VOC emission calculations determining the monthly emission rate in tons per calendar month, and the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.
15. Acetone emission calculations determining the monthly emission rate in pounds per calendar month, and the annual emission rate in pounds per 12-month rolling time period as determined at the end of each calendar month.
16. The records shall be kept in the formats specified in Appendix 4, or in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request.

**See Appendix 4**

**VII. REPORTING**

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

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

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

**See Appendix 8**

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

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

| **Stack & Vent ID** | **Maximum Exhaust Diameter / Dimensions**  **(inches)** | **Minimum Height Above Ground**  **(feet)** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- |
| 1. SV-WESTLAMINATION | 302 | 252 | **R 336.1225, R 336.1901, 40 CFR 52.21(c) and (d)** |
| 2. SV-EASTLAMINATION | 342 | 302 | **R 336.1225, R 336.1901, 40 CFR 52.21(c) and (d)** |
| 3. SV-GELCOAT | 242 | 252 | **R 336.1225, R 336.1901, 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).

## EU-LAMINATION

**EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Two dry filter spray booths utilized mostly for lamination processes. Materials used may include polyester resin and/or gelcoat, PVA, lacquer thinner, patch booster, catalyst, and lacquer primer.

**Flexible Group ID:** FG-FIBERGLASS, FG-MACT, FG-MACT-WWWW

**POLLUTION CONTROL EQUIPMENT**

Two dry filter spray booths

**I. EMISSION LIMIT(S)**

| **Pollutant** | **Limit** | **Time Period/Operating Scenario** | **Equipment** | **Monitoring/**  **Testing Method** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- | --- | --- |
| 1. Styrene | 19.8 tpy1 | 12-month rolling time period as determined at the end of each calendar month. | EU-LAMINATION | SC VI.3 | **R 336.1225** |
| 1. VOC (including styrene) | 1126 lb/day2 | Calendar day | EU-LAMINATION | SC VI.3 | **R 336.1205(3)** |
| 1. VOC (including styrene) | 26.0 tpy2 | 12-month rolling time period as determined at the end of each calendar month. | EU-LAMINATION | SC VI.3 | **R 336.1702(a)** |
| 1. Acetone | 0.6 tpy1 | 12-month rolling time period as determined at the end of each calendar month. | EU-LAMINATION | SC VI.3 | **R 336.1224** |

The emission limits are based upon the emission factors in I.5. and I.6.

| **Material** | **Application Method** | **Styrene**  **Content**  **(wt %)** | **MMA Content**  **(wt %)** | **Styrene Emission Factor**  **(lb emitted per**  **lb material applied)** | **MMA Emission Factor**  **(lb emitted per**  **lb material applied)** |
| --- | --- | --- | --- | --- | --- |
| 1. Resin | Non-atomized | 432 | NA | 0.051 | NA |
| 1. Gelcoat | Atomized | 382 | 102 | 0.199 | 0.075 |

The emission factors listed are for worst case styrene and MMA content materials with the specified application method. The emission factors will vary depending on the application method and the styrene and MMA contents. Refer to the Unified Emission Factor (UEF) Table in Appendix 4 for further information.2 **(R 336.1225, R 336.1702(a))**

**II. MATERIAL LIMIT(S)**

1. The permittee shall not exceed the material usage rates or the monomer content limits listed in the following table for EU-LAMINATION in order to demonstrate compliance with SC I.1 through SC I.4.2 **(R 336.1225, R 336.1702(a))**

| **Material Usage** | | | | |
| --- | --- | --- | --- | --- |
| **Material ID** | **Calendar day** | **12-month rolling time period** | **Maximum**  **Styrene Content**  **(wt %)** | **Maximum**  **MMA Content**  **(wt %)** |
| 1. Gelcoat | 2,688 lbs | 59,040 lbs. | 38 | 10 |
| 1. Resin | 5,460 lbs | 531,360 lbs. | 43 | NA |
| 1. Catalyst | 108 lbs | 10,842 lbs. | NA | NA |
| 1. Patch Booster | 96 lbs | 800 lbs. | NA | NA |
| 1. Polyvinyl Alcohol (PVA) | NA | 504 gal. | NA | NA |
| 1. lacquer Primer | NA | 300 gal. | NA | NA |
| 1. Thinner | NA | 600 gal. | NA | NA |

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

NA

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

1. The permittee shall equip and maintain the spray booth(s) in EU-LAMINATION with non-atomized applicators or technology with equivalent or lower styrene emission rates for the application of resin materials. Gelcoat materials will be applied using atomized applicators, or technology with equivalent or lower styrene emission rates for the application of gelcoat materials.2 **(R 336.1225, R 336.1702(a))**

**V. TESTING/SAMPLING**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

1. All records shall be completed and made available by the 15th day of each calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition.2 **(R 336.1201(3))**
2. The permittee shall keep a separate record of the styrene and MMA monomer contents (if applicable) for each shipment of resin and/or gelcoat received. All records shall be kept on file for a period of at least five years and made available to the Department upon request.2  **(R 336.1225, R 336.1702(a))**
3. The permittee shall keep the following information for each calendar month for EU-LAMINATION:2 **(R 336.1224, R 336.1225, R 336.1702(a))**

a. The identity and amount (in pounds or gallons) of each material used on a daily and monthly basis.

b. The styrene content of each material used, as applicable.

c. The MMA content of each material used, as applicable.

d. The acetone content of the lacquer primer and thinner used.

e. The VOC content of each material used.

f. The VOC and MEK content of the catalyst used.

g. The appropriate emission factor for each raw material used (specify the application method and applicable monomer contents).

h. Calculations determining the total daily, monthly and annual usage rates for each material, as applicable, to demonstrate compliance with SC II.1 a through g. The annual usage rates shall be calculated based upon a 12-month rolling time period as determined at the end of each calendar month.

i. Styrene emission calculations determining the monthly emission rate in tons per calendar month, and the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

j. VOC emission calculations determining the daily emission rate in pounds per calendar day.

k. VOC emission calculations determining the monthly emission rate in tons per calendar month, and the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

l. Acetone emission calculations determining the monthly emission rate in pounds per calendar month, and the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

m. The records shall be kept in the formats specified in Appendix 4, or in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request.

**See Appendix 4**

**VII. REPORTING**

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

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

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

**See Appendix 8**

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

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

| **Stack & Vent ID** | **Maximum Exhaust Dimensions**  **(inches)** | **Minimum Height Above Ground**  **(feet)** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- |
| 1. SV-WESTLAMINATION | 302 | 252 | **R 336.1225, R 336.1901, 40 CFR 52.21(c) and (d)** |
| 2. SV-EASTLAMINATION | 342 | 302 | **R 336.1225, R 336.1901, 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).

## EU-GELCOAT

**EMISSION UNIT CONDITIONS**

**DESCRIPTION**

One dry filter spray booth for gelcoat processes. Materials used may include gelcoats, tooling gelcoats, catalyst and primer surfacer. Gelcoating process may also be done in either lamination booth.

**Flexible Group ID:** FG-FIBERGLASS, FG-MACT, FG-MACT-WWWW

**POLLUTION CONTROL EQUIPMENT**

One dry filter spray booth

**I. EMISSION LIMIT(S)**

| **Pollutant** | **Limit** | **Time Period/ Operating Scenario** | **Equipment** | **Monitoring/ Testing Method** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- | --- | --- |
| 1. Styrene | 16.0 tpy1 | 12-month rolling time period as determined at the end of each calendar month | EU-GELCOAT | SC VI.3 | **R 336.1225** |
| 1. VOC (including styrene and MMA) | 354 lb/day2 | Calendar day | EU-GELCOAT | SC VI.3 | **R 336.1205** |
| 1. VOC (including styrene and MMA) | 26.0 tpy2 | 12-month rolling time period as determined at the end of each calendar month | EU-GELCOAT | SC VI.3 | **R 336.1225,  R 336.1702(a)** |

The emission limits are based upon the emission factors in I.4.

| **Material** | **Application Method** | **Styrene**  **Content**  **(wt %)** | **MMA Content**  **(wt %)** | **Styrene Emission Factor**  **(lb emitted per**  **lb material applied)** | **MMA Emission Factor**  **(lb emitted per**  **lb material applied)** |
| --- | --- | --- | --- | --- | --- |
| 4. Gelcoat | Atomized | 382 | 102 | 0.199 | 0.075 |

The emission factors listed are for worst case styrene and MMA content gelcoats with the specified application method. The emission factors will vary depending on the application method and the styrene and MMA contents of the gelcoats. Refer to the Unified Emission Factor (UEF) Table in Appendix 4 for further information.2 **(R 336.1225, R 336.1702(a))**

**II. MATERIAL LIMIT(S)**

1. The permittee shall not exceed the material usage rates or the monomer content limits listed in the following table for EU-GELCOAT in order to demonstrate compliance with SC I.1 through I.3.2 **(R 336.1225, R 336.1702(a))**

| **Material ID** | **Material Usage** | **Time Period** | **Maximum**  **Styrene Content**  **(wt %)** | **Maximum**  **MMA Content**  **(wt %)** |
| --- | --- | --- | --- | --- |
| 1. Gelcoat | 156,000 lbs. | 12-month rolling period | 38 | 10 |
| 1. Catalyst | 3000 lbs. | 12-month rolling period | NA | NA |
| 1. Primer Surfacer | 996 gallons | 12-month rolling period | NA | NA |

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

NA

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

NA

**V. TESTING/SAMPLING**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

1. All records shall be completed and made available by the 15th day of each calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition.2 **(R 336.1201(3))**

2. The permittee shall keep a separate record of the styrene and MMA monomer contents for each shipment of gelcoat received. All records shall be kept on file for a period of at least five years and made available to the Department upon request.2 **(R 336.1225, R 336.1702(a))**

3. The permittee shall keep the following information for each calendar month for EU-GELCOAT:2 **(R 336.1225, R 336.1702(a))**

a. The identity and amount (in pounds) of each gelcoat and catalyst used on a daily and monthly basis.

b. The amount, in gallons, of primer surfacer used on a calendar month basis.

c. The styrene, MMA and VOC content of each gelcoat used.

d. The VOC and MEK content of the catalyst used.

e. The VOC and styrene content of the primer surfacer used.

f. The appropriate emission factor for each raw material used (specify the application method and applicable monomer contents).

g. Calculations determining the total monthly and annual usage rates for each material, as applicable, to demonstrate compliance with SC II.1.a through c. The annual usage rates shall be calculated based upon a 12-month rolling time period as determined at the end of each calendar month.

h. Styrene emission calculations determining the monthly emission rate in tons per calendar month, and the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

i. VOC emission calculations determining the daily emission rate in pounds per calendar day.

j. VOC emission calculations determining the monthly emission rate in tons per calendar month, and the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

k. The records shall be kept in the formats specified in Appendix 4, or in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request.

**See Appendix 4**

**VII. REPORTING**

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

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

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

**See Appendix 8**

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

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

| **Stack & Vent ID** | **Maximum Exhaust Dimensions**  **(inches)** | **Minimum Height Above Ground**  **(feet)** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- |
| 1. SV-GELCOAT | 242 | 252 | **R 336.1225, R 336.1901, 40 CFR 52.21(c) and (d)** |
| 2. SV-WESTLAMINATION | 302 | 252 | **R 336.1225, R 336.1901, 40 CFR 52.21(c) and (d)** |
| 3. SV-EASTLAMINATION | 342 | 302 | **R 336.1225, R 336.1901, 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).

## EU-CLEANUP

**EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Acetone and miscellaneous solvent used throughout the facility for cleaning purposes. Acetone used throughout facility. Other solvents are mainly used in lamination booths. Includes solvents used as Mold Release Agents (MRA). The mold release is used to clean the tool surface, so parts don’t stick to them during process operations.

**Flexible Group ID:** FG-FIBERGLASS, FG-MACT, FG-MACT-WWWW

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

| **Pollutant** | **Limit** | **Time Period/ Operating Scenario** | **Equipment** | **Monitoring/**  **Testing Method** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- | --- | --- |
| 1. Acetone | 24.0 tpy1 | 12-month rolling time period as determined at the end of each calendar month. | EU-CLEANUP | SC VI.2 | **R 336.1224** |
| 2. VOC | 10.1 tpy2 | 12-month rolling time period as determined at the end of each calendar month. | EU-CLEANUP | SC VI.2 | **R 336.1225,  R 336.1702(a)** |

**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. All records shall be completed and made available by the 15th day of each calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition.2 **(R 336.1201(3))**
2. The permittee shall keep the following information on a monthly basis for EU-CLEANUP:2 **(R 336.1224, R 336.1225, R 336.1702(a))**

a. The identity of each clean-up solvent used.

b. The amount (in gallons or pounds) of each clean-up solvent used.

c. Where applicable, gallons or pounds of each clean-up solvent reclaimed.

d. Acetone emission calculations determining the monthly emission rate in tons per calendar month, and the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

e. VOC emission calculations determining the monthly emission rate in tons per calendar month, and the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

f. The records shall be kept in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request.

**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 orreceived by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

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

**See Appendix 8**

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

NA

**IX. OTHER REQUIREMENT(S)**

NA

**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).

## EU-ADHESIVE

**EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Adhesive materials used throughout the facility.

**Flexible Group ID:** FG-FIBERGLASS, FG-MACT, FG-MACT-WWWW

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

| **Pollutant** | **Limit** | **Time Period/ Operating Scenario** | **Equipment** | **Monitoring/**  **Testing Method** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- | --- | --- |
| 1. VOC | 1.6 tpy2 | 12-month rolling time period as determined at the end of each calendar month. | EU-ADHESIVE | SC VI.2 | **R 336.1702(a)** |

**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. All records shall be completed and made available by the 15th day of each calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition.2 **(R 336.1201(3))**

2. The permittee shall keep the following information on a monthly basis for EU-ADHESIVE.2 **(R 336.1224, R 336.1225, R 336.1702(a))**

a. The identity of each adhesive used.

b. The amount (in gallons or pounds) of each adhesive used.

c. Where applicable, gallons or pounds of each adhesive reclaimed.

d. The VOC content of each adhesive used.

e. VOC emission calculations determining the monthly emission rate in tons per calendar month, and the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

f. The records shall be kept in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request.

**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 orreceived by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

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

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

NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

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

# D. FLEXIBLE GROUP SPECIAL CONDITIONS

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

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

## FLEXIBLE GROUP SUMMARY TABLE

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

| **Flexible Group ID** | **Flexible Group Description** | **Associated**  **Emission Unit IDs** |
| --- | --- | --- |
| FG-FIBERGLASS | The fiberglass manufacturing process consists of a pattern shop, production area using resin and gel coatings, and acetone use in cleanup activities. | EU-PATTERNSHOP  EU-LAMINATION  EU-GELCOAT  EU-CLEANUP  EU-ADHESIVE |
| FG-MACT | All processes subject to 40 CFR Part 63, Subpart WWWW, National Emissions Standard for Hazardous Air Pollutant: Reinforced Plastic Composites Production | EU-PATTERNSHOP  EU-LAMINATION  EU-GELCOAT  EU-CLEANUP  EU-ADHESIVE  EU-RTM\* |
| FG-MACT-WWWW | Each existing affected source at reinforced plastic composites production facilities as identified in 40 CFR Part 63, Subpart WWWW, 40 CFR 63.5785 and 40 CFR 63.5790 that emit less than 100 tpy of HAP. Reinforced plastic composites production includes the following operations: open molding, mixing, cleaning of equipment used in reinforced plastic composites manufacture, HAP-containing materials storage, and repair operations associated with the production of plastic composites. | EU-PATTERNSHOP  EU-LAMINATION  EU-GELCOAT  EU-CLEANUP  EU-ADHESIVE  EU-RTM\* |
| \*EU-RTM (resin transfer molding) is exempt from needing a Permit to Install, via Rule 286(2)(b), but is subject to the MACT standard for Reinforced Plastic Composites Production sources (40 CFR Part 63, Subpart WWWW). | | |

## FG-FIBERGLASS

**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

The fiberglass manufacturing process consists of a pattern shop, production area using resin and gel coatings, and acetone use in cleanup activities.

**Emission Units:** EU-PATTERNSHOP, EU-LAMINATION, EU-GELCOAT, EU-CLEANUP, EU-ADHESIVE

**POLLUTION CONTROL EQUIPMENT**

Dry Filters

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

NA

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

1. All waste cleanup solvent(s), catalyst(s), resin(s), gelcoat(s) and other associated materials used in   
   FG-FIBERGLASS shall be captured and stored in closed containers and disposed of in an acceptable manner in compliance with all applicable state rules and federal regulations.2 **(R 336.1224, R 336.1702(a))**

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

1. The permittee shall not operate any booth associated with FG-FIBERGLASS unless all respective exhaust filters are installed, maintained and operated in a satisfactory manner.2 **(R 336.1301, R 336.1331, R 336.1901)**

**V. TESTING/SAMPLING**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

NA

**VII. REPORTING**

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

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked orreceived 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 orreceived by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

**See Appendix 8**

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

NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

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

## FG-MACT

**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

The stationary source is subject to the National Emissions Standards for Hazardous Air Pollutants- Reinforced Plastic Composite Production promulgated under Title 40 of the Code of Federal Regulations, Part 63, Subparts A and WWWW.

**Emission Units:** EU-PATTERNSHOP, EU-LAMINATION, EU-GELCOAT, EU-CLEANUP, EU-ADHESIVE,   
EU-RTM\*

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

NA

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

1. 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 WWWW, as they apply to FG-MACT.2  **(40 CFR Part 63, Subparts A and WWWW)**

2. The permittee shall not operate FG-MACT except in compliance with the work practice standards of 40 CFR Part 63, Subpart WWWW, Table 4.2 **(R 336.1205, R 336.1225, R 336.1702, R 336.1901, 40 CFR Part 63, Subpart WWWW)**

3. The permittee shall demonstrate compliance with the standards in 40 CFR Part 63, Subpart WWWW, 40 CFR 63.5805 by using the methods in 40 CFR Part 63, Subpart WWWW, 40 CFR 63.5810. The emission factors from Table 1 to Subpart WWWW of 40 CFR Part 63 are found in Appendix 4 and shall be used to calculate organic HAP emissions for the purposes of this compliance demonstration.2 **(40 CFR Part 63, Subpart WWWW)**

**See Appendices 4 and 9**

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

NA

**V. TESTING/SAMPLING**

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

1. The HAP content of any resin, gelcoat, etc., as received and as applied, shall be determined using Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. Upon request of the AQD District Supervisor, the manufacturer’s HAP formulation data shall be verified using EPA Test Method 311.2  **(40 CFR Part 63, Subpart WWWW, 40 CFR** **63.5797)**

**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 current listing from the manufacturer of the chemical composition of each material (i.e. resin, gelcoat, catalyst, cleanup solvent, etc.), including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request.2 **(R 336.1224, R 336.1225, R 336.1702(a), 40 CFR Part 63, Subpart WWWW, 40 CFR** **63.5797)**

2. The permittee shall submit the applicable notifications and reports by the dates specified in Table 13 and Table 14 to Subpart WWWW of 40 CFR Part 63 to the Department in accordance with 40 CFR Part 63, Subpart WWWW, 40 CFR 63.5905 and 40 CFR 63.5910, respectively.2  **(40 CFR Part 63, Subparts A and WWWW)**

**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 orreceived 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 orreceived by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

**See Appendix 8**

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

NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

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

## FG-MACT-WWWW

**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Each existing affected source at reinforced plastic composites production facilities as identified in 40 CFR Part 63, Subpart WWWW, 40 CFR 63.5785 and 40 CFR 63.5790 that emit less than 100 tpy of HAP. Reinforced plastic composites production includes the following operations: open molding, mixing, cleaning of equipment used in reinforced plastic composites manufacture, HAP-containing materials storage, and repair operations associated with the production of plastic composites.

**Emission Units:** EU-PATTERNSHOP, EU-LAMINATION, EU-GELCOAT, EU-CLEANUP, EU-ADHESIVE, EU-RTM\*

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

| **Pollutant** | **Limit** | | **Time Period/ Operating Scenario** | **Equipment** | | **Monitoring/ Testing Method** | **Underlying Applicable Requirements** | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. Organic HAP from Open Molding – non-CR/HS | 88 lb/ton | | 12-month rolling average or as applied | Mechanical Resin Application portion of FG-MACT-WWWW | | SC V.1,  SC VI.2 | **40 CFR 63.5835(a), 40 CFR Part 63, Subpart WWWW, Table 3.2.a** | |
| 1. Organic HAP from Open Molding – non-CR/HS | 87 lb/ton | 12-month rolling average or as applied | | Manual Resin Application portion of FG-MACT-WWWW | SC V.1,  SC VI.2 | | **40 CFR 63.5835(a), 40 CFR Part 63, Subpart WWWW, Table 3.2.c** |
| 1. Organic HAP from Open Molding – tooling | 254 lb/ton | 12-month rolling average or as applied | | Mechanical Resin Application portion of FG-MACT-WWWW | SC V.1,  SC VI.2 | | **40 CFR 63.5835(a), 40 CFR Part 63, Subpart WWWW, Table 3.3.a** |
| 1. Organic HAP from Open Molding – tooling | 157 lb/ton | 12-month rolling average or as applied | | Manual Resin Application portion of FG-MACT-WWWW | SC V.1,  SC VI.2 | | **40 CFR 63.5835(a), 40 CFR Part 63, Subpart WWWW, Table 3.3.b** |
| 1. Organic HAP from Open Molding – gel coat | 440 lb/ton | 12-month rolling average or as applied | | Tooling Gel Coating portion of FG-MACT-WWWW | SC V.1,  SC VI.2 | | **40 CFR 63.5835(a), 40 CFR Part 63, Subpart WWWW, Table 3.6.a** |
| 1. Organic HAP from Open Molding – gel coat | 267 lb/ton | 12-month rolling average or as applied | | White/off White Pigmented Gel Coating portion of FG-MACT-WWWW | SC V.1,  SC VI.2 | | **40 CFR 63.5835(a), 40 CFR Part 63, Subpart WWWW, Table 3.6.b** |
| 1. Organic HAP from Open Molding – gel coat | 377 lb/ton | 12-month rolling average or as applied | | All Other Pigmented Gel Coating portion of FG-MACT-WWWW | SC V.1,  SC VI.2 | | **40 CFR 63.5835(a), 40 CFR Part 63, Subpart WWWW, Table 3.6.c** |
| 1. Organic HAP from Open Molding – gel coat | 522 lb/ton | 12-month rolling average or as applied | | Clear Production Gel Coat portion of FG-MACT-WWWW | SC V.1,  SC VI.2 | | **40 CFR 63.5835(a), 40 CFR Part 63, Subpart WWWW, Table 3.6.f** |

1. The permittee must use one or a combination of the following methods to meet the standards for open molding operations in Table 3 of 40 CFR Part 63, Subpart WWWW:
   1. Demonstrate that an individual resin or gel coat, as applied, meets the applicable emission limit in Table 3 of 40 CFR Part 63, Subpart WWWW. **(40 CFR 63.5810(a))**
   2. Demonstrate that, on average, the facility meets the individual organic HAP emissions limits for each unique combination of operation type and resin application method or gel coat type shown in Table 3 of 40 CFR Part 63, Subpart WWWW that applies to the facility. **(40 CFR 63.5810(b))**
   3. Demonstrate compliance with a weighted average emission limit. Demonstrate each month that the permittee meets each weighted average of the organic HAP emissions limits in Table 3 of 40 CFR Part 63, Subpart WWWW that apply to the weighted average organic HAP emissions limit for all open molding operations. **(40 CFR 63.5810(c))**
   4. Meet the organic HAP emissions limit for one application method and use the same resin(s) for all application methods of that resin type. This option is limited to resins of the same type. The resin types for which this option may be used are non-corrosion-resistant, corrosion-resistant and/or high strength, and tooling. **(40 CFR 63.5810(d))**

The permittee may switch between the compliance options in (a) through (d). When changing to an option based on a 12-month rolling average, the permittee must base the average on the previous 12 months of data calculated using the compliance option changing to, unless previously used an option that did not require the permittee to maintain records of resin or gel coat. In this case, the permittee must immediately begin collecting resin and gel coat use data and demonstrate compliance 12 months after changing options. **(40 CFR 63.5810)**

**II. MATERIAL LIMIT(S)**

NA

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

1. At all times, including periods of startup, shutdown, and malfunction, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. **(40 CFR 63.5835(c))**
2. The permittee must be in compliance at all times with the work practice standards in Table 4 of 40 CFR Part 63, Subpart WWWW as follows: **(40 CFR 63.5805(c), 40 CFR 63.5835(a))**
3. For closed molding operation using compression/injection molding, uncover, unwrap or expose only one charge per mold cycle per compression/injection molding machine. For machines with multiple molds, one charge means sufficient material to fill all molds for one cycle. For machines with robotic loaders, no more than one charge may be exposed prior to the loader. For machines fed by hoppers, sufficient material may be uncovered to fill the hopper. Hoppers must be closed when not adding materials. Materials may be uncovered to feed to slitting machines. Materials must be recovered after slitting. **(40 CFR Part 63, Subpart WWWW, Table 4.1)**
4. The permittee shall not use cleaning solvents that contain HAP, except that styrene may be used as a cleaner in closed systems, and organic HAP containing cleaners may be used to clean cured resin from application equipment. Application equipment includes any equipment that directly contacts resin. **(40 CFR Part 63, Subpart WWWW, Table 4.2)**
5. For each HAP-containing materials storage operation, the permittee must keep containers that store HAP‑containing materials closed or covered except during the addition or removal of materials. Bulk HAP containing materials storage tanks may be vented as necessary for safety. **(40 CFR Part 63, Subpart WWWW, Table 4.3)**
6. For each mixing operation, the permittee must use mixer covers with no visible gaps present in the mixer covers, except that gaps of up to 1 inch are permissible around mixer shafts and any required instrumentation. **(40 CFR Part 63, Subpart WWWW, Table 4.6)**
7. For each mixing operation, the permittee must close any mixer vents when actual mixing is occurring, except that venting is allowed during addition of materials, or as necessary prior to adding materials or opening the cover for safety. **(40 CFR Part 63, Subpart WWWW, Table 4.7)**
8. For each mixing operation, the permittee must keep the mixer covers closed while actual mixing is occurring, except when adding materials or changing covers to the mixing vessels. **(40 CFR Part 63, Subpart WWWW, Table 4.8)**

**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))**

In order to determine the organic HAP content of resins and gel coats, the permittee may rely on information provided by the material manufacturer, such as manufacturer's formulation data and material safety data sheets (MSDS), using the procedures specified in (a) through (c), as applicable. **(40 CFR 63.5797)**

a. Include in the organic HAP total each organic HAP that is present at 0.1 percent by mass or more for Occupational Safety and Health Administration-defined carcinogens, as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other organic HAP compounds. **(40 CFR 63.5797(a))**

b. If the organic HAP content is provided by the material supplier or manufacturer as a range, the permittee must use the upper limit of the range for determining compliance. If a separate measurement of the total organic HAP content, such as an analysis of the material by EPA Method 311 of Appendix A to 40 CFR Part 63, exceeds the upper limit of the range of the total organic HAP content provided by the material supplier or manufacturer, then the permittee must use the measured organic HAP content to determine compliance. **(40 CFR 63.5797(b))**

c. If the organic HAP content is provided as a single value, the permittee may use that value to determine compliance. If a separate measurement of the total organic HAP content is made and is less than 2 percentage points higher than the value for total organic HAP content provided by the material supplier or manufacturer, then the permittee still may use the provided value to demonstrate compliance. If the measured total organic HAP content exceeds the provided value by 2 percentage points or more, then the permittee must use the measured organic HAP content to determine compliance.  **(40 CFR 63.5797(c))**

**VI. MONITORING/RECORDKEEPING**

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

The permittee must monitor and collect data as specified in (a) through (d): **(40 CFR 63.5895(b))**

1. Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee must conduct all monitoring in continuous operation (or collect data at all required intervals) at all times that the affected source is operating. **(40 CFR 63.5895(b)(1))**
2. The permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee must use all the data collected during all other periods in assessing the operation of the control device and associated control system. **(40 CFR 63.5895(b)(2))**
3. At all times, the permittee must maintain necessary parts for routine repairs of the monitoring equipment. **(40 CFR 63.5895(b)(3))**
4. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring equipment to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 63.5895(b)(4))**

The permittee must monitor and collect data to demonstrate continuous compliance as follows: **(40 CFR 63.5895, 40 CFR 63.5900)**

The permittee must collect and keep records of resin and gel coat use, organic HAP content, and operation where the resin is used if meeting any organic HAP emissions limits based on an organic HAP emissions limit in Table 3 of 40 CFR Part 63, Subpart WWWW. The permittee must collect and keep records of resin and gel coat use, organic HAP content, and operation where the resin is used if meeting any organic HAP content limits in Table 7 of 40 CFR Part 63, Subpart WWWW if averaging organic HAP contents. Resin use records may be based on purchase records if the permittee can reasonably estimate how the resin is applied. The organic HAP content records may be based on MSDS or on resin specifications supplied by the resin supplier. **(40 CFR 63.5895(c))**

Compliance with organic HAP emissions limits is demonstrated by maintaining an organic HAP emissions factor value less than or equal to the appropriate organic HAP emissions limit listed in Table 3 of 40 CFR Part 63, Subpart WWWW, on a 12-month rolling average, and/or by including in each compliance report a statement that individual resins and gel coats, as applied, meet the appropriate organic HAP emissions limits, as discussed in 40 CFR 63.5895(d). **(40 CFR 63.5900(a)(2))**

Compliance with organic HAP content limits in Table 7 of 40 CFR Part 63, Subpart WWWW is demonstrated by maintaining an average organic HAP content value less than or equal to the appropriate organic HAP contents listed in Table 7 of 40 CFR Part 63, Subpart WWWW, on a 12-month rolling average, and/or by including in each compliance report a statement that resins and gel coats individually meet the appropriate organic HAP content limits in Table 7 of 40 CFR Part 63, Subpart WWWW, as discussed in 40 CFR 63.5895(d). **(40 CFR 63.5900(a)(3))**

The necessary calculations must be completed within 30 days after the end of each month. The permittee may switch between the compliance options in 40 CFR 63.5810(a) through (d). When change to an option based on a 12-month rolling average, base the average on the previous 12 months of data calculated using the compliance option changing to, unless previously using an option that did not require records of resin and gel coat use. In this case, the permittee must immediately begin collecting resin and gel coat use data and demonstrate compliance 12 months after changing options. **(40 CFR 63.5810)**

The permittee must keep the following records: **(40 CFR 63.5915)**

A copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart WWWW, including all documentation supporting any Initial Notification or Notification of Compliance Status. **(40 CFR 63.5915(a)(1))**

Records of performance tests, design, and performance evaluations as required in 40 CFR 63.10(b)(2). **(40 CFR 63.5915(a)(3))**

All data, assumptions, and calculations used to determine organic HAP emissions factors or average organic HAP contents for operations listed in Tables 3 and 7 of 40 CFR Part 63, Subpart WWWW. **(40 CFR 63.5915(c))**

A certified statement that the permittee is in compliance with the work practice requirements in Table 4 of 40 CFR Part 63, Subpart WWWW, as applicable. **(40 CFR 63.5915(d))**

The permittee must maintain all applicable records in such a manner that they can be readily accessed and are suitable for inspection according to 40 CFR 63.10(b)(1) and keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.5920(a) and (b))**

The permittee must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The records may be kept offsite for the remaining 3 years. **(40 CFR 63.5920(c))**

The permittee may keep records in hard copy or computer readable form including, but not limited to, paper, microfilm, computer floppy disk, magnetic tape, or microfiche. Any records required to be maintained and are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to the AQD or the EPA as part of an on-site compliance evaluation. **(40 CFR 63.5920(d) and (e))**

**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 orreceived 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 orreceived by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee must submit all of the notifications in Table 13 of 40 CFR Part 63, Subpart WWWW that apply by the dates specified in Table 13 of 40 CFR Part 63, Subpart WWWW. **(40 CFR 63.5905(a))**
5. The permittee must submit semiannual compliance reports. The compliance report must contain the following information: **(40 CFR 63.5910(b) and (c))**
6. Company name and address. **(40 CFR 63.5910(c)(1))**
7. 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 63.5910(c)(2))**
8. Date of the report and beginning and ending dates of the reporting period. **(40 CFR 63.5910(c)(3))**
9. If there are no deviations from any organic HAP emissions limitations (emissions limit and operating limit) that apply, and there are no deviations from the requirements for work practice standards in Table 4 of 40 CFR Part 63, Subpart WWWW, a statement that there were no deviations from the organic HAP emissions limitations or work practice standards during the reporting period. **(40 CFR 63.5910(c)(5))**
10. For each deviation from an organic HAP emissions limitation or operating limit and for each deviation from the requirements for work practice standards that occurs at an affected source, the compliance report must contain the information in (i) through (ii). **(40 CFR 63.5910(d))**
11. The total operating time of each affected source during the reporting period. **(40 CFR 63.5910(d)(1))**
12. Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken. **(40 CFR 63.5910(d)(2))**
13. The permittee must submit semiannual compliance reports to the EPA via CEDRI, which can be accessed through the EPA's CDX (<https://cdx.epa.gov/>). The permittee must use the appropriate electronic report template on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri>). The report must be submitted by the deadline specified in 40 CFR Part 63, Subpart WWWW. **(40 CFR 63.5912(d))**

**See Appendix 8**

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

NA

**IX. OTHER REQUIREMENT(S)**

The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subparts A and WWWW for Reinforced Plastic Composites Production. **(40 CFR Part 63, Subparts A and WWWW)**

# E. NON-APPLICABLE REQUIREMENTS

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

|  |
| --- |
| **APPENDICES** |

## Appendix 1. Acronyms and Abbreviations

|  |  |  |  |
| --- | --- | --- | --- |
| **Common Acronyms** | | **Pollutant / Measurement Abbreviations** | |
| AQD | Air Quality Division | acfm | Actual cubic feet per minute |
| BACT | Best Available Control Technology | BTU | British Thermal Unit |
| CAA | Clean Air Act | °C | Degrees Celsius |
| CAM | Compliance Assurance Monitoring | CO | Carbon Monoxide |
| CEM | Continuous Emission Monitoring | CO2e | 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 |
| HAP | Hazardous Air Pollutant |
| EGLE | Michigan Department of Environment, Great Lakes, and Energy | Hg | Mercury |
| hr | Hour |
| EU | Emission Unit | HP | Horsepower |
| FG | Flexible Group | H2S | Hydrogen Sulfide |
| GACS | Gallons of Applied Coating Solids | kW | Kilowatt |
| GC | General Condition | lb | Pound |
| GHGs | Greenhouse Gases | m | Meter |
| HVLP | High Volume Low Pressure\* | mg | Milligram |
| ID | Identification | mm | Millimeter |
| IRSL | Initial Risk Screening Level | MM | Million |
| ITSL | Initial Threshold Screening Level | MW | Megawatts |
| LAER | Lowest Achievable Emission Rate | NMOC | Non-methane Organic Compounds |
| MACT | Maximum Achievable Control Technology | NOx | Oxides of Nitrogen |
| MAERS | Michigan Air Emissions Reporting System | ng | Nanogram |
| MAP | Malfunction Abatement Plan | PM | Particulate Matter |
| MSDS | Material Safety Data Sheet | PM10 | Particulate Matter equal to or less than 10 microns in diameter |
| NA | Not Applicable |
| NAAQS | National Ambient Air Quality Standards | PM2.5 | Particulate Matter equal to or less than 2.5  microns in diameter |
| NESHAP | National Emission Standard for Hazardous Air Pollutants | pph | Pounds per hour |
| ppm | Parts per million |
| NSPS | New Source Performance Standards | ppmv | Parts per million by volume |
| NSR | New Source Review | ppmw | Parts per million by weight |
| PS | Performance Specification | % | Percent |
| PSD | Prevention of Significant Deterioration | psia | Pounds per square inch absolute |
| PTE | Permanent Total Enclosure | psig | Pounds per square inch gauge |
| PTI | Permit to Install | scf | Standard cubic feet |
| RACT | Reasonable Available Control Technology | sec | Seconds |
| ROP | Renewable Operating Permit | SO2 | Sulfur Dioxide |
| SC | Special Condition | TAC | Toxic Air Contaminant |
| SCR | Selective Catalytic Reduction | Temp | Temperature |
| SDS | Safety Data Sheet | THC | Total Hydrocarbons |
| SNCR | Selective Non-Catalytic Reduction | tpy | Tons per year |
| SRN | State Registration Number | µg | Microgram |
| TEQ | Toxicity Equivalence Quotient | µm | Micrometer or Micron |
| USEPA/EPA | United States Environmental Protection Agency | VOC | Volatile Organic Compounds |
| yr | Year |
| VE | Visible Emissions |  |  |

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

## Appendix 2. Schedule of Compliance

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

## Appendix 3. Monitoring Requirements

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

## Appendix 4. Recordkeeping

The permittee shall use the following approved formats and procedures for the recordkeeping requirements referenced in EU-PATTERNSHOP, EU-LAMINATION, and EU-GELCOAT. Alternative formats must be approved by the AQD’s District Supervisor.

**DAILY RECORDKEEPING – RESIN & GELCOAT**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **A** | **B** | **C** | **DST** | **DMMA** | | **E =(A x DST)** | | **F = A x (DST+ DMMA)** |
| **Gelcoat Description** | **Gelcoat Usage (lb/day)** | **Styrene Content1  (% by weight)** | **MMA**  **Content  (% by weight)** | **Styrene Emission Factor Per UEF Table (lb/lb gelcoat)** | **MMA Emission Factor Per UEF Table (lb/lb gelcoat)** | | **Calendar Day Styrene Emissions (lb/day)** | | **Calendar Day VOC Emissions (lb/day)** |
|  |  |  |  |  |  | |  | |  |
|  |  |  |  |  |  | |  | |  |
|  |  |  |  |  |  | |  | |  |
| TOTAL POUNDS STYRENE EMITTED PER CALENDAR DAY FROM GELCOAT, **G** = (sum of all E’s) **G** = | | | | | |  | |  | |
| TOTAL POUNDS VOC EMITTED PER CALENDAR DAY FROM GELCOAT, **H** = (sum of all F’s) **H =** | | | | | | | |  | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **I** | **J** | **K** | **L** |
| **Resin  Description** | **Resin Usage (lb/day)** | **Styrene Content1 (% by weight)** | **Styrene Emission Factor2  (lb/lb resin)** | **Calendar Day Styrene/VOC Emissions  (lb/day)** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| TOTAL POUNDS STYRENE/VOC EMITTED PER CALENDAR DAY FROM RESIN, **M** = (sum of all L’s)   **M =** | | | |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **N** | **O** | **P = (N x O)/100** |
| **Catalyst  Description** | **Catalyst Usage  (lb/day)** | **VOC3 (% by weight)** | **Calendar Day VOC Emissions (lb/day)** |
|  |  |  |  |
|  |  |  |  |
| TOTAL POUNDS VOC EMITTED FROM CATALYST, **Q** = (sum of all P’s) **Q =** | | |  |

**Footnotes:**

1 Styrene content shall be determined as supplied, plus any extra styrene added by the molder, but before the addition of other additives such as fillers, glass, catalyst, etc.

2 The emission factor to use for calculating emissions from the RTM process is 1% (i.e 0.01 lb/lb). It is from USEPA’s AP-42document. RTM emissions are determined using the following formula:

Material usage (lbs.) x Wt.% VOC x 1% emitted = VOC emissions from RTMs. All other resin operations are to use the emission factors from the UEF Table.

3Determine VOC content for catalyst (Luperox DDM-9\*Red, Luperox DDM-9, Lupersol DDM-9) as follows: Catalyst VOC = 2% by weight. (This is based on maximum Methyl Ethyl Ketone content per supplier MSDS).

**NOTE:** The other organic ingredients in the catalyst, including Methyl Ethyl Ketone Peroxide and 2,2,4-Trimethylpentanediol-1,3-Diisobutyrate, may be considered as either totally consumed in the cross-linking reactions or non-volatile. Also, hydrogen peroxide is not an organic compound.

**MONTHLY RECORDKEEPING – GELCOAT**

**Gelcoat ID:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Styrene Content1 (% wt)\_\_\_\_\_\_\_\_\_\_\_ MMA Content (%wt)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **A** | **B** | **C** | **D = A x B** | **E = A x C** | **F = D + E** |
| **Gelcoat Usage (lb/mo)** | **Styrene Emission Factor  (lb emitted/lb gelcoat applied)** | **MMA Emission Factor  (lb emitted/lb gelcoat applied)** | **Calendar Month Styrene Emissions (lb/mo)** | **Calendar Month MMA Emissions (lb/mo)** | **Calendar Month VOC emissions (lb/mo)** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Total lbs. VOC Emitted per Calendar Month from Gelcoat, **G** = (sum of all F’s)  **G =** | | | | |  |

**Catalyst:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **H** | **I** | **J** |
| **Catalyst  Description** | **Catalyst Usage (lb/mo)** | **VOC2  (% by weight)** | **Calendar Month VOC Emissions (lb/mo)** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Total Lbs. VOC Emitted from Catalyst per Month, **K** = (sum of all J’s) **K =** | | |  |

**Emission Unit Totals:**

|  |  |
| --- | --- |
| Emission Unit Tons VOC Emitted per Calendar Month, **L =** (G + K) / 2000  **L =** |  |

**12-Month Rolling Emission Unit Totals:**

|  |  |
| --- | --- |
| Emission Unit 12-Month Rolling Period VOC Emitted (Tons), **M =** L + Total of 11 Previous Months **M =** |  |

**Footnotes:**

1 Styrene content shall be determined as supplied, plus any extra styrene added by the molder, but before the addition of other additives such as fillers, glass, catalyst, etc.

2 Determine VOC content for catalyst (Luperox DDM-9\*Red, Luperox DDM-9, Lupersol DDM-9) as follows: Catalyst VOC = 2% by weight. (This is based on maximum Methyl Ethyl Ketone content per supplier MSDS).

**NOTE:** The other organic ingredients in the catalyst, including Methyl Ethyl Ketone Peroxide and 2,2,4-Trimethylpentanediol-1,3-Diisobutyrate, may be considered as either totally consumed in the cross-linking reactions or non-volatile. Also, hydrogen peroxide is not an organic compound.

**MONTHLY RECORDKEEPING -RESINS**

**Resin Process:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **A** | **B** | **C** | **D** |
| **Resin Description** | **Resin Usage (lb/mo)** | **Styrene Content1**  **(% by weight as supplied)** | **Styrene Emission Factor2  (lb emitted/lb material applied)** | **Calendar Month Styrene Emissions (lb/mo)** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Total Pounds Styrene/VOC Emitted per Calendar Month from Resin, **E =** (sum of all D’s)  **E** = | | | |  |

**Catalyst:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **F** | **G** | **H** |
| **Catalyst  Description** | **Catalyst Usage (lb/mo)** | **VOC3 (% by weight)** | **Calendar Month VOC Emissions (lb/mo)** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Total Lbs. VOC Emitted from Catalyst per Month, **I** = (sum of all J’s)  **I =** | | |  |

**Emission Unit Totals:**

|  |  |
| --- | --- |
| Emission Unit Tons VOC Emitted per Calendar Month, **J =** (E + I) / 2000  **J =** |  |

**12-Month Rolling Emission Unit Totals:**

|  |  |
| --- | --- |
| Emission Unit 12-Month Rolling Period VOC Emitted (Tons), **K = J** + Total of 11 Previous Months **K =** |  |

**Footnotes:**

1 Styrene content shall be determined as supplied, plus any extra styrene added by the molder, but before the addition of other additives such as fillers, glass, catalyst, etc.

2 The emission factor to be used for the RTM process is 0.01 and is from AP-42. RTM emissions are determined using the following formula: Material Usage (lbs.) x Wt% VOC x 1% emitted = VOC emissions from RTMs.

3 Determine VOC content for catalyst (Luperox DDM-9\*Red, Luperox DDM-9, Lupersol DDM-9) as follows: Catalyst VOC = 2% by weight. (This is based on maximum Methyl Ethyl Ketone content per supplier MSDS).

**NOTE:** The other organic ingredients in the catalyst, including Methyl Ethyl Ketone Peroxide and 2,2,4-Trimethylpentanediol-1,3-Diisobutyrate, may be considered as either totally consumed in the cross-linking reactions or non-volatile. Also, hydrogen peroxide is not an organic compound.



## Appendix 5. Testing Procedures

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

## Appendix 6. Permits to Install

The following table lists any PTIs issued, or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-N2383-2018. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (\*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No MI-PTI-N2383-2018 is being reissued as Source-Wide PTI No. MI-PTI-N2383-2023.

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

## Appendix 7. Emission Calculations

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

## Appendix 8. Reporting

**A. Annual, Semiannual, and Deviation Certification Reporting**

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

**B. Other Reporting**

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

## Appendix 9. NESHAP - 40 CFR Part 63, Subpart WWWW - Work Practice Standards

|  |  |
| --- | --- |
| **For:** | **Permittee must:** |
| 1. A new or existing closed molding operation using compression/injection molding | Uncover, unwrap or expose only one charge per mold cycle per compression/injection molding machine. For machines with multiple molds, one charge means sufficient material to fill all molds for one cycle. For machines with robotic loaders, no more than one charge may be exposed prior to the loader. For machines fed by hoppers, sufficient material may be uncovered to fill the hopper. Hoppers must be closed when not adding materials. Materials may be uncovered to feed to slitting machines. Materials must be recovered after slitting. |
| 1. A new or existing cleaning operation | Not use cleaning solvents that contain HAP, except that styrene may be used as a cleaner in closed systems, and organic HAP containing cleaners may be used to clean cured resin from application equipment. Application equipment includes any equipment that directly contacts resin. |
| 1. A new or existing materials HAP-containing materials storage operation | Keep containers that store HAP-containing materials closed or covered except during the addition or removal of materials. Bulk HAP-containing materials storage tanks may be vented as necessary for safety. |
| 1. An existing or new SMC manufacturing operation | Close or cover the resin delivery system to the doctor box on each SMC manufacturing machine. The doctor box itself may be open. |
| 1. An existing or new SMC manufacturing operation | Use a nylon containing film to enclose SMC. |
| 1. All mixing or BMC manufacturing operations1 | Use mixer covers with no visible gaps present in the mixer covers, except that gaps of up to 1 inch are permissible around mixer shafts and any required instrumentation. Mixers where the emissions are fully captured and routed to a 95 percent efficient control device are exempt from this requirement. |
| 1. All mixing or BMC manufacturing operations1 | Close any mixer vents when actual mixing is occurring, except that venting is allowed during addition of materials, or as necessary prior to adding materials or opening the cover for safety. Vents routed to a 95 percent efficient control device are exempt from this requirement. |
| 1. All mixing or BMC manufacturing operations1 | Keep the mixer covers closed while actual mixing is occurring except when adding materials or changing covers to the mixing vessels. |
| 1. A new or existing pultrusion operation manufacturing parts that meet the following criteria: 1,000 or more reinforcements or the glass equivalent of 1,000 ends of 113 yield roving or more; and have a cross sectional area of 60 square inches or more that is not subject to the 95-percent organic HAP emission reduction requirement. | 1. Not allow vents from the building ventilation system, or local or portable fans to blow directly on or across the wet-out area(s), 2. Not permit point suction of ambient air in the wet-out area(s) unless that air is directed to a control device, 3. Use devices such as deflectors, baffles, and curtains when practical to reduce air flow velocity across the wet-out area(s), 4. Direct any compressed air exhausts away from resin and wet-out area(s), 5. Convey resin collected from drip-off pans or other devices to reservoirs, tanks, or sumps via covered troughs, pipes, or other covered conveyance that shields the resin from the ambient air, 6. Cover all reservoirs, tanks, sumps, or HAP-containing materials storage vessels except when they are being charged or filled, and 7. Cover or shield from ambient air resin delivery systems to the wet-out area(s) from reservoirs, tanks, or sumps where practical. |

1 Containers of 5 gallons or less may be open when active mixing is taking place, or during periods when they are in process (*i.e.,* they are actively being used to apply resin). For polymer casting mixing operations, containers with a surface area of 500 square inches or less may be open while active mixing is taking place.