State of Ohio Environmental Protection Agency

Street Address:
Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

12/26/02

CERTIFIED MAIL

RE: Final Title V Chapter 3745-77 permit

01-65-00-0007
PPG Industries Ohio, Inc. (Circleville)
Lori L. Leffler
559 PITTSBURGH ROAD
P.O. BOX 457
CIRCLEVILLE, OH 43113

Dear Lori L. Leffler:

Enclosed is the Title V permit that allows you to operate the facility in the manner indicated in the permit. Because this permit may contain several conditions and restrictions, we urge you to read it carefully.

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Review Appeals Commission within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. It is also requested by the Director that a copy of the appeal be served upon the Environmental Enforcement Section of the Office of the Attorney General. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street
Room 300
Columbus, Ohio 43215

If you have any questions, please contact Central District Office.

Very truly yours,

Michael W. Ahern

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

cc: Central District Office
File, DAPC PMU

State of Ohio Environmental Protection Agency

FINAL TITLE V PERMIT

Issue Date: **12/26/02**	Effective Date: **01/16/02**	Expiration Date: **12/26/07**

This document constitutes issuance of a Title V permit for Facility ID: 01-65-00-0007 to:
PPG Industries Ohio, Inc. (Circleville)
559 PITTSBURGH ROAD
P.O. BOX 457
CIRCLEVILLE, OH 43113

Emissions Unit ID (Company ID)/Emissions Unit Activity Description

P001 (K-1 Reactor System)
Resin reactor system used for specialized resin manufacturing in support of the coating industry.

P003 (K-4 Reactor System)
Resin reactor system used for specialized resin manufacturing in support of the coating industry.

P004 (K-6 Reactor System)
Resin reactor system used for specialized resin manufacturing in support of the coating industry.

P006 (K-8 Reactor System)
Resin reactor system used for specialized resin manufacturing in support of the coating industry.

P018 (K-5 Reactor System)
Resin reactor system used for specialized resin manufacturing in support of the coating industry.

P019 (K-9 Reactor System)
Resin reactor system used for specialized resin manufacturing in support of the coating industry.

P020 (K-10 Reactor System)
Resin reactor system used for specialized resin manufacturing in support of the coating industry.

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

Central District Office
3232 Alum Creek Drive
PO Box 1049
Columbus, OH 43216-1049
(614) 728-3778

OHIO ENVIRONMENTAL PROTECTION AGENCY

Christopher Jones
Director

PART I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Section

1. Monitoring and Related Record Keeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

i. The date, place (as defined in the permit), and time of sampling or measurements.
ii. The date(s) analyses were performed.
iii. The company or entity that performed the analyses.
iv. The analytical techniques or methods used.
v. The results of such analyses.
vi. The operating conditions existing at the time of sampling or measurement.
(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))

c. The permittee shall submit required reports in the following manner:

i. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

ii. **All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) with respect to emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:**

(a) Written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations ; (ii) the probable cause of such deviations; and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Part III of this Title V permit, the written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarters. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. These written reports shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six

months and the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations. See B.6 below if no deviations occurred during the quarter.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) ,(ii) and (iii))

(b) Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the deviation reporting requirements for this Title V permit, written reports that identify each malfunction that occurred during each calendar quarter shall be submitted, at a minimum, quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarters.

In identifying each deviation caused by a malfunction, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Also, if a deviation caused by a malfunction is identified in a written report submitted pursuant to paragraph (a) above, a separate report is not required for that malfunction pursuant to this paragraph. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing, at a minimum, on a quarterly basis.

Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation, operational restriction, and control device operating parameter limitation shall be reported in the same manner as described above for malfunctions. These written reports for malfunctions (and scheduled maintenance projects, if appropriate) shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(iii))

iii. **For monitoring, record keeping, and reporting requirements:**

Written reports that identify any deviations from the federally enforceable monitoring, record keeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year, for the previous six calendar months. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, record keeping, and reporting requirements. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no deviations occurred during that period.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii))

iv. Each written report shall be signed by a responsible official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in the

report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."
(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions unit(s) or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).
(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iii))

3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.
(Authority for term: OAC rule 3745-77-07(A)(4))

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.
(Authority for term: OAC rule 3745-77-07(A)(5))

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
(Authority for term: OAC rule 3745-77-07(A)(6))

6. General Requirements

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

b. 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 federally enforceable terms and conditions of this permit.

c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.10 below. The filing of a request by the permittee for a permit modification, revocation and

reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d. This permit does not convey any property rights of any sort, or any exclusive privilege.

e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

(Authority for term: OAC rule 3745-77-07(A)(7))

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.

(Authority for term: OAC rule 3745-77-07(A)(8))

8. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

(Authority for term: OAC rule 3745-77-07(A)(9))

9. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.

(Authority for term: OAC rule 3745-77-07(A)(10))

10. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.

d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

11. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

(Authority for term: OAC rule 3745-77-07(B))

12. Compliance Requirements

a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.

iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:

i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
ii. Compliance certifications shall include the following:
(a) An identification of each term or condition of this permit that is the basis of the certification.
(b) The permittee's current compliance status.
(c) Whether compliance was continuous or intermittent.
(d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
(e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

13. Permit Shield

a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

14. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification

under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).
(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

15. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.
(Authority for term: OAC rule 3745-77-07(G))

16. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.

b. The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).

d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph

(I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(For purposes of clarification, the permittee can refer to Engineering Guide #63 that is available in the STARSHIP software package.)
(Authority for term: OAC rule 3745-77-07(I))

17. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.
(This term is provided for informational purposes only.)

18. Insignificant Activities

Each insignificant activity that has one or more applicable requirements shall comply with those applicable requirements.
(Authority for term: OAC rule 3745-77-07(A)(1))

19. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.
(Authority for term: OAC rule 3745-77-07(A)(1))

20. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.
(Authority for term: OAC rule 3745-77-07(A)(1))

B. *State Only Enforceable Section*

1. Reporting Requirements Related to Monitoring and Record Keeping Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. In identifying each deviation, the permittee

shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

2. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

3. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

4. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

5. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

6. Additional Reporting Requirements When There Are No Deviations of <u>Federally Enforceable</u> Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforcable Section

1. This facility is subject to the applicable requirements specified in OAC Chapter 3745-25. In accordance with Ohio EPA Engineering Guide #64, the emission control action programs, as specified in OAC rule 3745-25-03, shall be developed and submitted within 60 days after receiving notification from the Ohio EPA.

2. All asbestos renovation and demolition activities conducted at this facility shall be performed in accordance with the applicable requirements specified in 40 CFR Part 61 and OAC Chapter 3745-20.

B. State Only Enforceable Section

1. The following insignificant emissions units are located at this facility:

B001 - hot oil furnace #1
B002 - hot oil furnace #2
B005 - hot oil furnace #3
B008 - steam generator #2
B011 - steam generator #1
J001 - cationic distillate loading system
J004 - load station #1
J005 - load station #2
J006 - load station #3
J007 - load station #4
J008 - load station #5
J009 - load station #6
J010 - load station #7
J011 - load station #8
J012 - load station #9
J013 - load station #10
J014 - load station #11
J015 - load station #12
P007 - blend tank - B/T 135
P009 - blend tank - B/T 146
P012 - agitated blend tank - B/T 168
P013 - agitated blend tank - B/T 169
P014 - agitated blend tank - B/T 170
P015 - D-line reactor system
P017 - solvent recovery still #1
P021 - C-line reactor system
P022 - thin film evaporator
P024 - solvent recovery still #2
P025 - blend tank - B/T 136
P026 - blend tank - B/T 137
P027 - blend tank - B/T 138
P028 - blend tank - B/T 139
P029 - blend tank - B/T 147
P030 - blend tank - B/T 148
P031 - blend tank - B/T 149
P032 - blend tank - B/T 150
P033 - blend tank - B/T 151
P038 - MIBK recovery still
T001 - solvent storage tank - S/T 111

B. State Only Enforceable Section (continued)

T100 - storage tank - S/T 193
T101 - storage tank - S/T 192
T102 - storage tank - S/T 152
T103 - storage tank - S/T 194
T104 - fuel oil storage tank
T105 - storage tank - S/T 101
T106 - storage tank - S/T 102
T107 - storage tank - S/T 103
T108 - storage tank - S/T 104
T109 - storage tank - S/T 105
T110 - storage tank - S/T 105B
T111 - storage tank - S/T 106
T112 - storage tank - S/T 107
T113 - storage tank - S/T 108
T114 - storage tank - S/T 109
T115 - storage tank - S/T 110
T116 - storage tank - S/T 111
T117 - storage tank - S/T 112
T118 - storage tank - S/T 113
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T141 - storage tank - S/T 140
T142 - storage tank - S/T 141
T143 - storage tank - S/T 138
T144 - storage tank - S/T 142
T145 - storage tank - S/T 144
T146 - haz waste tank - S/T 110
T147 - haz waste tank - S/T 109
T148 - haz waste tank - S/T 107
T149 - haz waste tank - S/T 108

B. State Only Enforceable Section (continued)

T150 - haz waste tank - S/T 111
T151 - resin storage tank - CR1-180
T152 - resin storage tank - CR1-188
T153 - resin storage tank - CR1-189
T154 - resin storage tank - CR1-190
T155 - resin storage tank - CR1-183
T156 - resin storage tank - CR1-184
T157 - resin storage tank - CR1-185
T158 - resin storage tank - CR1-186
T159 - resin storage tank - CR1-191
T160 - resin storage tank - CR1-192
T161 - resin storage tank - CR1-193
T162 - resin storage tank - CR2-121
T163 - resin storage tank - CR2-187
T164 - resin storage tank - CR2-196
T165 - resin storage tank - CR2-117
T166 - resin storage tank - CR2-118
T167 - storage tank - CR2-119
T168 - storage tank - CR2-120
T169 - storage tank - CR2-122
T170 - resin storage tank - CR2-181
T171 - resin storage tank - CR2-182
T172 - resin storage tank - CR2-194
T173 - resin storage tank - CR2-195
T174 - resin storage tank - CR3-125
T175 - resin storage tank - CR3-126
T176 - resin storage tank - CR3-127
T177 - resin storage tank - CR3-128
T178 - resin storage tank - CR3-129
T179 - resin storage tank - CR3-130
T180 - resin storage tank - CR3-131
T181 - resin storage tank - CR3-132
T182 - resin storage tank - CR3-133
T183 - resin storage tank - CR3-134
T184 - resin storage tank - CR4-153
T185 - resin storage tank - CR4-154
T186 - resin storage tank - CR4-155
T187 - resin storage tank - CR4-156
T188 - resin storage tank - CR4-157
T189 - resin storage tank - CR4-158
T190 - resin storage tank - CR4-159
T191 - resin storage tank - CR4-160
T192 - resin storage tank - CR4-161
T193 - resin storage tank - CR4-162
T194 - resin storage tank - CR4-163
T195 - resin storage tank - CR5-164
T196 - resin storage tank - CR5-165
T197 - resin storage tank - CR5-166
T198 - resin storage tank - CR5-167
T199 - resin storage tank - CR5-168
T200 - resin storage tank - CR5-169
T201 - resin storage tank - CR5-170
T202 - resin storage tank - CR5-171

B. State Only Enforceable Section (continued)

T203 - raw material storage tank - CR6-172
T204 - resin storage tank - CR6-173
T205 - resin storage tank - CR6-174
T206 - resin storage tank - CR6-175
T207 - resin storage tank - CR6-176
T208 - resin storage tank - CR6-177
T209 - resin storage tank - CR6-178
T210 - resin storage tank - CR6-179
T211 - resin storage tank - CR7-110
T212 - resin storage tank - CR7-111
T213 - resin storage tank - CR7-112
T214 - resin storage tank - CR7-113
T215 - resin storage tank - CR7-114
T216 - resin storage tank - CR7-115
T217 - raw material storage tank - S/T 195
T218 - raw material storage tank - S/T 170
T219 - raw material storage tank - S/T 122
T220 - raw material storage tank - S/T 123
T221 - resin storage tank - S/T 171
T222 - raw material storage tank - S/T 172
T223 - raw material storage tank - S/T 173
T224 - raw material storage tank - S/T 174
T225 - raw material storage tank - S/T 175
T226 - raw material storage tank - S/T 176
T227 - raw material storage tank - S/T 177
T228 - resin storage tank - S/T 149
T229 - solvent storage tank - S/T 190
T230 - raw material storage tank - S/T 151
T231 - resin storage tank - S/T 198
T232 - resin storage tank- S/T 199
T233 - resin storage tank - S/T 145
T234 - resin storage tank - S/T 196
T235 - raw material storage tank - S/T 197

B. State Only Enforceable Section (continued)

Z010 - resin plant emergency generator 475 kw
Z011 - resin plant solvent cold cleaner
Z012 - resin plant solvent cold cleaner
Z013 - resin plant solvent cold cleaner
Z014 - resin plant solvent cold cleaner
Z015 - resin plant solvent cold cleaner
Z016 - resin plant solvent cold cleaner
Z017 - resin plant solvent cold cleaner
Z018 - resin plant solvent cold cleaner
Z019 - resin plant solvent cold cleaner
Z020 - resin plant solvent cold cleaner
Z021 - resin plant solvent cold cleaner
Z022 - resin plant solvent cold cleaner
Z023 - resin plant solvent cold cleaner
Z024 - resin plant solvent cold cleaner
Z025 - resin plant solvent cold cleaner
Z026 - resin plant solvent cold cleaner
Z027 - resin plant solvent cold cleaner
Z028 - resin plant lab oven
Z029 - tote filling operations for organic resins
Z030 - K-11 reactor system
Z031 - WWTP - water holding tank
Z032 - WWTP - water holding tank
Z033 - WWTP - water holding tank
Z034 - WWTP - water holding tank
Z035 - A&B lab hood
Z036 - cationic lab hood
Z037 - cationic lab hood
Z038 - cationic lab hood
Z039 - application lab hood
Z040 - K-9 & K-10 lab hood
Z041 - K-9 & K-10 lab hood
Z042 - K-6 lab hood
Z043 - K-5 lab hood
Z044 - resin lab hood
Z045 - resin lab hood
Z046 - resin lab hood
Z047 - K-1 & K-4 lab hood
Z048 - waste treatment lab hood
Z053 - steam boiler #1
Z054 - steam boiler #2
Z055 - steam boiler #3
Z056 - steam boiler #4
Z057 - steam boiler #5
Z058 - steam boiler #6
Z059 - steam boiler #7
Z060 - steam boiler #8
Z061 - steam boiler #9
Z062 - steam boiler #10
Z063 - steam boiler #11
Z064 - steam boiler #12
Z065 - WWTP - water holding tank
Z066 - WWTP - skimmer tank
Z067 - WWTP - rotating biological contactor
Z068 - WWTP - rotating biological contactor

B. State Only Enforceable Section (continued)

Z069 - WWTP - centrifuge
Z070 - WWTP - flocculation tank
Z071 - WWTP - polymer tank
Z073 - gasoline pump
Z074 - diesel pump
Z075 - outdoor raw material distribution system
Z079 - emergency water pump
Z080 - emergency water pump
Z081 - emergency water pump
Z082 - emergency fire pump
Z083 - resin plant paved/unpaved roads
Z084 - emergency fire pump

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within a permit to install for the emissions unit.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: K-1 Reactor System (P001)

Activity Description: Resin reactor system used for specialized resin manufacturing in support of the coating industry.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
K-1 resin batch reactor system with thermal oxidizer and two baghouses in series	OAC rule 3745-21-07(G)(2)	Organic compound (OC) emissions shall be reduced by at least eighty-five percent (85%), by weight, as an overall control efficiency. See A.I.2.a below.
	OAC rule 3745-21-07(G)(6)	Ninety percent (90%) or more of the carbon in the organic material being incinerated shall be oxidized to carbon dioxide.
	OAC rule 3745-17-11(B)	Particulate emissions (PE) from the stack serving the two baghouses in series shall not exceed 7.05 lbs/hr based on Table I.
	OAC rule 3745-17-07(A)	Visible particulate emissions from the stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

2. Additional Terms and Conditions

2.a OAC rule 3745-21-07(G)(2) limits organic compound (OC) emissions to 8 pounds per hour and 40 pounds per day or requires an 85% reduction in OC emissions. The thermal oxidizer shall be employed to comply with the requirement to achieve an 85% reduction in OC emissions instead of complying with the OC emission limitations of 8 pounds per hour and 40 pounds per day.

II. Operational Restrictions

1. The permittee shall operate the thermal oxidizer during any operation of this emissions unit.

2. The permittee shall operate the two baghouses during any addition of dry raw materials to this emissions unit.

3. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

II. Operational Restrictions (continued)

4. The pressure drop across the primary baghouse shall be maintained within the range of 1.0 to 8.0 inches of water. The pressure drop across the secondary baghouse shall be maintained within the range of 0.5 to 2.0 inches of water.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the combustion temperature. The temperature monitor and recorder shall be operated and maintained in accordance with the manufacturer's recommendations, with any modification deemed necessary by the permittee.

2. The permittee shall collect and record the following information for each day:

a. all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance; and

b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

3. The permittee shall record the pressure drop across the primary baghouse on a weekly basis. The permittee shall record the pressure drop across the secondary baghouse on a monthly basis.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit in A.1.c.ii.

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation. These summaries shall be submitted to the Ohio EPA, Central District Office by January 31, April 30, July 31 and October 31 of each year and shall cover the previous 3-month period.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time which the pressure drops across the baghouses did not comply with the allowable ranges specified above. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit in A.1.c.ii.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitations:
Ninety percent (90%) or more of the carbon in the organic material being incinerated shall be oxidized to carbon dioxide; and organic compound (OC) emissions shall be reduced by at least eighty-five percent (85%), by weight, as an overall average.

V. Testing Requirements (continued)

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

i. The emission testing shall be conducted within 6 months of initial permit issuance and 6 months of permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency limitation for OC and the destruction efficiency requirement for the thermal oxidizer.

iii. The following test methods shall be employed to demonstrate compliance with the destruction efficiency requirement for the thermal oxidizer: Methods 1 through 4 and 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. The test method and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

iv. The capture efficiency of the vapor collection system is assumed to be 100% because the reactor system is a closed system and all the vents in the process enter a vapor header routed to the thermal oxidizer. Because this efficiency is based upon emission testing utilizing USEPA Method 25, the mass emissions of OC are employed in the efficiency determination and the control efficiency is equivalent to the destruction efficiency.

v. Testing shall be conducted while the emissions unit is operating at or near its maximum capacity for a typical resin batch for the reactor system. During testing, other emission sources that vent to the thermal oxidizer shall be operated, or not operated, according to standard PPG operating practices.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

1.b Emission Limitation:
Visible particulate emissions from the stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, visible emission observations shall be performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.c Emission Limitation:
Particulate emissions (PE) from the stack serving the two baghouses in series shall not exceed 7.05 lbs/hr based on Table I.

Applicable Compliance Method:
Compliance may be based on the PPG 1996 Fee Emission Report emission factor of 0.00025 lb PE/lb raw materials, the maximum process weight rate, and the operating control efficiency for the primary baghouse as follows:

(0.00025 lb PE/lb raw materials) X (4500 lbs/hr)* = 1.125 lbs PE/hr X (1-0.98)** = 0.02 lb PE/hr

*maximum process weight rate
**operating control efficiency for the dust collector

If required, emission testing shall be conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: K-4 Reactor System (P003)

Activity Description: Resin reactor system used for specialized resin manufacturing in support of the coating industry.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
K-4 resin batch reactor system with thermal oxidizer and two baghouses in series	OAC rule 3745-21-07(G)(2)	Organic compound (OC) emissions shall be reduced by at least eighty-five percent (85%), by weight, as an overall control efficiency. See A.I.2.a below.
	OAC rule 3745-21-07(G)(6)	Ninety percent (90%) or more of the carbon in the organic material being incinerated shall be oxidized to carbon dioxide.
	OAC rule 3745-17-11(B)	Particulate emissions (PE) from the stack serving the two baghouses in series shall not exceed 7.05 lbs/hr based on Table I.
	OAC rule 3745-17-07(A)	Visible particulate emissions from the stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

2. Additional Terms and Conditions

2.a OAC rule 3745-21-07(G)(2) limits organic compound (OC) emissions to 8 pounds per hour and 40 pounds per day or requires an 85% reduction in OC emissions. The thermal oxidizer shall be employed to comply with the requirement to achieve an 85% reduction in OC emissions instead of complying with the OC emission limitations of 8 pounds per hour and 40 pounds per day.

II. Operational Restrictions

1. The permittee shall operate the thermal oxidizer during any operation of this emissions unit.

2. The permittee shall operate the two baghouses during any addition of dry raw materials to this emissions unit.

3. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

II. Operational Restrictions (continued)

4. The pressure drop across the primary baghouse shall be maintained within the range of 1.0 to 8.0 inches of water. The pressure drop across the secondary baghouse shall be maintained within the range of 0.5 to 2.0 inches of water.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the combustion temperature. The temperature monitor and recorder shall be operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

2. The permittee shall collect and record the following information for each day:

a. all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance; and

b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

3. The permittee shall record the pressure drop across the primary baghouse on a weekly basis. The permittee shall record the pressure drop across the secondary baghouse on a monthly basis.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit in A.1.c.ii.

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation. These summaries shall be submitted to the Ohio EPA, Central District Office by January 31, April 30, July 31 and October 31 of each year and shall cover the previous 3-month period.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time which the pressure drops across the baghouses did not comply with the allowable ranges specified above. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit in A.1.c.ii.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitations:
Ninety percent (90%) or more of the carbon in the organic material being incinerated shall be oxidized to carbon dioxide; and organic compound (OC) emissions shall be reduced by at least eighty-five percent (85%), by weight, as an overall control efficiency.

V. Testing Requirements (continued)

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

i. The emission testing shall be conducted within 6 months of initial permit issuance and 6 months of permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency limitation for OC and the destruction efficiency requirement for the thermal oxidizer.

iii. The following test methods shall be employed to demonstrate compliance with the destruction efficiency requirement for the thermal oxidizer: Methods 1 through 4 and 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. The test method and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

iv. The capture efficiency of the vapor collection system is assumed to be 100% because the reactor system is a closed system and all the vents in the process enter a vapor header routed to the thermal oxidizer. Because this efficiency is based upon emission testing utilizing USEPA Method 25, the mass emissions of OC are employed in the efficiency determination and the control efficiency is equivalent to the destruction efficiency.

v. Testing shall be conducted while the emissions unit is operating at or near its maximum capacity for a typical resin batch for the reactor system. During testing, other emission sources that vent to the thermal oxidizer shall be operated, or not operated, according to standard PPG operating practices.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

V. Testing Requirements (continued)

1.b Emission Limitation:
Particulate emissions (PE) from the stack serving the two baghouses in series shall not exceed 7.05 lbs/hr based on Table 1.

Applicable Compliance Method:
Compliance may be based on the PPG 1996 Fee Emission Report emission factor of 0.00025 lb PE/lb raw materials, the maximum process weight rate, and the operating control efficiency for the primary baghouse as follows:

(0.00025 lb PE/lb raw materials) X (4500 lbs/hr)* = 1.125 lbs PE/hr X (1-0.98)** = 0.02 lb PE/hr

*maximum process weight rate
**operating control efficiency for the dust collector

If required, emission testing shall be conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

1.c Emission Limitation:
Visible particulate emissions from the stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, visible emission observations shall be performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: K-6 Reactor System (P004)

Activity Description: Resin reactor system used for specialized resin manufacturing in support of the coating industry.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
K-6 resin batch reactor system with thermal oxidizer and two baghouses in series	OAC rule 3745-21-07(G)(2)	Organic compound (OC) emissions shall be reduced by at least eighty-five percent (85%), by weight, as an overall control efficiency. See A.I.2.a below.
	OAC rule 3745-21-07(G)(6)	Ninety percent (90%) or more of the carbon in the organic material being incinerated shall be oxidized to carbon dioxide.
	OAC rule 3745-17-11(B)	Particulate emissions (PE) from the stack serving the two baghouses in series shall not exceed 7.05 lbs/hr based on Table I.
	OAC rule 3745-17-07(A)	Visible particulate emissions from the stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

2. Additional Terms and Conditions

2.a OAC rule 3745-21-07(G)(2) limits organic compound (OC) emissions to 8 pounds per hour and 40 pounds per day or requires an 85% reduction in OC emissions. The thermal oxidizer shall be employed to comply with the requirement to achieve an 85% reduction in OC emissions instead of complying with the OC emission limitations of 8 pounds per hour and 40 pounds per day.

II. Operational Restrictions

1. The permittee shall operate the thermal oxidizer during any operation of this emissions unit.

2. The permittee shall operate the two baghouses during any addition of dry raw materials to this emissions unit.

3. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

II. Operational Restrictions (continued)

4. The pressure drop across the primary baghouse shall be maintained within the range of 1.0 to 8.0 inches of water. The pressure drop across the secondary baghouse shall be maintained within the range of 0.5 to 2.0 inches of water.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the combustion temperature. The temperature monitor and recorder shall be operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

2. The permittee shall collect and record the following information for each day:

a. all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance; and

b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

3. The permittee shall record the pressure drop across the primary baghouse on a weekly basis. The permittee shall record the pressure drop across the secondary baghouse on a monthly basis.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit in A.1.c.ii.

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation. These summaries shall be submitted to the Ohio EPA, Central District Office by January 31, April 30, July 31 and October 31 of each year and shall cover the previous 3-month period.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time which the pressure drops across the baghouses did not comply with the allowable ranges specified above. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit in A.1.c.ii.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitations:
Ninety percent (90%) or more of the carbon in the organic material being incinerated shall be oxidized to carbon dioxide; and organic compound (OC) emissions shall be reduced by at least eighty-five percent (85%), by weight, as an overall control efficiency.

V. Testing Requirements (continued)

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

i. The emission testing shall be conducted within 6 months of initial permit issuance and 6 months of permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency limitation for OC and the destruction efficiency requirement for the thermal oxidizer.

iii. The following test methods shall be employed to demonstrate compliance with the destruction efficiency requirement for the thermal oxidizer: Methods 1 through 4 and 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. The test method and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

iv. The capture efficiency of the vapor collection system is assumed to be 100% because the reactor system is a closed system and all the vents in the process enter a vapor header routed to the thermal oxidizer. Because this efficiency is based upon emission testing utilizing USEPA Method 25, the mass emissions of OC are employed in the efficiency determination and the control efficiency is equivalent to the destruction efficiency.

v. Testing shall be conducted while the emissions unit is operating at or near its maximum capacity for a typical resin batch for the reactor system. During testing, other emission sources that vent to the thermal oxidizer shall be operated, or not operated, according to standard PPG operating practices.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

V. Testing Requirements (continued)

1.b Emission Limitation:
Particulate emissions (PE) from the stack serving the two baghouses in series shall not exceed 7.05 lbs/hr based on Table I.

Applicable Compliance Method:
Compliance may be based on the PPG 1996 Fee Emission Report emission factor of 0.00025 lb PE/lb raw materials, the maximum process weight rate, and the operating control efficiency for the primary baghouse as follows:

(0.00025 lb PE/lb raw materials) X (4500 lbs/hr)* = 1.125 lbs PE/hr X (1-0.98)** = 0.02 lb PE/hr

*maximum process weight rate
**operating control efficiency for the dust collector

If required, emission testing shall be conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

1.c Emission Limitation:
Visible particulate emissions from the stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, visible emission observations shall be performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: K-8 Reactor System (P006)

Activity Description: Resin reactor system used for specialized resin manufacturing in support of the coating industry.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
K-8 resin batch reactor system with thermal oxidizer and two baghouses in series	OAC rule 3745-31-05(A)(3) (PTI 01-1019)	Organic compound (OC) emissions shall not exceed 16.7 tons per year. The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-07(G)(2), 3745-21-07(G)(6), 3745-17-11(B), and 3745-17-07(A).
	OAC rule 3745-21-07(G)(2)	Organic compound (OC) emissions shall be reduced by at least eighty-five percent (85%), by weight, as an overall control efficiency. See A.I.2.a below.
	OAC rule 3745-21-07(G)(6)	Ninety percent (90%) or more of the carbon in the organic material being incinerated shall be oxidized to carbon dioxide.
	OAC rule 3745-17-11(B)	Particulate emissions (PE) from the stack serving the two baghouses in series shall not exceed 7.05 lbs/hr based on Table I.
	OAC rule 3745-17-07(A)	Visible particulate emissions from the stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

2. Additional Terms and Conditions

2.a OAC rule 3745-21-07(G)(2) limits organic compound (OC) emissions to 8 pounds per hour and 40 pounds per day or requires an 85% reduction in OC emissions. The thermal oxidizer shall be employed to comply with the requirement to achieve an 85% reduction in OC emissions instead of complying with the OC emission limitations of 8 pounds per hour and 40 pounds per day.

II. Operational Restrictions

1. The permittee shall operate the thermal oxidizer during any operation of this emissions unit.

2. The permittee shall operate the two baghouses during any addition of dry raw materials to this emissions unit.

3. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

4. The pressure drop across the primary baghouse shall be maintained within the range of 1.0 to 8.0 inches of water. The pressure drop across the secondary baghouse shall be maintained within the range of 0.5 to 2.0 inches of water.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the combustion temperature. The temperature monitor and recorder shall be operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

2. The permittee shall collect and record the following information for each day:

a. all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance; and

b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

3. The permittee shall record the pressure drop across the primary baghouse on a weekly basis. The permittee shall record the pressure drop across the secondary baghouse on a monthly basis.

4. The permittee shall record the hours of operation of this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit in A.1.c.ii.

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation. These summaries shall be submitted to the Ohio EPA, Central District Office by January 31, April 30, July 31 and October 31 of each year and shall cover the previous 3-month period.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time which the pressure drops across the baghouses did not comply with the allowable ranges specified above. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit in A.1.c.ii.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

V. Testing Requirements (continued)

1.a Emission Limitations:
Ninety percent (90%) or more of the carbon in the organic material being incinerated shall be oxidized to carbon dioxide; and organic compound (OC) emissions shall be reduced by at least eighty-five percent (85%), by weight, as an overall control efficiency.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

i. The emission testing shall be conducted within 6 months of initial permit issuance and 6 months of permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency limitation for OC and the destruction efficiency requirement for the thermal oxidizer.

iii. The following test methods shall be employed to demonstrate compliance with the destruction efficiency requirement for the thermal oxidizer: Methods 1 through 4 and 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. The test method and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

iv. The capture efficiency of the vapor collection system is assumed to be 100% because the reactor system is a closed system and all the vents in the process enter a vapor header routed to the thermal oxidizer. Because this efficiency is based upon emission testing utilizing USEPA Method 25, the mass emissions of OC are employed in the efficiency determination and the control efficiency is equivalent to the destruction efficiency.

v. Testing shall be conducted while the emissions unit is operating at or near its maximum capacity for a typical resin batch for the reactor system. During testing, other emission sources that vent to the thermal oxidizer shall be operated, or not operated, according to standard PPG operating practices.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

1.b Emission Limitation:
Organic compound (OC) emissions shall not exceed 16.7 tons/yr.

Applicable Compliance Method:
Annual OC emissions shall be calculated by multiplying the results of the most recent emission test that demonstrated the emissions unit was in compliance by the actual hours of operation per year and dividing by 2000 lbs/ton.

V. Testing Requirements (continued)

1.c Emission Limitation:
Particulate emissions (PE) from the stack serving the two baghouses in series shall not exceed 7.05 lbs/hr based on Table I.

Applicable Compliance Method:
Compliance may be based on the PPG 1996 Fee Emission Report emission factor of 0.00025 lb PE/lb raw materials, the maximum process weight rate, and the operating control efficiency for the primary baghouse as follows:

(0.00025 lb PE/lb raw materials) X (4500 lbs/hr)* = 1.125 lbs PE/hr X (1-0.98)** = 0.02 lb PE/hr

*maximum process weight rate
**operating control efficiency for the dust collector

If required, emission testing shall be conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

1.d Emission Limitation:
Visible particulate emissions from the stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, visible emission observations shall be performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: K-5 Reactor System (P018)

Activity Description: Resin reactor system used for specialized resin manufacturing in support of the coating industry.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
K-5 resin batch reactor system with thermal oxidizer and two baghouses in series	OAC rule 3745-21-07(G)(2)	Organic compound emissions shall be reduced by at least eighty five (85%), by weight,as an overall control efficiency. See A.I.2.a below.
	OAC rule 3745-21-07(G)(6)	Ninety percent (90%) or more of the carbon in the organic material being incinerated shall be oxidized to carbon dioxide.
	OAC rule 3745-17-11(B)	Particulate emissions (PE) from the stack serving the two baghouses in series shall not exceed 7.05 lbs/hr based on Table I.
	OAC rule 3745-17-07(A)	Visible particulate emissions from the stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

2. Additional Terms and Conditions

2.a OAC rule 3745-21-07(G)(2) limits organic compound (OC) emissions to 8 pounds per hour and 40 pounds per day or requires an 85% reduction in OC emissions. The thermal oxidizer shall be employed to comply with the requirement to achieve an 85% reduction in OC emissions instead of complying with the OC emission limitations of 8 pounds per hour and 40 pounds per day.

II. Operational Restrictions

1. The permittee shall operate the thermal oxidizer during any operation of this emissions unit.

2. The permittee shall operate the two baghouses during any addition of dry raw materials to this emissions unit.

3. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

II. Operational Restrictions (continued)

4. The pressure drop across the primary baghouse shall be maintained within the range of 1.0 to 8.0 inches of water. The pressure drop across the secondary baghouse shall be maintained within the range of 0.5 to 2.0 inches of water.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature withi the thermal oxidizer when the emissions unit is in oepration. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the combustion temperature. The temperature monitor and recorder shall be operated and maintained in accordance with the manufacturer's recommendations, with any modification deemed necessary by the permittee.

2. The permittee shall collect and record the following information for each day:

a. all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance; and

b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

3. The permittee shall record the pressure drop across the primary baghouse on a weekly basis. The permittee shall record the pressure drop across the secondary baghouse on a monthly basis.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit in A.1.c.ii.

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation. These summaries shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters 3-month period.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time which the pressure drops across the baghouses did not comply with the allowable ranges specified above. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit in A.1.c.ii.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitations:
Ninety percent (90%) or more of the carbon in the organic material being incinerated shall be oxidized to carbon dioxide; and organic compound (OC) emissions shall be reduced by at least eighty-five (85%), by weight, as an overall control efficiency.

V. Testing Requirements (continued)

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

i. The emission testing shall be conducted within 6 months of initial permit issuance and 6 months of permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency limitation for OC and the destruction efficiency requirement for the thermal oxidizer.

iii. The following test methods shall be employed to demonstrate compliance with the destruction efficiency requirement for the thermal oxidizer: Methods 1 through 4 and 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. The test method and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

iv. The capture efficiency of the vapor collection system is assumed to be 100% because the reactor system is a closed system and all the vents in the process enter a vapor header routed to the thermal oxidizer. Because this efficiency is based upon emission testing utilizing USEPA Method 25, the mass emissions of OC are employed in the efficiency determination and the control efficiency is equivalent to the destruction efficiency.

v. Testing shall be conducted while the emissions unit is operating at or near its maximum capacity for a typical resin batch for the reactor system. During testing, other emission sources that vent to the thermal oxidizer shall be operated, or not operated, according to standard PPG operating practices.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

1.b Emission Limitation:
Visible particulate emissions from the stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, visible emission observations shall be performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.c Emission Limitation:
Particulate emissions (PE) from the stack serving the two baghouses in series shall not exceed 7.05 lbs/hr.

Applicable Compliance Method:
Compliance may be based on the PPG 1996 Fee Emission Report emission factor of 0.00025 lb PE/lb raw materials, the maximum process weight rate, and the operating control efficiency for the primary baghouse as follows:

(0.00025 lb PE/lb raw materials) X (4500 lbs/hr)* = 1.125 lbs PE/hr X (1-0.98)** = 0.02 lb PE/hr

*maximum process weight rate
**operating control efficiency for the dust collector

If required, emission testing shall be conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: K-9 Reactor System (P019)

Activity Description: Resin reactor system used for specialized resin manufacturing in support of the coating industry.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
K-9 resin batch reactor system with thermal oxidizer and two baghouses in series	OAC rule 3745-31-05(A)(3) (PTI 01-06712)	Organic compound (OC) emissions shall not exceed 0.25 lb/hr and 1.10 tons/yr. Particulate emissions (PE) from the stack serving the two baghouses in series shall not exceed 0.02 lb/hr and 0.10 ton/yr. The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-07(G)(2), 3745-21-07(G)(6) and 3745-17-07(A).
	OAC rule 3745-21-07(G)(2)	OC emissions shall be reduced by at least eighty-five percent (85%), by weight, as an overall control efficiency. See A.I.2.a below.
	OAC rule 3745-21-07(G)(6)	Ninety percent (90%) or more of the carbon in the organic material being incinerated shall be oxidized to carbon dioxide.
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)	Visible particulate emissions from the stack serving the two baghouses in series shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

2. Additional Terms and Conditions

2.a OAC rule 3745-21-07(G)(2) limits organic compound (OC) emissions to 8 pounds per hour and 40 pounds per day or requires an 85% reduction in OC emissions. The thermal oxidizer shall be employed to comply with the requirement to achieve an 85% reduction in OC emissions instead of complying with the OC emission limitations of 8 pounds per hour and 40 pounds per day.

II. Operational Restrictions

1. The permittee shall operate the thermal oxidizer during any operation of this emissions unit.

2. The permittee shall operate the two baghouses during any addition of dry raw materials to this emissions unit.

3. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

4. The pressure drop across the primary baghouse shall be maintained within the range of 1.0 to 8.0 inches of water. The pressure drop across the secondary baghouse shall be maintained within the range of 0.5 to 2.0 inches of water.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emission unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the combustion temperture. The temperature monitor and recorder shall be operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

2. The permittee shall collect and record the following information for each day:

a. all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance; and

b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emsisions unit was in operation.

3. The permittee shall record the pressure drop across the primary baghouse on a weekly basis. The permittee shall record the pressure drop across the secondary baghouse on a monthly basis.

4. The permittee shall record the annual hours of operation for this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emission unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit in A.1.c.ii.

2. The permittee shall sumbit quarterly summaries that include a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emission unit was in operation. These summaries shall be submitted to the Ohio EPA, Central District Office by January 31, April 30, July 31 and October 31 of each year and shall cover the previous 3-month period.

IV. Reporting Requirements (continued)

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time which the pressure drops across the baghouses did not comply with the allowable ranges specified above. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit in A.1.c.ii.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitations:
Ninety percent (90%) or more of the carbon in the organic material being incinerated shall be oxidized to carbon dioxide; organic compound (OC) emissions shall be reduced by at least eighty-five percent (85%), by weight, as an overall control efficiency; and OC emissions shall not exceed 0.25 lb/hr.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

i. The emission testing shall be conducted within 6 months of initial permit issuance and 6 months of permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency limitation for OC, the destruction efficiency requirement for the thermal oxidizer, and the OC mass emission limitation.

iii. The following test methods shall be employed to demonstrate compliance with the destruction efficiency requirement for the thermal oxidizer and the OC mass emission limitation: Methods 1 through 4 and 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. The test method and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

iv. The capture efficiency of the vapor collection system is assumed to be 100% because the reactor system is a closed system and all the vents in the process enter a vapor header routed to the thermal oxidizer. Because this efficiency is based upon emission testing utilizing USEPA Method 25, the mass emissions of OC are employed in the efficiency determination and the control efficiency is equivalent to the destruction efficiency.

v. Testing shall be conducted while the emissions unit is operating at or near its maximum capacity for a typical resin batch for the reactor system. During testing, other emission sources that vent to the thermal oxidizer shall be operated, or not operated, according to standard PPG operating practices.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

1.b Emission Limitations:
Organic Compound emissions shall not exceed 0.25 lb/hr and 1.10 tons/yr.

Applicable Compliance Methods:
Compliance with the hourly emission limitation may be based on the control efficiency of the thermal oxidizer multiplied by the calculated uncontrolled OC emission rate for a typical resin batch for the reactor system.

USEPA Method 25 emission testing was conducted June 7, 1991 on the thermal oxidizer. The tested destruction efficiency was 92.8%. In accordance with OAC rule 3745-21-10(C)(3)(h), the control efficiency of the vapor control system is the percent reduction in mass emissions of OC between the inlet and the outlet of the vapor control system. The capture efficiency of the vapor collection system is assumed to be 100% because the reactor system is a closed system and all the vents in the process enter a vapor header routed to the thermal oxidizer. Because this efficiency is based upon emission testing utilizing USEPA Method 25, the mass emissions of OC are employed in the efficiency determination and the control efficiency is equivalent to the destruction efficiency.

The uncontrolled OC emission rate for a typical resin batch for the reactor system was calculated by PPG in the March 10, 1989 Permit to Operate application. The displacement losses (OC emissions) from the addition of materials during the batch process, dropping of the finished resin, and sparging of the reactor vessel were calculated using the Ideal Gas Law. The total uncontrolled OC emission rate was calculated as 56.7 lbs OC/batch.

The average hourly uncontrolled emission rate is calculated as:
56.7 lbs OC/hr * batch /23 hrs = 2.46 lbs OC/hr

The average hourly controlled emission rate is calculated as:
2.46 lbs OC/hr * overall control efficiency (1- 0.90) = 0.25 lb OC/hr

Annual OC emissions are calculated as:
0.25 lb OC/hr * actual hours of operation/yr * 1 ton/2000 lbs

The emission testing in Section A.V.1.a shall be used to demonstrate compliance with the lb OC/hr emission limitation.

V. Testing Requirements (continued)

1.c Emission Limitations:
Particulate emissions (PE) from the stack serving the two baghouses in series shall not exceed 0.02 lb/hr and 0.10 ton/yr.

Applicable Compliance Methods:
Compliance may be based on the PPG 1996 Fee Emission Report emission factor of 0.00025 lb PE/lb raw materials, the maximum process weight rate, and the operating control efficiency for the primary baghouse as follows:

(0.00025 lb PE/lb raw materials) X (4500 lbs/hr *) = 0.125 lb PE/hr X (1-0.98) ** = 0.02 lb PE/hr

0.02 lb PE/hr X actual hours of operation per year X 1 ton/2000 lbs

* maximum process weight rate
**operating control efficiency for the primary baghouse

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission testing in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

1.d Emission Limitation:
Visible particulate emissions from the stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, visible emission observations shall be performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: K-10 Reactor System (P020)

Activity Description: Resin reactor system used for specialized resin manufacturing in support of the coating industry.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
K-10 resin batch reactor system with thermal oxidizer	OAC rule 3745-31-05(A)(3) (PTI 01-06712)	Organic compound (OC) emissions shall not exceed 0.25 lb/hr and 1.10 tons/yr. Particulate emissions (PE) from the stack serving this emissions unit shall not exceed 0.61 lb/hr and 0.09 ton/yr. The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-07(G)(2), OAC rule 3745-21-07(G)(6) and OAC rule 3745-17-07(A).
	OAC rule 3745-21-07(G)(2)	OC emissions shall be reduced by at least eighty-five percent (85%), by weight, as an overall control efficiency. See A.I.2.a below.
	OAC rule 3745-21-07(G)(6)	Ninety percent (90%) or more of the carbon in the organic material being incinerated shall be oxidized to carbon dioxide.
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)	Visible particulate emissions from the stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

2. Additional Terms and Conditions

2.a OAC rule 3745-21-07(G)(2) limits organic compound (OC) emissions to 8 pounds per hour and 40 pounds per day or requires an 85% reduction in OC emissions. The thermal oxidizer shall be employed to comply with the requirement to achieve an 85% reduction in OC emissions instead of complying with the OC emission limitations of 8 pounds per hour and 40 pounds per day.

II. Operational Restrictions

1. The permittee shall operate the thermal oxidizer during any operation of this emissions unit.

2. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the combustion temperature. The temperature monitor and recorder shall be operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

2. The permittee shall collect and record the following information for each day:

a. all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance; and

b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

3. The permittee shall perform weekly checks, when the emissions unit is in operation, when dry raw materials are being added to the batch, and when the weather conditions allow, for any visible particulate emissions from the stack serving this emission unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

4. The permittee shall record the annual hours of operation for this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit in A.1.c.ii.

IV. Reporting Requirements (continued)

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation. These summaries shall be submitted by January 3, April 30, July 31 and October 31 of each year and shall cover the previous 3-month period.

3. The permittee shall submit semi-annual written reports that (a) identify all weeks during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitations:
Ninety percent (90%) or more of the carbon in the organic material being incinerated shall be oxidized to carbon dioxide; organic compound (OC) emissions shall be reduced by at least eighty-five percent (85%), by weight, as an overall control efficiency; and OC emissions shall not exceed 0.25 lb/hr.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

i. The emission testing shall be conducted within 6 months of initial permit issuance and 6 months of permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency limitation for OC, the destruction efficiency requirement for the thermal oxidizer, and the OC mass emission limitation.

iii. The following test methods shall be employed to demonstrate compliance with the destruction efficiency requirement for the thermal oxidizer and the OC mass emission limitation: Methods 1 through 4 and 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. The test method and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

iv. The capture efficiency of the vapor collection system is assumed to be 100% because the reactor system is a closed system and all the vents in the process enter a vapor header routed to the thermal oxidizer. Because this efficiency is based upon emission testing utilizing USEPA Method 25, the mass emissions of OC are employed in the efficiency determination and the control efficiency is equivalent to the destruction efficiency.

v. Testing shall be conducted while the emissions unit is operating at or near its maximum capacity for a typical resin batch for the reactor system. During testing, other emission sources that vent to the thermal oxidizer shall be operated, or not operated, according to standard PPG operating practices.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

1.b Emission Limitations:
Organic compound (OC) emissions shall not exceed 0.25 lb/hr and 1.10 tons/yr.

Applicable Compliance Method:
Compliance with the hourly emission limitation may be based on the control efficiency of the thermal oxidizer multiplied by the calculated uncontrolled OC emission rate for a typical resin batch for the reactor system.

USEPA Method 25 emission testing was conducted June 7, 1991 on the thermal oxidizer. The tested destruction efficiency was 92.8%. In accordance with OAC rule 3745-21-10(C)(3)(h), the control efficiency of the vapor control system is the percent reduction in mass emissions of OC between the inlet and the outlet of the vapor control system. The capture efficiency of the vapor collection system is assumed to be 100% because the reactor system is a closed system and all the vents in the process enter a vapor header routed to the thermal oxidizer. Because this efficiency is based upon emissions testing utilizing USEPA Method 25, the mass emissions of OC are employed in the efficiency determination and the control efficiency is equivalent to the destruction efficiency.

The uncontrolled OC emission rate for a typical resin batch for the reactor system was calculated by PPG in the March 10, 1989 Permit to Operate application. The displacement losses (OC emissions) from the addition of materials during the batch process, dropping of the finished resin, and sparging of the reactor vessel were calculated using the Ideal Gas Law. The total uncontrolled OC emission rate was calculated as 56.7 lbs OC/batch.

The average hourly uncontrolled emission rate is calculated as:
56.7 lbs OC/batch X batch/23 hrs = 2.46 lbs OC/hr

The average hourly controlled emission rate is calculated as:
2.46 lbs OC/hr X (1-0.90*) = 0.25 lb OC/hr

*overall control efficiency

Annual OC emissions are calculated as:
0.25 lb OC/hr X actual hours or operation/year X 1 ton/2000 lbs

The emission testing in Section A.V.1.a shall be used to demonstrate compliance with the lb OC/hr emission limitation.

V. Testing Requirements (continued)

1.c Emission Limitations:
Particulate emissions (PE) from the stack serving this emissions unit shall not exceed 0.61 lb/hr and 0.09 ton/yr.

Applicable Compliance Methods:
Compliance with the lb/hr emission limitation may be based on the emission factor of 0.001 lb PE/lb of solids charged to the reactor per hour and the maximum (per batch) 1-hour charge rate as follows:

(614 lbs of solids charged/hr) X (0.001 lb PE/lb of solids charged*) = 0.614 lb PE/hr.

* based on process knowledge of a similar emissions unit at another PPG facility

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission testing in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

The annual emission limitation was established based on the lb/hr emission limitation and the minimum batch time of 30 hrs/batch as follows:

(0.614 lb PE/30 hrs) X (8760 hrs/yr) X (1 ton/2000 lbs) = 0.09 ton PE/yr.

1.d Emission Limitation:
Visible particulate emissions from the stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, visible emissions observations shall be performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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