

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

EFFECTIVE DATE: November 14, 2011

ISSUED TO

DuPont Mt. Clemens Plant

State Registration Number (SRN): A3569

LOCATED AT

400 Groesbeck Hwy., Mount Clemens, Michigan 48043

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-A3569-2011

Expiration Date: November 12, 2016

Administratively Complete ROP Renewal Application Due Between May 14, 2015, and
May 13, 2016

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 Michigan Air Pollution Control Rule 210(1), 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-A3569-2011

This Permit to Install (PTI) is issued in accordance with and subject to Section 5505(5) of Act 451. Pursuant to Michigan Air Pollution Control Rule 214a, 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 Environmental Quality

Christopher Ethridge, Acting Southeast Michigan District Supervisor

TABLE OF CONTENTS

AUTHORITY AND ENFORCEABILITY4

A. GENERAL CONDITIONS5

Permit Enforceability5

General Provisions5

Equipment & Design6

Emission Limits6

Testing/Sampling6

Monitoring/Recordkeeping7

Certification & Reporting7

Permit Shield8

Revisions9

Reopenings9

Renewals10

Stratospheric Ozone Protection10

Risk Management Plan10

Emission Trading10

Permit To Install (PTI)11

B. SOURCE-WIDE CONDITIONS12

C. EMISSION UNIT CONDITIONS14

EMISSION UNIT SUMMARY TABLE14

EU-RESIN-REACT-421

EU-RESIN-REACT-524

EU-RESIN-REACT-627

EU-RESIN-REACT-730

EU-REACT-833

EU-WBI36

EU-IMP38

EU-MEL-UNLOAD41

D. FLEXIBLE GROUP CONDITIONS43

FLEXIBLE GROUP SUMMARY TABLE43

FG –RESIN-CATHODIC46

FG-RESIN-DC849

FGRULE29051

FG-DISP-TANKS54

FG-THERMOX-MIX-TANKS57

FG-RULE284TANKS60

FGCOLDCLEANERS63

FG-RULE287(c)66

E. NON-APPLICABLE REQUIREMENTS68

APPENDICES69

Appendix 1. Abbreviations and Acronyms69

Appendix 2. Schedule of Compliance70

Appendix 3. Monitoring Requirements70

Appendix 4. Recordkeeping70
Appendix 5. Testing Procedures70
Appendix 6. Permits to Install70
Appendix 7. Emission Calculations72
Appendix 8. Reporting73

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 Environmental Quality (MDEQ) 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 will be identified for each ROP term or condition. All terms and conditions that are included in a PTI, are streamlined or subsumed, or is state only enforceable will be noted as such.

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

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

A. GENERAL CONDITIONS

Permit Enforceability

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R336.1213(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. **(R336.1213(5)(a), R 336.1214a(5))**
- Those conditions that are hereby incorporated in federally enforceable Source- wide PTI No. MI-PTI-A3569-201X pursuant to Rule 201(2)(c) are designated by footnote two. **(R336.1213(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. **(R336.1213(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. **(R336.1213(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. **(R336.1213(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 **(R336.1213(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. **(R336.1213(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. **(R336.1213(1)(f))**
7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R336.1213(1)(g))**
8. This ROP does not convey any property rights or any exclusive privilege. **(R336.1213(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). **(R336.1370)**
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. **(R336.1910)**

Emission Limits

11. Except as provided in Subrules 2, 3, and 4 of Rule 301, states in part; “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 Rule 301(1)(a) or (b) unless otherwise specified in this ROP.” The grading of visible emissions shall be determined in accordance with Rule 303. **(R336.1301(1) in pertinent part):**
 - a. A 6-minute average of 20 percent opacity, except for one 6-minute average per hour of not more than 27 percent opacity.
 - b. A limit specified by an applicable federal new source performance standard.
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 **(R336.1901(a))**
 - b. Unreasonable interference with the comfortable enjoyment of life and property.¹ **(R336.1901(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). **(R336.2001)**
14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R336.2001(2), R336.2001(3), R336.2003(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. **(R336.2001(4))**

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 **(R336.1213(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. **(R336.1213(1)(e), R336.1213(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 states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R336.1213(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. **(R336.1213(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. **(R336.1213(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. **(R336.1213(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 **(R336.1213(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. **(R336.1213(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. **(R336.1212(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. **(R336.1912)**

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. **(R336.1213(6)(a)(i), R336.1213(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. **(R336.1213(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. **(R336.1213(6)(b)(ii))**
 - c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R336.1213(6)(b)(iii))**

- d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R336.1213(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. **(R336.1215(5))**
 - b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R336.1216(1)(b)(iii))**
 - c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R336.1216(1)(c)(iii))**
 - d. Minor Permit Modifications made pursuant to Rule 216(2). **(R336.1216(2)(f))**
 - e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R336.1216(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. **(R336.1217(1)(c), R336.1217(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. **(R336.1215, R336.1216)**
31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R336.1219(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. **(R336.1210(9))**
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. **(R336.1216(1)(c)(iii), R336.1216(2)(d), R336.1216(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. **(R336.1217(2)(a)(i))**
 - b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R336.1217(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. **(R336.1217(2)(a)(iii))**
 - d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R336.1217(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. **(R336.1210(7))**

Stratospheric Ozone Protection

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

Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR, Part 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, Part 68.10(a):
- June 21, 1999,
 - Three years after the date on which a regulated substance is first listed under 40 CFR, Part 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. **(R336.1213(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 **(R336.1201(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 **(R336.1201(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, MDEQ. ² **(R336.1219)**
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, or has been interrupted for 18 months, the applicable terms and conditions from that PTI 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, MDEQ, 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 **(R336.1201(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.

SOURCE-WIDE CONDITIONS

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Each individual HAP	Less than 9.0 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	VI. 1 & 2	R336. 1205(3)
2. Aggregate HAPs	Less than 22.5 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	VI. 1 & 2	R336. 1205(3)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R336.1213(3)(b)(ii))

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R336.1213(3)(b)(ii))**

1. All required calculation shall be completed in a format acceptable to the AQD District Supervisor & made available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting, or notification special conditions.² **(R336.1215(3))**
2. The permittee shall keep the following information on a monthly basis for FGFACILITY:
 - a. Individual & aggregate HAP(s) emission calculations determining the monthly emission rate of each in tons per calendar month, based on the emissions from all the processes on the site.
 - b. Individual & aggregate HAP(s) emission calculations determining the cumulative emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month, based on the emissions from all the processes on the site.²

All records shall be made available to the Department upon request. **(R336.1215(3))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R336.1213(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. **(R336.1213(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. **(R336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

The permittee shall comply with requirements of 40 CFR Part 63, Subpart CCCCCC – National Emission Standards for Hazardous Air Pollutants for Area Sources: Paints and allied Products Manufacturing. **(40 CFR Part 63, Subpart CCCCCC)**

Footnotes:

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

C. EMISSION UNIT 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-RESIN-REACT-8	<p>Resin reactor #8 is used to manufacture epoxy "backbone resin" for automotive cathodic primer. The process consists of a 5000-gal reactor, two reactor weigh tanks (WT-81 & 82), four charge tanks (CT81 – 84), two receiver tanks (RT-8 & RT8700), & one 12,500-gal thin tank (TT-8). Typical process steps include: 1) load reactants to the reactor & feed tanks; 2) heat reactor to polymerization temperature; 3) add reactants to build resin; 4) emulsify resin and cool it in the thin tank; 5) "strip" VOC from resin; & 6) transfer resin to cathodic blend tank. The vents for all of the reactor system #8 tanks (except stripper vacuum pump vent) are manifolded together to a catch tank #7 & #8 and a -35 °C condenser for VOC reduction. A dust collector is used to control in-plant dust.</p> <p>The associated cathodic vacuum stripper system (PRODFW) consists of three hold tanks (HT-81 – 83), a product pump for each hold tank, two plate and frame heat exchangers, a vacuum stripping vessel, a primary condenser, a secondary condenser, a decanter, a receiver tank, a vacuum pump, a vacuum pump after condenser and a condensate collection tank.</p>	1/1/1966	FG-RESINCATHODIC

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-RESIN-REACT-7	Resin reactor #7 is used to manufacture epoxy “grind and backbone resins” for automotive cathodic primer. The process consists of a 5000-gal reactor (RR-7N), three reactor weigh tanks (WT-71N, 72N, & 73N), a charge tank (CT-74N), a receiver tank (RT7N), another receiver tank shared with Reactor #8 (RT8700), three hold tanks (HT-81 – 83) as well as a stripper shared with Reactor #8 process, & two thin tanks (TT-71N & 73N). VOC emissions from the reactor, the two weigh tanks (72N, & 71N), & the charge tank (CT-74N) goes to Catch Tank (7 & 8) and through a -35 °C condenser for emission control. Typical process steps include: 1) load reactants to the reactor & feed tanks; 2) heat reactor to polymerization temperature; 3) add reactants to build resin; 4) cool resin in the thin tank; 5) filter resin & send it to storage tanks. A dust collector is used to control in-plant dust.	1/1/1966	FG-RESIN-CATHODIC & FG-RESIN-DC8
EU-RESIN-REACT-6	Resin reactor #6A is used to manufacture acrylic resin for automotive topcoats. The process consists of a 2500-gal reactor (RR-6A), a monomer weigh tank (WT-6A), a catalyst weight tank (6A-CTFD), a quench tank (QT-6A), a decanter (DT-6A), a feed tank (FT-6FEED), a charge tank (FT-6CHARG), & a thin tank (TT-6A). VOC emissions from the reactor, the weigh tanks, the quench tank, the feed tank, & the charge tanks are controlled by a catch tank. Typical process steps include: 1) load reactants to the reactor & feed tanks; 2) heat reactor to polymerization temperature; 3) add reactants to build resin; 4) cool resin in the thin tank; 5) filter resin & send it to storage tanks. The reactor has an integral condenser for process control.	1/1/1966	NA

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-RESIN-REACT-5	Resin reactor #5 is used to manufacture urethane cross linkers and other intermediates for automotive cathodic primer. The process consists of a 2500-gal reactor, two raw materials tanks (WT-5M & MDI-5), a decanter tank (DT-5), a receiver tank (RT-5), & a thin tank (5M-TT). Typical process steps include: 1) load reactants to the reactor & feed tanks; 2) heat reactor to polymerization temperature; 3) add reactants to build resin; 4) cool resin in the thin tank; 5) filter resin & send it to storage tanks. The reactor has an integral condenser for process control. The vents for all (except MDI-5) of the reactor system #5 tanks are manifolded together to a knock-out tank (KT-5), then to Catch Tank 7/8 and through a -35 °C condenser to control VOC emission.	1/1/1966	FG-RESIN-CATHODIC
EU-RESIN-REACT-4	Resin reactor #4E is used to manufacture acrylic resin for automotive topcoats. The process consists of a 2500-gal reactor (RR-4E), a monomer weigh tank (WT-4E), a catalyst weight tank (CT-4EFD), a quench tank (QT-4E), a decanter tank (DT-4E), a feed tank (FT-4E), a receiver (RT-4E), a charge tank (CT-4E), & a thin tank (TT-4E). VOC emissions from the reactor, the weigh tanks, the quench tank, the feed tank, & the charge tanks are controlled by a catch tank. Typical process steps include: 1) load reactants to the reactor & feed tanks; 2) heat reactor to polymerization temperature; 3) add reactants to build resin; 4) cool resin in the thin tank; 5) filter resin & send it to storage tanks. The reactor has an integral condenser for process control.	1/1/1966	NA
EU-RESIN-REACT-1	Resin reactor #1 operates as a heated mix tank for the manufacture of intermediate products used in the manufacture of OEM paints. The vent from the reactor system #1 is connected to the knock-out tank (KT-5), then to Catch Tank 7/8, and finally through a -35 °C condenser to control VOC emission. A dust collector is used to control in-plant dust.	1/1/1966	FG-RESIN-CATHODIC, FG-RESIN-DC8, & FGRULE290

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-S-MEDIA-MILLS(1-4)	Four "small media mills" dispersions are manufactured in this equipment (SM-9, SG-13, SG-14, & SG-28). The process for each mill/premix tank system is the same. There is no chemical reaction in these processes, only mixing & mechanic grinding to dispense pigment in binder & solvent. A dust collector (DC-06) is used to control emissions during powder loading.	10/15/1992	FGRULE290 & FG-DISP-TANKS
EU-BT(1-3)	Primer blend tanks (3). Used as tanks for stripped/finished (low VOC)epoxy resins prior to filtering for storage & use	1/1/1966	FGRULE290
EU-FSO	Fleet & special orders (small batch mixing). Small (<250 gal) batch manufacturing of solvent based OEM paint products. Intermediates & solvents are blended in vessels to make OEM paint products. Tanks vent to the manufacturing building room & fugitive emissions leave via ventilation exhaust system.	1/1/1993	FGRULE290
EU-LMZ (1-4)	Four LMZ mills/premixers. Generally, the color or pigmented materials go through a mechanical process to disperse the particles for solvent borne paint manufacturing, using LMZ mills (LMZ 1-4) & associated premix tanks (PMB & PMR). Dust collectors LMZREDHP & LMZBLKHP are used to control emissions during powder loading.	1/1/1993	FGRULE290 & FG-DISP-TANKS
EU-TSM	Tandom Schold Mill/premix tank units. Generally, the color or pigmented materials go through a mechanical process to disperse the particles for solvent borne paint manufacturing, using Schold Mills 100, 200, 300, 400, & associated premix tanks. A dust collector (DC-06) is used to control emissions during powder loading.	1/1/1992	FGRULE290 & FG-DISP-TANKS
EU-CGM1000M(22) EU-CGM1000S(8) EU-CGM2500(5) EU-CGM250(4) EU-CGM3500(5) EU-CGM1500(1) EU-CGM5000(4) EU-CGM500(9)	58 Mix tanks used for the manufacture of intermediate & finished product OEM (Original Equipment Manufacturing) paints. Tanks C-1006, C-1505, EP-2, F-1008, ET(15-26), FT(1-9, 12-24, 37-40, 48-49, 52-57, 59, & 73-80), are included in this emission unit. Tanks range in size from 250 – 5000 gallons. Intermediates & solvents are blended in vessels to make OEM paint products. Most tanks have vents to atmosphere with end –of-vent flame arrestors. Some tanks vent to the manufacturing building room & fugitive emissions leave via ventilation exhaust systems.	1/1/1966	FGRULE290

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-SOLV-RECOVERY	Semi-batch distillation of a spent organic solvent blend used for equipment washing. VOC emissions are controlled by a vent condenser that is cooled using < 45 °F chilled water.	12/1/1997	FGRULE290
EU-QA-ECOAT	Quality testing lab for electrocoat primer systems.	1/1/1982	FGRULE290
EU-SBI(1-11)	11 Solvent borne intermediate paint mixing tanks. The intermediates process blends resins, solvent, & aluminum paste, or mica pearls into one of 12 process tanks (ET-15, 16, FT-41, 43 to 47, 51, &PM17A/B). A dust collector (DC-06) is used to control emissions during powder loading.	1/1/1966	FGRULE290 & FG-DISP-TANKS
EU-WBSB	Waterborne paint small batch manufacturing. Small (<250 gal) batch manufacturing of water based OEM paint products. Intermediates & solvents are blended in vessels to make OEM paint products. Tanks vent to the manufacturing building room & fugitive emissions leave via ventilation exhaust systems.	1/1/1997	FGRULE290
EU-ECOATSUP	Two supermills & four premix tanks (PM26, 37, 35, & 42) for water-based electrocoat dispersion manufacturing, commonly called "pig feed", for blending with cathodic resin for OEM electrocoat primer system.	1/1/2002	FGRULE290
EU-MBFPT (1-22)	22 Mill-base flow-Through process tanks MB(7-9, 11-13, 15 [3 tanks], 17, 18 [5 tanks], 20 [3 tanks], 21[3 tanks], & 22). Integral part of the production process is to utilize tanks to control mixing & filtration of intermediate millbase product for use in paint making when there is a recurring or intermediate flow of materials during the operation of the process.	6/7/2002	FGRULE290
EU-DISP-TANK (1-11)	11 sand grinder & premixing tanks. Generally, the color or pigmented materials go through a mechanical process to disperse the particles for solvent borne paint manufacturing, using Sand Grinders & Schold Mills & associated premix tanks. There are generally two premix tanks per dispersion unit. A dust collector (DC-06) is used to control emissions during powder loading.	1/1/1966	FG-DISP-TANKS

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-WBI	Waterborne Intermediate Paint Manufacturing consisting of dispersions making & intermediates making process. Generally, the color or pigmented materials go through a mechanical process to disperse the particles for waterborne paint manufacturing, using LMZ mills (LMZ 81-86), Schold Mill (SM 55), & portable tanks; there are no stacks associated with this process. The intermediates process blends resins, solvent (including water), & aluminum paste, or mica pearls, or Laponite into one of five process tanks (W1250, 1253, 1255, 2452, & 2456). A dust collector (DC_06) is used to control emissions during powder loading.	7/1/1995	FG-DISP-TANKS
EU-COLD-CLEANER(1-4)	Four cold cleaners which are exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(r)(iv). New cold cleaners were placed into operation on or after July 1, 1979	1/1/1992	FGCOLDCLEANERS
EU-LAB-BOOTH(1-16)	16 dry filter controlled spray booths for QA & reliability testing. The operation is exempted under Rule 287(c).	1/1/1992	FGRULE287(c)
EU-IMP	IMP (Improved Manufacturing Process) is an automated system designed to produce pigmented solvent-borne products. The system consists of seven 500-gal dosing tanks (CST- 1 through 7), three 250-gal dosing tanks (CST- 11 through 13), four solvent viscosity adjustment tanks (VAT-1 & 2, that's vented to the room; and VAT-3 & 4, that's vented outside); two 3000-gal blend tanks (MB10 & MB14); two storage tanks (MB8 & MB11); two fill heads; and a mix head. The system is equipped with a manifold venting system that reduces VOC emission from Blend Tanks (MB10 & MB14), Wash Tanks (WT-2 & 3), and Product Damper Tanks (DT-1 & FD-1).	5/1/99	NA
EU-MEL-UNLOAD	The facility receives melamine resins from off-site via 5000-gal-tank wagons. The material is unloaded to the stationary tanks located at resin storage area from Unloading Stations #4 & #5.	9/15/1992	NA

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-THERMOX-MIXTANKS(1-29)	<p>29 paint final product mix tanks are manifold together (through a vent header system) & are vented to the thermal oxidizer for VOC control. Thermal oxidizer is sized for 300 SCF & 95% destruction efficiency. The process for each mix tank (water-borne & solvent-borne paint products) vent to the oxidizer is same. A clean tank, which has been kept blanked with nitrogen, is charged with raw materials through a closed loading system. Vapors displaced from the tank exit through a conservation vent & are piped via the vent header to the oxidizer. Positive pressure is maintained in the tank with a nitrogen regulator. Once the batch is completed, the tank is cleaned with a wash solution, if necessary.</p> <p>TANKS: Solvent borne Clear/Basecoat (C5001, 5002, 5003, 5004, 5005, 5006, & 5007), Water borne (W-2402, 2406, 2424, 2434, 2436, 2438, 2440, 2442, 2444, 2446, 3612, 3620, 3622, 3628, 3630, 1204, 1214, 1216, 1218, 1226, 1232, & 4808)</p>	9/15/1992	FG-THERMOX-MIXTANKS
EU-STORAGE-SOLV(1-21)	21 Solvent storage tanks.	1998	FG-RULE284TANKS
EU-STORAGE-MONOM(1-6)	6 Monomer storage tanks.	1998	FG-RULE284TANKS
EU-STORAGE-RESIN(1-65)	65 Resin & other intermediate storage tanks.	1966	FG-RULE284TANKS
EU-STORAGE-MISC(1-8)	8 Miscellaneous raw material, intermediate & waste storage tanks.	1966	FG-RULE284TANKS

EU-RESIN-REACT-4
EMISSION UNIT CONDITIONS

DESCRIPTION

Resin reactor #4 is used to manufacture acrylic resin for automotive topcoats. The process consists of a 2500-gal reactor (RR-4E), a monomer weigh tank (WT-4E), a catalyst weight tank (CT-4EFD), a quench tank (QT-4E), a decanter (DT-4E), a feed tank (FT-4E), a receiver (RT-4E), a charge tank (CT-4E), & a thin tank (TT-4E). VOC emissions from the reactor, the weigh tank, the quench tank, the feed tank, & the charge tank are vented to a catch tank. Typical process steps include: 1) load reactants to the reactor & feed tanks; 2) heat reactor to polymerization temperature; 3) add reactants to build resin; 4) cool resin in the thin tank; 5) filter resin & send it to storage tanks. The reactor has an integral condenser for process control.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	4.5 tons per 12-month rolling time period ²	12-month rolling time period as determined at the end of each calendar month	EU-RESIN-REACT-4	VI 1, 2, & 3	R336.1702
2. VOC	0.50 pound per 1000 pounds of completed organic resin produced ²	Per batch	EU-RESIN-REACT-4	VI 1, 2, & 3	R336.1702(d)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not splash solvents during reactor loading. ² (R336.1213(1)(b))
2. The cleaning of paint manufacturing equipment & paint shipping containers shall be done by methods & materials that minimize the emission of VOC. These methods & materials shall include one of the following: ² (R336.1702(d))

- a. Hot alkali or detergent cleaning
- b. High-pressure water cleaning
- c. Cleaning by use of an organic solvent if the equipment being cleaned is completely covered or enclosed, except for an opening that is no larger than necessary to allow for safe clearance considering the method & materials being used.

3. Wash solvent shall be stored only in closed containers². **(R336.1702(d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

All stationary & portable mixing tanks & high speed dispersion mills shall be equipped with covers that completely cover the tank or mill opening, except for an opening which is no larger than necessary to allow for safe clearance for the mixer shift. The tank opening shall be covered at all times, except when operator access is necessary. ²
(R336.1702(d))

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years². **(R336.1213(3)(b)(ii))**

1. The permittee shall determine the VOC emission factor for EU-RESIN-REACT-4 in accordance with the procedures described in Appendix 7 of this permit, or other methodology approved by the AQD District Supervisor. **(R336.1702(d))**
2. The permittee shall keep records of the amount of resins produced during calendar month from EU-RESIN-REACT-4. **(R336.1702, R336.1225, & R336.1901)**
3. The permittee shall use the most recent VOC emission factor & amount of resins produced to calculate the 12-month rolling time period average VOC emission rate from EU-RESIN-REACT-4 at end of each calendar month. **(R336.1702(d))**

See Appendix 7

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R336.1213(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. **(R336.1213(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. **(R336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA.	NA	NA	NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

**EU-RESIN-REACT-5
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Resin reactor #5 is used to manufacture urethane cross linkers and other intermediates for automotive cathodic primer. The process consists of a 2500-gal reactor, two raw materials tanks (WT-5M & MDI-5), a decanter (DT-5), a receiver tank (RT-5), & a thin tank (5M-TT). Typical process steps include: 1) load reactants to the reactor & feed tanks; 2) heat reactor to polymerization temperature; 3) add reactants to build resin; 4) cool resin in the thin tank; 5) filter resin & send it to storage tanks. The reactor has an integral condenser for process control. The vents for all (except MDI-5) of the reactor system #5 tanks are manifolded together to a knock-out tank (KT-5), then to Catch Tank 7/8 and through a -35 °C condenser to control VOC emissions.

Flexible Group ID: FG-RESINCATHODIC & FG-RESIN-DC8

POLLUTION CONTROL EQUIPMENT

A condenser system (see FG-RESIN-CATHODIC)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	2.0 tons per 12-month rolling time period ²	12-month rolling time period as determined at the end of each calendar month	EU-RESIN-REACT-5	VI 1, 2, & 3	R336.1702(a) & R336.1225
2. VOC	0.22 pound per 1000 pounds of completed organic resin produced ²	Per batch	EU-RESIN-REACT-5	VI 1, 2, & 3	R336.1702(d) & R336.1225

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not splash solvents during reactor loading². (R336.1213(1)(b))
2. The cleaning of paint manufacturing equipment & paint shipping containers shall be done by methods & materials that minimize the emission of VOC. These methods & materials shall include one of the following:² (R336.1702(d))
 - a. Hot alkali or detergent cleaning
 - b. High-pressure water cleaning

- c. Cleaning by use of an organic solvent if the equipment being cleaned is completely covered or enclosed, except for an opening that is no larger than necessary to allow for safe clearance considering the method & materials being used.

3. Wash solvent shall be stored only in closed containers². **(R336.1702(d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall route emissions from the reactor (RR-5M condenser), weigh tank (WT-5M), decanter tank (DT-5), & thin tank (5M-TT) to the condenser system.² **(R336.910, R336.1702(a), & R336.1225)**
2. All stationary & portable mixing tanks & high speed dispersion mills shall be equipped with covers that completely cover the tank or mill opening, except for an opening which is no larger than necessary to allow for safe clearance for the mixer shift. The tank opening shall be covered at all times, except when operator access is necessary.² **(R336.1702(d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R336.1213(3)(b)(ii))**

NA

See Appendix 5

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years². **(R336.1213(3)(b)(ii))**

1. The permittee shall determine the VOC emission factor for EU-RESIN-REACT-5 in accordance with the procedures described in Appendix 7 of this permit, or other methodology approved by the AQD District Supervisor. **(R336.1702(a) & R336.1225)**
2. The permittee shall keep, in a satisfactory manner, records of the amount of resins produced from EU-RESIN-REACT-5 on a monthly basis & 12 month rolling time period basis as determined at the end of each calendar month. **(R336.1702(a), R336.1225, & R336.1901)**
3. The permittee shall use the most recent VOC emission factor & amount of resins produced to calculate VOC emission rate from EU-RESIN-REACT-5 during each calendar month. **(R336.1702(a), R336.1225, & R336.1901)**
4. The permittee shall keep, in a satisfactory manner, records of VOC emissions from EU-RESIN-REACT-5 on a 12-month rolling time period as determined at the end of each calendar month. **(R336.1702(a), R336.1225, & R336.1901)**

See Appendix 7

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**EU-RESIN-REACT-6
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Resin reactor #6 is used to manufacture acrylic resin for automotive topcoats. The process consists of a 2500-gal reactor (RR-6A), a monomer weigh tank (WT-6A), catalyst weight tank (6A-CTFD), a quench tank (QT-6A), a decanter (DT-6A), a feed tank (FT-6FEED), a charge tanks (FT-6CHARG), & a thin tank (TT-6A). VOC emissions from the reactor, the weigh tank, the quench tank, the feed tank, & the charge tanks are vented to a catch tank. Typical process steps include: 1) load reactants to the reactor & feed tanks; 2) heat reactor to polymerization temperature; 3) add reactants to build resin; 4) cool resin in the thin tank; 5) filter resin & send it to storage tanks. The reactor has an integral condenser for process control.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	4.5 tons per 12-month rolling time period ²	12-month rolling time period as determined at the end of each calendar month	EU-RESIN-REACT-6	VI 1, 2, & 3	R336.1702(a)
2. VOC	0.50 pound per 1000 pounds of completed organic resin produced ²	Per batch	EU-RESIN-REACT-6	VI 1, 2, & 3	R336.1702(d)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not splash solvents during reactor loading.² (R336.1213(1)(b))
2. The cleaning of paint manufacturing equipment & paint shipping containers shall be done by methods & materials that minimize the emission of VOC. These methods & materials shall include one of the following:² (R336.1702(d))
 - a. Hot alkali or detergent cleaning
 - b. High-pressure water cleaning

- c. Cleaning by use of an organic solvent if the equipment being cleaned is completely covered or enclosed, except for an opening that is no larger than necessary to allow for safe clearance considering the method & materials being used.

3. Wash solvent shall be stored only in closed containers.² **(R336.1702(d) R336.1224, R336.1225, R336.1910, & R336.1901)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

All stationary & portable mixing tanks & high speed dispersion mills shall be equipped with covers that completely cover the tank or mill opening, except for an opening which is no larger than necessary to allow for safe clearance for the mixer shift. The tank opening shall be covered at all times, except when operator access is necessary.² **(R336.1702(d))**

V. TESTING/SAMPLING

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

NA

See Appendix 5

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years.² **(R 336.1213(3)(b)(ii))**

1. The permittee shall determine the VOC emission factor for EU-RESIN-REACT-6 in accordance with the procedures described in Appendix 7 of this permit, or other methodology approved by the AQD District Supervisor. **(R336.1702(d))**
2. The permittee shall keep records of the amount of resins produced during calendar month from EU-RESIN-REACT-6. **(R336.1702, R336.1225, & R336.1901)**
3. The permittee shall use the most recent VOC emission factor & amount of resins produced to calculate the 12-month rolling time period average VOC emission rate from EU-RESIN-REACT-6 at end of each calendar month. **(R336.1702(d))**

See Appendix 7

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**EU-RESIN-REACT-7
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Resin reactor #7 is used to manufacture epoxy “grind and backbone resins” for automotive cathodic primer. The process consists of a 5000-gal reactor (RR-7N), three reactor weigh tanks (WT-71N, 72N, & 73N), a charge tank (CT-74N), a receiver tank (RT7N), another receiver tank shared with Reactor #8 (RT8700), three hold tanks (HT-81 – 83) as well as a stripper shared with Reactor #8 process, & two thin tanks (TT-71N & 73N). VOC emissions from the reactor, the three weigh tanks (73N, 72N, & 71N), & the charge tank (CT-74N) go to Catch Tank (7 & 8) and through a -35 °C condenser for emission control. Typical process steps include: 1) load reactants to the reactor & feed tanks; 2) heat reactor to polymerization temperature; 3) add reactants to build resin; 4) cool resin in the thin tank; 5) filter resin & send it to storage tanks. A dust collector is used to control in-plant dust.

Flexible Group ID: FG-RESINCATHODIC & FG-RESIN-DC8

POLLUTION CONTROL EQUIPMENT

A condenser system (see FG-RESIN-CATHODIC)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	2.0 tons per 12-month rolling time period ²	12-month rolling time period as determined at the end of each calendar month	EU-RESIN-REACT-7	VI 1, 2, & 3	R336.1702(a) & R336.1225
2. VOC	0.5 pound per 1000 pounds of completed organic resin produced ²	Per batch	EU-RESIN-REACT-7	VI 1, 2, & 3	R336.1702(a) & R336.1225

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not splash solvents during reactor loading. ² (R336.1702)
2. The cleaning of paint manufacturing equipment & paint shipping containers shall be done by methods & materials that minimize the emission of VOC. These methods & materials shall include one of the following: ² (R336.1702)
 - a. Hot alkali or detergent cleaning
 - b. High-pressure water cleaning

- c. Cleaning by use of an organic solvent if the equipment being cleaned is completely covered or enclosed, except for an opening that is no larger than necessary to allow for safe clearance considering the method & materials being used.

3. Wash solvent shall be stored only in closed containers.² **(R336.1702)**
4. The permittee shall not operate the reactor, the three weight tanks, and/or charge tank No. 74N unless the catch tank is installed, maintained & operated in a satisfactory manner². **(R336.1702(a), R336.1225, R336.1910, & R336.1901)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

All stationary & portable reactors shall be equipped with covers that completely cover the reactor opening, except for an opening which is no larger than necessary to allow for safe clearance for the mixer shaft. The reactor opening shall be covered at all times, except when operator access is necessary.² **(R336.1702)**

V. TESTING/SAMPLING

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

NA

See Appendix 5

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years.² **(R 336.1213(3)(b)(ii))**

1. The permittee shall determine the VOC emission factor for EU-RESIN-REACT-7 in accordance with the procedures described in Appendix 7 of this permit, or other methodology approved by the AQD District Supervisor. **(R336.1702(d))**
2. The permittee shall keep, in a satisfactory manner, records of the amount of resins produced from EU-RESIN-REACT-7 on a monthly basis & 12 month rolling time period basis as determined at the end of each calendar month. **(R336.1702, R336.1225, & R336.1901)**
3. The permittee shall use the most recent VOC emission factor & amount of resins produced to calculate VOC emission rate from EU-RESIN-REACT-7 during each calendar month. **(R336.1702)**
4. The permittee shall keep, in a satisfactory manner, records of VOC emissions from EU-RESIN-REACT-7 on a 12-month rolling time period as determined at the end of each calendar month. **(R336.1702(d))**

See Appendix 7

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**EU-REACT-8
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Resin reactor #8 is used to manufacture epoxy “backbone resin” for automotive cathodic primer. The process consists of a 5000-gal reactor, two reactor weigh tanks (WT-81 & 82), four charge tanks (CT81 – 84), two receiver tanks (RT-8 & RT8700), & one 12,500-gal thin tank (TT-8). Typical process steps include: 1) load reactants to the reactor & feed tanks; 2) heat reactor to polymerization temperature; 3) add reactants to build resin; 4) emulsify resin and cool it in the thin tank; 5) “strip” VOC from resin; & 6) transfer resin to cathodic blend tank. The vents for all of the reactor system #8 tanks (except stripper vacuum pump vent) are manifolded together to a catch tank #7 & #8 and a -35 °C condenser for VOC reduction. A dust collector is used to control in-plant dust.

The associated cathodic vacuum stripper system (PRODFLW) consists of three hold tanks (HT-81 – 83), a product pump for each hold tank, two plate and frame heat exchangers, a vacuum stripping vessel, a primary condenser, a secondary condenser, a decanter, a receiver tank, a vacuum pump, a vacuum pump after condenser and a condensate collection tank.

Flexible Group ID: FG-RESINCATHODIC & FG-RESIN-DC8

POLLUTION CONTROL EQUIPMENT

A condenser system (see FG-RESIN-CATHODIC)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	6.9 tons per 12-month rolling time period ²	12-month rolling time period as determined at the end of each calendar month	EU-RESIN-REACT-8	VI 1, 2, & 3	R336.1702
2. VOC	0.5 pound per 1000 pounds of completed organic resin produced ²	Per batch	EU-RESIN-REACT-8	VI 1, 2, & 3	R336.1702(d)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not splash solvents during reactor loading.² (R336.1702)
- The cleaning of paint manufacturing equipment & paint shipping containers shall be done by methods & materials that minimize the emission of VOC. These methods & materials shall include one of the following:² (R336.1702)

- a. Hot alkali or detergent cleaning
- b. High-pressure water cleaning
- c. Cleaning by use of an organic solvent if the equipment being cleaned is completely covered or enclosed, except for an opening that is no larger than necessary to allow for safe clearance considering the method & materials being used.

3. Wash solvent shall be stored only in closed containers. ² (R336.1702)
4. The permittee shall not operate the reactor, the two weight tanks, and/or charge tank Nos. 81, 82, & 83 unless the catch tank is installed, maintained & operated in a satisfactory manner². (R336.1702, R336.1225, R336.1910, & R336.1901)

IV. DESIGN/EQUIPMENT PARAMETER(S)

All stationary & portable reactors shall be equipped with covers that completely cover the reactor opening, except for an opening which is no larger than necessary to allow for safe clearance for the mixer shaft. The reactor opening shall be covered at all times, except when operator access is necessary. ² (R336.1702)

V. TESTING/SAMPLING

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

NA

See Appendix 5

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. ² (R 336.1213(3)(b)(ii))

1. The permittee shall determine the VOC emission factor for EU-RESIN-REACT-8 in accordance with the procedures described in Appendix 7 of this permit, or other methodology approved by the AQD District Supervisor. (R336.1702(d))
2. The permittee shall keep, in a satisfactory manner, records of the amount of resins produced from EU-RESIN-REACT-8 on a monthly basis & 12 month rolling time period basis as determined at the end of each calendar month. (R336.1702, R336.1225, & R336.1901)
3. The permittee shall use the most recent VOC emission factor & amount of resins produced to calculate VOC emission rate from EU-RESIN-REACT-8 during each calendar month. (R336.1702)
4. The permittee shall keep, in a satisfactory manner, records of VOC emissions from EU-RESIN-REACT-8 on a 12-month rolling time period as determined at the end of each calendar month. (R336.1702(d))

See Appendices 7

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

**EU-WBI
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Waterborne Intermediate Paint Manufacturing consisting of dispersions making & intermediates making process. Generally, the color or pigmented materials go through a mechanical process to disperse the particles for waterborne paint manufacturing, using LMZ mills (LMZ 81-86), Schold Mill (SM 55), & portable tanks; there are no stacks associated with this process. The intermediates process blends resins, solvent (including water), & aluminum paste, or mica pearls, or Laponite into one of five process tanks (W1250, 1253, 1255, 2452, & 2456). A dust collector (DC-06) is used to control emissions during powder loading.

Flexible Group ID: FG-DISP-TANKS

POLLUTION CONTROL EQUIPMENT

Dust collector (DC-06)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
VOC	3.8 tons per 12-month rolling time period ²	12-month rolling time period as determined at the end of each calendar month	EU-WBI	VI 1 & 3	R336.1702(a)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
Product (waterborne intermediate paints)	4,500,000 gallons per 12-month rolling time period ²	12-month rolling time period as determined at the end of each calendar month	EU-WBI	VI 1 & 2	R336.1702(a)

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

See Appendix 5

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years.² (R 336.1213(3)(b)(ii))

1. All required calculation shall be completed in a format acceptable to the AQD District Supervisor & made available by the 15th day of calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special conditions. (336.1702(a))
2. The permittee shall keep, in a satisfactory manner, monthly & 12-month rolling time period records of gallons of product produced each month & 12-month rolling time period. (336.1702(a))
3. The permittee shall calculate the VOC emission rates from EU-WBI for each calendar month & 12-month rolling time period, as determined at the end of each calendar month, using a method acceptable to the AQD District Supervisor. (336.1702(a))

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**EU-IMP
 EMISSION UNIT CONDITIONS**

DESCRIPTION

IMP (Improved Manufacturing Process) is an automated system designed to produce pigmented solvent-borne products. The system consists of seven 500-gal dosing tanks (CST- 1 through 7), three 250-gal dosing tanks (CST- 11 through 13), four solvent viscosity adjustment tanks (VAT-1 & 2, that's vented to the room; and VAT-3 & 4, that's vented outside); two 3000-gal blend tanks (MB10 & MB14); two storage tanks (MB8 & MB11); two fill heads; and a mix head. The system is equipped with a manifold venting system that reduces VOC emission from Blend Tanks (MB10 & MB14), Wash Tanks (WT-2 & 3), and Product Damper Tanks (DT-1 & FD-1).

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
VOC	30.0 tons per 12-month rolling time period ²	12-month rolling time period as determined at the end of each calendar month	EU-IMP	VI.2	R336.1702(a)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
Product	2,400,000 gallons per 12-month rolling time period ²	12-month rolling time period as determined at the end of each calendar month	EU-IMP	VI.1	R336.1702(a)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-IMP, unless the manifold venting system is installed, maintained & operated in a satisfactory manner². **(R336.1702(a), R336.1224, R336.1225, R336.1910, & R336.1901)**
2. The cleaning of paint manufacturing equipment & paint shipping containers shall be done by methods & materials that minimize the emission of VOC. These methods & materials shall include one of the following: ² **(R336.1702(d))**
 - a. Hot alkali or detergent cleaning
 - b. High-pressure water cleaning
 - c. Cleaning by use of an organic solvent if the equipment being cleaned is completely covered or enclosed, except for an opening that is no larger than necessary to allow for safe clearance considering the method & materials being used.

3. The permittee shall not splash solvents during reactor loading. ² **(R336.1702(a), R336.1224, R336.1225, R336.1910, & R336.1901)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

All stationary & portable mixing tanks & high speed dispersion mills shall be equipped with covers that completely cover the tank or mill opening, except for an opening which is no larger than necessary to allow for safe clearance for the mixer shaft. The tank opening shall be covered at all times, except when operator access is necessary. ² **(R336.1702(d), R336.1225, R336.1910, & R336.1901)**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. ² **(R 336.1213(3)(b)(ii))**

1. All required calculation shall be completed in a format acceptable to the AQD District Supervisor & made available by the 15th day of calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special conditions. **(R336.1702(a), R336.1225, & R336.1901)**
2. The permittee shall keep, in a satisfactory manner, monthly & 12-month rolling time period records of gallons of product produced each month & 12-month rolling time period. **(R336.1702(a), R336.1225, & R336.1901)**
3. The permittee shall calculate the VOC emission rates from EU-IMP for each calendar month & 12-month rolling time period, as determined at the end of each calendar month, using a method acceptable to the AQD District Supervisor. **(R336.1702(a), R336.1225, & R336.1901)**
4. The permittee shall monitor, in a satisfactory manner, the VOC concentration before & after the manifold venting system one time only. VOC concentration shall be evaluated via Tedlar bag sampling followed by laboratory analysis, by use of hand-held instrument capable of detecting concentrations at the levels expected, or equivalent. **(R336.1702(a), R336.1225, & R336.1901)**
5. The permittee shall keep, in a satisfactory manner, records of the monitored VOC concentration before & after the manifold venting system as required by condition VI.4 of this table. All records shall be kept on file & made available to the Department upon request. **(R336.1702(a), R336.1225, & R336.1901)**

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

**EU-MEL-UNLOAD
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Melamine resins unloading operation: the facility receives melamine resins from off-site via 5000-gal-tank wagons. The material is unloaded to the stationary tanks located at resin storage area from Unloading Stations #4 & #5.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Formaldehyde	0.28 lbs/hr ¹	Monthly	EU-MEL-UNLOAD	VI.	R336.1225
2. Formaldehyde	0.24 tons per 12-month rolling time period ¹	12-month rolling time period as determined at the end of each calendar month	EU-MEL-UNLOAD	VI.	R336.1225

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

The permittee shall not off-load formaldehyde containing resins (melamine) for more than 1752 hours per 12-month rolling time period as determined at the end of each calendar month. ¹ (R336.1225)

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

See Appendix 5

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. ¹ (R 336.1213(3)(b)(ii))

1. The permittee shall keep records of number of tank wagons unloaded per month & formaldehyde containing resins (melamine) throughput (based upon number of tank wagons per month and capacity of tank wagon).
2. The permittee shall compute hours of operation (hours per month & hours per 12-month rolling time period) based upon number of tank wagon unloaded.
3. Using hours of operation, throughput, & AQD approved emission factors (or mass balance techniques), the permittee shall calculate emissions of formaldehyde for each calendar month to demonstrate compliance with above emission limits as indicated by condition I. of the above table.

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

D. FLEXIBLE GROUP 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-RESIN-CATHODIC	A MACT condenser system controls VOC emissions from the resin reactors. The system is designed to capture & condense VOC/HAPs emissions from epoxy/urethane resin manufacturing. VOC/HAPs emissions are vented from the process vessels & are collected in a common vent header. The vent header transports the emissions to a pre-condenser, which condenses & removes water vapor & some solvents. The emissions proceed to two condensers (in parallel) to remove VOC/HAP emissions. The condensers alternate in operation such that one of the condensers is in a defrost cycle while the other is in operation. The condensers are cooled by a refrigeration unit. The remaining emissions (mainly nitrogen) proceed through an induction fan & are exhausted through a stack. Condensate is collected in one of two 500-gal portable tanks, with one 500-gal portable tank in standby.	EU-RESIN-REACT-1, EU-RESIN-REACT-5, EU-RESIN-REACT-7, & EU-RESIN-REACT-8
FG-RESIN-DC8	A dust collector controls PM emissions from the three resin reactors during powder loading.	EU-RESIN-REACT-1, EU-RESIN-REACT-7, & EU-RESIN-REACT-8

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGRULE290	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.	EU-RESIN-REACT-1, FG-S-MEDIA-MILLS(1-4), EU-BT(1-3), EU-FSO, EU-LMZ(1-4), EU-TSM, EU-CGM1000M(22), EU-CGM1000S(8), EU-CGM2500(5), EU-CGM250(4), EU-CGM3500(5), EU-CGM1500(1), EU-CGM5000(4), EU-CGM500(9), EU-SOLV-RECOVERY, EU-QA-ECOAT, EU-SBI(1-11), EU-WBSB, EU-ECOATSUP, & EU-MBFPT(1-22)
FG-DISP-TANKS	Any emission units that are associated with dispersion premix tanks. Generally, the color or pigmented materials go through a mechanical process to disperse the particles for solvent borne paint manufacturing, using Sand Grinders & Schold Mills (1-3), (5-8), (10-12), (16), & associated premix tanks. There are generally two premix tanks per dispersion unit. The dust collector (DC-06) is used to control emissions during powder loading.	EU-S-MEDIA-MILLS(1-4), EU-LMZ(1-4), EU-TSM, EU-SBI(1-11), EU-WBI, & EU-DISP-TANK(1-11)
FG-THERMOX-MIXTANKS	<p>29 paint final product mix tanks are manifold together (through a vent header system) & are vented to the thermal oxidizer for VOC control. Thermal oxidizer is sized for 300 SCF & 95% destruction efficiency. The process for each mix tank (water-borne & solvent-borne paint products) vent to the oxidizer is same. A clean tank, which has been kept blanked with nitrogen, is charged with raw materials through a closed loading system. Vapors displaced from the tank exit through a conservation vent & are piped via the vent header to the oxidizer. Positive pressure is maintained in the tank with a nitrogen regulator. Once the batch is completed, the tank is cleaned with a wash solution, if necessary.</p> <p>TANKS: Solvent borne Clear/Basecoat (5001, 5002, 5003, 5004, 5005, 5006, & 5007), Water borne (W-2402, 2406, 2424, 2434, 2436, 2438, 2440, 2442, 2446, 3612, 3620, 3622, 3628, 3630, 1204, 1214, 1216, 1218, 1226, 1232, 1244 & 4808)</p>	EU-THERMOX-MIXTANKS(1-29)

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-RULE284TANKS	Any existing or new (placed into operation after 7/1/79) or modified storage tanks that are exempt from the requirements of R336.1201 (NSR permitting) pursuant to R336.1284 & that are subject to 40 CFR 60.110(a), (b), and 60.116(b).	EU-STORAGE-SOLV(1-21), EU-STORAGE-MONOM(1-6), EU-STORAGE-RESIN(1-65), & EU-STORAGE-MISC(1-8)
FGCOLDCLEANERS	Four cold cleaners which are exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(r)(iv). New cold cleaners were placed into operation on or after July 1, 1979	EU-COLD-CLEANER(1-4)
FGRULE287(c)	16 dry filter controlled spray booths for QA & reliability testing. The operation is exempted under Rule 287(c).	EU-LAB-BOOTH(1-16)

**FG –RESIN-CATHODIC
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

A MACT condenser system controls VOC emissions from the resin reactors. The system is designed to capture & condense VOC/HAPs emissions from epoxy/urethane resin manufacturing. VOC/HAPs emissions are vented from the process vessels & are collected in a common vent header. The vent header transports the emissions to a pre-condenser, which condenses & removes water vapor & some solvents. The emissions proceed to two condensers (in parallel) to remove VOC/HAP emissions. The condensers alternate in operation such that one of the condensers is in a defrost cycle while the other is in operation. The condensers are cooled by a refrigeration unit. The remaining emissions (mainly nitrogen) proceed through an induction fan & are exhausted through a stack. Condensate is collected in one of two 500-gal portable tanks, with one 500-gal portable tank in standby.

Emission Units: EU-RESIN-REACT-1, EU-RESIN-REACT-5, EU-RESIN-REACT-7, & EU-RESIN-REACT-8

POLLUTION CONTROL EQUIPMENT

Two condensers alternate in operation such that one of the condensers is in a defrost cycle while the other is in operation. The condensers are cooled by a refrigeration unit. The remaining emissions (mainly nitrogen) proceed through an induction fan & are exhausted through a stack. Condensate is collected in one of two 500-gal portable tanks, with one 500-gal portable tank in standby.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
Toluene diisocyanate (TDI)	0.002 lb/hr ²	Test method	FG-RESIN-CATHODIC	VI. 5 & 6	R336.1702(a) & R336.1225

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate FG-RESIN-CATHODIC unless the FG-RESIN-CATHODIC MACT condenser system is installed, maintained, & operated in a satisfactory manner. Operation “in a satisfactory manner” includes maintaining the FG-RESIN-CATHODIC MACT condenser system at a temperature not to exceed the maximum exhaust gas temperature specified in the MAP(Malfunxion Abatement Plan). “In a satisfactory manner” includes episodes when the FG-RESIN-CATHODIC MACT condenser system, or parts of the condenser system is/are not operating – provided emissions during these episodes are included in the monthly emission totals.² **(R336.1910 & R336.1205(3))**
2. The permittee shall not use Toluene diisocyanate (TDI) in EU-RESIN-REACT-5 & EU-RESIN-REACT-7 at the same time. The permittee shall not use TDI in EU-RESIN-REACT-1 or EU-RESIN-REACT-8.² **(R336.1225)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate FG-RESIN-CATHODIC unless a malfunction abatement plan (MAP) for the FG-RESIN-CATHODIC MACT condenser system, or an alternate plant approved by the AQD District Supervisor, is implemented & maintained. If the MAP fails to address or inadequately address an event that meets the characteristics of the malfunction at the time the plan is initially developed, the owner or operator shall revise the MAP within 45 days after such an event occurs & submit the revised plan to the AQD District Supervisor. The revised plan shall include procedures for maintaining & operating in a satisfactory manner, FG-RESIN-CATHODIC, add-on air pollution control device, or monitoring equipment during malfunction events, and a program for corrective action for such events. In particular, the MAP shall include a vapor phase saturation curve that is a vapor pressure versus exhaust gas temperature curve, used for determining the maximum condenser exhaust gas temperature, or equivalent approved by AQD.² **(R336.1910 & R336.1911)**
2. The permittee shall equip & maintain the FG-RESIN-CATHODIC MACT condenser system with a device for measuring & recording exhaust gas temperature. This device must accomplish the following 1) have a measurement sensitivity of 1% of the temperature (expressed in °F) recorded or 1°F, whichever is greater, 2) be calibrated at least in 180 days following the most recent calibration date, and 3) provide a gas temperature at least once every 15 minutes.² **(R336.1910)**

V. TESTING/SAMPLING

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

NA

See Appendix 5

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years.² **(R 336.1213(3)(b)(ii))**

1. The permittee shall install, calibrate, maintain, & operate in a satisfactory manner a device to monitor and record the exhaust gas temperature of the FG-RESIN-CATHODIC MACT condenser system on a continuous basis. For the purpose of this condition, "on a continuous basis" is defined as an instantaneous data point recorded at least every 15 minutes for at least 90 percent of the operating time during an operating calendar day. In the event the permittee collects more than one data point during the 15 minute period, the data point recorded may be the average (rolling or block) of all data points recorded during the 15 minute period. Any response to an excursion of the corresponding operational parameter set point or range specified in the Renewable Operating Permit (ROP) pursuant to Rule 336.1213(3) shall be based upon these 15 minute values. All temperature records shall be kept in a format acceptable to the AQD District Supervisor. All records shall be kept on file & made available to the Department upon request. **(R336.1205(3))**
2. The permittee shall record the time & duration of bypass of any part of the FG-RESIN-CATHODIC MACT condenser system. All records shall be kept on file & made available to the Department upon request. **(R336.1205(3))**
3. The permittee shall keep a record of exceedances of the maximum allowed condenser exhaust gas temperature specified in the MAP. This record shall include the start time, end time, & duration of such exceedance as well as a description of the corrective action taken. **(R336.1205(3))**
4. The permittee shall calculate emissions using the methodology specified in Appendix 7 of this permit, or other methodology approved by the AQD District Supervisor. These emission calculations shall include emission occurring during FG-RESIN-CATHODIC MACT condenser system bypass episodes. **(R336.1205(3))**
5. When TDI is used in either EU-RESIN-REACT-5 or EU-RESIN-REACT-7, the permittee shall keep the following records:
 - a. Date of use of TDI in each reactor

- b. The pounds per hour TDI emission associated with each batch
- c. Antoine's Equation Data used to calculate the lb/hr TDI emission
- d. The reactor operating temperature associated with each batch

See Appendices 7

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
SV-MACT	8 ²	70 ²	40 CFR 52.21(c) &(d), R336.2803, R336.2804, & R336.1225

IX. OTHER REQUIREMENT(S)

The permittee shall comply with all requirements of the Paints and Allied Products Manufacturing Area Source NESHAP (40 CFR Part 63, Subpart CCCCCC) as applicable. **(40 CFR Part 63, Subpart CCCCCC)**

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-RESIN-DC8
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

A dust collector (DC-8) controls PM emissions from the three resin reactors during powder loading.

Emission Unit: EU-RESIN-REACT-1, EU-RESIN-REACT-7, & EU-RESIN-REACT-8

POLLUTION CONTROL EQUIPMENT

Dust collector (DC-8).

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
Particulate	0.1 pounds per 1000pound of exhaust gas ¹	Test protocol	FG-RESIN-DC8	VI.	R 336.1331(1)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

See Appendix 5

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years.¹ (R 336.1213(3)(b)(ii))

1. The permittee shall install, calibrate, maintain & operate in a satisfactory manner a device to monitor and record the pressure drop for the dust collector on a continuous basis. For the purpose of this condition, "on a continuous basis" is defined as an instantaneous data point recorded at least once every 15 minutes for at least 90% of the operating time during an operating calendar day. (R336.1301 & R336.1331)

- The permittee shall implement & maintain a routine check to ensure proper operation of the dust collector on a monthly basis. Any maintenance activity performed on the control device shall be recorded & kept on file and be made available to the AQD upon request. **(R336.1910)**

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

FGRULE290

FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.

Emission Unit:

EU-RESIN-REACT-1, FG-S-MEDIA-MILLS(1-4), EU-BT(1-3), EU-FSO, EU-LMZ(1-4), EU-TSM, EU-CGM1000M(22), EU-CGM1000S(8), EU-CGM2500(5), EU-CGM250(4), EU-CGM3500(5), EU-CGM1500(1), EU-CGM5000(4), EU-CGM500(9), EU-SOLV-RECOVERY, EU-QA-ECOAT, EU-SBI(1-11), EU-WBSB, EU-ECOATSUP, & EU-MBFPT(1-22)

POLLUTION CONTROL EQUIPMENT

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(a)(i))**
2. Each emission unit that the total uncontrolled or controlled emissions of 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(a)(ii))**
 - a. For noncarcinogenic 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 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 1,000 or 500 pounds per month, respectively. **(R 336.1290(a)(ii)(A))**
 - b. For noncarcinogenic 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 microgram 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(a)(ii)(B))**
 - c. For carcinogenic 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(a)(ii)(C))**
 - d. The emission unit shall not emit any 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(a)(ii)(D))**

3. Each emission unit that emits only noncarcinogenic particulate air contaminants and other air contaminants that are exempted under Rule 290(a)(i) and/or Rule 290(a)(ii), if all of the following provisions are met: **(R 336.1290(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 an exhaust gas flow rate more than 30,000 actual cubic feet per minute. **(R 336.1290(a)(iii)(A))**
 - b. The visible emissions from the emission unit are not more than 5 percent opacity in accordance with the methods contained in Rule 303. **(R 336.1290(a)(iii)(B))**
 - c. The initial threshold screening level for each particulate air contaminant, excluding nuisance particulate, is more than 2.0 micrograms per cubic meter. **(R 336.1290(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)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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 DEQ, AQD Rule 290, Permit to Install Exemption Record form (EQP 3558) or an alternative format that is approved by 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(a)(ii) and (iii). **(R 336.1213(3))**
 - e. Material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions in sufficient detail to demonstrate that the actual emissions of the emission unit meet the emission limits outlined in this table and Rule 290. **(R 336.1213(3), R 336.1290(c))**
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(b), R 336.1213(3))**

- b. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(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(a)(iii), the permittee shall perform a monthly visible emission observation of each stack or vent during routine operating conditions. This observation need not be performed using Method 9. The permittee shall keep a written record of the results of each observation. **(R 336.1213(3))**

See Appendix 4

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

The permittee shall comply with requirements of 40 CFR Part 63, Subpart VVVVVV – National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Source when operating EU-SOLV-RECOVERY.

**FG-DISP-TANKS
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Any emission units that are associated with dispersion premix tanks. Generally, the color or pigmented materials go through a mechanical process to disperse the particles for solvent borne paint manufacturing, using Sand Grinders & Schold Mills (1-3), (5-8), (10-12), (16), & associated premix tanks. There are generally two premix tanks per dispersion unit. A dust collector (DC-06) is used to control emissions during powder loading.

Emission Unit: EU-S-MEDIA-MILLS(1-4), EU-LMZ(1-4), EU-TSM, EU-SBI(1-11), EU-WBI, & EU-DISP-TANK(1-11)

POLLUTION CONTROL EQUIPMENT

Dust collectors. Emissions from EU-S-MEDIA-MILLS(1-4), EU-TSM, EU-SBI(1-11), & EU-DISP-TANK(1-11) & EU-WBI, are controlled by a dust collector, DC-06; and from the two dispersion pre-mixers of the EU-LMZ(1-4), by two dust collectors, LMZREDHP & LMZBLKHP.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	0.1 pounds per 1000pound of exhaust gas ²	Test protocol	FG-DISP-TANKS	III, V & VI.1	R 336.1331(1)
2. VOC	22.5 tons per 12-month rolling time period ²	12-month rolling time period as determined at the end of each month	FG-DISP-TANKS	VI.2 & VI.3	R 336.1702(a)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

The permittee shall not operate FG-DISP-TANKS unless the dust collector are installed, maintained & operated in a satisfactory manner.² (R336. 1225, R336.1301, & R336.1331)

IV. DESIGN/EQUIPMENT PARAMETER(S)

The permittee shall install calibrate, maintain, & operate in a satisfactory manner a device to monitor and record the pressure drop for each dust collector on a continuous basis. For the purpose of this condition, “on a continuous basis” is defined as an instantaneous data point recorded at least once every 15 minutes for at least 90% of the operating time during an operating calendar day.² (R336. 1225, R336.1301, & R336.1331)

V. TESTING/SAMPLING

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

The permittee shall implement & maintain a routine check to ensure proper operation of the dust collectors on a monthly basis. Any maintenance activity performed on the control device shall be recorded & kept on file & be made available to AQD upon request.² **(R336. 1910)**

See Appendix 5

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years.² **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep, in a satisfactory manner, records of the pressure drop for the various dust collectors & actions taken to correct any high or low pressure drop alarms. The permittee shall keep all records on the file & made available to the Department upon request. **(R336. 1225, R336.1301, & R336.1331)**
2. The permittee shall calculate the VOC emission rate from FG-DISP-TANKS monthly, for the preceding 12-month rolling time period, using a method acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility & made available to the Department upon request. **(R336. 1225 & R336.1702(a))**
3. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R336. 1225 & R336.1702(a))**

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**FG-THERMOX-MIX-TANKS
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

29 paint final product mix tanks are manifold together (through a vent header system) & are vented to the thermal oxidizer for VOC control. Thermal oxidizer is sized for 300 SCF & 95% destruction efficiency. The process for each mix tank (water-borne & solvent-borne paint products) vent to the oxidizer is same. A clean tank, which has been kept blanked with nitrogen, is charged with raw materials through a closed loading system. Vapors displaced from the tank exit through a conservation vent & are piped via the vent header to the oxidizer. Positive pressure is maintained in the tank with a nitrogen regulator. Once the batch is completed, the tank is cleaned with a wash solution, if necessary.

TANKS:

Solvent borne Clear/Basecoat (C5001, 5002, 5003, 5004, 5005, 5006, & 5007),
 Water borne (W-2402, 2406, 2424, 2434, 2436, 2438, 2440, 2442, 2446, 3612, 3620, 3622, 3628, 3630, 1204, 1214, 1216, 1218, 1226, 1232, 1244 & 4808)

Emission Unit: EU-THERMOX-MIXTANKS(1-29)

POLLUTION CONTROL EQUIPMENT

Thermal oxidizer (with temperature T = 1500± 50 °F, minimum retention time $\tau \geq 0.5$ second)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
VOC	2.0 tons per 12 month rolling time period ²	12-month rolling time period as determined at the end of each calendar month	FG-THERMOX-MIXTANKS	VI.	R336.1702(a)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the mix tanks unless the thermal oxidizer is installed and operating properly. Proper operation is maintenance of an average temperature of 1500 ± 50 °F (averaged over any consecutive 3-hour period) & a minimum retention time of 0.5 second in the thermal oxidizer. ² (R336. 1910)
2. The permittee shall not splash solvent during loading. ² (R336.1702)

IV. DESIGN/EQUIPMENT PARAMETER(S)

The permittee shall install, calibrate, maintain & operate a temperature measurement & recording device to monitor the temperature at the base of the thermal oxidizer stack. The temperature measurement device shall have an accuracy of $\pm 1.0\%$ of the range of the average temperature expressed in °F. The temperature measuring device shall be equipped with a recording device so that a permanent continuous record is produced. The temperature data recording shall be on a continuous basis consisting of measurements made at equally spaced intervals not to exceed 15 minutes per interval. ² **(R336.1213(3))**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. ² **(R 336.1213(3)(b)(ii))**

1. The temperature-measuring device shall be calibrated in accordance with manufacturer recommendations at least once every six months. The calibration records shall be kept on file & made available to the Department upon request. **(R336.1225, R336.901, & R336.1702)**
2. The permittee shall keep a record of throughput (gallons) of each coating type (clearcoat, solvent-borne basecoat, waterborne basecoat, etc.) on a monthly and an annual (based upon a 12-month rolling time period as determined at the end of each calendar month) basis from FG-THERMOX-MIXTANKS. **(R336.1702)**
3. The permittee shall compute pounds/tons of VOC emitted, for each coating type as well as total, per month and per 12-month rolling time period as determined at the end of each calendar month from FG-THERMOX-MIXTANKS. The calculations shall be based upon emission factors determined as follows: **(R336.901 & R336.1702)**
 - a. Keep a record of exhaust gas temperatures based upon the mix tank operating temperatures. Select highest temperature for emission factor calculation.
 - b. Keep a record of the method of selection of worst-case formula as far as VOC emissions are concerned for each coating type (clearcoat, solvent-borne basecoat, waterborne basecoat, etc.). The selection shall be made using the principles of thermodynamics such that mass emission rate (pounds of VOC emitted per 1,000 gallons of finished product produced) is highest of all formulas produced during semi-annual period.
 - c. Keep a record of vapor pressure of each organic compound emitted for each worst-case formula at the mix tank exhaust temperature selected. The permittee may use the Antoine equation ($\log p = A - B/(t + C)$), where A, B, & C are Antoine constants, and t is temperature, degree Celsius) to calculate vapor pressure (p, mm Hg).
 - d. Mix tanks loading emissions ($L1 = \text{vapor density} \times \text{volume of air expelled}$): compute loading emissions for each solvent component of each worst case formula. Compute total mix tanks loading emissions for each worst case formula.
 - e. Mix tanks breathing emissions ($L2 = \text{vapor density} \times [\text{increase in air volume due to temperature rise} + \text{increase in air volume due to solvent vapor pressure rise}]$): compute breathing emissions (hold & mix time) for each solvent component of each worst case formula. Compute total breathing emissions for the each worst case formula. If the permittee demonstrates that breathing losses are negligible versus loading emissions (i.e. $L1 \gg L2$), breathing emission calculations may be omitted with AQD approval.
 - f. Calculate the emission factors (lb of VOC/[1000 gal of coating produced]) for each coating type (clearcoat, solvent-borne basecoat, waterborne basecoat, etc.) manufactured based upon $L1 + L2$ or $L1$ if $L2$ is negligible in comparison with $L1$.
 - g. In connection with VOC emission calculations, an overall (capture & destruction) control efficiency of 95% shall be used for the mix tank capture system & thermal oxidizer. The permittee shall ensure use of closed loading system.
 - h. For the above calculations the permittee may assume ideal gas law ($PV = nRT$, where P = pressure, V = volume, T = absolute temperature, n = moles, & R = the universal gas constant), Dalton's law of

partial pressures ($P = \sum p_k = \sum y_k P$, where y_k = mole fraction of species k in the gas mixture P_k = partial pressure of species k & P = total pressure) & Rault's law for ideal solution ($p_i = y_i P = x_i P_i$ where y_i = mole fraction of species i in vapor phase, x_i = mole fraction of species i in liquid phase, P_i = vapor pressure for species i, p_i = partial pressure for species i, & P = total pressure). It may be assumed for ideal gas mixture mole fraction (or percent) = pressure fraction (or percent) = volume fraction (or percent).

4. The permittee shall keep records of VOC emission in the units of tons per 12-month rolling time period as determined at the end of each calendar month from FG-THERMOX-MIXTANKS. **(R336.901, & R336.1702)**
5. The permittee shall keep a monthly record of the thermal oxidizer temperature data & monthly temperature summary information such as each duration of temperature below 1500 °F ± 50 °F, monthly average temperature. **(R336.901, & R336.1702)**

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
SV-07	24 ²	72 ²	R 336.1201(3)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

**FG-RULE284TANKS
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Any existing or new (placed into operation after 7/1/79) or modified storage tanks that are exempt from the requirements of R336.1201 (NSR permitting) pursuant to R336.1284, & that are subject to 40 CFR 60.110(a), (b), and 60.116(b).

Emission Unit: EU-STORAGE-SOLV(1-21),EU-STORAGE-MONOM(1-6), EU-STORAGE-RESIN(1-65), & EU-STORAGE-MISC(1-8)

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

Each storage vessel shall meet one of the following parameters:

1. Storage of butane, propane, or liquefied petroleum gas in a vessel with a capacity of less than 40,000 gallons. **(R336.1284(b))**
2. The vessel & storage capacity contains lubricating, hydraulic, & thermal oils, & indirect heat transfer fluids. **(R336.1284(c))**
3. Storage of No.1 to No. 6 fuel oil as specified in ASTM-D-396-95, gas turbine fuel oils Nos. 2-GT to 4-GT as specified in ASTM-D-2880-96 or diesel fuel oil Nos. 2-D & 4-D as specified in ASTM-D-975-66. **(R336.1284(d))**
4. Storage of sweet crude or sweet condensate is conducted in a vessel with a capacity of less than 40,000 gallons. **(R336.1284(e))**
5. Gasoline storage & handling equipment handling less than 20,000 gallons per day. **(R336.1284(g))**
6. Storage or transfer operations of VOC or noncarcinogenic liquids is conducted in a vessel that has a capacity of not more than 40,000 gallons where the contents have a true vapor pressure of not more than 1.5 psia at the actual storage conditions. **(R336.1284(i))**

V. TESTING/SAMPLING

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

NA.

See Appendix 5

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep a record of the following for each storage vessel:
 - a. The identification (name, tank #, etc)
 - b. Location within the plant
 - c. The capacity of the vessel
 - d. The date of installation / modification
 - e. The type of material contained in the vessel
 - f. The true vapor pressure of the material contained in the vessel at actual storage conditions.
 - g. Annual material throughput & VOC emissions as determined at the end of each calendar year, to verify compliance with Rule 278 requirements.
 - h. The applicable requirements (Rule 606, Rule 703, NSPS K, Ka, or Kb)

2. For each storage vessel subject to NSPS (40 CFR, Part 60, Subpart Kb) with a design capacity greater than 10,560 gallon (40 m³) but less than 19,800 gallons (75 m³), which are used to store volatile organic liquids (VOL), the permittee shall also record the dimensions of each vessel and an analysis showing the capacity of the storage vessel. **(40 CFR 60.116b(b))**

3. The permittee shall not construct, reconstruct, or modify any storage vessel, used to store VOL to a capacity greater than 19,800 gallons (75 m³) without notification to AQD District Supervisor. Such notification shall include an updated list of all New Source Performance Standards (NSPS) subject VOL storage tanks with capacity, date of installation /modification of each storage tanks.

VII. REPORTING

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

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

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA.	NA	NA	NA

IX. OTHER REQUIREMENT(S)

1. Any existing gasoline tank (placed into operation before 07/01/79) shall comply with the requirements of Rule 606. **(R336.1606)**
2. Any new gasoline tank (placed into operation on or after 07/01/79) shall comply with the requirements of Rule 703. **(R336.1703)**
3. Any gasoline tank or VOL storage tank shall comply with NSPS 40 CFR Part 60, Subparts A, K, Ka, Kb based upon installation or modification date & applicability & designation of affected facility provisions in 40 CFR 60.110, 60.110a, or 60.110b. Construction, reconstruction, or modification dates are as follow:
 - Subpart K: after June 11, 1973 & prior to May 19, 1978
 - Subpart Ka: after May 19, 1978 & prior to July 23, 1984
 - Subpart Kb: after July 23, 1984

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).

FGCOLDCLEANERS FLEXIBLE GROUP CONDITIONS

DESCRIPTION

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

Emission Unit: EU-COLD-CLEANER(1-4)

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(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(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

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(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

FG-RULE287(c)
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

16 dry filter controlled spray booths for QA & reliability testing. The coating operation is exempt from the requirements of Rule 201 pursuant to Rules 278 and 287(c).

Emission Unit: EU-LAB-BOOTH(1-16)

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Underlying Applicable Requirement
1. Coatings	200 gallons	Per month, as applied, minus water, per emission unit	NA	R 336.1287(c)(i)

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. Any exhaust system that serves only coating spray equipment shall be equipped with a properly installed and operating particulate control system. **(R 336.1287(c)(ii))**

V. TESTING/SAMPLING

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 DEQ, AQD Rule 287(c), Permit to Install Exemption Record form (EQP 3562) or an alternative format that is approved by the AQD District Supervisor. **(R 336.1213(3))**
 - a. Volume of coating used, as applied, minus water, in gallons. **(R 336.1287(c)(iii))**
 - b. Documentation of any filter replacements for exhaust systems serving coating spray equipment. **(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

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. Abbreviations and Acronyms

The following is an alphabetical listing of abbreviations/acronyms that may be used in this permit.

AQD	Air Quality Division	MM	Million
acfm	Actual cubic feet per minute	MSDS	Material Safety Data Sheet
BACT	Best Available Control Technology	MW	Megawatts
BTU	British Thermal Unit	NA	Not Applicable
°C	Degrees Celsius	NAAQS	National Ambient Air Quality Standards
CAA	Federal Clean Air Act	NESHAP	National Emission Standard for Hazardous Air Pollutants
CAM	Compliance Assurance Monitoring	NMOC	Non-methane Organic Compounds
CEM	Continuous Emission Monitoring	NOx	Oxides of Nitrogen
CFR	Code of Federal Regulations	NSPS	New Source Performance Standards
CO	Carbon Monoxide	NSR	New Source Review
COM	Continuous Opacity Monitoring	PM	Particulate Matter
department	Michigan Department of Environmental Quality	PM-10	Particulate Matter less than 10 microns in diameter
dscf	Dry standard cubic foot	pph	Pound per hour
dscm	Dry standard cubic meter	ppm	Parts per million
EPA	United States Environmental Protection Agency	ppmv	Parts per million by volume
EU	Emission Unit	ppmw	Parts per million by weight
°F	Degrees Fahrenheit	PS	Performance Specification
FG	Flexible Group	PSD	Prevention of Significant Deterioration
GACS	Gallon of Applied Coating Solids	psia	Pounds per square inch absolute
gr	Grains	psig	Pounds per square inch gauge
HAP	Hazardous Air Pollutant	PeTE	Permanent Total Enclosure
Hg	Mercury	PTI	Permit to Install
hr	Hour	RACT	Reasonable Available Control Technology
HP	Horsepower	ROP	Renewable Operating Permit
H ₂ S	Hydrogen Sulfide	SC	Special Condition
HVLP	High Volume Low Pressure *	scf	Standard cubic feet
ID	Identification (Number)	sec	Seconds
IRSL	Initial Risk Screening Level	SCR	Selective Catalytic Reduction
ITSL	Initial Threshold Screening Level	SO ₂	Sulfur Dioxide
LAER	Lowest Achievable Emission Rate	SRN	State Registration Number
lb	Pound	TAC	Toxic Air Contaminant
m	Meter	Temp	Temperature
MACT	Maximum Achievable Control Technology	THC	Total Hydrocarbons
MAERS	Michigan Air Emissions Reporting System	tpy	Tons per year
MAP	Malfuction Abatement Plan	µg	Microgram
MDEQ	Michigan Department of Environmental Quality	VE	Visible Emissions
mg	Milligram	VOC	Volatile Organic Compounds
mm	Millimeter	yr	Year

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 pounds per square inch gauge (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 since the effective date of previously issued ROP No. MI-ROP-A3569-2006a.

Permit to Install Number	Description of Equipment	Corresponding Emission Unit(s) or Flexible Group(s)
82-10	29 paint final product mix tanks are manifold together (through a vent header system) & are vented to the thermal oxidizer for VOC control. Thermal oxidizer is sized for 300 SCF & 95% destruction efficiency. The process for each mix tank (water-borne & solvent-borne paint products) vent to the oxidizer is same. A clean tank, which has been kept blanked with nitrogen, is charged with raw materials through a closed loading system. Vapors displaced from the tank exit through a conservation vent & are piped via the vent header to the oxidizer. Positive pressure is maintained in the tank with a nitrogen regulator. Once the batch is completed, the tank is cleaned with a wash solution, if necessary.	FG-THERMOX-MIXTANKS
381-08	Any emission units that are associated with dispersion premix tanks. Generally, the color or pigmented materials go through a mechanical process to disperse the particles for solvent borne paint manufacturing, using Sand Grinders & Schold Mills (1-3), (5-8), (10-12), (16), & associated premix tanks. There are generally two premix tanks per dispersion unit. A dust collector (DC-06) is used to control emissions during powder loading.	FG-DISP-TANKS

Permit to Install Number	Description of Equipment	Corresponding Emission Unit(s) or Flexible Group(s)
172-10	<p>A MACT condenser system controls VOC emissions from the resin reactors. The system is designed to capture & condense VOC/HAPs emissions from epoxy/urethane resin manufacturing. VOC/HAPs emissions are vented from the process vessels & are collected in a common vent header. The vent header transports the emissions to a pre-condenser, which condenses & removes water vapor & some solvents. The emissions proceed to two condensers (in parallel) to remove VOC/HAP emissions. The condensers alternate in operation such that one of the condensers is in a defrost cycle while the other is in operation. The condensers are cooled by a refrigeration unit. The remaining emissions (mainly nitrogen) proceed through an induction fan & are exhausted through a stack. Condensate is collected in one of two 500-gal portable tanks, with one 500-gal portable tank in standby.</p>	FG-RESIN-CATHODIC
172-10	<p>Resin reactor #5 is used to manufacture urethane cross linkers for automotive cathodic primer. The process consists of a 2500-gal reactor, two raw materials tanks (WT-5M & MDI-5), a decanter (DT-5), a receiver tank (RT-5), & a thin tank (5M-TT). Typical process steps include: 1) load reactants to the reactor & feed tanks; 2) heat reactor to polymerization temperature; 3) add reactants to build resin; 4) cool resin in the thin tank; 5) filter resin & sent it to storage tanks. The reactor has an integral condenser for process control. The vents for all of the reactor system #5 tanks are manifolded together to a knock-out tank (KT-5), then to Catch Tank 7/8 and through a -35 °C condenser to control VOC emission.</p>	EU-RESIN-REACT-5
291-08	<p>Resin reactor #7 is used to manufacture epoxy "grind resins" for automotive cathodic primer. The process consists of a 5000-gal reactor (RR-7N), three reactor weigh tanks (WT-71N, 72N, & 73N), a charge tank (CT-74N), a receiver tank (RT7N), another receiver tank shared with Reactor #8 (RT8700), three hold tanks (HT-81 – 83) as well as a stripper shared with Reactor #8 process, & two thin tanks (TT-71N & 73N). VOC emissions from the reactor, the two weigh tanks (72N, & 71N), & the charge tank (CT-74N) goes to Catch Tank (7 & 8) and through a -35 °C condenser for emission control. Typical process steps include: 1) load reactants to the reactor & feed tanks; 2) heat reactor to polymerization temperature; 3) add reactants to build resin; 4) cool resin in the thin tank; 5) filter resin & sent it to storage tanks. A dust collector is used to control in-plant dust.</p>	EU-RESIN-REACT-7
290-08	<p>IMP (Improved Manufacturing Process) is an automated system designed to produce pigmented solvent-borne products.</p>	EU-IMP

Appendix 7. Emission Calculations

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in EU-RESIN-REACT-4, EU-RESIN-REACT-5, EU-RESIN-REACT-6, EU-RESIN-REACT-7, & EU-RESIN-REACT-8.

Determine the VOC emission factor for each resin reactor on a semi-annual (January through June & July through December) basis as follows:

1. Keep a record of method of selection of worst-case resin as far as VOC emissions are concerned. Sufficient information & explanation of the method shall be recorded in writing such that AQD staff can verify. The selection shall be made using the principles of thermodynamics such that mass emission rate (pounds of organic compounds emitted per 1,000 pounds of completed organic resin produced) is highest of all batches during the semi-annual period in question. An alternate method shall use weighted-average composition of all the paint formulas produced during the semi-annual period.
2. Keep a record of reactor exhaust gas temperatures based upon condenser exhaust temperature & select the highest temperature for reactor emission calculations during reaction time (this record need not be kept if breathing emissions are negligible as described below).
3. Keep a record of ambient temperatures & select highest temperature for reactor loading emission calculations.
4. Keep a record of vapor pressure of each organic compound emitted (for the worst-case batch) at the condenser exhaust temperature selected (for reaction emissions) and at ambient temperature selected (for reactor loading). The permittee may use Antoine equation ($\log p = A - B/(t + C)$), where A, B, & C are Antoine constants & t is temperature in degrees Celsius) to calculate vapor pressure (p, mmHg).
5. *Reactor loading emission (L1 = vapor density x volume of air expelled)*: Compute reactor loading emissions for each solvent component. Compute total loading emissions for the selected batch. The permittee shall not splash solvents during reactor loading.
6. *Reactor breathing emission (L2 = vapor density x[increase in air volume of air due to temperature rise + increase in air volume due to solvent vapor pressure rise])*: Compute breathing emissions (during reactor) for each solvent component. Compute total breathing emissions for the batch. If the permittee demonstrates that breathing losses are negligible versus loading emissions ($L1 \gg L2$, say $L1/L2 > 9.0$), breathing emission calculation may be omitted with AQD's approval.
7. Likewise, compute L1 & L2 for each loading or transfer and hold operation (e.g. transfer from reactor to thin tank). Calculate $\Sigma L1 + \Sigma L2$ or $\Sigma L1$ if $\Sigma L2$ is negligible in comparison with $\Sigma L1$.
8. Compute total pounds of organic compounds emitted (based upon $\Sigma L1 + \Sigma L2$ or $\Sigma L1$ if $\Sigma L2$ is negligible in comparison with $\Sigma L1$) per 1,000 pounds of completed organic resin produced for the selected worst-case organic resin. Use this emission rate as the emission factor. The emission factor shall be in compliance with the emission limit (0.050 pounds of VOC per 1, 000 pounds of completed organic resin produced).
9. For the above calculations, the permittee may assume ideal gas law ($PV = nRT$, where P = pressure, V = volume, T = absolute temperature, n = moles, R = the universal gas constant). Dalton's law of partial pressure ($P = \Sigma p_k = \Sigma y_k P$, where y_k = mole fraction of species k in the gas mixture P_k = partial pressure of species k & P = total pressure) & Rault's law for ideal solution ($p_i = y_i P = x_i P_i$ where y_i = mole fraction of species i in vapor phase, x_i = mole fraction of species i in liquid phase, P_i = vapor pressure for species i, p_i = partial pressure for species i, & P = total pressure). It may be assumed for ideal gas mixture mole fraction (or percent) = pressure fraction (or percent) = volume fraction (or percent).

Appendix 8. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the MDEQ Report Certification form (EQP 5736) and MDEQ 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.