

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

EFFECTIVE DATE: March 7, 2023

ISSUED TO

Worthen Coated Fabrics

State Registration Number (SRN): P0634

LOCATED AT

1125 41st Street SE, Grand Rapids, Kent County, Michigan 49508

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-P0634-2023

Expiration Date: March 7, 2028

Administratively Complete ROP Renewal Application
Due Between September 7, 2026 and September 7, 2027

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

SOURCE-WIDE PERMIT TO INSTALL

Permit Number: MI-PTI-P0634-2023

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 PTI terms and conditions do not expire and remain in effect unless the criteria of Rule 201(6) are met. Operation of all emission units identified in the PTI is subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

Michigan Department of Environment, Great Lakes, and Energy

Heidi Hollenbach, Grand Rapids District Supervisor

TABLE OF CONTENTS

AUTHORITY AND ENFORCEABILITY	3
A. GENERAL CONDITIONS.....	4
Permit Enforceability	4
General Provisions.....	4
Equipment & Design	5
Emission Limits.....	5
Testing/Sampling	5
Monitoring/Recordkeeping	6
Certification & Reporting	6
Permit Shield	7
Revisions	8
Reopenings.....	8
Renewals.....	9
Stratospheric Ozone Protection	9
Risk Management Plan.....	9
Emission Trading.....	9
Permit to Install (PTI)	10
B. SOURCE-WIDE CONDITIONS	11
C. EMISSION UNIT SPECIAL CONDITIONS	12
EMISSION UNIT SUMMARY TABLE.....	12
EU-FabricCoating	13
D. FLEXIBLE GROUP SPECIAL CONDITIONS.....	20
FLEXIBLE GROUP SUMMARY TABLE.....	20
FG-MACT-0000	21
FG-NSPS-VVV	26
FG-RULE290	31
FG-COLDCLEANERS	34
E. NON-APPLICABLE REQUIREMENTS	37
APPENDICES	38
Appendix 1. Acronyms and Abbreviations.....	38
Appendix 2. Schedule of Compliance.....	39
Appendix 3. Monitoring Requirements	39
Appendix 4. Recordkeeping	39
Appendix 5. Testing Procedures	39
Appendix 6. Permits to Install.....	39
Appendix 7. Emission Calculations	39
Appendix 8. Reporting	40

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.

This permit does not relieve the permittee from any responsibilities or obligations imposed on the permittee, at this source, under Consent Order AQD No. 2022-15, entered on October 25, 2022 between EGLE and the permittee.

A. GENERAL CONDITIONS

Permit Enforceability

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

General Provisions

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

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

Equipment & Design

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

Emission Limits

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

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

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

Testing/Sampling

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

Monitoring/Recordkeeping

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

Certification & Reporting

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

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

Permit Shield

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

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

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

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

Revisions

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

Reopenings

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

Renewals

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

Stratospheric Ozone Protection

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

Risk Management Plan

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

Emission Trading

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

Permit to Install (PTI)

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

Footnotes:

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

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

B. SOURCE-WIDE CONDITIONS

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

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

C. EMISSION UNIT SPECIAL CONDITIONS

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

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

EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-FabricCoating	Fabric coating line consisting of the knife coating of textiles with solvent-based and water-based coating, and solvent-based clean-up. The coatings are applied to fabric in an enclosure and dried in an oven. VOC emissions from enclosure and oven during use of solvent-based coatings are controlled via Permanent Total Enclosure (PTE) and Regenerative Thermal Oxidizer (RTO).	01-04-2016	FG-MACT-0000 FG-NSPS-VVV
EU-MixRoom	The coating mix preparation room consists of high-speed mixers, stainless steel tanks, 55-gallon drums, and other equipment associated with the manufacture of solvent and waterborne coatings. All coatings are manufactured at room temperature. No heat is applied, and no reactions are carried out during manufacturing of the coatings. VOC emissions from the coating mix preparation equipment is captured and vented to a carbon adsorption system.	01-04-2016	FG-NSPS-VVV FG-Rule290
EU-COLDCLEANER1	Larger cold cleaner located in the wash bay adjacent to the Patriot Line.	05-01-2017	FG-COLDCLEANERS
EU-COLDCLEANER2	Smaller cold cleaner located in the coating mix preparation room.	04-01-2016	FG-COLDCLEANERS

Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.

**EU-FabricCoating
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Fabric coating line consisting of the knife coating of textiles with solvent-based and water-based coating, and solvent-based clean-up. The coatings are applied to fabric in an enclosure and dried in an oven. VOC emissions from enclosure and oven during use of solvent-based coatings are controlled via Permanent Total Enclosure and Regenerative Thermal Oxidizer.

Flexible Group ID: FG-MACT-O000, FG-NSPS-VVV

POLLUTION CONTROL EQUIPMENT

Permanent Total Enclosure (PTE) and Regenerative Thermal Oxidizer (RTO)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	26.6 tpy ²	12-month rolling time period as determined at the end of each calendar month	EU-FabricCoating	SC IV.3, SC V.3, SC VI.3	R 336.1702(a) R 336.1205

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC content of water-based coating	1.2 lb/gal (minus water) as applied ^{a, 2}	Instantaneous	EU-FabricCoating	SC V.1, SC V.3, SC VI.3	R 336.1702(a)

^a The phrase “minus water” shall also include compounds which are used as organic solvents and which are excluded from the definition of volatile organic compound.² **(R 336.1602(4))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall capture all waste coatings, cleanup solvents, etc. (materials) and shall store them in closed containers. The permittee shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations.² **(R 336.1224, R 336.1702(a))**
2. The permittee shall handle all VOC and HAP containing materials, in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary.² **(R 336.1205, R 336.1224, R 336.1299, R 336.1702(a))**
3. The permittee shall not operate EU-FabricCoating unless a malfunction abatement plan (MAP), as described in Rule 911(2), is implemented and maintained. The MAP shall, at a minimum, specify the following:
 - a. A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

- b. An identification of the source and operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
- c. A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.² **(R 336.1205, R 336.1299, R 336.1702(a), R 336.1910, Paragraph 9(A)(1), Consent Order AQD No. 2022-15)**

4. The permittee shall maintain a minimum of 0.007 inches of water pressure differential between the PTE and the adjacent area on a continuous basis.² **(R 336.1205, R 336.1299, R 336.1702(a), R 336.1910, Paragraph 9(A)(1), Consent Order AQD No. 2022-15)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. Whenever solvent-based coating is being applied, the permittee shall not operate EU-FabricCoating unless the RTO is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the RTO includes a minimum VOC destruction efficiency of 98 percent (by weight), maintaining a minimum temperature of 1,525°F, and a minimum retention time of 0.5 seconds.² **(R 336.1205, R 336.1299, R 336.1702(a), R 336.1910, Paragraphs 9(A)(1) and 9(B)(1), Consent Order AQD No. 2022-15)**
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a temperature monitoring device in the combustion chamber of the RTO to monitor and record the temperature on a continuous basis, during operation of EU-FabricCoating.² **(R 336.1205, R 336.1299, R 336.1702(a), R 336.1910, Paragraph 9(A)(1), Consent Order AQD No. 2022-15)**
3. The permittee shall not operate EU-FabricCoating unless the PTE is installed, maintained and operated in a satisfactory manner. Satisfactory operation requires that the PTE is operating at a pressure lower than all adjacent areas, so that air flows into the PTE through all natural draft openings (NDOs). NDO is defined as any opening that is not connected to a duct in which a fan or blower is installed.² **(R 336.1205, R 336.1299, R 336.1702(a), R 336.1910, Paragraph 9(A)(1), Consent Order AQD No. 2022-15)**
4. The permittee shall install, calibrate, maintain and operate, in a satisfactory manner, a differential pressure gauge to monitor the pressure differential between the PTE for EU-FabricCoating and the adjacent area on a continuous basis during operation of any portion of EU-FabricCoating.² **(R 336.1205, R 336.1299, R 336.1702(a), R 336.1910, Paragraph 9(A)(1), Consent Order AQD No. 2022-15)**

V. TESTING/SAMPLING

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

1. The permittee shall determine the VOC content, water content, and density of any coating, as applied and as received, using federal Reference Test Method 24. Upon prior approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24 and the formulation values should differ, the permittee shall use the Method 24 results to determine compliance.² **(R 336.1702(a))**
2. The VOC content of solvent coatings, as applied, minus water, shall be tested using Method 24. The permittee shall determine the VOC content, water content, and density of the five most frequently used solvent coatings/adhesives plus five random solvent coatings on an annual basis. **(R 336.1213(3))**

3. The VOC content of water-based coatings, as applied, minus water, shall be tested using Method 311 or Method 24. The permittee shall determine the VOC content, water content, and density of the five most frequently used water-based coatings/adhesives plus five random water-based coatings on an annual basis. **(R 336.1213(3))**
4. The permittee shall conduct verification of the destruction efficiency of the RTO, by testing at owner's expense, in accordance with Department requirements. The permittee must complete the testing once every five years. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD Technical Programs Unit and District Office. The final plan must be approved by the AQD prior to testing. Verification of the destruction efficiency of the RTO includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.² **(R 336.1205, R 336.1702(a), R 336.1910, R 336.2001, R 336.2003, R 336.2004)**
5. Within 2 years of October 25, 2022, the permittee shall conduct a stack test, at the owner's expense, of the EU-FabricCoating thermal oxidizer by determining the destruction efficiency of the RTO. Sixty (60) days prior to stack testing, the permittee shall submit a test plan that meets the requirements specified in Exhibit A of this Consent Order to the AQD Grand Rapids District Supervisor and the AQD Technical Programs Unit Supervisor for review and approval prior to testing. A test plan shall be submitted for each test. Not less than 7 days prior to testing, the permittee or an authorized agent shall notify the AQD Grand Rapids District Supervisor and the AQD Technical Programs Unit Supervisor, in writing, of the time and place of the performance tests and who shall conduct them. A representative of the AQD shall have the opportunity to witness the tests. Within 60 days after a completed test, the permittee shall submit to the AQD Grand Rapids District Supervisor and the AQD Technical Programs Supervisor a test report, which includes the test data and results. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004, Paragraph 9(C)(2), Consent Order AQD No. 2022-15)**
6. Testing of destruction efficiency shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
7. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days before testing of the time and place performance tests will be conducted. **(R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition.² **(R 336.1205, R 336.1225, R 336.1299, R 336.1702(a))**
2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material (coating, reducer, 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.² **(R 336.1225, R 336.1702(a))**

3. The permittee shall keep the following information on a calendar month basis for EU-FabricCoating:
 - a. Date and time of each startup and shutdown of the RTO (RTO bypass).
 - b. Gallons (with water) of each coating, cleanup solvent, *etc.* (materials) used.
 - c. VOC content (minus water and with water) of each material as applied.
 - d. VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
 - e. VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records using mass balance, or an alternate method and format acceptable to the AQD District Supervisor.² **(R 336.1205, R 336.1702(a))**

4. The permittee shall monitor and record, in a satisfactory manner, the pressure differential between the PTE for EU-FabricCoating and the adjacent area, on a continuous basis, to verify that air is entering the PTE. Pressure differential data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval.² **(R 336.1205, R 336.1299, R 336.1702)**
5. The permittee shall monitor and record, in a satisfactory manner, the temperature in the RTO on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval.² **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1299, R 336.1910, Paragraph 9(A)(1), Consent Order AQD No. 2022-15)**
6. The permittee shall monitor and record, in a satisfactory manner, the date and time of all RTO by-pass times, and the reason for the by-pass. **(R 336.1910, R 336.1213(3), Paragraph 9(A)(1), Consent Order AQD No. 2022-15)**
7. The permittee shall conduct weekly inspections of the RTO incinerator and blower and oven system filters during production, as specified in the MAP and the CAM Plan. **(40 CFR 64.6(c)(1)(i))**
8. The permittee shall conduct weekly, monthly, quarterly, and semi-annual inspections, part replacements and calibrations of the capture system as specified in the MAP and CAM plan. **(40 CFR 64.6(c)(1)(i))**
9. The permittee shall continuously monitor and record the combustion chamber temperature every 15 minutes for a 3-hour block average as an indicator of proper operation of the RTO. The minimum temperature is 1,575°F. **(40 CFR 64.6(c)(1)(i and ii))**
10. The permittee shall evaluate the capture efficiency of the capture system by monitoring the pressure drop across the PTE. This shall be monitored continuously at one-minute intervals on a data acquisition system or other method and recorded continuously. The indicator range is -1.0 to 1.0" water column. **(40 CFR 64.3(a)(2))**
11. The temperature monitor shall continuously monitor the RTO combustion chamber temperature. The averaging period is hourly. The monitor shall be calibrated according to the manufacturer recommendations, or semi-annually, whichever is more frequent. **(40 CFR 64.6(c)(1)(iii))**
12. The pressure monitoring system shall continuously monitor the capture system static pressure. The averaging period is hourly. The monitor shall be calibrated according to manufacturer recommendations or every six months whichever is more frequent. **(40 CFR 64.6(c)(1)(iii))**

13. An excursion is identified as a departure from the following indicators: **(40 CFR 64.6(c)(2))**
 - a. RTO combustion zone temperature measurement of less than 1,575°F based on a 3-hour block average.
 - b. Any static pressure reading more than -0.009" WC.
 - c. Failure to perform inspections, maintenance, replacements, or calibrations as specified in SC VI.8 and SC VI.9.
14. For each control device in operation, the permittee shall conduct bypass monitoring for each bypass line such that the valve or closure method cannot be opened without creating an alarm condition for which a record shall be made. Records of the bypass line that was opened and the length of time the bypass line was opened shall be kept on file. **(40 CFR 64.3(a)(2))**
15. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the regenerative thermal oxidizer and associated capture system to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). If the duration of the temperature excursion exceeds 10 minutes, the coating line operation will be curtailed. All excursions will be documented. If the temperature is below 1,525 °F it is considered an exceedance and is reported. If the pressure is greater than -0.009 inches of water column, Worthen will assess the system operations and determine if any corrective action is necessary. If the pressure is greater than -0.007 inches of water column, it is considered an exceedance and is reported. **(40 CFR 64.7(d))**
16. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emission unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c))**
17. The permittee shall properly maintain the monitoring systems, including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
18. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

VII. REPORTING

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

4. Each semiannual report of monitoring and deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. **(40 CFR 64.9(a)(2)(i))**
5. Each semiannual report of monitoring and deviations shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii))**
6. The permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing.² **(R 336.12001(3))**
7. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date.² **(R 336.2001(4))**
8. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test.² **(R 336.2001(5))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-RTO (RTO/Bypass Stack)	48 ²	45 ²	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart OOOO for printing, coating, and dyeing of fabrics and other textiles by the initial compliance date.² **(40 CFR Part 63, Subparts A and OOOO, Paragraph 9(A)(1), Consent Order AQD No. 2022-15)**
2. The permittee shall comply with all applicable requirements of 40 CFR Part 60, Subparts A and VVV – Standards for Polymeric Coating of Supporting Substrates Facilities. **(40 CFR Part 60, Subparts A and VVV, Consent Order AQD No. 2022-15)**
3. The permittee shall comply with all applicable requirements of 40 CFR Part 64. **(40 CFR Part 64)**

4. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the AQD and if necessary, submit a proposed modification of the CAM Plan to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. **(40 CFR 64.7(e))**
5. The conditions contained in this ROP for which a Consent Order is the only identified underlying applicable requirement shall be considered null and void upon the effective date of termination of the Consent Order. The effective date of termination is defined for the purposes of this condition as the date upon which the Termination Order is signed by the AQD Division Director. **(Consent Order AQD No. 2022-15)**

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-MACT-0000	Each new affected source subject to the National Emission Standards for Hazardous Air Pollutants: Printing, Coating, and Dyeing of Fabrics and Other Textiles, 40 CFR Part 63, Subpart 0000.	EU-FabricCoating
FG-NSPS-VVV	Each affected facility subject to the New Source Performance Standards for Polymeric Coating of Supporting Substrates Facilities, 40 CFR Part 60, Subpart VVV.	EU-FabricCoating EU-MixRoom
FG-RULE290	All emission units that are exempt from the requirements of Rule 201 pursuant to Rule 290.	EU-MixRoom
FG-COLDCLEANERS	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, 278a and Rule 281(2)(h) or Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.	EU-COLDCLEANER1 EU-COLDCLEANER2

**FG-MACT-0000
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Each new affected source subject to the National Emission Standards for Hazardous Air Pollutants: Printing, Coating, and Dyeing of Fabrics and Other Textiles, 40 CFR Part 63, Subpart OOOO.

Emission Unit: EU-FabricCoating

POLLUTION CONTROL EQUIPMENT

Permanent Total Enclosure (PTE) and Regenerative Thermal Oxidizer (RTO)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Organic HAP	0.08 kg per kg of solids applied ²	12-month rolling time period as determined at the end of each calendar month	EU-FabricCoating	SC VI.2, SC VI.3	40 CFR 63.4291(a)(3)
2. Organic HAP	98% overall control efficiency ²	12-month rolling time period as determined at the end of each calendar month	EU-FabricCoating	SC V.3, SC VI.2, SC VI.3, SC VI.4	40 CFR 63.4291(a)(4)

The permittee shall comply with one of the options listed above.

3. The permittee shall determine whether the organic HAP emission rate is equal to or less than the applicable emission limit in SC I.1 using the emission rate with add-on controls option or determine whether the organic HAP overall control efficiency is equal to or greater than the control efficiency in SC I.2 using the overall control efficiency option which are listed in 40 CFR 63.4291(a)(3) and (4). **(40 CFR 63.4291(a)(3))**
4. The permittee shall determine whether the organic HAP emission rate is equal to or less than the applicable emission limits in SC I.1 or SC I.2 using the emission rate with add-on controls option which is listed in 40 CFR 63.4291(a)(3).² **(40 CFR 63.4291(a)(3))**
5. When determining compliance with the emission limit in SC I.1 or SC I.2, the permittee shall include all organic HAP containing coatings, thinners, and/or other additives, and cleaning materials as defined in 40 CFR 63.4371 used in the coating operation.² **(40 CFR 63.4291)**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall be in compliance with the operating limits for emission capture systems and add-on control devices required by 40 CFR 63.4292.² **(40 CFR 63.4300(a)(3)(ii))**
2. The permittee shall be in compliance with the work practice standards in 40 CFR 63.4293 at all times.² **(40 CFR 63.4300(a)(3)(iii), 40 CFR 63.4342(e))**

3. The permittee shall always operate and maintain the coating operation(s), including the control device and monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions.² **(40 CFR 63.4300(b))**
4. For any coating operation(s) using the emission rate with add-on controls option or overall control efficiency option, the permittee shall meet the operating limits specified in Table 2 of 40 CFR Part 63, Subpart OOOO as identified below.² **(40 CFR 63.4292(b))**

Add-on Control Device	Operating Limit	Continuous Compliance Demonstration Method
RTO	a. The average combustion temperature in any 3-hour period must not fall below the temperature limit established during the most recent performance test according to 40 CFR 63.4363(b).	i. Collect the temperature data according to 40 CFR 63.4364(c); ii. Reduce the data to 3-hour block averages; and iii. Maintain the 3-hour block average temperature at or above the temperature limit.
Emission Capture System	Submit site-specific monitoring plan that identifies operating parameters to be monitored according to 40 CFR 63.4364(e).	Conduct monitoring according to the plan (40 CFR 63.4364(e)(3)).

5. The permittee shall develop and implement a work practice plan, to minimize the organic HAP emissions from the storage, mixing and conveying of coatings, thinners and/or other additives, and cleaning materials used in, and waste materials generated by the controlled coating operation(s). The work practice plan shall specify practices and procedures to ensure at a minimum the following elements are implemented:
 - a. All organic HAP containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be stored in closed containers.² **(40 CFR 63.4293(b)(1))**
 - b. Spills of organic HAP containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be minimized.² **(40 CFR 63.4293(b)(2))**
 - c. Organic HAP containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes.² **(40 CFR 63.4293(b)(3))**
 - d. Mixing vessels which contain organic-HAP-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents.² **(40 CFR 63.4293(b)(4))**
 - e. Emissions of organic HAP must be minimized during cleaning of storage, mixing, and conveying equipment.² **(40 CFR 63.4293(b)(5))**

The permittee may choose to comply with an alternative to the work practice standard, after receiving prior approval from the Administrator in accordance with 40 CFR 63.6(g).² **(40 CFR 63.4293)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. The permittee shall determine the mass fraction of organic HAP for each material used, the mass fraction of coating solids for each coating and the density of each material used in accordance with 40 CFR 63.4331 and 40 CFR 63.4341.² **(40 CFR 63.4331, 40 CFR 63.4341)**
2. The permittee shall conduct each performance test required by 40 CFR 63.4340 according to the requirements in 40 CFR 63.7(e)(1) and under the conditions in 40 CFR 63.4360(a)(1) and (2), unless a waiver of the performance test is obtained in accordance with 40 CFR 63.7(h).² **(40 CFR 63.4360(a))**

3. The permittee shall conduct each performance test of an emission capture system and add-on control device to determine capture efficiency and emission destruction or removal efficiency, according to the requirement in 40 CFR 63.4361 and 40 CFR 63.4362.² **(40 CFR 63.4360(b))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall maintain records as specified in 40 CFR 63.4312 and 63.4313.² **(40 CFR 63.4342)**
2. The permittee shall maintain, at a minimum, the following records for each compliance period as applicable to the compliance approach chosen:² **(40 CFR 63.4312)**
 - a. A copy of each notification and report that is submitted to comply with 40 CFR Part 63, Subpart OOOO, and the documentation supporting each notification and report.² **(40 CFR 63.4312(a))**
 - b. A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data or test data used to determine the mass fraction of organic HAP for coating, thinning and cleaning materials; and the mass fraction of solids for coating materials. If testing was conducted to determine the mass fraction of organic HAP of coating materials or the mass fraction of solids of coating materials, a copy of the complete test report must be kept. If information is provided to the permittee by the manufacturer or supplier of the material that was based on testing, a summary sheet of results provided by the manufacturer or supplier must be kept. The permittee is not required to obtain the test report or other supporting documentation from the manufacturer or supplier.² **(40 CFR 63.4312(b))**
 - c. All required calculations for the compliance option(s) used. This shall include the calculation of the total mass of organic HAP emissions before add-on controls for the coating, thinning and cleaning materials applied each month using Equations 1, 1A and 1B of 40 CFR 43.4331, and, if applicable, the calculation used to determine the mass of organic HAP in waste materials according to 40 CFR 63.4331(a)(4)(iii); the calculation of the total mass of the solids contained in all coating materials applied during the month using Equation 2 of 40 CFR 63.4331; the calculation of the mass of organic HAP emission reduction by emission capture systems and add-on control devices using Equations 1, 1A, 1B, 1C, 2, 3, 3A & 3B of 40 CFR 63.4341, as applicable; and the calculation of the organic HAP emission rate for each compliance period using Equation 4 of 40 CFR 63.4341.² **(40 CFR 63.4312(c)(1))**
 - d. The name, mass, and mass fraction of organic HAP of each coating, thinner, and/or other additive, and cleaning material used during each compliance period. **(40 CFR 63.4312(d) and (e))**
 - e. The mass fraction of solids for each coating applied during each compliance period.² **(40 CFR 63.4312(f))**
 - f. The information specified below, if an allowance is used in Equation 1 of CFR 40 63.4331 for organic HAP contained in waste materials sent to, or designated for shipment to, a treatment, storage, and disposal facility (TSDF) according to 40 CFR 63.4331(a)(4)(iii).² **(40 CFR 63.4312(g))**
 - i. The name and address of each TSDF to which the permittee sent waste materials for which the permittee used an allowance in Equation 1 or 4 of CFR 40 63.4331, a statement of which subparts under 40 CFR Parts 262, 264, 265 and 266 apply to the facility, and the date of each shipment.
 - ii. Identification of the operations producing waste materials included in each shipment and the compliance periods(s) in which the permittee used the allowance for these materials in Equation 1, respectively, of 40 CFR 63.4331.
 - iii. The methodology used in accordance with 40 CFR 63.4331(a)(4)(iii) to determine the total amount of waste materials sent to or the amount collected, stored and designated for transport to a TSDF each compliance period; and the methodology to determine the mass of organic HAP contained in these waste materials. This must include the sources for all data used in the determination, methods used to generate the data, frequency of testing or monitoring, and supporting calculations and documentation, including the waste manifest for each shipment.
 - g. The date, time, and duration of each deviation.² **(40 CFR 63.4312(i))**
 - h. The applicable records specified in 40 CFR 63.4312(j)(1) through (8).² **(40 CFR 63.4312(j))**
 - i. For each deviation, a record of whether the deviation occurred during a period of SSM.

- ii. The records in 40 CFR 63.6(e)(3)(iii)-(v) related to SSM.
 - iii. For each capture system that is a PTE, the data and documentation used to support a determination that the capture system meets the criteria in Method 204 of Appendix M to 40 CFR Part 51 for a PTE and has a capture efficiency of 100%, as specified in 40 CFR 63.4361(a).
 - iv. A record of the work practice plan required by 40 CFR 63.4293 and documentation that the permittee is implementing the plan on a continuous basis.
3. The permittee shall demonstrate continuous compliance with the applicable organic HAP emission limit in 40 CFR 63.4290, each month, according to the procedures in 40 CFR 63.4341.² **(40 CFR 63.4342(a))**
 4. During the performance test required by 40 CFR 63.4340, the permittee shall perform the applicable monitoring and recordkeeping in accordance with 40 CFR 63.4363 to establish the emission capture system and add-on control device operating limits required by 40 CFR 63.4292.² **(40 CFR 63.4363)**
 5. During the performance test, the permittee must monitor and record the temperature at least once every 15 minutes during each of the three test runs. The permittee must monitor the temperature in the firebox of the RTO or immediately downstream of the firebox before any substantial heat exchange occurs. Use the data collected during the performance test to calculate and record the average temperature maintained during the performance test. This average temperature is the minimum operating limit for the RTO.² **(40 CFR 63.4363(a))**
 6. The permittee shall install, operate, and maintain each Continuous Parameter Monitoring System (CPMS) according to the requirements below:² **(40 CFR 63.4364(a))**
 - a. Each CPMS must complete a minimum of 1 cycle of operation for each successive 15-minute period. The permittee must have a minimum of 4 equally spaced successive cycles of CPMS operation to have a valid hour of data.
 - b. The permittee must have valid data from at least 90% of the hours during which the process operated.
 - c. The permittee must determine the hourly average of all recorded readings according to:
 - i. The permittee must have at least 3 of 4 equal data values from that hour from a CMS that is not out-of-control.
 - ii. Provided all of the readings recorded in accordance with this requirement clearly demonstrate continuous compliance with the standard, then the hourly average of all recorded readings are not required to be determined.
 - d. The permittee must determine the rolling 3-hour average of all recorded readings for each operating period. To do this, there must be at least 2 of 3 of the hourly averages for that period using only average values that are based on valid data (i.e. not from out-of-control periods).
 - e. The permittee must record the results of each inspection, calibration, and validation check of the CPMS.
 - f. At all times, the monitoring system must be maintained in proper working order including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
 - g. Except for monitoring malfunctions, associated repairs, or required QA or QC activities (including calibration checks or required zero and span adjustments), the permittee must conduct all monitoring at all times that the unit is operating. Data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required QA or QC activities shall not be used for the purposes of calculating the emissions concentration and percent reductions specified in Table 1 of 40 CFR Part 63, Subpart OOOO. All the valid data collected during all other periods in assessing compliance of the control device and associated control system must be used. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
 - h. Any averaging period for which there is not valid monitoring data and such data is required constitutes a deviation, and the Administrator must be notified in accordance with 40 CFR 63.4311(a).

7. The permittee must demonstrate continuous compliance with each operating limit required by 40 CFR 63.4292 that applies, as specified in Table 2 of 40 CFR Part 63, Subpart OOOO.² **(40 CFR 63.4342(c))**
8. If an operating parameter is out of the allowed range specified in Table 2 of 40 CFR Part 63, Subpart OOOO, this is a deviation from the operating limit that must be reported as specified in 40 CFR 63.4310(c)(6) and 40 CFR 63.4311(a)(7).² **(40 CFR 63.4342(c)(1))**
9. If an operating parameter deviates from the established limit, the permittee shall assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation and treat the emissions as if they were uncontrolled, as indicated in Equation 1 of 40 CFR 63.4341.² **(40 CFR 63.4342(c)(2))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall comply with the notification requirements as specified in 40 CFR 63.4310.² **(40 CFR 63.4310)**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of 40 CFR Part 63, Subparts A and OOOO- National Emission Standards for Hazardous Air Pollutants: Printing, Coating and Dyeing of Fabrics and Other Textiles.² **(40 CFR Part 63, Subparts A and OOOO)**
2. The conditions contained in this ROP for which a Consent Order is the only identified underlying applicable requirement shall be considered null and void upon the effective date of termination of the Consent Order. The effective date of termination is defined for the purposes of this condition as the date upon which the Termination Order is signed by the AQD Division Director. **(Consent Order AQD No. 2022-15)**

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).

FG-NSPS-VVV FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Each affected facility subject to the New Source Performance Standard Subpart VVV – Standards for Polymeric Coating of Supporting Substrates Facilities.

Emission Units: EU-FabricCoating, EU-MixRoom

POLLUTION CONTROL EQUIPMENT

EU-FabricCoating: Permanent Total Enclosure (PTE) and Regenerative Thermal Oxidizer (RTO)

EU-MixRoom: Coating mix preparation equipment covers and Carbon Adsorption System (CAS)

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall install, operate, and maintain a total enclosure around EU-FabricCoating and vent the captured VOC emissions from the total enclosure to a control device that is at least 95% efficient. **(40 CFR 60.742(b)(2), Paragraph 9(A)(2), Consent Order AQD No. 2022-15)**
2. The permittee shall install, operate, and maintain a cover on each piece of affected coating mix preparation equipment in EU-MixRoom and vent VOC emissions from the covered mix equipment to a 95% efficient control device while preparation of the coating is taking place within the vessel. **(40 CFR 60.742(c)(1), Paragraph 9(A)(2), Consent Order AQD No. 2022-15)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall demonstrate that a total enclosure is installed on EU-FabricCoating and meets the following requirements: **(40 CFR 60.743(b)(1)(i) – (vi), Paragraph 9(A)(2), Consent Order AQD No. 2022-15)**
 - a. The only openings in the enclosure are forced makeup air and exhaust ducts and natural draft openings such as those through which raw materials enter and exit the coating operation.
 - b. The total area of all natural draft openings does not exceed 5 percent of the total surface area of the total enclosure's walls, floor and ceiling.
 - c. All access doors and windows are closed during normal operation of the enclosed coating operation, except for brief, occasional openings to accommodate process equipment adjustments. If such openings are frequent, or if the access door or window remains open for a significant amount of time during the process operation, it must be considered a natural draft opening. Access doors used routinely by works to enter and exit the enclosed area shall be equipped with automatic closure devices.
 - d. Average inward face velocity (FV) across all natural draft openings is a minimum of 3,600 meters per hour as determined by the procedures found in 60.743(b)(1)(iv)(B).

- e. The air passing through all natural draft openings flows into the enclosure continuously. If FV is less than or equal to 9,000 meters per hour, the continuous inward airflow shall be verified by continuous observation using smoke tubes, streamers, tracer gases, or other means approved by the Administrator over the period that the volumetric flow rate tests required to determine FV are carried. If FV is greater than 9,000 meters per hour, the direction of airflow through the natural draft openings shall be presumed to be inward at all times without verification.
 - f. All sources of emissions within the enclosure shall be a minimum of four equivalent diameters away from each natural draft opening.
2. The permittee shall demonstrate that for EU-MixRoom, the covers meeting the following specification have been installed and are being used properly: **(40 CFR 60.743(c)(1)(i-v) Paragraph 9(A)(2), Consent Order AQD No. 2022-15)**
 - a. Cover shall be closed at all times except when adding ingredients, withdrawing samples, transferring the contents, or making visual inspection when such activities cannot be carried out with cover in place. Such activities shall be carried out through ports of the minimum practical size.
 - b. Cover shall extend at least 2 centimeters beyond the outer rim of the opening of shall be attached to the rim.
 - c. Cover shall be of such design and construction that contact is maintained between cover and rim along the entire perimeter.
 - d. Any breach in the cover (such as a slit for insertion of a mixer shaft or port for addition of ingredients) shall be covered consistent with SC III.3.a-c, when not actively in use. An opening sufficient to allow safe clearance for a mixer shaft is acceptable during those periods when the shaft is in place.
 - e. A polyethylene or nonpermanent cover may be used provided it meets the requirements of SC III.3.a-c. Such a cover shall not be reused after once being removed.
 3. The permittee shall post procedures detailing the proper use of covers as specified in SC III.3 in all areas where affected coating mix preparation equipment is used. **(40 CFR 60.743(c)(2), Paragraph 9(A)(2), Consent Order AQD No. 2022-15)**
 4. The permittee shall vent all coating mix preparation equipment to a 95% efficient control device while preparation of coating is taking place within the vessel. **(40 CFR 60.743(c)(3&4), Paragraph 9(A)(2), Consent Order AQD No. 2022-15)**

V. TESTING/SAMPLING

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

1. The permittee shall verify the control efficiencies from the RTO and CAS by testing at the owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004, Paragraph 9(A)(2), Consent Order AQD No.2022-15)**
2. The permittee shall conduct each performance test as required by 40 CFR 60.743 in accordance with 40 CFR 60.745 and 40 CFR 60.8. **(40 CFR 60.745, 40 CFR 60.8, Paragraph 9(A)(2), Consent Order AQD No.2022-15)**

3. The permittee shall verify the control efficiency of the EU-FabricCoating and EU-MixRoom RTO and CAS at a minimum of every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004, Paragraph 9(A)(2), Consent Order AQD No. 2022-15)**
4. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted. **(R 336.1213(3), Paragraph 9(A)(2), Consent Order AQD No. 2022-15)**
5. The permittee shall use Method 24 to determine the VOC content in coatings. If it is demonstrated to the satisfaction of the Administrator that coating formulation data are equivalent to Method 24 results, formulation data may be used. In the event of any inconsistency between a Method 24 test and a facility's formulation data, the Method 24 test will govern. **(40 CFR 60.745(a), Paragraph 9(A)(2), Consent Order AQD No. 2022-15)**
6. Within 180 days after October 25, 2022, the permittee shall conduct stack testing of the Coating Mix Preparation Equipment as specified in 40 CFR 60.743(c)(4). Sixty (60) days prior to stack testing, the Company shall submit a test plan that meets the requirements specified in Exhibit A of this Consent Order to the AQD Grand Rapids District Supervisor and the AQD Technical Programs Unit Supervisor for review and approval prior to testing. A test plan shall be submitted for each test. Not less than 7 days prior to testing, the permittee or an authorized agent shall notify the AQD Grand Rapids District Supervisor and the AQD Technical Programs Unit Supervisor, in writing, of the time and place of the performance tests and who shall conduct them. A representative of the AQD shall have the opportunity to witness the tests. Within 60 days after a completed test, the Company shall submit to the AQD Grand Rapids District Supervisor and the AQD Technical Programs Supervisor a test report, which includes the test data and results. This testing is in addition to any testing required by the Company's ROP. **(Paragraph 9(C)(1), Consent Order AQD No. 2022-15)**
7. The permittee shall verify the control efficiencies from the CAS by testing at the owner's expense, in accordance with the Department requirements in the timeline identified in FG-NSPS-VVV, SC V.6. **R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall install and calibrate all monitoring devices on EU-FabricCoating and EU-MixRoom as required by Subpart VVV according to the manufacturer's specifications. **(40 CFR 60.744(a), Paragraphs 9(A)(2) and 9(B)(2), Consent Order AQD No. 2022-15)**
2. The permittee shall install, calibrate, maintain and operate, according to the manufacturer's specifications, a monitoring device on EU-MixRoom CAS that continuously indicates and records the concentration level of organic compounds in the control device inlet and outlet gas streams. **(40 CFR 60.744(c)(1), Paragraphs 9(A)(2) and 9(B)(2), Consent Order AQD No. 2022-15)**
3. The permittee shall install, calibrate, maintain, and operate, according to the manufacturer's specifications, a monitoring on EU-FabricCoating device that continuously indicates and records the combustion temperature of the incinerator. The monitoring device shall have an accuracy within ± 1 percent of the temperature being measured in Celsius degrees. **(40 CFR 60.744(e), Paragraphs 9(A)(2) and 9(B)(2), Consent Order AQD No. 2022-15)**
4. The permittee shall submit a monitoring plan for the EU-FabricCoating vapor capture system to the Administrator for approval. This plan shall identify the parameter to be monitored as an indicator of vapor capture system performance and the method for monitoring the chosen parameter. The owner or operator shall install, calibrate, maintain, and operate, according to the manufacturer's specifications, a monitoring device that continuously indicates and records the value of the chosen parameter. **(40 CFR 60.744(g&h), Paragraphs 9(A)(2) and 9(B)(2), Consent Order AQD No. 2022-15)**
5. The permittee shall record time periods of mixing or coating operations for EU-FabricCoating and EU-MixRoom when the emission control device is malfunctioning or not in use. **(40 CFR 60.744(i), Paragraphs 9(A)(2) and 9(B)(2), Consent Order AQD No. 2022-15)**

6. The permittee shall record time periods of mixing or coating operation for EU-FabricCoating and EU-MixRoom when each monitoring device is malfunctioning or not in use. **(40 CFR 60.744(j), Paragraphs 9(A)(2) and 9(B)(2), Consent Order AQD No. 2022-15)**
7. The permittee shall retain records of the measurements and calculations required in 40 CFR 60.743 and 40 CFR 60.744 for EU-FabricCoating and EU-MixRoom for 5 years. **(40 CFR 60.744(k), R 336.1213(3), Paragraphs 9(A)(2) and 9(B)(2), Consent Order AQD No. 2022-15)**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit the performance test data and results as specified in 40 CFR 60.8. In addition, the average values of the monitored parameters measured at least every 15 minutes and averaged over the period of the performance test shall be submitted with the results of all performance tests. **(40 CFR 60.747(a), Paragraph 9(A)(2), Consent Order AQD No. 2022-15)**
5. The permittee shall verify the VOC emission rates from EU-MixRoom at a minimum of every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004, Paragraph 9(A)(2), Consent Order AQD No. 2022-15)**
6. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days before testing of the time and place performance tests will be conducted. **(R 336.1213(3))**
7. The permittee shall submit quarterly reports to the AQD if any of the following occur: **(40 CFR 60.747(d), R 336.1213(3), Paragraph 9(A)(2), Consent Order AQD No. 2022-15)**
 - a. For the CAS, all periods of three consecutive adsorption cycles of all the individual adsorber vessels during which the average carbon adsorption system efficiency falls below 0.95.
 - b. For the RTO, all 3-hour periods during which the average combustion temperature of the device is more than 28° C (82.4° F) below the average combustion temperature of the device during the most recent performance test that demonstrated compliance.
 - c. For the RTO capture system, all 3-hour periods during which the average total enclosure or vapor capture system monitor readings vary by 5 percent or more from the average value measured during the most recent performance test that demonstrated compliance.
8. If no reportable periods outlined in SC VI.7 have occurred, the permittee shall submit semi-annual statements clarifying this fact. **(40 CFR 60.747(d)(7), Paragraph 9(A)(2), Consent Order AQD No. 2022-15)**
9. The permittee shall include all periods during actual mixing or coating operations when a required monitoring device was malfunctioning or not operating and all periods during actual mixing or coating operations when the control device was malfunctioning or not operating. **(40 CFR 60.747(f), Paragraph 9(A)(2), Consent Order AQD No. 2022-15)**

10. The permittee shall submit any performance test reports within 60 days of a test to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of 40 CFR Part 60, Subparts A and VVV – Standards for Polymeric Coating of Supporting Substrates Facilities. **(40 CFR Part 60, Subparts A and VVV, Consent Order AQD No. 2022-15)**
2. The conditions contained in this ROP for which a Consent Order is the only identified underlying applicable requirement shall be considered null and void upon the effective date of termination of the Consent Order. The effective date of termination is defined for the purposes of this condition as the date upon which the Termination Order is signed by the AQD Division Director. **(Consent Order AQD No. 2022-15)**

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).

FG-RULE290 FLEXIBLE GROUP CONDITIONS

DESCRIPTION

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

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

Emission Units installed prior to December 20, 2016: EU-MixRoom

POLLUTION CONTROL EQUIPMENT

Carbon adsorption unit.

I. EMISSION LIMIT(S)

1. Each emission unit that emits only noncarcinogenic volatile organic compounds or noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, if the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively. **(R 336.1290(2)(a)(i))**
2. Any emission unit for which CO₂ equivalent emissions are not more than 6,250 tons per month and for which the total uncontrolled or controlled emissions of all other air contaminants are not more than 1,000 or 500 pounds per month, respectively, and all the following criteria listed below are met: **(R 336.1290(2)(a)(ii))**
 - a. For toxic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 0.04 micrograms per cubic meter and less than 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(2)(a)(ii)(A))**
 - b. For toxic air contaminants with initial risk screening levels greater than or equal to 0.04 microgram per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(2)(a)(ii)(B))**
 - c. The emission unit shall not emit any toxic air contaminants, excluding non-carcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with an initial threshold screening level or initial risk screening level less than 0.04 microgram per cubic meter. **(R 336.1290(2)(a)(ii)(C))**
 - d. For total mercury, the uncontrolled or controlled emissions shall not exceed 0.01 pounds per month from emission units installed on or after December 20, 2016. **(R 336.1290(2)(a)(ii)(D))**
 - e. For lead, the uncontrolled or controlled emissions shall not exceed 16.7 pounds per month from emission units installed on or after December 20, 2016. **(R 336.1290(2)(a)(ii)(E))**
3. Any emission unit that emits only particulate air contaminants without initial risk screening levels and other air contaminants that are exempted under Rule 290(2)(a)(i) or Rule 290(2)(a)(ii), if all the following provisions are met: **(R 336.1290(2)(a)(iii))**
 - a. The particulate emissions are controlled by an appropriately designed and operated fabric filter collector or an equivalent control system which is designed to control particulate matter to a concentration of less than or equal to 0.01 pound of particulate per 1,000 pounds of exhaust gases and which does not have exhaust gas flow rate more than 30,000 actual cubic feet per minute. **(R 336.1290(2)(a)(iii)(A))**

- b. The visible emissions from the emission unit are not more than 5% opacity in accordance with the methods contained in Rule 303. **(R 336.1290(2)(a)(iii)(B))**
- c. The initial threshold screening level for each particulate toxic air contaminant, excluding nuisance particulate, is more than 2.0 micrograms per cubic meter. **(R 336.1290(2)(a)(iii)(C))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

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

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

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

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

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

FG-COLDCLEANERS FLEXIBLE GROUP CONDITIONS

DESCRIPTION

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

Emission Units: EU-COLDCLEANER1, EU-COLDCLEANER2

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

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

III. PROCESS/OPERATIONAL RESTRICTION(S)

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

IV. DESIGN/EQUIPMENT PARAMETER(S)

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

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

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

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

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

E. NON-APPLICABLE REQUIREMENTS

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

APPENDICES

Appendix 1. Acronyms and Abbreviations

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

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

Appendix 2. Schedule of Compliance

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

Appendix 3. Monitoring Requirements

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

Appendix 4. Recordkeeping

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

Appendix 5. Testing Procedures

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

Appendix 6. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-P0634-2017. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No MI-PTI- P0634-2017 is being reissued as Source-Wide PTI No. MI-PTI-P0634-2023.

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.