



State of Ohio Environmental Protection Agency

Street Address:

Mailing Address:

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Lazarus Gov. Center

**RE: DRAFT PERMIT TO INSTALL MODIFICATION
MONTGOMERY COUNTY
Application No: 08-03513
Fac ID: 0857040931**

CERTIFIED MAIL

DATE: 6/1/2006

Delphi Energy and Chassis-Home Ave
Paul Schubert
1224 Mail Stop 024 2701 Home Avenue
Dayton, OH 45401

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install modification for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit modification. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit modification should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install modification may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install modification a fee of **\$ 1000** will be due. Please do not submit any payment now.

The Ohio EPA is urging 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. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: USEPA RAPCA Miami Valley Regional Planning Commission KY IN



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**Permit To Install
Terms and Conditions**

**Issue Date: To be entered upon final issuance
Effective Date: To be entered upon final issuance**

DRAFT MODIFICATION OF PERMIT TO INSTALL 08-03513

Application Number: 08-03513
Facility ID: 0857040931
Permit Fee: **To be entered upon final issuance**
Name of Facility: Delphi Energy and Chassis-Home Ave
Person to Contact: Paul Schubert
Address: 1224 Mail Stop 024 2701 Home Avenue
Dayton, OH 45401

Location of proposed air contaminant source(s) [emissions unit(s)]:
**2701 Home Ave
Dayton, Ohio**

Description of proposed emissions unit(s):
Administrative Modification to Change the Record keeping.

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described source(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Delphi Energy and Chassis-Home Ave

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Part I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Permit-To-Install General Terms and Conditions

1. Monitoring and Related Recordkeeping 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.
- 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, 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.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written

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reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.9 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency every six months, by January 31 and July 31 of each year for the previous six calendar months. 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.
 - iv. If this permit is for an emissions unit located at a Title V facility, then 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 are true, accurate, and complete.
- d. The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

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, i.e., upset, 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. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to 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 emission unit(s) that is (are) served by such control system(s).

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

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permittee shall comply with the requirement to register such a plan.

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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.

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.

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 re-issuance, or modification
- 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, revoked, or revoked and reissued, for cause. 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 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

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permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

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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. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any 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 and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this 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 ORC section 3704.08.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

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- 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.

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- 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.

10. Permit-To-Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this permit is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

12. Air Pollution Nuisance

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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.

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13. Permit-To-Install

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in this permit.

B. State Only Enforceable Permit-To-Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping of state-only enforceable 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 (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) 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. 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 (i.e., postmarked) quarterly, 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.)

3. 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

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of any transfer of this permit.

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4. Authorization To Install or Modify

If applicable, authorization to install or modify any new or existing emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

5. Construction of New Sources(s)

This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

6. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

7. Applicability

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

8. Construction Compliance Certification

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If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) that the facility has been constructed in accordance with the permit-to-install application and the terms and conditions of the permit-to-install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

9. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable 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., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

C. Permit-To-Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	39.0

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**Delph
PTI A
Issue**

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K007

Emissions Unit ID:

17

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**Delph
PTI A
Issue**

K007

Emissions Unit ID:

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

1. Unless the permittee accepts a federally enforceable emissions limitation of hazardous air pollutants (HAPs), as defined in Section 112(b) of the Clean Air Act, below the Most Achievable Control Technology, (MACT) threshold of 9.9 TPY for any individual HAP, as a rolling, 12-month summation, and 24.9 TPY for any combination of HAPs, as a rolling, 12-month summation, the facility will be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Surface Coating of Miscellaneous Metal Parts and Products, 40 CFR Part 63, Subpart Mmmm promulgated January 2, 2004. The facility is an "existing" major source per the definitions of the NESHAP, with a compliance date of three years after January 2, 2004 (i.e., January 2, 2007).

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

None

than the overall control efficiency requirement established pursuant to OAC rule 3745-31-05(DC).

2. Additional Terms and Conditions

2.a The permittee shall control the VOC emissions for emissions units K007 through K015 and K017 through the application of a permanent total enclosure with a 100 % capture efficiency and a fume concentrator and catalytic incinerator system. The fume concentrator and catalytic incinerator system shall have a minimum 90% overall VOC removal/destruction efficiency.

2.b The permittee shall maintain a minimum VOC removal efficiency of 95% for the fume concentrator wheel (See Section VI.1.).

2.c The permittee shall maintain a minimum VOC destruction efficiency of 95% for the catalytic incinerator (See Section VI.1.).

II. Operational Restrictions

1. The coating operations identified as K007 through K015 and the mixing room identified as K017 shall each be equipped with a permanent total enclosure (PTE)* which shall be installed and operated in accordance with 40 CFR Part 51, Appendix M, Method 204. The PTE shall meet the following criteria:

- a. Any "Natural Draft Opening" (NDO) shall be at least 4 equivalent diameters from each VOC emission point;
- b. The total area of all NDOs shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;
- c. The average facial velocity (FV) of air through all NDOs shall be at least 3,600 m/hr (200 fpm) which corresponds to a pressure differential of 0.007 inch of water. The direction of air through all NDOs shall be into the enclosure;
- d. All access doors and windows whose area are not included in paragraph (b) and are not included in the calculation in paragraph (c) shall be closed during routine operation; and,

- e. all VOC emissions must be captured and contained for discharge through the VOC control device.

By satisfying the criteria above for establishing permanent total enclosure, the total VOC capture efficiency shall be assumed to be 100%.

* Definitions for PTE and NDO:

Permanent Total Enclosure (PTE) - a permanently installed enclosure that completely surrounds a source of emissions such that all VOC emissions are captured and contained for discharge through a control device.

Natural Draft Opening (NDO) - any permanent opening in the enclosure that remains open during operation of the facility and is not connected to a duct to which a fan is installed.

2. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inch of water, as a 3-hour average, whenever the emissions unit is in operation.
3. Each of the ovens associated with emissions units K007 through K015 demonstrated that they meet the criteria established for a PTE in method 204. The permittee performed an additional demonstration to show that each PTE could not be compromised, under normal plant conditions, when the emissions unit was in operation (i.e., the air flow through the PTE to the control device was always maintained under negative pressure even when all additional egress points (non-natural draft opening) which could affect the PTE were opened). Therefore, the permittee will not be required to perform additional monitoring, record keeping and reporting requirements to ensure the ongoing integrity of the PTE for the ovens.
4. The number of revolutions per hour (RPH) of the fume concentrator shall be continuously maintained, when the emissions units is in operation, at a value within +/- 1 RPH of the value established during the most recent emissions test that demonstrated compliance.
5. The average temperature of the desorption air stream prior to the fume concentrator wheel, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 260 degrees Fahrenheit.
6. The average temperature of the exhaust gases immediately before the catalyst bed, 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. The average temperature difference across the catalyst bed, for any 3-hour block of time when the emissions unit

is in operation, shall not be less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance.

7. The catalytic oxidizer shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The VOC conversion efficiency of the catalyst in the catalytic oxidizer, as determined by the catalyst activity testing, shall be at least 90% of the test temperature that is representative of the normal temperature at the catalyst bed inlet. Solvent loading during catalyst analysis shall be consistent with the test laboratory's normal testing protocol.
8. Exhaust gases from operation of the emissions unit shall be vented to the catalytic oxidizer.
9. All ventilation fans associated with this emissions unit and the catalytic oxidizer shall be in operation at all times when this emissions unit is in operation.
10. When employing the catalytic oxidizer, all bypass dampers, actuator pins, and associated motors shall be in the correct position and in good operating condition at all times when this emissions unit is in operation to ensure that all captured VOC emissions are vented to the catalytic oxidizer. Also, all the hooding and ductwork comprising the VOC emission capture system for this emissions unit shall be free of leaks and holes that would permit the escape of the captured VOC emissions.
711. The maximum VOC usage rate, for coating and cleanup materials (before control) for emissions units K007 through K015 and K017, combined, shall not exceed 390.0 TPY VOC as a rolling, 365-day summation.
8. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the coating usage levels specified in the following table:

Months	Maximum Allowable Cumulative VOC Usage, including purge solvents (tons)
0 - 6	195.00
1 - 7	227.50
1 - 8	260.00
1 - 9	292.50
1 - 10	325.00
1 - 11	357.50

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Emissions Unit ID: K007

1 - 12

390.00

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual VOC usage limitations shall be based upon a rolling, 365-day summation of the VOC usage figures.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall collect and record the following information each day for this emissions unit:
 - a. The company identification of each coating and cleanup material employed;
 - b. The number of gallons of each coating employed;
 - c. The VOC content of each coating employed, in pounds per gallon;
 - d. The number of gallons of each cleanup material employed;
 - e. The VOC content of each cleanup material employed, in pounds per gallon;
 - f. The total uncontrolled VOC usage rate (VOC input rate) for all coatings and cleanup materials employed, i.e., the summation of (b x c) for all coatings and the summation of (d x e) for all cleanup materials, in pounds; and
 - g. The total calculated controlled VOC emission rate for all coatings and cleanup materials, in tons (the controlled VOC emission rate shall be calculated using the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated the emissions unit was in compliance, i.e., (f) multiplied by a factor of (1 - the overall control efficiency)).
2. The permittee shall collect and record the following information each day for emissions units K007 through K015 and K017, combined:
 - a. The total uncontrolled VOC usage rate for all coatings and cleanup materials employed, in tons [this is the summation of the total uncontrolled VOC usage rate for emissions units K007 through K015 and K017, combined], see Section VI.3.; and
 - b. The total calculated controlled VOC emission rate for all coatings and cleanup materials employed, in tons [this is the summation of the total calculated controlled VOC emission rate for emissions units K007 through K015 and K017, combined].
3. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated

and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall maintain records of all 3-hour blocks of time during which the permanent total enclosure was not maintained at or above the minimum pressure differential of 0.007 inch of water, as a 3-hour average.

4. The permittee shall maintain records of the RPH daily, when the emissions unit is in operation and shall be recorded in an operations log.
5. The permittee shall install, maintain, and operate continuous temperature monitors and recorders which measure and record the temperature at the following points when the emissions unit is in operation:
 - a. The temperature of the desorption air stream prior to the VOC fume concentrator wheel;
 - b. The temperature immediately upstream of the incinerator's catalyst bed; and
 - c. The temperature immediately downstream of the incinerator's catalyst bed.

Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations.

6. The permittee shall collect and record the following information each day for this emissions unit:
 - a. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the desorption air stream was less than 260 degrees Fahrenheit;
 - b. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance;
 - c. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent

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Emissions Unit ID: K007

emission test that demonstrated the emissions unit was in compliance;
and

- d. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
7. The permittee shall perform monthly external inspections of the catalytic oxidizer system including burner assembly and fuel supply lines for problems and, if necessary, adjust to assure proper air-to-fuel mixtures.

The permittee shall maintain a record of the results of each monthly inspection of the catalytic oxidizer system and any maintenance, repair or replacement performed.

8. The permittee shall perform an annual internal inspection of the catalytic oxidizer system, including the catalyst bed. Each inspection shall consist of internal and visual inspections in accordance with the manufacturer's recommendations and shall include a physical inspection of the unit and checks of associated equipment, including but not limited to burners, controls dampers, valves, seals, and monitoring and recording equipment. Repair and replacement of equipment shall be performed as determined by the inspection in accordance with manufacturer's recommendations. In accordance with the testing schedule in section A.V, a sample of catalyst material shall be collected from the catalyst bed to perform the catalyst activity tests required in section A.V.

The permittee shall maintain a record of the results of each annual inspection of the catalytic oxidizer system and any maintenance, repair or replacement performed, as well as the results of each catalyst activity test required in section A.V.

9. Each calendar month, the permittee shall inspect the operational condition and integrity of all hooding, ductwork, and bypass dampers comprising the capture system. Hooding and ductwork observations shall include visual inspections to verify that the damper setting is in the correct position (i.e., to oxidizer or to atmosphere) and visual inspections of the actuator and motor to verify that the actuator pin and the motor are operating properly. The permittee shall document the results of all monthly inspections, including any corrective actions taken.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports in accordance with paragraph A.1.c. of the General Terms and Conditions of this permit and shall include the following information:
 - a. An identification of each month during which the total controlled VOC emission rate for this emissions unit exceeded the allowable monthly emission limit of 1,582 lbs and the actual monthly VOC emission rate for each such month;
 - b. An identification of each day during which the total 365-day rolling VOC usage rates from all coatings and cleanup materials, for emissions units K007 through K015 and K017, combined, exceeded the allowable usage restrictions of 390.0 TPY VOC, and the actual 365-day rolling usage rate summation, for emissions

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units K007 through K015 and K017, combined, for each such day. For the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative VOC usage levels shall be reported;

- c. An identification of all 3-hour blocks of time during which the permanent total enclosure was not maintained at the minimum pressure differential of 0.007 inch of water, as a 3-hour average;

- d. An identification of each day during which the RPH was greater than +/-1 RPH from the value established at the most recent performance test which demonstrated compliance;
- e. An identification of all 3-hour blocks of time during which the average temperature of the desorption air stream prior to the VOC concentrator wheel did not comply with the temperature limitation specified in section A.II.4. of these terms and conditions;
- f. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated compliance; and,
- g. An identification of all 3-hour blocks of time during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated compliance.

NOTE: Information submitted pursuant to section A.IV.1.f is not relevant for determining compliance with any operational restriction contained in section A.II. As long as the permittee performs the monitoring, record keeping, and reporting specified in sections A.III.6.c and A.IV.1.f of these terms and conditions, an average temperature difference across the catalyst bed of less than 80 percent of the average temperature difference during the most recent emissions test that demonstrated the emissions unit was in compliance shall not constitute a violation of any operational restriction or be considered a deviation.

2. The permittee shall submit annual reports to the Director (the appropriate Ohio EPA District Office or local air agency) which specify the total actual annual VOC emissions from this emissions unit and from emissions units K007 - K015 and K017, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year
3. 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.

4. The permittee shall submit quarterly reports which summarize the results of the external monthly inspections conducted on the catalytic oxidizer system. The reports shall describe any maintenance conducted on the catalytic oxidizer system as a direct result of the inspections.
5. The permittee shall submit annual reports which summarize the results of the internal annual inspections conducted on the catalytic oxidizer system. The reports shall describe any maintenance conducted on the catalytic oxidizer system as a direct result of the inspections.

6. The permittee shall submit reports that include the results of the catalyst activity tests required in section A.V. These reports shall be submitted within 45 days after each catalyst activity test is performed.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation -
1,582 lbs/month VOC, including cleanup (for this emissions unit)

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirement specified in Section III.1. of this permit, and shall be the summation of the daily VOC emission rates for the calendar month.
 - b. Emission Limitation -
9.49 TPY VOC, including cleanup (for this emissions unit)

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirement specified in Section III.1. of this permit, and shall be the summation of the daily VOC emission rates for the calendar year divided by 2000.
 - c. Emission Limitation -
390.0 TPY VOC usage rate, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Sections III.1. and III.2. of this permit.
 - d. Emission Limitation -
39.0 TPY VOC emissions, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Sections III.1. and III.2. of this permit.

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- e. Emission Limitation -
90% overall removal/destruction efficiency of the fume concentrator and catalytic incinerator system, with the corresponding 95% removal efficiency for the fume concentrator wheel and 95% destruction efficiency for the catalytic incinerator

Applicable Compliance Method-

Compliance shall be based on stack testing per OAC rule 3745-21-10(C).

Compliance was demonstrated on May 17, 2000 through performance testing of emissions units K007 through K015 and K017. Compliance shall also be based on the results of emission testing conducted in accordance with the testing requirements specified in Section A.I.V.3. for emissions units K007 through K015 and K017 of the Title V permit issued final on September 26, 2001, for emissions units K007 through K015, K017, and K020.

2. U.S. EPA Method 24 shall be used to determine the VOC contents for coatings. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 cannot be used for a particulate coating or ink, the owner or operator shall notify the Administrator of the U.S. EPA and shall use formulation data for that coating to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24.
3. The permittee shall conduct , or have conducted, catalyst activity testing using the catalyst sample collected during the annual inspection described in section A.III. An intent to test notification shall not be required for the testing noted in this term. The procedures for the catalyst activity test shall be in accordance with the manufacturer's recommendations.

VI. Miscellaneous Requirements

1. In the event the results of initial performance tests show that the fume concentrator is operating at less than 95% removal efficiency or the catalytic incinerator is operating at less than 95% destruction efficiency the permittee may elect to comply with the alternative permit restriction set forth in the succeeding paragraph. The permittee shall have 30 days from the date of submission of the results for the initial performance testing to petition for compliance with the limits in this paragraph or this paragraph shall be waived.
 - a. If the required 90% overall VOC control efficiency for the fume concentrator/catalytic incinerator emission control system is achieved but the removal efficiency of the fume concentrator is less than 95%, then the permittee shall report the actual tested removal efficiency for the fume concentrator and the actual tested destruction efficiency for the catalytic incinerator. These tested efficiencies will then become the minimum efficiency requirements for the coating operations and emission control system identified in this permit.

- b. If the required 90% overall VOC control efficiency for the fume concentrator/catalytic incinerator emission control system is achieved but the destruction efficiency if the catalytic incinerator is less than 95% then the permittee shall report the actual tested removal efficiency for the fume concentrator and the actual tested destruction efficiency for the catalytic incinerator. These tested efficiencies will then become the minimum efficiency requirements for the coating operations and emission control system identified in this permit.
1. This facility shall implement a Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) for the adhesive coating operation (emissions units K007 through K015 and K017) and the associated emission control system.

The PM&MAP shall be in writing and shall be submitted to the Regional Air Pollution Control Agency concurrently with the Title V application (required within 30 days after commencement of operation of the adhesive coating operation).
2. Emissions unit K017 is a mixing room which mixes all the paints for the emissions units K007 through K015 and K017. To ensure compliance with the overall usage limitation developed under OAC rule 3745-31-05(DC), usages for K017 are accounted for as the material lost in the mixing process.
3. This is a modification of PTI 08-03513 issued on August 27, 2002. No change of emissions will result from this modification.

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K007 - Dipline A and Oven, Misc. Metal Parts, with a Permanent Total Enclosure, Fume Concentrator, and a Catalytic Incinerator		

2. Additional Terms and Conditions

2.a 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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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K008 - Dipline B and Oven, Misc. Metal Parts, with a Permanent Total Enclosure, Fume Concentrator, and a Catalytic Incinerator	OAC rule 3745-31-05(A)(3)	815 lbs/mth and 4.89 TPY volatile organic compounds (VOC), including cleanup (for this emissions unit); The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(DC).
	OAC rule 3745-31-05(DC)	390.0 TPY VOC usage, as a rolling, 365-day summation, for emissions unit K007 - K015 and K017, combined, including cleanup; 39.0 TPY VOC emissions, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup; and,
	OAC rule 3745-21-09(B)(6)	See Sections A.2.a., A.2.b., and A.2.c. The control efficiency requirement specified by this rule is less stringent than the overall control efficiency

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requirement established
pursuant to OAC rule
3745-31-05(DC).

2. Additional Terms and Conditions

- 2.a The permittee shall control the VOC emissions for emissions units K007 through K015 and K017 through the application of a permanent total enclosure with a 100 % capture efficiency and a fume concentrator and catalytic incinerator system. The fume concentrator and catalytic incinerator system shall have a minimum 90% overall VOC removal/destruction efficiency.
- 2.b The permittee shall maintain a minimum VOC removal efficiency of 95% for the fume concentrator wheel (See Section VI.1.).
- 2.c The permittee shall maintain a minimum VOC destruction efficiency of 95% for the catalytic incinerator (See Section VI.1.).

II. Operational Restrictions

1. The coating operations identified as K007 through K015 and the mixing room identified as K017 shall each be equipped with a permanent total enclosure (PTE)* which shall be installed and operated in accordance with 40 CFR Part 51, Appendix M, Method 204. The PTE shall meet the following criteria:
- Any "Natural Draft Opening" (NDO) shall be at least 4 equivalent diameters from each VOC emission point;
 - The total area of all NDOs shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;
 - The average facial velocity (FV) of air through all NDOs shall be at least 3,600 m/hr (200 fpm) which corresponds to a pressure differential of 0.007 inch of water. The direction of air through all NDOs shall be into the enclosure;
 - All access doors and windows whose area are not included in paragraph (b) and are not included in the calculation in paragraph (c) shall be closed during routine operation; and,
 - All VOC emissions must be captured and contained for discharge through the VOC control device.

By satisfying the criteria above for establishing permanent total enclosure, the total VOC capture efficiency shall be assumed to be 100%.

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* Definitions for PTE and NDO:

Permanent Total Enclosure (PTE) - a permanently installed enclosure that completely surrounds a source of emissions such that all VOC emissions are captured and contained for discharge through a control device.

Natural Draft Opening (NDO) - any permanent opening in the enclosure that remains open during operation of the facility and is not connected to a duct to which a fan is installed.

2. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inch of water, as a 3-hour average, whenever the emissions unit is in operation.
3. Each of the ovens associated with emissions units K007 through K015 demonstrated that they meet the criteria established for a PTE in method 204. The permittee performed an additional demonstration to show that each PTE could not be compromised, under normal plant conditions, when the emissions unit was in operation (i.e., the air flow through the PTE to the control device was always maintained under negative pressure even when all additional egress points (non-natural draft opening) which could affect the PTE were opened). Therefore, the permittee will not be required to perform additional monitoring, record keeping and reporting requirements to ensure the ongoing integrity of the PTE for the ovens.
4. The number of revolutions per hour (RPH) of the fume concentrator shall be continuously maintained, when the emissions units is in operation, at a value within +/- 1 RPH of the value established during the most recent emissions test that demonstrated compliance.
5. The average temperature of the desorption air stream prior to the fume concentrator wheel, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 260 degrees Fahrenheit.
6. The average temperature of the exhaust gases immediately before the catalyst bed, 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. The average temperature difference across the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance.
7. The catalytic oxidizer shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The VOC conversion efficiency of the catalyst in the catalytic oxidizer, as determined by the catalyst activity testing, shall be at least 90% of the test temperature that is representative of the normal temperature at the catalyst bed inlet. Solvent loading during catalyst analysis shall be consistent with the test laboratory's normal testing protocol.
8. Exhaust gases from operation of the emissions unit shall be vented to the catalytic oxidizer.

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9. All ventilation fans associated with this emissions unit and the catalytic oxidizer shall be in operation at all times when this emissions unit is in operation.
10. When employing the catalytic oxidizer, all bypass dampers, actuator pins, and associated motors shall be in the correct position and in good operating condition at all times when this emissions unit is in operation to ensure that all captured VOC emissions are vented to the catalytic oxidizer. Also, all the hooding and ductwork comprising the VOC emission capture system for this emissions unit shall be free of leaks and holes that would permit the escape of the captured VOC emissions.

711. The maximum VOC usage rate, for coating and cleanup materials (before control) for emissions units K007 through K015 and K017, combined, shall not exceed 390.0 TPY VOC as a rolling, 365-day summation.
8. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the coating usage levels specified in the following table:

Months	Maximum Allowable Cumulative VOC Usage, including purge solvents (tons)	
0 - 6	195.00	
1 - 7	227.50	
1 - 8	260.00	
1 - 9	292.50	
1 - 10	325.00	
1 - 11	357.50	
1 - 12	390.00	After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual VOC usage limitations shall be based upon a rolling, 365-day summation of the VOC usage figures.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall collect and record the following information each day for this emissions unit:
 - a. The company identification of each coating and cleanup material employed;
 - b. The number of gallons of each coating employed;
 - c. The VOC content of each coating employed, in pounds per gallon;
 - d. The number of gallons of each cleanup material employed;

- e. The VOC content of each cleanup material employed, in pounds per gallon;
 - f. The total uncontrolled VOC usage rate (VOC input rate) for all coatings and cleanup materials employed, i.e., the summation of (b x c) for all coatings and the summation of (d x e) for all cleanup materials, in pounds; and
 - g. The total calculated controlled VOC emission rate for all coatings and cleanup materials, in tons (the controlled VOC emission rate shall be calculated using the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated the emissions unit was in compliance, i.e., (f) multiplied by a factor of (1 - the overall control efficiency)).
2. The permittee shall collect and record the following information each day for emissions units K007 through K015 and K017, combined:
 - a. The total uncontrolled VOC usage rate for all coatings and cleanup materials employed, in tons [this is the summation of the total uncontrolled VOC usage rate for emissions units K007 through K015 and K017, combined], see Section VI.3.; and
 - b. The total calculated controlled VOC emission rate for all coatings and cleanup materials employed, in tons [this is the summation of the total calculated controlled VOC emission rate for emissions units K007 through K015 and K017, combined].
 3. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall maintain records of all 3-hour blocks of time during which the permanent total enclosure was not maintained at or above the minimum pressure differential of 0.007 inch of water, as a 3-hour average.
 4. The permittee shall maintain records of the RPH daily, when the emissions unit is in operation and shall be recorded in an operations log.
 5. The permittee shall install, maintain, and operate continuous temperature monitors and recorders which measure and record the temperature at the following points when the emissions unit is in operation:

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- a. The temperature of the desorption air stream prior to the VOC fume concentrator wheel;
- b. The temperature immediately upstream of the incinerator's catalyst bed; and
- c. The temperature immediately downstream of the incinerator's catalyst bed.

Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations.

6. The permittee shall collect and record the following information each day for this emissions unit:
 - a. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the desorption air stream was less than 260 degrees Fahrenheit;
 - b. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance;
 - c. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance; and
 - d. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

7. The permittee shall perform monthly external inspections of the catalytic oxidizer system including burner assembly and fuel supply lines for problems and, if necessary, adjust to assure proper air-to-fuel mixtures.

The permittee shall maintain a record of the results of each monthly inspection of the catalytic oxidizer system and any maintenance, repair or replacement performed.

8. The permittee shall perform an annual internal inspection of the catalytic oxidizer system, including the catalyst bed. Each inspection shall consist of internal and visual

inspections in accordance with the manufacturer's recommendations and shall include a physical inspection of the unit and checks of associated equipment, including but not limited to burners, controls dampers, valves, seals, and monitoring and recording equipment. Repair and replacement of equipment shall be performed as determined by the inspection in accordance with manufacturer's recommendations. In accordance with the testing schedule in section A.V, a sample of catalyst material shall be collected from the catalyst bed to perform the catalyst activity tests required in section A.V.

The permittee shall maintain a record of the results of each annual inspection of the catalytic oxidizer system and any maintenance, repair or replacement performed, as well as the results of each catalyst activity test required in section A.V.

9. Each calendar month, the permittee shall inspect the operational condition and integrity of all hooding, ductwork, and bypass dampers comprising the capture system. Hooding and ductwork observations shall include visual inspections to verify that the damper setting is in the correct position (i.e., to oxidizer or to atmosphere) and visual inspections of the actuator and motor to verify that the actuator pin and the motor are operating properly. The permittee shall document the results of all monthly inspections, including any corrective actions taken.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports in accordance with paragraph A.1.c. of the General Terms and Conditions of this permit and shall include the following information:
 - a. An identification of each month during which the total controlled VOC emission rate for this emissions unit exceeded the allowable monthly emission limit of 815 lbs and the actual monthly VOC emission rate for each such month;
 - b. An identification of each day during which the total 365-day rolling VOC usage rates from all coatings and cleanup materials, for emissions units K007 through K015 and K017, combined, exceeded the allowable usage restrictions of 390.0 TPY VOC, and the actual 365-day rolling usage rate summation, for emissions units K007 through K015 and K017, combined, for each such day. For the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative VOC usage levels shall be reported;
 - c. An identification of all 3-hour blocks of time during which the permanent total enclosure was not maintained at the minimum pressure differential of 0.007 inch

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of water, as a 3-hour average;

- d. An identification of each day during which the RPH was greater than ± 1 RPH from the value established at the most recent performance test which demonstrated compliance;
- e. An identification of all 3-hour blocks of time during which the average temperature of the desorption air stream prior to the VOC concentrator wheel did not comply with the temperature limitation specified in section A.II.4. of these terms and conditions;
- f. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated compliance; and,
- g. An identification of all 3-hour blocks of time during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated compliance.

NOTE: Information submitted pursuant to section A.IV.1.f is not relevant for determining compliance with any operational restriction contained in section A.II. As long as the permittee performs the monitoring, record keeping, and reporting specified in sections A.III.6.c and A.IV.1.f of these terms and conditions, an average temperature difference across the catalyst bed of less than 80 percent of the average temperature difference during the most recent emissions test that demonstrated the emissions unit was in compliance shall not constitute a violation of any operational restriction or be considered a deviation.

2. The permittee shall submit annual reports to the Director (the appropriate Ohio EPA District Office or local air agency) which specify the total actual annual VOC emissions from this emissions unit and from emissions units K007 - K015 and K017, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year
3. 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.
4. The permittee shall submit quarterly reports which summarize the results of the

external monthly inspections conducted on the catalytic oxidizer system. The reports shall describe any maintenance conducted on the catalytic oxidizer system as a direct result of the inspections.

5. The permittee shall submit annual reports which summarize the results of the internal annual inspections conducted on the catalytic oxidizer system. The reports shall describe any maintenance conducted on the catalytic oxidizer system as a direct result of the inspections.

6. The permittee shall submit reports that include the results of the catalyst activity tests required in section A.V. These reports shall be submitted within 45 days after each catalyst activity test is performed.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation -
815 lbs/month VOC, including cleanup (for this emissions unit)

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirement specified in Section III.1. of this permit, and shall be the summation of the daily VOC emission rates for the calendar month.
 - b. Emission Limitation -
4.89 TPY VOC, including cleanup (for this emissions unit)

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirement specified in Section III.1. of this permit, and shall be the summation of the daily VOC emission rates for the calendar year divided by 2000.
 - c. Emission Limitation -
390.0 TPY VOC usage rate, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Sections III.1. and III.2. of this permit.
 - d. Emission Limitation -
39.0 TPY VOC emissions, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Sections III.1. and III.2. of this permit.

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- e. Emission Limitation -
90% overall removal/destruction efficiency of the fume concentrator and catalytic incinerator system, with the corresponding 95% removal efficiency for the fume concentrator wheel and 95% destruction efficiency for the catalytic incinerator

Applicable Compliance Method-

Compliance shall be based on stack testing per OAC rule 3745-21-10(C).

Compliance was demonstrated on May 17, 2000 through performance testing of emissions units K007 through K015 and K017. Compliance shall also be based on the results of emission testing conducted in accordance with the testing requirements specified in Section A.I.V.3. for emissions units K007 through K015 and K017 of the Title V permit issued final on September 26, 2001, for emissions units K007 through K015, K017, and K020.

2. U.S. EPA Method 24 shall be used to determine the VOC contents for coatings. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 cannot be used for a particulate coating or ink, the owner or operator shall notify the Administrator of the U.S. EPA and shall use formulation data for that coating to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24.
3. The permittee shall conduct , or have conducted, catalyst activity testing using the catalyst sample collected during the annual inspection described in section A.III. An intent to test notification shall not be required for the testing noted in this term. The procedures for the catalyst activity test shall be in accordance with the manufacturer's recommendations.

VI. Miscellaneous Requirements

1. In the event the results of initial performance tests show that the fume concentrator is operating at less than 95% removal efficiency or the catalytic incinerator is operating at less than 95% destruction efficiency the permittee may elect to comply with the alternative permit restriction set forth in the succeeding paragraph. The permittee shall have 30 days from the date of submission of the results for the initial performance testing to petition for compliance with the limits in this paragraph or this paragraph shall be waived.
 - a. If the required 90% overall VOC control efficiency for the fume concentrator/catalytic incinerator emission control system is achieved but the removal efficiency of the fume concentrator is less than 95%, then the permittee shall report the actual tested removal efficiency for the fume concentrator and the actual tested destruction efficiency for the catalytic incinerator. These tested efficiencies will then become the minimum efficiency requirements for the coating operations and emission control system identified in this permit.
 - b. If the required 90% overall VOC control efficiency for the fume

concentrator/catalytic incinerator emission control system is achieved but the destruction efficiency if the catalytic incinerator is less than 95% then the permittee shall report the actual tested removal efficiency for the fume concentrator and the actual tested destruction efficiency for the catalytic incinerator. These tested efficiencies will then become the minimum efficiency requirements for the coating operations and emission control system identified in this permit. 1. This facility shall implement a Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) for the adhesive coating operation (emissions units K007 through K015 and K017) and the associated emission control system.

The PM&MAP shall be in writing and shall be submitted to the Regional Air Pollution Control Agency concurrently with the Title V application (required within 30 days after commencement of operation of the adhesive coating operation).

2. Emissions unit K017 is a mixing room which mixes all the paints for the emissions units K007 through K015 and K017. To ensure compliance with the overall usage limitation developed under OAC rule 3745-31-05(DC), usages for K017 are accounted for as the material lost in the mixing process.
3. This is a modification of PTI 08-03513 issued on August 27, 2002. No change of emissions will result from this modification.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K008 - Dipline B and Oven, Misc. Metal Parts, with a Permanent Total Enclosure, Fume Concentrator, and a Catalytic Incinerator		

2. Additional Terms and Conditions

2.a 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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Emissions Unit ID: K008

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Emissions Unit ID: K009

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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

- The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K009 - COE Line #1 A and 2 Ovens, Misc. Metal Parts, with a Permanent Total Enclosure, Fume Concentrator, and a Catalytic Incinerator	OAC rule 3745-31-05(A)(3)	53.93 lbs/day and 9.84 TPY volatile organic compounds (VOC), including cleanup (for this emissions unit); The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(DC).
	OAC rule 3745-31-05(DC)	390.0 TPY VOC usage, as a rolling, 365-day summation, for emissions unit K007 - K015 and K017, combined, including cleanup; 39.0 TPY VOC emissions, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup; and,
	OAC rule 3745-21-09(B)(6)	See Sections A.2.a., A.2.b., and A.2.c. The control efficiency requirement specified by this rule is less stringent than the overall control efficiency

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requirement established

pursuant to OAC rule

3745-31-05(DC).

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2. Additional Terms and Conditions

2.a The permittee shall control the VOC emissions for emissions units K007 through K015 and K017 through the application of a permanent total enclosure with a 100 % capture efficiency and a fume concentrator and catalytic incinerator system. The fume concentrator and catalytic incinerator system shall have a minimum 90% overall VOC removal/destruction efficiency.

2.b The permittee shall maintain a minimum VOC removal efficiency of 95% for the fume concentrator wheel (See Section VI.1.).

2.c The permittee shall maintain a minimum VOC destruction efficiency of 95% for the catalytic incinerator (See Section VI.1.).

II. Operational Restrictions

1. The coating operations identified as K007 through K015 and the mixing room identified as K017 shall each be equipped with a permanent total enclosure (PTE)* which shall be installed and operated in accordance with 40 CFR Part 51, Appendix M, Method 204. The PTE shall meet the following criteria:
 - a. Any "Natural Draft Opening" (NDO) shall be at least 4 equivalent diameters from each VOC emission point;
 - b. The total area of all NDOs shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;
 - c. The average facial velocity (FV) of air through all NDOs shall be at least 3,600 m/hr (200 fpm) which corresponds to a pressure differential of 0.007 inch of water. The direction of air through all NDOs shall be into the enclosure;
 - d. All access doors and windows whose area are not included in paragraph (b) and are not included in the calculation in paragraph (c) shall be closed during routine operation; and,
 - e. All VOC emissions must be captured and contained for discharge through the VOC control device.

By satisfying the criteria above for establishing permanent total enclosure, the total VOC capture efficiency shall be assumed to be 100%.

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Emissions Unit ID: K009

* Definitions for PTE and NDO:

Permanent Total Enclosure (PTE) - a permanently installed enclosure that completely surrounds a source of emissions such that all VOC emissions are captured and contained for discharge through a control device.

Natural Draft Opening (NDO) - any permanent opening in the enclosure that remains open during operation of the facility and is not connected to a duct to which a fan is installed.

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2. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inch of water, as a 3-hour average, whenever the emissions unit is in operation.
3. Each of the ovens associated with emissions units K007 through K015 demonstrated that they meet the criteria established for a PTE in method 204. The permittee performed an additional demonstration to show that each PTE could not be compromised, under normal plant conditions, when the emissions unit was in operation (i.e., the air flow through the PTE to the control device was always maintained under negative pressure even when all additional egress points (non-natural draft opening) which could affect the PTE were opened). Therefore, the permittee will not be required to perform additional monitoring, record keeping and reporting requirements to ensure the ongoing integrity of the PTE for the ovens.
4. The number of revolutions per hour (RPH) of the fume concentrator shall be continuously maintained, when the emissions units is in operation, at a value within +/- 1 RPH of the value established during the most recent emissions test that demonstrated compliance.
5. The average temperature of the desorption air stream prior to the fume concentrator wheel, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 260 degrees Fahrenheit.
6. The average temperature of the exhaust gases immediately before the catalyst bed, 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. The average temperature difference across the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance.
7. The catalytic oxidizer shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The VOC conversion efficiency of the catalyst in the catalytic oxidizer, as determined by the catalyst activity testing, shall be at least 90% of the test temperature that is representative of the normal temperature at the catalyst bed inlet. Solvent loading during catalyst analysis shall be consistent with the test laboratory's normal testing protocol.
8. Exhaust gases from operation of the emissions unit shall be vented to the catalytic oxidizer.

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9. All ventilation fans associated with this emissions unit and the catalytic oxidizer shall be in operation at all times when this emissions unit is in operation.
10. When employing the catalytic oxidizer, all bypass dampers, actuator pins, and associated motors shall be in the correct position and in good operating condition at all times when this emissions unit is in operation to ensure that all captured VOC emissions are vented to the catalytic oxidizer. Also, all the hooding and ductwork comprising the VOC emission capture system for this emissions unit shall be free of leaks and holes that would permit the escape of the captured VOC emissions.

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711. The maximum VOC usage rate, for coating and cleanup materials (before control) for emissions units K007 through K015 and K017, combined, shall not exceed 390.0 TPY VOC as a rolling, 365-day summation.

To ensure enforceability during the first 12 calendar months of operation following the issuance of

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Issued: To be entered upon final issuance

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1 - 7	227.50
1 - 8	260.00
1 - 9	292.50
1 - 10	325.00
1 - 11	357.50
1 - 12	390.00

After
the first 12
calendar
months of
operation
following the
issuance of
this permit,

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compliance with the annual VOC usage limitations shall be based upon a rolling, 365-day summation of the VOC usage figures.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall collect and record the following information each day for this emissions unit:
 - a. The company identification of each coating and cleanup material employed;
 - b. The number of gallons of each coating employed;
 - c. The VOC content of each coating employed, in pounds per gallon;
 - d. The number of gallons of each cleanup material employed;
 - e. The VOC content of each cleanup material employed, in pounds per gallon;
 - f. The total uncontrolled VOC usage rate (VOC input rate) for all coatings and cleanup materials employed, i.e., the summation of (b x c) for all coatings and the summation of (d x e) for all cleanup materials, in pounds; and
 - g. The total calculated controlled VOC emission rate for all coatings and cleanup materials, in tons (the controlled VOC emission rate shall be calculated using the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated the emissions unit was in compliance, i.e., (f) multiplied by a factor of (1 - the overall control efficiency).
2. The permittee shall collect and record the following information each day for emissions units K007 through K015 and K017, combined:

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- a. The total uncontrolled VOC usage rate for all coatings and cleanup materials employed, in tons [this is the summation of the total uncontrolled VOC usage rate for emissions units K007 through K015 and K017, combined], see Section VI.3.; and
 - b. The total calculated controlled VOC emission rate for all coatings and cleanup materials employed, in tons [this is the summation of the total calculated controlled VOC emission rate for emissions units K007 through K015 and K017, combined].
3. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall maintain records of all 3-hour blocks of time during which the permanent total enclosure was not maintained at or above the minimum pressure differential of 0.007 inch of water, as a 3-hour average.

4. The permittee shall maintain records of the RPH daily, when the emissions unit is in operation and shall be recorded in an operations log.
5. The permittee shall install, maintain, and operate continuous temperature monitors and recorders which measure and record the temperature at the following points when the emissions unit is in operation:
 - a. The temperature of the desorption air stream prior to the VOC fume concentrator wheel;
 - b. The temperature immediately upstream of the incinerator's catalyst bed; and
 - c. The temperature immediately downstream of the incinerator's catalyst bed.

Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations.

6. The permittee shall collect and record the following information each day for this emissions unit:

- a. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the desorption air stream was less than 260 degrees Fahrenheit;
 - b. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance;
 - c. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance; and
 - d. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
7. The permittee shall perform monthly external inspections of the catalytic oxidizer system including burner assembly and fuel supply lines for problems and, if necessary, adjust to assure proper air-to-fuel mixtures.
- The permittee shall maintain a record of the results of each monthly inspection of the catalytic oxidizer system and any maintenance, repair or replacement performed.
8. The permittee shall perform an annual internal inspection of the catalytic oxidizer system, including the catalyst bed. Each inspection shall consist of internal and visual inspections in accordance with the manufacturer's recommendations and shall include a physical inspection of the unit and checks of associated equipment, including but not limited to burners, controls dampers, valves, seals, and monitoring and recording equipment. Repair and replacement of equipment shall be performed as determined by the inspection in accordance with manufacturer's recommendations. In accordance with the testing schedule in section A.V, a sample of catalyst material shall be collected from the catalyst bed to perform the catalyst activity tests required in section A.V.
- The permittee shall maintain a record of the results of each annual inspection of the catalytic oxidizer system and any maintenance, repair or replacement performed, as well as the results of each catalyst activity test required in section A.V.
9. Each calendar month, the permittee shall inspect the operational condition and integrity of all hooding, ductwork, and bypass dampers comprising the capture system. Hooding and ductwork observations shall include visual inspections to verify that the damper setting is in the correct position (i.e., to oxidizer or to atmosphere) and visual

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inspections of the actuator and motor to verify that the actuator pin and the motor are operating properly. The permittee shall document the results of all monthly inspections, including any corrective actions taken.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports in accordance with paragraph A.1.c. of the General Terms and Conditions of this permit and shall include the following information:
 - a. An identification of each day during which the total controlled VOC emission rate for this emissions unit exceeded the allowable daily emission limit of 53.93 lbs and the actual daily VOC emission rate for each such day;
 - b. An identification of each day during which the total 365-day rolling VOC usage rates from all coatings and cleanup materials, for emissions units K007 through K015 and K017, combined, exceeded the allowable usage restrictions of 390.0 TPY VOC, and the actual 365-day rolling usage rate summation, for emissions units K007 through K015 and K017, combined, for each such day. For the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative VOC usage levels shall be reported;
 - c. An identification of all 3-hour blocks of time during which the permanent total enclosure was not maintained at the minimum pressure differential of 0.007 inch of water, as a 3-hour average;
 - d. An identification of each day during which the RPH was greater than +/-1 RPH from the value established at the most recent performance test which demonstrated compliance;
 - e. An identification of all 3-hour blocks of time during which the average temperature of the desorption air stream prior to the VOC concentrator wheel did not comply with the temperature limitation specified in section A.II.4. of these terms and conditions;
 - f. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated compliance; and,

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- g. An identification of all 3-hour blocks of time during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated compliance.

NOTE: Information submitted pursuant to section A.IV.1.f is not relevant for determining compliance with any operational restriction contained in section A.II. As long as the permittee performs the monitoring, record keeping, and reporting specified in sections A.III.6.c and A.IV.1.f of these terms and conditions, an average temperature difference across the catalyst bed of less than 80 percent of the average temperature difference during the most recent emissions test that demonstrated the emissions unit was in compliance shall not constitute a violation of any operational restriction or be considered a deviation.

2. The permittee shall submit annual reports to the Director (the appropriate Ohio EPA District Office or local air agency) which specify the total actual annual VOC emissions from this emissions unit and from emissions units K007 - K015 and K017, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year
3. 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.
4. The permittee shall submit quarterly reports which summarize the results of the external monthly inspections conducted on the catalytic oxidizer system. The reports shall describe any maintenance conducted on the catalytic oxidizer system as a direct result of the inspections.
5. The permittee shall submit annual reports which summarize the results of the internal annual inspections conducted on the catalytic oxidizer system. The reports shall describe any maintenance conducted on the catalytic oxidizer system as a direct result of the inspections.

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6. The permittee shall submit reports that include the results of the catalyst activity tests required in section A.V. These reports shall be submitted within 45 days after each catalyst activity test is performed.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation -
53.93 lbs/day VOC, including cleanup (for this emissions unit)

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirement specified in Section III.1. of this permit.
 - b. Emission Limitation -
9.84 TPY VOC, including cleanup (for this emissions unit)

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirement specified in Section III.1. of this permit, and shall be the summation of the daily VOC emission rates for the calendar year divided by 2000.
 - c. Emission Limitation -
390.0 TPY VOC usage rate, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Sections III.1. and III.2. of this permit.
 - d. Emission Limitation -
39.0 TPY VOC emissions, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Sections III.1. and III.2. of this permit.
 - e. Emission Limitation -

Emissions Unit ID: K009

90% overall removal/destruction efficiency of the fume concentrator and catalytic incinerator system, with the corresponding 95% removal efficiency for the fume concentrator wheel and 95% destruction efficiency for the catalytic incinerator

Applicable Compliance Method-

Compliance shall be based on stack testing per OAC rule 3745-21-10(C). Compliance was demonstrated on May 17, 2000 through performance testing of emissions units K007 through K015 and K017. Compliance shall also be based on the results of emission testing conducted in accordance with the testing requirements specified in Section A.I.V.3. for emissions units K007 through K015 and K017 of the Title V permit issued final on September 26, 2001, for emissions units K007 through K015, K017, and K020.

2. U.S. EPA Method 24 shall be used to determine the VOC contents for coatings. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 cannot be used for a particulate coating or ink, the owner or operator shall notify the Administrator of the U.S. EPA and shall use formulation data for that coating to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24.
3. The permittee shall conduct , or have conducted, catalyst activity testing using the catalyst sample collected during the annual inspection described in section A.III. An intent to test notification shall not be required for the testing noted in this term. The procedures for the catalyst activity test shall be in accordance with the manufacturer's recommendations.

VI. Miscellaneous Requirements

1. In the event the results of initial performance tests show that the fume concentrator is operating at less than 95% removal efficiency or the catalytic incinerator is operating at less than 95% destruction efficiency the permittee may elect to comply with the alternative permit restriction set forth in the succeeding paragraph. The permittee shall have 30 days from the date of submission of the results for the initial performance testing to petition for compliance with the limits in this paragraph or this paragraph shall be waived.
 - a. If the required 90% overall VOC control efficiency for the fume concentrator/catalytic incinerator emission control system is achieved but the removal efficiency of the fume concentrator is less than 95%, then the permittee shall report the actual tested removal efficiency for the fume concentrator and the actual tested destruction efficiency for the catalytic incinerator. These tested efficiencies will then become the minimum efficiency requirements for the coating operations and emission control system identified in this permit.
 - b. If the required 90% overall VOC control efficiency for the fume concentrator/catalytic incinerator emission control system is achieved but the

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destruction efficiency if the catalytic incinerator is less than 95% then the permittee shall report the actual tested removal efficiency for the fume concentrator and the actual tested destruction efficiency for the catalytic incinerator. These tested efficiencies will then become the minimum efficiency requirements for the coating operations and emission control system identified in this permit.

1. This facility shall implement a Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) for the adhesive coating operation (emissions units K007 through K015 and K017) and the associated emission control system.

The PM&MAP shall be in writing and shall be submitted to the Regional Air Pollution Control Agency concurrently with the Title V application (required within 30 days after commencement of operation of the adhesive coating operation).

2. Emissions unit K017 is a mixing room which mixes all the paints for the emissions units K007 through K015 and K017. To ensure compliance with the overall usage limitation developed under OAC rule 3745-31-05(DC), usages for K017 are accounted for as the material lost in the mixing process.
3. This is a modification of PTI 08-03513 issued on August 27, 2002. No change of emissions will result from this modification.

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Issue

Facility ID: 0857040931

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K009 - COE Line #1 A and 2 Ovens, Misc. Metal Parts, with a Permanent Total Enclosure, Fume Concentrator, and a Catalytic Incinerator		

2. Additional Terms and Conditions

2.a 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 - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

- The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K010 - COE Line #1 B and Oven, Misc. Metal Parts, with a Permanent Total Enclosure, Fume Concentrator, and a Catalytic Incinerator	OAC rule 3745-31-05(A)(3)	29.74 lbs/day and 5.43 TPY volatile organic compounds (VOC), including cleanup (for this emissions unit); The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(DC).
	OAC rule 3745-31-05(DC)	390.0 TPY VOC usage, as a rolling, 365-day summation, for emissions unit K007 - K015 and K017, combined, including cleanup; 39.0 TPY VOC emissions, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup; and,
	OAC rule 3745-21-09(B)(6)	See Sections A.2.a., A.2.b., and A.2.c. The control efficiency requirement specified by this rule is less stringent than the overall control efficiency

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Emissions Unit ID: K010

requirement established
pursuant to OAC rule
3745-31-05(DC).

2. Additional Terms and Conditions

- 2.a The permittee shall control the VOC emissions for emissions units K007 through K015 and K017 through the application of a permanent total enclosure with a 100 % capture efficiency and a fume concentrator and catalytic incinerator system. The fume concentrator and catalytic incinerator system shall have a minimum 90% overall VOC removal/destruction efficiency.
- 2.b The permittee shall maintain a minimum VOC removal efficiency of 95% for the fume concentrator wheel (See Section VI.1.).
- 2.c The permittee shall maintain a minimum VOC destruction efficiency of 95% for the catalytic incinerator (See Section VI.1.).

II. Operational Restrictions

1. The coating operations identified as K007 through K015 and the mixing room identified as K017 shall each be equipped with a permanent total enclosure (PTE)* which shall be installed and operated in accordance with 40 CFR Part 51, Appendix M, Method 204. The PTE shall meet the following criteria:
- a. Any "Natural Draft Opening" (NDO) shall be at least 4 equivalent diameters from each VOC emission point;
 - b. The total area of all NDOs shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;
 - c. The average facial velocity (FV) of air through all NDOs shall be at least 3,600 m/hr (200 fpm) which corresponds to a pressure differential of 0.007 inch of water. The direction of air through all NDOs shall be into the enclosure;
 - d. All access doors and windows whose area are not included in paragraph (b) and are not included in the calculation in paragraph (c) shall be closed during routine operation; and,
 - e. All VOC emissions must be captured and contained for discharge through the VOC control device.

By satisfying the criteria above for establishing permanent total enclosure, the total VOC capture efficiency shall be assumed to be 100%.

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Facility ID: 0857040931

Emissions Unit ID: K010

* Definitions for PTE and NDO:

Permanent Total Enclosure (PTE) - a permanently installed enclosure that completely surrounds a source of emissions such that all VOC emissions are captured and contained for discharge through a control device.

Natural Draft Opening (NDO) - any permanent opening in the enclosure that remains open during operation of the facility and is not connected to a duct to which a fan is installed.

2. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inch of water, as a 3-hour average, whenever the emissions unit is in operation.
3. Each of the ovens associated with emissions units K007 through K015 demonstrated that they meet the criteria established for a PTE in method 204. The permittee performed an additional demonstration to show that each PTE could not be compromised, under normal plant conditions, when the emissions unit was in operation (i.e., the air flow through the PTE to the control device was always maintained under negative pressure even when all additional egress points (non-natural draft opening) which could affect the PTE were opened). Therefore, the permittee will not be required to perform additional monitoring, record keeping and reporting requirements to ensure the ongoing integrity of the PTE for the ovens.
4. The number of revolutions per hour (RPH) of the fume concentrator shall be continuously maintained, when the emissions units is in operation, at a value within +/- 1 RPH of the value established during the most recent emissions test that demonstrated compliance.
5. The average temperature of the desorption air stream prior to the fume concentrator wheel, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 260 degrees Fahrenheit.
6. The average temperature of the exhaust gases immediately before the catalyst bed, 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. The average temperature difference across the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance.
7. The catalytic oxidizer shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The VOC conversion efficiency of the catalyst in the catalytic oxidizer, as determined by the catalyst activity testing, shall be at least 90% of the test temperature that is representative of the normal temperature at the catalyst bed inlet. Solvent loading during catalyst analysis shall be consistent with the test laboratory's normal testing protocol.
8. Exhaust gases from operation of the emissions unit shall be vented to the catalytic oxidizer.

9. All ventilation fans associated with this emissions unit and the catalytic oxidizer shall be in operation at all times when this emissions unit is in operation.
10. When employing the catalytic oxidizer, all bypass dampers, actuator pins, and associated motors shall be in the correct position and in good operating condition at all times when this emissions unit is in operation to ensure that all captured VOC emissions are vented to the catalytic oxidizer. Also, all the hooding and ductwork comprising the VOC emission capture system for this emissions unit shall be free of leaks and holes that would permit the escape of the captured VOC emissions.

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Issue

Facility ID: 0857040931

Emissions Unit ID: K010

711. The maximum VOC usage rate, for coating and cleanup materials (before control) for emissions units K007 through K015 and K017, combined, shall not exceed 390.0 TPY VOC as a rolling, 365-day summation.
8. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the coating usage levels specified in the following table:

Months	Maximum Allowable Cumulative VOC Usage, including purge solvents (tons)
0 - 6	195.00
1 - 7	227.50
1 - 8	260.00
1 - 9	292.50
1 - 10	325.00
1 - 11	357.50
1 - 12	390.00

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual VOC usage limitations shall be based upon a rolling, 365-day summation of the VOC usage figures.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall collect and record the following information each day for this emissions unit:
 - a. The company identification of each coating and cleanup material employed;
 - b. The number of gallons of each coating employed;
 - c. The VOC content of each coating employed, in pounds per gallon;
 - d. The number of gallons of each cleanup material employed;
 - e. The VOC content of each cleanup material employed, in pounds per gallon;

- f. The total uncontrolled VOC usage rate (VOC input rate) for all coatings and cleanup materials employed, i.e., the summation of (b x c) for all coatings and the summation of (d x e) for all cleanup materials, in pounds; and
 - g. The total calculated controlled VOC emission rate for all coatings and cleanup materials, in tons (the controlled VOC emission rate shall be calculated using the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated the emissions unit was in compliance, i.e., (f) multiplied by a factor of (1 - the overall control efficiency).
 2. The permittee shall collect and record the following information each day for emissions units K007 through K015 and K017, combined:
 - a. The total uncontrolled VOC usage rate for all coatings and cleanup materials employed, in tons [this is the summation of the total uncontrolled VOC usage rate for emissions units K007 through K015 and K017, combined], see Section VI.3.; and
 - b. The total calculated controlled VOC emission rate for all coatings and cleanup materials employed, in tons [this is the summation of the total calculated controlled VOC emission rate for emissions units K007 through K015 and K017, combined].
 3. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall maintain records of all 3-hour blocks of time during which the permanent total enclosure was not maintained at or above the minimum pressure differential of 0.007 inch of water, as a 3-hour average.
 4. The permittee shall maintain records of the RPH daily, when the emissions unit is in operation and shall be recorded in an operations log.
 5. The permittee shall install, maintain, and operate continuous temperature monitors and recorders which measure and record the temperature at the following points when the emissions unit is in operation:
 - a. The temperature of the desorption air stream prior to the VOC fume concentrator

wheel;

- b. The temperature immediately upstream of the incinerator's catalyst bed; and
- c. The temperature immediately downstream of the incinerator's catalyst bed.

Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations.

6. The permittee shall collect and record the following information each day for this emissions unit:
- a. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the desorption air stream was less than 260 degrees Fahrenheit;
 - b. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance;
 - c. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance; and
 - d. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
7. The permittee shall perform monthly external inspections of the catalytic oxidizer system including burner assembly and fuel supply lines for problems and, if necessary, adjust to assure proper air-to-fuel mixtures.

The permittee shall maintain a record of the results of each monthly inspection of the catalytic oxidizer system and any maintenance, repair or replacement performed.

8. The permittee shall perform an annual internal inspection of the catalytic oxidizer

system, including the catalyst bed. Each inspection shall consist of internal and visual inspections in accordance with the manufacturer's recommendations and shall include a physical inspection of the unit and checks of associated equipment, including but not limited to burners, controls dampers, valves, seals, and monitoring and recording equipment. Repair and replacement of equipment shall be performed as determined by the inspection in accordance with manufacturer's recommendations. In accordance with the testing schedule in section A.V, a sample of catalyst material shall be collected from the catalyst bed to perform the catalyst activity tests required in section A.V.

The permittee shall maintain a record of the results of each annual inspection of the catalytic oxidizer system and any maintenance, repair or replacement performed, as well as the results of each catalyst activity test required in section A.V.

9. Each calendar month, the permittee shall inspect the operational condition and integrity of all hooding, ductwork, and bypass dampers comprising the capture system. Hooding and ductwork observations shall include visual inspections to verify that the damper setting is in the correct position (i.e., to oxidizer or to atmosphere) and visual inspections of the actuator and motor to verify that the actuator pin and the motor are operating properly. The permittee shall document the results of all monthly inspections, including any corrective actions taken.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports in accordance with paragraph A.1.c. of the General Terms and Conditions of this permit and shall include the following information:
 - a. An identification of each day during which the total controlled VOC emission rate for this emissions unit exceeded the allowable daily emission limit of 29.74 lbs and the actual daily VOC emission rate for each such day;
 - b. An identification of each day during which the total 365-day rolling VOC usage rates from all coatings and cleanup materials, for emissions units K007 through K015 and K017, combined, exceeded the allowable usage restrictions of 390.0 TPY VOC, and the actual 365-day rolling usage rate summation, for emissions units K007 through K015 and K017, combined, for each such day. For the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative VOC usage levels shall be reported;
 - c. An identification of all 3-hour blocks of time during which the permanent total enclosure was not maintained at the minimum pressure differential of 0.007 inch of water, as a 3-hour average;

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- d. An identification of each day during which the RPH was greater than ± 1 RPH from the value established at the most recent performance test which demonstrated compliance;
- e. An identification of all 3-hour blocks of time during which the average temperature of the desorption air stream prior to the VOC concentrator wheel did not comply with the temperature limitation specified in section A.II.4. of these terms and conditions;
- f. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated compliance; and,
- g. An identification of all 3-hour blocks of time during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated compliance.

NOTE: Information submitted pursuant to section A.IV.1.f is not relevant for determining compliance with any operational restriction contained in section A.II. As long as the permittee performs the monitoring, record keeping, and reporting specified in sections A.III.6.c and A.IV.1.f of these terms and conditions, an average temperature difference across the catalyst bed of less than 80 percent of the average temperature difference during the most recent emissions test that demonstrated the emissions unit was in compliance shall not constitute a violation of any operational restriction or be considered a deviation.

2. The permittee shall submit annual reports to the Director (the appropriate Ohio EPA District Office or local air agency) which specify the total actual annual VOC emissions from this emissions unit and from emissions units K007 - K015 and K017, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year
3. 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.
4. The permittee shall submit quarterly reports which summarize the results of the external monthly inspections conducted on the catalytic oxidizer system. The reports shall describe any maintenance conducted on the catalytic oxidizer system as a direct

result of the inspections.

5. The permittee shall submit annual reports which summarize the results of the internal annual inspections conducted on the catalytic oxidizer system. The reports shall describe any maintenance conducted on the catalytic oxidizer system as a direct result of the inspections.

6. The permittee shall submit reports that include the results of the catalyst activity tests required in section A.V. These reports shall be submitted within 45 days after each catalyst activity test is performed.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation -
29.74 lbs/day VOC, including cleanup (for this emissions unit)

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirement specified in Section III.1. of this permit.
 - b. Emission Limitation -
5.43 TPY VOC, including cleanup (for this emissions unit)

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirement specified in Section III.1. of this permit, and shall be the summation of the daily VOC emission rates for the calendar year divided by 2000.
 - c. Emission Limitation -
390.0 TPY VOC usage rate, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Sections III.1. and III.2. of this permit.
 - d. Emission Limitation -
39.0 TPY VOC emissions, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Sections III.1. and III.2. of this permit.
 - e. Emission Limitation -

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90% overall removal/destruction efficiency of the fume concentrator and catalytic incinerator system, with the corresponding 95% removal efficiency for the fume concentrator wheel and 95% destruction efficiency for the catalytic incinerator

Applicable Compliance Method-

Compliance shall be based on stack testing per OAC rule 3745-21-10(C). Compliance was demonstrated on May 17, 2000 through performance testing of emissions units K007 through K015 and K017. Compliance shall also be based on the results of emission testing conducted in accordance with the testing requirements specified in Section A.I.V.3. for emissions units K007 through K015 and K017 of the Title V permit issued final on September 26, 2001, for emissions units K007 through K015, K017, and K020.

2. U.S. EPA Method 24 shall be used to determine the VOC contents for coatings. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 cannot be used for a particulate coating or ink, the owner or operator shall notify the Administrator of the U.S. EPA and shall use formulation data for that coating to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24.
3. The permittee shall conduct , or have conducted, catalyst activity testing using the catalyst sample collected during the annual inspection described in section A.III. An intent to test notification shall not be required for the testing noted in this term. The procedures for the catalyst activity test shall be in accordance with the manufacturer's recommendations.

VI. Miscellaneous Requirements

1. In the event the results of initial performance tests show that the fume concentrator is operating at less than 95% removal efficiency or the catalytic incinerator is operating at less than 95% destruction efficiency the permittee may elect to comply with the alternative permit restriction set forth in the succeeding paragraph. The permittee shall have 30 days from the date of submission of the results for the initial performance testing to petition for compliance with the limits in this paragraph or this paragraph shall be waived.
 - a. If the required 90% overall VOC control efficiency for the fume concentrator/catalytic incinerator emission control system is achieved but the removal efficiency of the fumeconcentrator is less than 95%, then the permittee shall report the actual tested removal efficiency for the fume concentrator and the actual tested destruction efficiency for the catalytic incinerator. These tested efficiencies will then become the minimum efficiency requirements for the coating operations and emission control system identified in this permit.

- b. If the required 90% overall VOC control efficiency for the fume concentrator/catalytic incinerator emission control system is achieved but the destruction efficiency if the catalytic incinerator is less than 95% then the permittee shall report the actual tested removal efficiency for the fume concentrator and the actual tested destruction efficiency for the catalytic incinerator. These tested efficiencies will then become the minimum efficiency requirements for the coating operations and emission control system identified in this permit. 1. This facility shall implement a Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) for the adhesive coating operation (emissions units K007 through K015 and K017) and the associated emission control system.

The PM&MAP shall be in writing and shall be submitted to the Regional Air Pollution Control Agency concurrently with the Title V application (required within 30 days after commencement of operation of the adhesive coating operation).

2. Emissions unit K017 is a mixing room which mixes all the paints for the emissions units K007 through K015 and K017. To ensure compliance with the overall usage limitation developed under OAC rule 3745-31-05(DC), usages for K017 are accounted for as the material lost in the mixing process.
3. This is a modification of PTI 08-03513 issued on August 27, 2002. No change of emissions will result from this modification.

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K010 - COE Line #1 B and Oven, Misc. Metal Parts, with a Permanent Total Enclosure, Fume Concentrator, and a Catalytic Incinerator		

2. Additional Terms and Conditions

2.a 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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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K011 - COE Line #2 B and 2 Ovens, Misc. Metal Parts, with a Permanent Total Enclosure, Fume Concentrator, and a Catalytic Incinerator	OAC rule 3745-31-05(A)(3)	53.93 lbs/day and 9.84 TPY volatile organic compounds (VOC), including cleanup (for this emissions unit); The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(DC).
	OAC rule 3745-31-05(DC)	390.0 TPY VOC usage, as a rolling, 365-day summation, for emissions unit K007 - K015 and K017, combined, including cleanup; 39.0 TPY VOC emissions, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup; and,
	OAC rule 3745-21-09(B)(6)	See Sections A.2.a., A.2.b., and A.2.c. The control efficiency requirement specified by this rule is less stringent than the overall control efficiency

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requirement established
pursuant to OAC rule
3745-31-05(DC).

2. Additional Terms and Conditions

- 2.a The permittee shall control the VOC emissions for emissions units K007 through K015 and K017 through the application of a permanent total enclosure with a 100 % capture efficiency and a fume concentrator and catalytic incinerator system. The fume concentrator and catalytic incinerator system shall have a minimum 90% overall VOC removal/destruction efficiency.
- 2.b The permittee shall maintain a minimum VOC removal efficiency of 95% for the fume concentrator wheel (See Section VI.1.).
- 2.c The permittee shall maintain a minimum VOC destruction efficiency of 95% for the catalytic incinerator (See Section VI.1.).

II. Operational Restrictions

- 1. The coating operations identified as K007 through K015 and the mixing room identified as K017 shall each be equipped with a permanent total enclosure (PTE)* which shall be installed and operated in accordance with 40 CFR Part 51, Appendix M, Method 204. The PTE shall meet the following criteria:
 - a. Any "Natural Draft Opening" (NDO) shall be at least 4 equivalent diameters from each VOC emission point;
 - b. The total area of all NDOs shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;
 - c. The average facial velocity (FV) of air through all NDOs shall be at least 3,600 m/hr (200 fpm) which corresponds to a pressure differential of 0.007 inch of water. The direction of air through all NDOs shall be into the enclosure;
 - d. All access doors and windows whose area are not included in paragraph (b) and are not included in the calculation in paragraph (c) shall be closed during routine operation; and,
 - e. All VOC emissions must be captured and contained for discharge through the VOC control device.

By satisfying the criteria above for establishing permanent total enclosure, the total VOC capture efficiency shall be assumed to be 100%.

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* Definitions for PTE and NDO:

Permanent Total Enclosure (PTE) - a permanently installed enclosure that completely surrounds a source of emissions such that all VOC emissions are captured and contained for discharge through a control device.

Natural Draft Opening (NDO) - any permanent opening in the enclosure that remains open during operation of the facility and is not connected to a duct to which a fan is installed.

2. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inch of water, as a 3-hour average, whenever the emissions unit is in operation.
3. Each of the ovens associated with emissions units K007 through K015 demonstrated that they meet the criteria established for a PTE in method 204. The permittee performed an additional demonstration to show that each PTE could not be compromised, under normal plant conditions, when the emissions unit was in operation (i.e., the air flow through the PTE to the control device was always maintained under negative pressure even when all additional egress points (non-natural draft opening) which could affect the PTE were opened). Therefore, the permittee will not be required to perform additional monitoring, record keeping and reporting requirements to ensure the ongoing integrity of the PTE for the ovens.
4. The number of revolutions per hour (RPH) of the fume concentrator shall be continuously maintained, when the emissions units is in operation, at a value within +/- 1 RPH of the value established during the most recent emissions test that demonstrated compliance.
5. The average temperature of the desorption air stream prior to the fume concentrator wheel, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 260 degrees Fahrenheit.
6. The average temperature of the exhaust gases immediately before the catalyst bed, 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. The average temperature difference across the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance.
7. The catalytic oxidizer shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The VOC conversion efficiency of the catalyst in the catalytic oxidizer, as determined by the catalyst activity testing, shall be at least 90% of the test temperature that is representative of the normal temperature at the catalyst bed inlet. Solvent loading during catalyst analysis shall be consistent with the test laboratory's normal testing protocol.
8. Exhaust gases from operation of the emissions unit shall be vented to the catalytic oxidizer.

9. All ventilation fans associated with this emissions unit and the catalytic oxidizer shall be in operation at all times when this emissions unit is in operation.
10. When employing the catalytic oxidizer, all bypass dampers, actuator pins, and associated motors shall be in the correct position and in good operating condition at all times when this emissions unit is in operation to ensure that all captured VOC emissions are vented to the catalytic oxidizer. Also, all the hooding and ductwork comprising the VOC emission capture system for this emissions unit shall be free of leaks and holes that would permit the escape of the captured VOC emissions.

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711. The maximum VOC usage rate, for coating and cleanup materials (before control) for emissions units K007 through K015 and K017, combined, shall not exceed 390.0 TPY VOC as a rolling, 365-day summation.
8. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the coating usage levels specified in the following table:

Months	Maximum Allowable Cumulative VOC Usage, including purge solvents (tons)
0 - 6	195.00
1 - 7	227.50
1 - 8	260.00
1 - 9	292.50
1 - 10	325.00
1 - 11	357.50
1 - 12	390.00

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual VOC usage limitations shall be based upon a rolling, 365-day summation of the VOC usage figures.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall collect and record the following information each day for this emissions unit:
 - a. The company identification of each coating and cleanup material employed;
 - b. The number of gallons of each coating employed;
 - c. The VOC content of each coating employed, in pounds per gallon;
 - d. The number of gallons of each cleanup material employed;
 - e. The VOC content of each cleanup material employed, in pounds per gallon;
 - f. The total uncontrolled VOC usage rate (VOC input rate) for all coatings and cleanup materials employed, i.e., the summation of (b x c) for all coatings and the summation of (d x e) for all cleanup materials, in pounds; and
 - g. The total calculated controlled VOC emission rate for all coatings and cleanup materials, in tons (the controlled VOC emission rate shall be calculated using the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated the emissions unit was in compliance, i.e., (f) multiplied by a factor of (1 - the overall control efficiency).

2. The permittee shall collect and record the following information each day for emissions units K007 through K015 and K017, combined:
 - a. The total uncontrolled VOC usage rate for all coatings and cleanup materials employed, in tons [this is the summation of the total uncontrolled VOC usage rate for emissions units K007 through K015 and K017, combined], see Section VI.3.; and
 - b. The total calculated controlled VOC emission rate for all coatings and cleanup materials employed, in tons [this is the summation of the total calculated controlled VOC emission rate for emissions units K007 through K015 and K017, combined].
3. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall maintain records of all 3-hour blocks of time during which the permanent total enclosure was not maintained at or above the minimum pressure differential of 0.007 inch of water, as a 3-hour average.
4. The permittee shall maintain records of the RPH daily, when the emissions unit is in operation and shall be recorded in an operations log.
5. The permittee shall install, maintain, and operate continuous temperature monitors and recorders which measure and record the temperature at the following points when the emissions unit is in operation:
 - a. The temperature of the desorption air stream prior to the VOC fume concentrator wheel;
 - b. The temperature immediately upstream of the incinerator's catalyst bed; and
 - c. The temperature immediately downstream of the incinerator's catalyst bed.

Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorders shall be installed, calibrated, operated and maintained in accordance with

the manufacturer's recommendations.

6. The permittee shall collect and record the following information each day for this emissions unit:
- a. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the desorption air stream was less than 260 degrees Fahrenheit;
 - b. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance;
 - c. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance; and
 - d. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
7. The permittee shall perform monthly external inspections of the catalytic oxidizer system including burner assembly and fuel supply lines for problems and, if necessary, adjust to assure proper air-to-fuel mixtures.

The permittee shall maintain a record of the results of each monthly inspection of the catalytic oxidizer system and any maintenance, repair or replacement performed.

8. The permittee shall perform an annual internal inspection of the catalytic oxidizer system, including the catalyst bed. Each inspection shall consist of internal and visual inspections in accordance with the manufacturer's recommendations and shall include a physical inspection of the unit and checks of associated equipment, including but not limited to burners, controls dampers, valves, seals, and monitoring and recording equipment. Repair and replacement of equipment shall be performed as determined by the inspection in accordance with manufacturer's recommendations. In accordance with the testing schedule in section A.V, a sample of catalyst material shall be collected from the catalyst bed to perform the catalyst activity tests required in section A.V.

The permittee shall maintain a record of the results of each annual inspection of the catalytic oxidizer system and any maintenance, repair or replacement performed, as well as the results of each catalyst activity test required in section A.V.

9. Each calendar month, the permittee shall inspect the operational condition and integrity of all hooding, ductwork, and bypass dampers comprising the capture system. Hooding and ductwork observations shall include visual inspections to verify that the damper setting is in the correct position (i.e., to oxidizer or to atmosphere) and visual inspections of the actuator and motor to verify that the actuator pin and the motor are operating properly. The permittee shall document the results of all monthly inspections, including any corrective actions taken.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports in accordance with paragraph A.1.c. of the General Terms and Conditions of this permit and shall include the following information:
 - a. An identification of each day during which the total controlled VOC emission rate for this emissions unit exceeded the allowable daily emission limit of 53.93 lbs and the actual daily VOC emission rate for each such day;
 - b. An identification of each day during which the total 365-day rolling VOC usage rates from all coatings and cleanup materials, for emissions units K007 through K015 and K017, combined, exceeded the allowable usage restrictions of 390.0 TPY VOC, and the actual 365-day rolling usage rate summation, for emissions units K007 through K015 and K017, combined, for each such day. For the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative VOC usage levels shall be reported;
 - c. An identification of all 3-hour blocks of time during which the permanent total enclosure was not maintained at the minimum pressure differential of 0.007 inch of water, as a 3-hour average;
 - d. An identification of each day during which the RPH was greater than +/-1 RPH from the value established at the most recent performance test which demonstrated compliance;
 - e. An identification of all 3-hour blocks of time during which the average temperature of the desorption air stream prior to the VOC concentrator wheel did not comply with the temperature limitation specified in section A.II.4. of these terms and conditions;

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- f. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated compliance; and,
- g. An identification of all 3-hour blocks of time during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated compliance.

NOTE: Information submitted pursuant to section A.IV.1.f is not relevant for determining compliance with any operational restriction contained in section A.II. As long as the permittee performs the monitoring, record keeping, and reporting specified in sections A.III.6.c and A.IV.1.f of these terms and conditions, an average temperature difference across the catalyst bed of less than 80 percent of the average temperature difference during the most recent emissions test that demonstrated the emissions unit was in compliance shall not constitute a violation of any operational restriction or be considered a deviation.

2. The permittee shall submit annual reports to the Director (the appropriate Ohio EPA District Office or local air agency) which specify the total actual annual VOC emissions from this emissions unit and from emissions units K007 - K015 and K017, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year
3. 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.
4. The permittee shall submit quarterly reports which summarize the results of the external monthly inspections conducted on the catalytic oxidizer system. The reports shall describe any maintenance conducted on the catalytic oxidizer system as a direct result of the inspections.
5. The permittee shall submit annual reports which summarize the results of the internal annual inspections conducted on the catalytic oxidizer system. The reports shall describe any maintenance conducted on the catalytic oxidizer system as a direct result of the inspections.

6. The permittee shall submit reports that include the results of the catalyst activity tests required in section A.V. These reports shall be submitted within 45 days after each catalyst activity test is performed.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation -
53.93 lbs/day VOC, including cleanup (for this emissions unit)

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirement specified in Section III.1. of this permit.
 - b. Emission Limitation -
9.84 TPY VOC, including cleanup (for this emissions unit)

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirement specified in Section III.1. of this permit, and shall be the summation of the daily VOC emission rates for the calendar year divided by 2000.
 - c. Emission Limitation -
390.0 TPY VOC usage rate, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Sections III.1. and III.2. of this permit.
 - d. Emission Limitation -
39.0 TPY VOC emissions, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Sections III.1. and III.2. of this permit.

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- e. Emission Limitation -
90% overall removal/destruction efficiency of the fume concentrator and catalytic incinerator system, with the corresponding 95% removal efficiency for the fume concentrator wheel and 95% destruction efficiency for the catalytic incinerator

Applicable Compliance Method-
Compliance shall be based on stack testing per OAC rule 3745-21-10(C). Compliance was demonstrated on May 17, 2000 through performance testing of emissions units K007 through K015 and K017. Compliance shall also be based on the results of emission testing conducted in accordance with the testing requirements specified in Section A.I.V.3. for emissions units K007 through K015 and K017 of the Title V permit issued final on September 26, 2001, for emissions units K007 through K015, K017, and K020.
2. U.S. EPA Method 24 shall be used to determine the VOC contents for coatings. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 cannot be used for a particulate coating or ink, the owner or operator shall notify the Administrator of the U.S. EPA and shall use formulation data for that coating to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24.
3. The permittee shall conduct , or have conducted, catalyst activity testing using the catalyst sample collected during the annual inspection described in section A.III. An intent to test notification shall not be required for the testing noted in this term. The procedures for the catalyst activity test shall be in accordance with the manufacturer's recommendations.

VI. Miscellaneous Requirements

1. In the event the results of initial performance tests show that the fume concentrator is operating at less than 95% removal efficiency or the catalytic incinerator is operating at less than 95% destruction efficiency the permittee may elect to comply with the alternative permit restriction set forth in the succeeding paragraph. The permittee shall have 30 days from the date of submission of the results for the initial performance testing to petition for compliance with the limits in this paragraph or this paragraph shall be waived.
 - a. If the required 90% overall VOC control efficiency for the fume concentrator/catalytic incinerator emission control system is achieved but the removal efficiency of the fume concentrator is less than 95%, then the permittee shall report the actual tested removal efficiency for the fume concentrator and the actual tested destruction efficiency for the catalytic incinerator. These tested efficiencies will then become the minimum efficiency requirements for the coating operations and emission control system identified in this permit.

- b. If the required 90% overall VOC control efficiency for the fume concentrator/catalytic incinerator emission control system is achieved but the destruction efficiency if the catalytic incinerator is less than 95% then the permittee shall report the actual tested removal efficiency for the fume concentrator and the actual tested destruction efficiency for the catalytic incinerator. These tested efficiencies will then become the minimum efficiency requirements for the coating operations and emission control system identified in this permit. 1. This facility shall implement a Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) for the adhesive coating operation (emissions units K007 through K015 and K017) and the associated emission control system.

The PM&MAP shall be in writing and shall be submitted to the Regional Air Pollution Control Agency concurrently with the Title V application (required within 30 days after commencement of operation of the adhesive coating operation).

2. Emissions unit K017 is a mixing room which mixes all the paints for the emissions units K007 through K015 and K017. To ensure compliance with the overall usage limitation developed under OAC rule 3745-31-05(DC), usages for K017 are accounted for as the material lost in the mixing process.
3. This is a modification of PTI 08-03513 issued on August 27, 2002. No change of emissions will result from this modification.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K011 - COE Line #2 B and 2 Ovens, Misc. Metal Parts, with a Permanent Total Enclosure, Fume Concentrator, and a Catalytic Incinerator		

2. Additional Terms and Conditions

- 2.a 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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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K012 - COE Line #3 A/#3 B and Oven, Misc. Metal Parts, with a Permanent Total Enclosure, Fume Concentrator, and a Catalytic Incinerator	OAC rule 3745-31-05(A)(3)	59.48 lbs/day and 10.86 TPY volatile organic compounds (VOC), including cleanup (for this emissions unit); The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(DC).
	OAC rule 3745-31-05(DC)	390.0 TPY VOC usage, as a rolling, 365-day summation, for emissions unit K007 - K015 and K017, combined, including cleanup; 39.0 TPY VOC emissions, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup; and,
	OAC rule 3745-21-09(B)(6)	See Sections A.2.a., A.2.b., and A.2.c. The control efficiency requirement specified by this rule is less stringent than the overall control efficiency

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requirement established
pursuant to OAC rule
3745-31-05(DC).

2. Additional Terms and Conditions

- 2.a The permittee shall control the VOC emissions for emissions units K007 through K015 and K017 through the application of a permanent total enclosure with a 100 % capture efficiency and a fume concentrator and catalytic incinerator system. The fume concentrator and catalytic incinerator system shall have a minimum 90% overall VOC removal/destruction efficiency.
- 2.b The permittee shall maintain a minimum VOC removal efficiency of 95% for the fume concentrator wheel (See Section VI.1.).
- 2.c The permittee shall maintain a minimum VOC destruction efficiency of 95% for the catalytic incinerator (See Section VI.1.).

II. Operational Restrictions

- 1. The coating operations identified as K007 through K015 and the mixing room identified as K017 shall each be equipped with a permanent total enclosure (PTE)* which shall be installed and operated in accordance with 40 CFR Part 51, Appendix M, Method 204. The PTE shall meet the following criteria:
 - a. Any "Natural Draft Opening" (NDO) shall be at least 4 equivalent diameters from each VOC emission point;
 - b. The total area of all NDOs shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;
 - c. The average facial velocity (FV) of air through all NDOs shall be at least 3,600 m/hr (200 fpm) which corresponds to a pressure differential of 0.007 inch of water. The direction of air through all NDOs shall be into the enclosure;
 - d. All access doors and windows whose area are not included in paragraph (b) and are not included in the calculation in paragraph (c) shall be closed during routine operation; and,
 - e. All VOC emissions must be captured and contained for discharge through the VOC control device.

By satisfying the criteria above for establishing permanent total enclosure, the total VOC capture efficiency shall be assumed to be 100%.

* Definitions for PTE and NDO:

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Permanent Total Enclosure (PTE) - a permanently installed enclosure that completely surrounds a source of emissions such that all VOC emissions are captured and contained for discharge through a control device.

Natural Draft Opening (NDO) - any permanent opening in the enclosure that remains open during operation of the facility and is not connected to a duct to which a fan is installed.

2. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inch of water, as a 3-hour average, whenever the emissions unit is in operation.
3. Each of the ovens associated with emissions units K007 through K015 demonstrated that they meet the criteria established for a PTE in method 204. The permittee performed an additional demonstration to show that each PTE could not be compromised, under normal plant conditions, when the emissions unit was in operation (i.e., the air flow through the PTE to the control device was always maintained under negative pressure even when all additional egress points (non-natural draft opening) which could affect the PTE were opened). Therefore, the permittee will not be required to perform additional monitoring, record keeping and reporting requirements to ensure the ongoing integrity of the PTE for the ovens.
4. The number of revolutions per hour (RPH) of the fume concentrator shall be continuously maintained, when the emissions units is in operation, at a value within +/- 1 RPH of the value established during the most recent emissions test that demonstrated compliance.
5. The average temperature of the desorption air stream prior to the fume concentrator wheel, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 260 degrees Fahrenheit.
6. The average temperature of the exhaust gases immediately before the catalyst bed, 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. The average temperature difference across the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance.
7. The catalytic oxidizer shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The VOC conversion efficiency of the catalyst in the catalytic oxidizer, as determined by the catalyst activity testing, shall be at least 90% of the test temperature that is representative of the normal temperature at the catalyst bed inlet. Solvent loading during catalyst analysis shall be consistent with the test laboratory's normal testing protocol.
8. Exhaust gases from operation of the emissions unit shall be vented to the catalytic oxidizer.

9. All ventilation fans associated with this emissions unit and the catalytic oxidizer shall be in operation at all times when this emissions unit is in operation.
10. When employing the catalytic oxidizer, all bypass dampers, actuator pins, and associated motors shall be in the correct position and in good operating condition at all times when this emissions unit is in operation to ensure that all captured VOC emissions are vented to the catalytic oxidizer. Also, all the hooding and ductwork comprising the VOC emission capture system for this emissions unit shall be free of leaks and holes that would permit the escape of the captured VOC emissions.

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- 711. The maximum VOC usage rate, for coating and cleanup materials (before control) for emissions units K007 through K015 and K017, combined, shall not exceed 390.0 TPY VOC as a rolling, 365-day summation.
- 8. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the coating usage levels specified in the following table:

Months	Maximum Allowable Cumulative VOC Usage, including purge solvents (tons)
0 - 6	195.00
1 - 7	227.50
1 - 8	260.00
1 - 9	292.50
1 - 10	325.00
1 - 11	357.50
1 - 12	390.00

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual VOC usage limitations shall be based upon a rolling, 365-day summation of the VOC usage figures.

III. Monitoring and/or Record keeping Requirements

- 1. The permittee shall collect and record the following information each day for this emissions unit:
 - a. The company identification of each coating and cleanup material employed;

- b. The number of gallons of each coating employed;
 - c. The VOC content of each coating employed, in pounds per gallon;
 - d. The number of gallons of each cleanup material employed;
 - e. The VOC content of each cleanup material employed, in pounds per gallon;
 - f. The total uncontrolled VOC usage rate (VOC input rate) for all coatings and cleanup materials employed, i.e., the summation of (b x c) for all coatings and the summation of (d x e) for all cleanup materials, in pounds; and
 - g. The total calculated controlled VOC emission rate for all coatings and cleanup materials, in tons (the controlled VOC emission rate shall be calculated using the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated the emissions unit was in compliance, i.e., (f) multiplied by a factor of (1 - the overall control efficiency)).
2. The permittee shall collect and record the following information each day for emissions units K007 through K015 and K017, combined:
 - a. The total uncontrolled VOC usage rate for all coatings and cleanup materials employed, in tons [this is the summation of the total uncontrolled VOC usage rate for emissions units K007 through K015 and K017, combined], see Section VI.3.; and
 - b. The total calculated controlled VOC emission rate for all coatings and cleanup materials employed, in tons [this is the summation of the total calculated controlled VOC emission rate for emissions units K007 through K015 and K017, combined].
 3. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall maintain records of all 3-hour blocks of time during which the permanent total enclosure was not maintained at or above the minimum pressure differential of 0.007 inch of water, as a 3-hour average.

4. The permittee shall maintain records of the RPH daily, when the emissions unit is in operation and shall be recorded in an operations log.
5. The permittee shall install, maintain, and operate continuous temperature monitors and recorders which measure and record the temperature at the following points when the emissions unit is in operation:
 - a. The temperature of the desorption air stream prior to the VOC fume concentrator wheel;
 - b. The temperature immediately upstream of the incinerator's catalyst bed; and
 - c. The temperature immediately downstream of the incinerator's catalyst bed.

Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations.

6. The permittee shall collect and record the following information each day for this emissions unit:
 - a. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the desorption air stream was less than 260 degrees Fahrenheit;
 - b. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance;
 - c. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance; and
 - d. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

7. The permittee shall perform monthly external inspections of the catalytic oxidizer system including burner assembly and fuel supply lines for problems and, if necessary, adjust to assure proper air-to-fuel mixtures.

The permittee shall maintain a record of the results of each monthly inspection of the catalytic oxidizer system and any maintenance, repair or replacement performed.

8. The permittee shall perform an annual internal inspection of the catalytic oxidizer system, including the catalyst bed. Each inspection shall consist of internal and visual inspections in accordance with the manufacturer's recommendations and shall include a physical inspection of the unit and checks of associated equipment, including but not limited to burners, controls dampers, valves, seals, and monitoring and recording equipment. Repair and replacement of equipment shall be performed as determined by the inspection in accordance with manufacturer's recommendations. In accordance with the testing schedule in section A.V, a sample of catalyst material shall be collected from the catalyst bed to perform the catalyst activity tests required in section A.V.

The permittee shall maintain a record of the results of each annual inspection of the catalytic oxidizer system and any maintenance, repair or replacement performed, as well as the results of each catalyst activity test required in section A.V.

9. Each calendar month, the permittee shall inspect the operational condition and integrity of all hooding, ductwork, and bypass dampers comprising the capture system. Hooding and ductwork observations shall include visual inspections to verify that the damper setting is in the correct position (i.e., to oxidizer or to atmosphere) and visual inspections of the actuator and motor to verify that the actuator pin and the motor are operating properly. The permittee shall document the results of all monthly inspections, including any corrective actions taken.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports in accordance with paragraph A.1.c. of the General Terms and Conditions of this permit and shall include the following information:
 - a. An identification of each day during which the total controlled VOC emission rate for this emissions unit exceeded the allowable daily emission limit of 59.48 lbs and the actual daily VOC emission rate for each such day;
 - b. An identification of each day during which the total 365-day rolling VOC usage rates from all coatings and cleanup materials, for emissions units K007 through K015 and K017, combined, exceeded the allowable usage restrictions of 390.0 TPY VOC, and the actual 365-day rolling usage rate summation, for emissions units K007 through K015 and K017, combined, for each such day. For the first

12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative VOC usage levels shall be reported;

- c. An identification of all 3-hour blocks of time during which the permanent total enclosure was not maintained at the minimum pressure differential of 0.007 inch of water, as a 3-hour average;
- d. An identification of each day during which the RPH was greater than ± 1 RPH from the value established at the most recent performance test which demonstrated compliance;
- e. An identification of all 3-hour blocks of time during which the average temperature of the desorption air stream prior to the VOC concentrator wheel did not comply with the temperature limitation specified in section A.II.4. of these terms and conditions;
- f. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated compliance; and,
- g. An identification of all 3-hour blocks of time during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated compliance.

NOTE: Information submitted pursuant to section A.IV.1.f is not relevant for determining compliance with any operational restriction contained in section A.II. As long as the permittee performs the monitoring, record keeping, and reporting specified in sections A.III.6.c and A.IV.1.f of these terms and conditions, an average temperature difference across the catalyst bed of less than 80 percent of the average temperature difference during the most recent emissions test that demonstrated the emissions unit was in compliance shall not constitute a violation of any operational restriction or be considered a deviation.

- 2. The permittee shall submit annual reports to the Director (the appropriate Ohio EPA District Office or local air agency) which specify the total actual annual VOC emissions

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from this emissions unit and from emissions units K007 - K015 and K017, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year

3. 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.
4. The permittee shall submit quarterly reports which summarize the results of the external monthly inspections conducted on the catalytic oxidizer system. The reports shall describe any maintenance conducted on the catalytic oxidizer system as a direct result of the inspections.
5. The permittee shall submit annual reports which summarize the results of the internal annual inspections conducted on the catalytic oxidizer system. The reports shall describe any maintenance conducted on the catalytic oxidizer system as a direct result of the inspections.

6. The permittee shall submit reports that include the results of the catalyst activity tests required in section A.V. These reports shall be submitted within 45 days after each catalyst activity test is performed.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation -
59.48 lbs/day VOC, including cleanup (for this emissions unit)

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirement specified in Section III.1. of this permit.
 - b. Emission Limitation -
10.86 TPY VOC, including cleanup (for this emissions unit)

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirement specified in Section III.1. of this permit, and shall be the summation of the daily VOC emission rates for the calendar year divided by 2000.
 - c. Emission Limitation -
390.0 TPY VOC usage rate, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Sections III.1. and III.2. of this permit.
 - d. Emission Limitation -
39.0 TPY VOC emissions, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Sections III.1. and III.2. of this permit.
 - e. Emission Limitation -

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90% overall removal/destruction efficiency of the fume concentrator and catalytic incinerator system, with the corresponding 95% removal efficiency for the fume concentrator wheel and 95% destruction efficiency for the catalytic incinerator

Applicable Compliance Method-

Compliance shall be based on stack testing per OAC rule 3745-21-10(C). Compliance was demonstrated on May 17, 2000 through performance testing of emissions units K007 through K015 and K017. Compliance shall also be based on the results of emission testing conducted in accordance with the testing requirements specified in Section A.I.V.3. for emissions units K007 through K015 and K017 of the Title V permit issued final on September 26, 2001, for emissions units K007 through K015, K017, and K020.

2. U.S. EPA Method 24 shall be used to determine the VOC contents for coatings. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 cannot be used for a particulate coating or ink, the owner or operator shall notify the Administrator of the U.S. EPA and shall use formulation data for that coating to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24.
3. The permittee shall conduct , or have conducted, catalyst activity testing using the catalyst sample collected during the annual inspection described in section A.III. An intent to test notification shall not be required for the testing noted in this term. The procedures for the catalyst activity test shall be in accordance with the manufacturer's recommendations.

VI. Miscellaneous Requirements

1. In the event the results of initial performance tests show that the fume concentrator is operating at less than 95% removal efficiency or the catalytic incinerator is operating at less than 95% destruction efficiency the permittee may elect to comply with the alternative permit restriction set forth in the succeeding paragraph. The permittee shall have 30 days from the date of submission of the results for the initial performance testing to petition for compliance with the limits in this paragraph or this paragraph shall be waived.
 - a. If the required 90% overall VOC control efficiency for the fume concentrator/catalytic incinerator emission control system is achieved but the removal efficiency of the fume concentrator is less than 95%, then the permittee shall report the actual tested removal efficiency for the fume concentrator and the actual tested destruction efficiency for the catalytic incinerator. These tested efficiencies will then become the minimum efficiency requirements for the coating operations and emission control system identified in this permit.

- b. If the required 90% overall VOC control efficiency for the fume concentrator/catalytic incinerator emission control system is achieved but the destruction efficiency if the catalytic incinerator is less than 95% then the permittee shall report the actual tested removal efficiency for the fume concentrator and the actual tested destruction efficiency for the catalytic incinerator. These tested efficiencies will then become the minimum efficiency requirements for the coating operations and emission control system identified in this permit.
1. This facility shall implement a Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) for the adhesive coating operation (emissions units K007 through K015 and K017) and the associated emission control system.

The PM&MAP shall be in writing and shall be submitted to the Regional Air Pollution Control Agency concurrently with the Title V application (required within 30 days after commencement of operation of the adhesive coating operation).

2. Emissions unit K017 is a mixing room which mixes all the paints for the emissions units K007 through K015 and K017. To ensure compliance with the overall usage limitation developed under OAC rule 3745-31-05(DC), usages for K017 are accounted for as the material lost in the mixing process.
3. This is a modification of PTI 08-03513 issued on August 27, 2002. No change of emissions will result from this modification.

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K012 - COE Line #3 A/#3 B and Oven, Misc. Metal Parts, with a Permanent Total Enclosure, Fume Concentrator, and a Catalytic Incinerator		

2. Additional Terms and Conditions

2.a 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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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K013 - COE Line #4 and Oven, Misc. Metal Parts, with a Permanent Total Enclosure, Fume Concentrator, and a Catalytic Incinerator	OAC rule 3745-31-05(A)(3)	33.20 lbs/day and 6.06 TPY volatile organic compounds (VOC), including cleanup (for this emissions unit); The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(DC).
	OAC rule 3745-31-05(DC)	390.0 TPY VOC usage, as a rolling, 365-day summation, for emissions unit K007 - K015 and K017, combined, including cleanup;
	OAC rule 3745-21-09(B)(6)	39.0 TPY VOC emissions, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup; and, See Sections A.2.a., A.2.b., and A.2.c. The control efficiency requirement specified by this rule is less stringent than the overall control efficiency

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requirement established

pursuant to OAC rule

3745-31-05(DC).

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Issued: To be entered upon final issuance**2. Additional Terms and Conditions**

- 2.a The permittee shall control the VOC emissions for emissions units K007 through K015 and K017 through the application of a permanent total enclosure with a 100 % capture efficiency and a fume concentrator and catalytic incinerator system. The fume concentrator and catalytic incinerator system shall have a minimum 90% overall VOC removal/destruction efficiency.
- 2.b The permittee shall maintain a minimum VOC removal efficiency of 95% for the fume concentrator wheel (See Section VI.1.).
- 2.c The permittee shall maintain a minimum VOC destruction efficiency of 95% for the catalytic incinerator (See Section VI.1.).

II. Operational Restrictions

- 1. The coating operations identified as K007 through K015 and the mixing room identified as K017 shall each be equipped with a permanent total enclosure (PTE)* which shall be installed and operated in accordance with 40 CFR Part 51, Appendix M, Method 204. The PTE shall meet the following criteria:
 - a. Any "Natural Draft Opening" (NDO) shall be at least 4 equivalent diameters from each VOC emission point;
 - b. The total area of all NDOs shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;
 - c. The average facial velocity (FV) of air through all NDOs shall be at least 3,600 m/hr (200 fpm) which corresponds to a pressure differential of 0.007 inch of water. The direction of air through all NDOs shall be into the enclosure;
 - d. All access doors and windows whose area are not included in paragraph (b) and are not included in the calculation in paragraph (c) shall be closed during routine operation; and,
 - e. All VOC emissions must be captured and contained for discharge through the VOC control device.

By satisfying the criteria above for establishing permanent total enclosure, the total VOC capture efficiency shall be assumed to be 100%.

* Definitions for PTE and NDO:

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Permanent Total Enclosure (PTE) - a permanently installed enclosure that completely surrounds a source of emissions such that all VOC emissions are captured and contained for discharge through a control device.

Natural Draft Opening (NDO) - any permanent opening in the enclosure that remains open during operation of the facility and is not connected to a duct to which a fan is installed.

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2. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inch of water, as a 3-hour average, whenever the emissions unit is in operation.
3. Each of the ovens associated with emissions units K007 through K015 demonstrated that they meet the criteria established for a PTE in method 204. The permittee performed an additional demonstration to show that each PTE could not be compromised, under normal plant conditions, when the emissions unit was in operation (i.e., the air flow through the PTE to the control device was always maintained under negative pressure even when all additional egress points (non-natural draft opening) which could affect the PTE were opened). Therefore, the permittee will not be required to perform additional monitoring, record keeping and reporting requirements to ensure the ongoing integrity of the PTE for the ovens.
4. The number of revolutions per hour (RPH) of the fume concentrator shall be continuously maintained, when the emissions units is in operation, at a value within +/- 1 RPH of the value established during the most recent emissions test that demonstrated compliance.
5. The average temperature of the desorption air stream prior to the fume concentrator wheel, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 260 degrees Fahrenheit.
6. The average temperature of the exhaust gases immediately before the catalyst bed, 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. The average temperature difference across the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance.
7. The catalytic oxidizer shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The VOC conversion efficiency of the catalyst in the catalytic oxidizer, as determined by the catalyst activity testing, shall be at least 90% of the test temperature that is representative of the normal temperature at the catalyst bed inlet. Solvent loading during catalyst analysis shall be consistent with the test laboratory's normal testing protocol.
8. Exhaust gases from operation of the emissions unit shall be vented to the catalytic oxidizer.

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9. All ventilation fans associated with this emissions unit and the catalytic oxidizer shall be in operation at all times when this emissions unit is in operation.
10. When employing the catalytic oxidizer, all bypass dampers, actuator pins, and associated motors shall be in the correct position and in good operating condition at all times when this emissions unit is in operation to ensure that all captured VOC emissions are vented to the catalytic oxidizer. Also, all the hooding and ductwork comprising the VOC emission capture system for this emissions unit shall be free of leaks and holes that would permit the escape of the captured VOC emissions.

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711. The maximum VOC usage rate, for coating and cleanup materials (before control) for emissions units K007 through K015 and K017, combined, shall not exceed 390.0 TPY VOC as a rolling, 365-day summation.
8. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the coating usage levels specified in the following table:

Months	Maximum Allowable Cumulative VOC Usage, including purge solvents (tons)
0 - 6	195.00
1 - 7	227.50
1 - 8	260.00
1 - 9	292.50
1 - 10	325.00
1 - 11	357.50
1 - 12	390.00

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual VOC usage limitations shall be based upon a rolling, 365-day summation of the VOC usage figures.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall collect and record the following information each day for this emissions unit:
 - a. The company identification of each coating and cleanup material employed;
 - b. The number of gallons of each coating employed;
 - c. The VOC content of each coating employed, in pounds per gallon;
 - d. The number of gallons of each cleanup material employed;
 - e. The VOC content of each cleanup material employed, in pounds per gallon;
 - f. The total uncontrolled VOC usage rate (VOC input rate) for all coatings and cleanup materials employed, i.e., the summation of (b x c) for all coatings and the summation of (d x e) for all cleanup materials, in pounds; and
 - g. The total calculated controlled VOC emission rate for all coatings and cleanup materials, in tons (the controlled VOC emission rate shall be calculated using the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated the emissions unit was in compliance, i.e., (f) multiplied by a factor of (1 - the overall control efficiency).

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2. The permittee shall collect and record the following information each day for emissions units K007 through K015 and K017, combined:
 - a. The total uncontrolled VOC usage rate for all coatings and cleanup materials employed, in tons [this is the summation of the total uncontrolled VOC usage rate for emissions units K007 through K015 and K017, combined], see Section VI.3.; and
 - b. The total calculated controlled VOC emission rate for all coatings and cleanup materials employed, in tons [this is the summation of the total calculated controlled VOC emission rate for emissions units K007 through K015 and K017, combined].
3. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall maintain records of all 3-hour blocks of time during which the permanent total enclosure was not maintained at or above the minimum pressure differential of 0.007 inch of water, as a 3-hour average.
4. The permittee shall maintain records of the RPH daily, when the emissions unit is in operation and shall be recorded in an operations log.
5. The permittee shall install, maintain, and operate continuous temperature monitors and recorders which measure and record the temperature at the following points when the emissions unit is in operation:
 - a. The temperature of the desorption air stream prior to the VOC fume concentrator wheel;
 - b. The temperature immediately upstream of the incinerator's catalyst bed; and
 - c. The temperature immediately downstream of the incinerator's catalyst bed.

Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations.

6. The permittee shall collect and record the following information each day for this emissions unit:
- a. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the desorption air stream was less than 260 degrees Fahrenheit;
 - b. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance;
 - c. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance; and
 - d. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
7. The permittee shall perform monthly external inspections of the catalytic oxidizer system including burner assembly and fuel supply lines for problems and, if necessary, adjust to assure proper air-to-fuel mixtures.
- The permittee shall maintain a record of the results of each monthly inspection of the catalytic oxidizer system and any maintenance, repair or replacement performed.
8. The permittee shall perform an annual internal inspection of the catalytic oxidizer system, including the catalyst bed. Each inspection shall consist of internal and visual inspections in accordance with the manufacturer's recommendations and shall include a physical inspection of the unit and checks of associated equipment, including but not limited to burners, controls dampers, valves, seals, and monitoring and recording equipment. Repair and replacement of equipment shall be performed as determined by the inspection in accordance with manufacturer's recommendations. In accordance with the testing schedule in section A.V, a sample of catalyst material shall be collected from the catalyst bed to perform the catalyst activity tests required in section A.V.
- The permittee shall maintain a record of the results of each annual inspection of the catalytic oxidizer system and any maintenance, repair or replacement performed, as well as the results of each catalyst activity test required in section A.V.
9. Each calendar month, the permittee shall inspect the operational condition and integrity

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of all hooding, ductwork, and bypass dampers comprising the capture system. Hooding and ductwork observations shall include visual inspections to verify that the damper setting is in the correct position (i.e., to oxidizer or to atmosphere) and visual inspections of the actuator and motor to verify that the actuator pin and the motor are operating properly. The permittee shall document the results of all monthly inspections, including any corrective actions taken.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports in accordance with paragraph A.1.c. of the General Terms and Conditions of this permit and shall include the following information:
 - a. An identification of each day during which the total controlled VOC emission rate for this emissions unit exceeded the allowable daily emission limit of 33.20 lbs and the actual daily VOC emission rate for each such day;
 - b. An identification of each day during which the total 365-day rolling VOC usage rates from all coatings and cleanup materials, for emissions units K007 through K015 and K017, combined, exceeded the allowable usage restrictions of 390.0 TPY VOC, and the actual 365-day rolling usage rate summation, for emissions units K007 through K015 and K017, combined, for each such day. For the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative VOC usage levels shall be reported;
 - c. An identification of all 3-hour blocks of time during which the permanent total enclosure was not maintained at the minimum pressure differential of 0.007 inch of water, as a 3-hour average;
 - d. An identification of each day during which the RPH was greater than +/-1 RPH from the value established at the most recent performance test which demonstrated compliance;
 - e. An identification of all 3-hour blocks of time during which the average temperature of the desorption air stream prior to the VOC concentrator wheel did not comply with the temperature limitation specified in section A.II.4. of these terms and conditions;
 - f. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated compliance; and,
 - g. An identification of all 3-hour blocks of time during which the average

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temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated compliance.

NOTE: Information submitted pursuant to section A.IV.1.f is not relevant for determining compliance with any operational restriction contained in section A.II. As long as the permittee performs the monitoring, record keeping, and reporting specified in sections A.III.6.c and A.IV.1.f of these terms and conditions, an average temperature difference across the catalyst bed of less than 80 percent of the average temperature difference during the most recent emissions test that demonstrated the emissions unit was in compliance shall not constitute a violation of any operational restriction or be considered a deviation.

2. The permittee shall submit annual reports to the Director (the appropriate Ohio EPA District Office or local air agency) which specify the total actual annual VOC emissions from this emissions unit and from emissions units K007 - K015 and K017, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year
3. 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.
4. The permittee shall submit quarterly reports which summarize the results of the external monthly inspections conducted on the catalytic oxidizer system. The reports shall describe any maintenance conducted on the catalytic oxidizer system as a direct result of the inspections.
5. The permittee shall submit annual reports which summarize the results of the internal annual inspections conducted on the catalytic oxidizer system. The reports shall describe any maintenance conducted on the catalytic oxidizer system as a direct result of the inspections.

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6. The permittee shall submit reports that include the results of the catalyst activity tests required in section A.V. These reports shall be submitted within 45 days after each catalyst activity test is performed.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation -
33.20 lbs/day VOC, including cleanup (for this emissions unit)

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirement specified in Section III.1. of this permit.
 - b. Emission Limitation -
6.06 TPY VOC, including cleanup (for this emissions unit)

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirement specified in Section III.1. of this permit, and shall be the summation of the daily VOC emission rates for the calendar year divided by 2000.
 - c. Emission Limitation -
390.0 TPY VOC usage rate, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Sections III.1. and III.2. of this permit.
 - d. Emission Limitation -
39.0 TPY VOC emissions, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Sections III.1. and III.2. of this permit.
 - e. Emission Limitation -

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90% overall removal/destruction efficiency of the fume concentrator and catalytic incinerator system, with the corresponding 95% removal efficiency for the fume concentrator wheel and 95% destruction efficiency for the catalytic incinerator

Applicable Compliance Method-

Compliance shall be based on stack testing per OAC rule 3745-21-10(C). Compliance was demonstrated on May 17, 2000 through performance testing of emissions units K007 through K015 and K017. Compliance shall also be based on the results of emission testing conducted in accordance with the testing requirements specified in Section A.I.V.3. for emissions units K007 through K015 and K017 of the Title V permit issued final on September 26, 2001, for emissions units K007 through K015, K017, and K020.

2. U.S. EPA Method 24 shall be used to determine the VOC contents for coatings. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 cannot be used for a particulate coating or ink, the owner or operator shall notify the Administrator of the U.S. EPA and shall use formulation data for that coating to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24.
3. The permittee shall conduct , or have conducted, catalyst activity testing using the catalyst sample collected during the annual inspection described in section A.III. An intent to test notification shall not be required for the testing noted in this term. The procedures for the catalyst activity test shall be in accordance with the manufacturer's recommendations.

VI. Miscellaneous Requirements

1. In the event the results of initial performance tests show that the fume concentrator is operating at less than 95% removal efficiency or the catalytic incinerator is operating at less than 95% destruction efficiency the permittee may elect to comply with the alternative permit restriction set forth in the succeeding paragraph. The permittee shall have 30 days from the date of submission of the results for the initial performance testing to petition for compliance with the limits in this paragraph or this paragraph shall be waived.
 - a. If the required 90% overall VOC control efficiency for the fume concentrator/catalytic incinerator emission control system is achieved but the removal efficiency of the fume concentrator is less than 95%, then the permittee shall report the actual tested removal efficiency for the fume concentrator and the actual tested destruction efficiency for the catalytic incinerator. These tested efficiencies will then become the minimum efficiency requirements for the coating operations and emission control system identified in this permit.
 - b. If the required 90% overall VOC control efficiency for the fume concentrator/catalytic incinerator emission control system is achieved but the

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destruction efficiency if the catalytic incinerator is less than 95% then the permittee shall report the actual tested removal efficiency for the fume concentrator and the actual tested destruction efficiency for the catalytic incinerator. These tested efficiencies will then become the minimum efficiency requirements for the coating operations and emission control system identified in this permit.

1. This facility shall implement a Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) for the adhesive coating operation (emissions units K007 through K015 and K017) and the associated emission control system.

The PM&MAP shall be in writing and shall be submitted to the Regional Air Pollution Control Agency concurrently with the Title V application (required within 30 days after commencement of operation of the adhesive coating operation).

2. Emissions unit K017 is a mixing room which mixes all the paints for the emissions units K007 through K015 and K017. To ensure compliance with the overall usage limitation developed under OAC rule 3745-31-05(DC), usages for K017 are accounted for as the material lost in the mixing process.
3. This is a modification of PTI 08-03513 issued on August 27, 2002. No change of emissions will result from this modification.

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K013 - COE Line #4 and Oven, Misc. Metal Parts, with a Permanent Total Enclosure, Fume Concentrator, and a Catalytic Incinerator		

2. Additional Terms and Conditions

- 2.a 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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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K014 - COE Line #5 and Oven, Misc. Metal Parts, with a Permanent Total Enclosure, Fume Concentrator, and a Catalytic Incinerator	OAC rule 3745-31-05(A)(3)	33.20 lbs/day and 6.06 TPY volatile organic compounds (VOC), including cleanup (for this emissions unit); The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(DC).
	OAC rule 3745-31-05(DC)	390.0 TPY VOC usage, as a rolling, 365-day summation, for emissions unit K007 - K015 and K017, combined, including cleanup; 39.0 TPY VOC emissions, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup; and,
	OAC rule 3745-21-09(B)(6)	See Sections A.2.a., A.2.b., and A.2.c. The control efficiency requirement specified by this rule is less stringent than the overall control efficiency

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requirement established

pursuant to OAC rule

3745-31-05(DC).

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- 2.a The permittee shall control the VOC emissions for emissions units K007 through K015 and K017 through the application of a permanent total enclosure with a 100 % capture efficiency and a fume concentrator and catalytic incinerator system. The fume concentrator and catalytic incinerator system shall have a minimum 90% overall VOC removal/destruction efficiency.
- 2.b The permittee shall maintain a minimum VOC removal efficiency of 95% for the fume concentrator wheel (See Section VI.1.).
- 2.c The permittee shall maintain a minimum VOC destruction efficiency of 95% for the catalytic incinerator (See Section VI.1.).

II. Operational Restrictions

- 1. The coating operations identified as K007 through K015 and the mixing room identified as K017 shall each be equipped with a permanent total enclosure (PTE)* which shall be installed and operated in accordance with 40 CFR Part 51, Appendix M, Method 204. The PTE shall meet the following criteria:
 - a. Any "Natural Draft Opening" (NDO) shall be at least 4 equivalent diameters from each VOC emission point;
 - b. The total area of all NDOs shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;
 - c. The average facial velocity (FV) of air through all NDOs shall be at least 3,600 m/hr (200 fpm) which corresponds to a pressure differential of 0.007 inch of water. The direction of air through all NDOs shall be into the enclosure;
 - d. All access doors and windows whose area are not included in paragraph (b) and are not included in the calculation in paragraph (c) shall be closed during routine operation; and,
 - e. All VOC emissions must be captured and contained for discharge through the VOC control device.

By satisfying the criteria above for establishing permanent total enclosure, the total VOC capture efficiency shall be assumed to be 100%.

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* Definitions for PTE and NDO:

Permanent Total Enclosure (PTE) - a permanently installed enclosure that completely surrounds a source of emissions such that all VOC emissions are captured and contained for discharge through a control device.

Natural Draft Opening (NDO) - any permanent opening in the enclosure that remains open during operation of the facility and is not connected to a duct to which a fan is installed.

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2. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inch of water, as a 3-hour average, whenever the emissions unit is in operation.
3. Each of the ovens associated with emissions units K007 through K015 demonstrated that they meet the criteria established for a PTE in method 204. The permittee performed an additional demonstration to show that each PTE could not be compromised, under normal plant conditions, when the emissions unit was in operation (i.e., the air flow through the PTE to the control device was always maintained under negative pressure even when all additional egress points (non-natural draft opening) which could affect the PTE were opened). Therefore, the permittee will not be required to perform additional monitoring, record keeping and reporting requirements to ensure the ongoing integrity of the PTE for the ovens.
4. The number of revolutions per hour (RPH) of the fume concentrator shall be continuously maintained, when the emissions units is in operation, at a value within +/- 1 RPH of the value established during the most recent emissions test that demonstrated compliance.
5. The average temperature of the desorption air stream prior to the fume concentrator wheel, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 260 degrees Fahrenheit.
6. The average temperature of the exhaust gases immediately before the catalyst bed, 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. The average temperature difference across the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance.
7. The catalytic oxidizer shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The VOC conversion efficiency of the catalyst in the catalytic oxidizer, as determined by the catalyst activity testing, shall be at least 90% of the test temperature that is representative of the normal temperature at the catalyst bed inlet. Solvent loading during catalyst analysis shall be consistent with the test laboratory's normal testing protocol.
8. Exhaust gases from operation of the emissions unit shall be vented to the catalytic oxidizer.

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9. All ventilation fans associated with this emissions unit and the catalytic oxidizer shall be in operation at all times when this emissions unit is in operation.
10. When employing the catalytic oxidizer, all bypass dampers, actuator pins, and associated motors shall be in the correct position and in good operating condition at all times when this emissions unit is in operation to ensure that all captured VOC emissions are vented to the catalytic oxidizer. Also, all the hooding and ductwork comprising the VOC emission capture system for this emissions unit shall be free of leaks and holes that would permit the escape of the captured VOC emissions.

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711. The maximum VOC usage rate, for coating and cleanup materials (before control) for emissions units K007 through K015 and K017, combined, shall not exceed 390.0 TPY VOC as a rolling, 365-day summation.
8. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the coating usage levels specified in the following table:

Months	Maximum Allowable Cumulative VOC Usage, including purge solvents (tons)
0 - 6	195.00
1 - 7	227.50
1 - 8	260.00
1 - 9	292.50
1 - 10	325.00
1 - 11	357.50
1 - 12	390.00

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual VOC usage limitations shall be based upon a rolling, 365-day summation of the VOC usage figures.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall collect and record the following information each day for this emissions unit:
 - a. The company identification of each coating and cleanup material employed;
 - b. The number of gallons of each coating employed;
 - c. The VOC content of each coating employed, in pounds per gallon;
 - d. The number of gallons of each cleanup material employed;
 - e. The VOC content of each cleanup material employed, in pounds per gallon;
 - f. The total uncontrolled VOC usage rate (VOC input rate) for all coatings and cleanup materials employed, i.e., the summation of (b x c) for all coatings and the summation of (d x e) for all cleanup materials, in pounds; and
 - g. The total calculated controlled VOC emission rate for all coatings and cleanup materials, in tons (the controlled VOC emission rate shall be calculated using the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated the emissions unit was in compliance, i.e., (f) multiplied by a factor of (1 - the overall control efficiency).

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2. The permittee shall collect and record the following information each day for emissions units K007 through K015 and K017, combined:
 - a. The total uncontrolled VOC usage rate for all coatings and cleanup materials employed, in tons [this is the summation of the total uncontrolled VOC usage rate for emissions units K007 through K015 and K017, combined], see Section VI.3.; and
 - b. The total calculated controlled VOC emission rate for all coatings and cleanup materials employed, in tons [this is the summation of the total calculated controlled VOC emission rate for emissions units K007 through K015 and K017, combined].
3. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall maintain records of all 3-hour blocks of time during which the permanent total enclosure was not maintained at or above the minimum pressure differential of 0.007 inch of water, as a 3-hour average.
4. The permittee shall maintain records of the RPH daily, when the emissions unit is in operation and shall be recorded in an operations log.
5. The permittee shall install, maintain, and operate continuous temperature monitors and recorders which measure and record the temperature at the following points when the emissions unit is in operation:
 - a. The temperature of the desorption air stream prior to the VOC fume concentrator wheel;
 - b. The temperature immediately upstream of the incinerator's catalyst bed; and
 - c. The temperature immediately downstream of the incinerator's catalyst bed.

Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations.

6. The permittee shall collect and record the following information each day for this emissions unit:
 - a. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the desorption air stream was less than 260 degrees Fahrenheit;
 - b. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance;
 - c. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance; and
 - d. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
7. The permittee shall perform monthly external inspections of the catalytic oxidizer system including burner assembly and fuel supply lines for problems and, if necessary, adjust to assure proper air-to-fuel mixtures.

The permittee shall maintain a record of the results of each monthly inspection of the catalytic oxidizer system and any maintenance, repair or replacement performed.
8. The permittee shall perform an annual internal inspection of the catalytic oxidizer system, including the catalyst bed. Each inspection shall consist of internal and visual inspections in accordance with the manufacturer's recommendations and shall include a physical inspection of the unit and checks of associated equipment, including but not limited to burners, controls dampers, valves, seals, and monitoring and recording equipment. Repair and replacement of equipment shall be performed as determined by the inspection in accordance with manufacturer's recommendations. In accordance with the testing schedule in section A.V, a sample of catalyst material shall be collected from the catalyst bed to perform the catalyst activity tests required in section A.V.

The permittee shall maintain a record of the results of each annual inspection of the catalytic oxidizer system and any maintenance, repair or replacement performed, as well as the results of each catalyst activity test required in section A.V.
9. Each calendar month, the permittee shall inspect the operational condition and integrity

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of all hooding, ductwork, and bypass dampers comprising the capture system. Hooding and ductwork observations shall include visual inspections to verify that the damper setting is in the correct position (i.e., to oxidizer or to atmosphere) and visual inspections of the actuator and motor to verify that the actuator pin and the motor are operating properly. The permittee shall document the results of all monthly inspections, including any corrective actions taken.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports in accordance with paragraph A.1.c. of the General Terms and Conditions of this permit and shall include the following information:
 - a. An identification of each day during which the total controlled VOC emission rate for this emissions unit exceeded the allowable daily emission limit of 33.20 lbs and the actual daily VOC emission rate for each such day;
 - b. An identification of each day during which the total 365-day rolling VOC usage rates from all coatings and cleanup materials, for emissions units K007 through K015 and K017, combined, exceeded the allowable usage restrictions of 390.0 TPY VOC, and the actual 365-day rolling usage rate summation, for emissions units K007 through K015 and K017, combined, for each such day. For the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative VOC usage levels shall be reported;
 - c. An identification of all 3-hour blocks of time during which the permanent total enclosure was not maintained at the minimum pressure differential of 0.007 inch of water, as a 3-hour average;
 - d. An identification of each day during which the RPH was greater than +/-1 RPH from the value established at the most recent performance test which demonstrated compliance;
 - e. An identification of all 3-hour blocks of time during which the average temperature of the desorption air stream prior to the VOC concentrator wheel did not comply with the temperature limitation specified in section A.II.4. of these terms and conditions;
 - f. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated compliance; and,
 - g. An identification of all 3-hour blocks of time during which the average

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temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated compliance.

NOTE: Information submitted pursuant to section A.IV.1.f is not relevant for determining compliance with any operational restriction contained in section A.II. As long as the permittee performs the monitoring, record keeping, and reporting specified in sections A.III.6.c and A.IV.1.f of these terms and conditions, an average temperature difference across the catalyst bed of less than 80 percent of the average temperature difference during the most recent emissions test that demonstrated the emissions unit was in compliance shall not constitute a violation of any operational restriction or be considered a deviation.

2. The permittee shall submit annual reports to the Director (the appropriate Ohio EPA District Office or local air agency) which specify the total actual annual VOC emissions from this emissions unit and from emissions units K007 - K015 and K017, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year
3. 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.
4. The permittee shall submit quarterly reports which summarize the results of the external monthly inspections conducted on the catalytic oxidizer system. The reports shall describe any maintenance conducted on the catalytic oxidizer system as a direct result of the inspections.
5. The permittee shall submit annual reports which summarize the results of the internal annual inspections conducted on the catalytic oxidizer system. The reports shall describe any maintenance conducted on the catalytic oxidizer system as a direct result of the inspections.

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6. The permittee shall submit reports that include the results of the catalyst activity tests required in section A.V. These reports shall be submitted within 45 days after each catalyst activity test is performed.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation -
33.20 lbs/day VOC, including cleanup (for this emissions unit)

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirement specified in Section III.1. of this permit.
 - b. Emission Limitation -
6.06 TPY VOC, including cleanup (for this emissions unit)

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirement specified in Section III.1. of this permit, and shall be the summation of the daily VOC emission rates for the calendar year divided by 2000.
 - c. Emission Limitation -
390.0 TPY VOC usage rate, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Sections III.1. and III.2. of this permit.
 - d. Emission Limitation -
39.0 TPY VOC emissions, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Sections III.1. and III.2. of this permit.
 - e. Emission Limitation -

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90% overall removal/destruction efficiency of the fume concentrator and catalytic incinerator system, with the corresponding 95% removal efficiency for the fume concentrator wheel and 95% destruction efficiency for the catalytic incinerator

Applicable Compliance Method-

Compliance shall be based on stack testing per OAC rule 3745-21-10(C). Compliance was demonstrated on May 17, 2000 through performance testing of emissions units K007 through K015 and K017. Compliance shall also be based on the results of emission testing conducted in accordance with the testing requirements specified in Section A.I.V.3. for emissions units K007 through K015 and K017 of the Title V permit issued final on September 26, 2001, for emissions units K007 through K015, K017, and K020.

2. U.S. EPA Method 24 shall be used to determine the VOC contents for coatings. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 cannot be used for a particulate coating or ink, the owner or operator shall notify the Administrator of the U.S. EPA and shall use formulation data for that coating to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24.
3. The permittee shall conduct , or have conducted, catalyst activity testing using the catalyst sample collected during the annual inspection described in section A.III. An intent to test notification shall not be required for the testing noted in this term. The procedures for the catalyst activity test shall be in accordance with the manufacturer's recommendations.

VI. Miscellaneous Requirements

1. In the event the results of initial performance tests show that the fume concentrator is operating at less than 95% removal efficiency or the catalytic incinerator is operating at less than 95% destruction efficiency the permittee may elect to comply with the alternative permit restriction set forth in the succeeding paragraph. The permittee shall have 30 days from the date of submission of the results for the initial performance testing to petition for compliance with the limits in this paragraph or this paragraph shall be waived.
 - a. If the required 90% overall VOC control efficiency for the fume concentrator/catalytic incinerator emission control system is achieved but the removal efficiency of the fume concentrator is less than 95%, then the permittee shall report the actual tested removal efficiency for the fume concentrator and the actual tested destruction efficiency for the catalytic incinerator. These tested efficiencies will then become the minimum efficiency requirements for the coating operations and emission control system identified in this permit.
 - b. If the required 90% overall VOC control efficiency for the fume concentrator/catalytic incinerator emission control system is achieved but the

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destruction efficiency if the catalytic incinerator is less than 95% then the permittee shall report the actual tested removal efficiency for the fume concentrator and the actual tested destruction efficiency for the catalytic incinerator. These tested efficiencies will then become the minimum efficiency requirements for the coating operations and emission control system identified in this permit.

1. This facility shall implement a Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) for the adhesive coating operation (emissions units K007 through K015 and K017) and the associated emission control system.

The PM&MAP shall be in writing and shall be submitted to the Regional Air Pollution Control Agency concurrently with the Title V application (required within 30 days after commencement of operation of the adhesive coating operation).

2. Emissions unit K017 is a mixing room which mixes all the paints for the emissions units K007 through K015 and K017. To ensure compliance with the overall usage limitation developed under OAC rule 3745-31-05(DC), usages for K017 are accounted for as the material lost in the mixing process.
3. This is a modification of PTI 08-03513 issued on August 27, 2002. No change of emissions will result from this modification.

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K014 - COE Line #5 and Oven, Misc. Metal Parts, with a Permanent Total Enclosure, Fume Concentrator, and a Catalytic Incinerator		

2. Additional Terms and Conditions

- 2.a 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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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K015 - Manual Dip Tank and Oven, with a Permanent Total Enclosure, Fume Concentrator, and a Catalytic Incinerator	OAC rule 3745-31-05(A)(3)	2238 lbs/mth and 13.43 TPY volatile organic compounds (VOC), including cleanup (for this emissions unit); The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(DC).
	OAC rule 3745-31-05(DC)	390.0 TPY VOC usage, as a rolling, 365-day summation, for emissions unit K007 - K015 and K017, combined, including cleanup; 39.0 TPY VOC emissions, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup; and,
	OAC rule 3745-21-09(B)(6)	See Sections A.2.a., A.2.b., and A.2.c. The control efficiency requirement specified by this rule is less stringent than the overall control efficiency

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requirement established

pursuant to OAC rule

3745-31-05(DC).

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Issued: To be entered upon final issuance**2. Additional Terms and Conditions**

- 2.a The permittee shall control the VOC emissions for emissions units K007 through K015 and K017 through the application of a permanent total enclosure with a 100 % capture efficiency and a fume concentrator and catalytic incinerator system. The fume concentrator and catalytic incinerator system shall have a minimum 90% overall VOC removal/destruction efficiency.
- 2.b The permittee shall maintain a minimum VOC removal efficiency of 95% for the fume concentrator wheel (See Section VI.1.).
- 2.c The permittee shall maintain a minimum VOC destruction efficiency of 95% for the catalytic incinerator (See Section VI.1.).

II. Operational Restrictions

- 1. The coating operations identified as K007 through K015 and the mixing room identified as K017 shall each be equipped with a permanent total enclosure (PTE)* which shall be installed and operated in accordance with 40 CFR Part 51, Appendix M, Method 204. The PTE shall meet the following criteria:
 - a. Any "Natural Draft Opening" (NDO) shall be at least 4 equivalent diameters from each VOC emission point;
 - b. The total area of all NDOs shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;
 - c. The average facial velocity (FV) of air through all NDOs shall be at least 3,600 m/hr (200 fpm) which corresponds to a pressure differential of 0.007 inch of water. The direction of air through all NDOs shall be into the enclosure;
 - d. All access doors and windows whose area are not included in paragraph (b) and are not included in the calculation in paragraph (c) shall be closed during routine operation; and,
 - e. All VOC emissions must be captured and contained for discharge through the VOC control device.

By satisfying the criteria above for establishing permanent total enclosure, the total VOC capture efficiency shall be assumed to be 100%.

* Definitions for PTE and NDO:

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Permanent Total Enclosure (PTE) - a permanently installed enclosure that completely surrounds a source of emissions such that all VOC emissions are captured and contained for discharge through a control device.

Natural Draft Opening (NDO) - any permanent opening in the enclosure that remains open during operation of the facility and is not connected to a duct to which a fan is installed.

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2. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inch of water, as a 3-hour average, whenever the emissions unit is in operation.
3. Each of the ovens associated with emissions units K007 through K015 demonstrated that they meet the criteria established for a PTE in method 204. The permittee performed an additional demonstration to show that each PTE could not be compromised, under normal plant conditions, when the emissions unit was in operation (i.e., the air flow through the PTE to the control device was always maintained under negative pressure even when all additional egress points (non-natural draft opening) which could affect the PTE were opened). Therefore, the permittee will not be required to perform additional monitoring, record keeping and reporting requirements to ensure the ongoing integrity of the PTE for the ovens.
4. The number of revolutions per hour (RPH) of the fume concentrator shall be continuously maintained, when the emissions units is in operation, at a value within +/- 1 RPH of the value established during the most recent emissions test that demonstrated compliance.
5. The average temperature of the desorption air stream prior to the fume concentrator wheel, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 260 degrees Fahrenheit.
6. The average temperature of the exhaust gases immediately before the catalyst bed, 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. The average temperature difference across the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance.
7. The catalytic oxidizer shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The VOC conversion efficiency of the catalyst in the catalytic oxidizer, as determined by the catalyst activity testing, shall be at least 90% of the test temperature that is representative of the normal temperature at the catalyst bed inlet. Solvent loading during catalyst analysis shall be consistent with the test laboratory's normal testing protocol.
8. Exhaust gases from operation of the emissions unit shall be vented to the catalytic oxidizer.

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9. All ventilation fans associated with this emissions unit and the catalytic oxidizer shall be in operation at all times when this emissions unit is in operation.
10. When employing the catalytic oxidizer, all bypass dampers, actuator pins, and associated motors shall be in the correct position and in good operating condition at all times when this emissions unit is in operation to ensure that all captured VOC emissions are vented to the catalytic oxidizer. Also, all the hooding and ductwork comprising the VOC emission capture system for this emissions unit shall be free of leaks and holes that would permit the escape of the captured VOC emissions.

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711. The maximum VOC usage rate, for coating and cleanup materials (before control) for emissions units K007 through K015 and K017, combined, shall not exceed 390.0 TPY VOC as a rolling, 365-day summation.
8. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the coating usage levels specified in the following table:

Months	Maximum Allowable Cumulative VOC Usage, including purge solvents (tons)
0 - 6	195.00
1 - 7	227.50
1 - 8	260.00
1 - 9	292.50
1 - 10	325.00
1 - 11	357.50
1 - 12	390.00

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual VOC usage limitations shall be based upon a rolling, 365-day summation of the VOC usage figures.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall collect and record the following information each day for this emissions unit:
 - a. The company identification of each coating and cleanup material employed;
 - b. The number of gallons of each coating employed;
 - c. The VOC content of each coating employed, in pounds per gallon;
 - d. The number of gallons of each cleanup material employed;
 - e. The VOC content of each cleanup material employed, in pounds per gallon;
 - f. The total uncontrolled VOC usage rate (VOC input rate) for all coatings and cleanup materials employed, i.e., the summation of (b x c) for all coatings and the summation of (d x e) for all cleanup materials, in pounds; and
 - g. The total calculated controlled VOC emission rate for all coatings and cleanup materials, in tons (the controlled VOC emission rate shall be calculated using the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated the emissions unit was in

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compliance, i.e., (f) multiplied by a factor of (1 - the overall control efficiency).

2. The permittee shall collect and record the following information each day for emissions units K007 through K015 and K017, combined:
 - a. The total uncontrolled VOC usage rate for all coatings and cleanup materials employed, in tons [this is the summation of the total uncontrolled VOC usage rate for emissions units K007 through K015 and K017, combined], see Section VI.3.; and
 - b. The total calculated controlled VOC emission rate for all coatings and cleanup materials employed, in tons [this is the summation of the total calculated controlled VOC emission rate for emissions units K007 through K015 and K017, combined].
3. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall maintain records of all 3-hour blocks of time during which the permanent total enclosure was not maintained at or above the minimum pressure differential of 0.007 inch of water, as a 3-hour average.
4. The permittee shall maintain records of the RPH daily, when the emissions unit is in operation and shall be recorded in an operations log.
5. The permittee shall install, maintain, and operate continuous temperature monitors and recorders which measure and record the temperature at the following points when the emissions unit is in operation:
 - a. The temperature of the desorption air stream prior to the VOC fume concentrator wheel;
 - b. The temperature immediately upstream of the incinerator's catalyst bed; and
 - c. The temperature immediately downstream of the incinerator's catalyst bed.

Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and

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recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations.

6. The permittee shall collect and record the following information each day for this emissions unit:
 - a. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the desorption air stream was less than 260 degrees Fahrenheit;
 - b. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance;
 - c. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance; and
 - d. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
7. The permittee shall perform monthly external inspections of the catalytic oxidizer system including burner assembly and fuel supply lines for problems and, if necessary, adjust to assure proper air-to-fuel mixtures.

The permittee shall maintain a record of the results of each monthly inspection of the catalytic oxidizer system and any maintenance, repair or replacement performed.
8. The permittee shall perform an annual internal inspection of the catalytic oxidizer system, including the catalyst bed. Each inspection shall consist of internal and visual inspections in accordance with the manufacturer's recommendations and shall include a physical inspection of the unit and checks of associated equipment, including but not limited to burners, controls dampers, valves, seals, and monitoring and recording equipment. Repair and replacement of equipment shall be performed as determined by the inspection in accordance with manufacturer's recommendations. In accordance with the testing schedule in section A.V, a sample of catalyst material shall be collected from the catalyst bed to perform the catalyst activity tests required in section A.V.

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The permittee shall maintain a record of the results of each annual inspection of the catalytic oxidizer system and any maintenance, repair or replacement performed, as well as the results of each catalyst activity test required in section A.V.

9. Each calendar month, the permittee shall inspect the operational condition and integrity of all hooding, ductwork, and bypass dampers comprising the capture system. Hooding and ductwork observations shall include visual inspections to verify that the damper setting is in the correct position (i.e., to oxidizer or to atmosphere) and visual inspections of the actuator and motor to verify that the actuator pin and the motor are operating properly. The permittee shall document the results of all monthly inspections, including any corrective actions taken.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports in accordance with paragraph A.1.c. of the General Terms and Conditions of this permit and shall include the following information:
 - a. An identification of each month during which the total controlled VOC emission rate for this emissions unit exceeded the allowable monthly emission limit of 2,238 lbs and the actual monthly VOC emission rate for each such month;
 - b. An identification of each day during which the total 365-day rolling VOC usage rates from all coatings and cleanup materials, for emissions units K007 through K015 and K017, combined, exceeded the allowable usage restrictions of 390.0 TPY VOC, and the actual 365-day rolling usage rate summation, for emissions units K007 through K015 and K017, combined, for each such day. For the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative VOC usage levels shall be reported;
 - c. An identification of all 3-hour blocks of time during which the permanent total enclosure was not maintained at the minimum pressure differential of 0.007 inch of water, as a 3-hour average;
 - d. An identification of each day during which the RPH was greater than +/-1 RPH from the value established at the most recent performance test which demonstrated compliance;
 - e. An identification of all 3-hour blocks of time during which the average temperature of the desorption air stream prior to the VOC concentrator wheel did not comply with the temperature limitation specified in section A.II.4. of these terms and conditions;

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- f. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated compliance; and,
- g. An identification of all 3-hour blocks of time during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated compliance.

NOTE: Information submitted pursuant to section A.IV.1.f is not relevant for determining compliance with any operational restriction contained in section A.II. As long as the permittee performs the monitoring, record keeping, and reporting specified in sections A.III.6.c and A.IV.1.f of these terms and conditions, an average temperature difference across the catalyst bed of less than 80 percent of the average temperature difference during the most recent emissions test that demonstrated the emissions unit was in compliance shall not constitute a violation of any operational restriction or be considered a deviation.

2. The permittee shall submit annual reports to the Director (the appropriate Ohio EPA District Office or local air agency) which specify the total actual annual VOC emissions from this emissions unit and from emissions units K007 - K015 and K017, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year
3. 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.
4. The permittee shall submit quarterly reports which summarize the results of the external monthly inspections conducted on the catalytic oxidizer system. The reports shall describe any maintenance conducted on the catalytic oxidizer system as a direct result of the inspections.
5. The permittee shall submit annual reports which summarize the results of the internal annual inspections conducted on the catalytic oxidizer system. The reports shall describe any maintenance conducted on the catalytic oxidizer system as a direct result of the inspections.

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6. The permittee shall submit reports that include the results of the catalyst activity tests required in section A.V. These reports shall be submitted within 45 days after each catalyst activity test is performed.

V. Testing Requirements

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

- a. Emission Limitation -
2,238 lbs/month VOC, including cleanup (for this emissions unit)

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirement specified in Section III.1. of this permit, and shall be the summation of the daily VOC emission rates for the calendar month.
- b. Emission Limitation -
13.43 TPY VOC, including cleanup (for this emissions unit)

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirement specified in Section III.1. of this permit, and shall be the summation of the daily VOC emission rates for the calendar year divided by 2000.
- c. Emission Limitation -
390.0 TPY VOC usage rate, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Sections III.1. and III.2. of this permit.
- d. Emission Limitation -
39.0 TPY VOC emissions, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Sections III.1. and III.2. of this permit.

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- e. Emission Limitation -
90% overall removal/destruction efficiency of the fume concentrator and catalytic incinerator system, with the corresponding 95% removal efficiency for the fume concentrator wheel and 95% destruction efficiency for the catalytic incinerator

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Applicable Compliance Method-

Compliance shall be based on stack testing per OAC rule 3745-21-10(C). Compliance was demonstrated on May 17, 2000 through performance testing of emissions units K007 through K015 and K017. Compliance shall also be based on the results of emission testing conducted in accordance with the testing requirements specified in Section A.I.V.3. for emissions units K007 through K015 and K017 of the Title V permit issued final on September 26, 2001, for emissions units K007 through K015, K017, and K020.

2. U.S. EPA Method 24 shall be used to determine the VOC contents for coatings. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 cannot be used for a particulate coating or ink, the owner or operator shall notify the Administrator of the U.S. EPA and shall use formulation data for that coating to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24.
3. The permittee shall conduct , or have conducted, catalyst activity testing using the catalyst sample collected during the annual inspection described in section A.III. An intent to test notification shall not be required for the testing noted in this term. The procedures for the catalyst activity test shall be in accordance with the manufacturer's recommendations.

VI. Miscellaneous Requirements

1. In the event the results of initial performance tests show that the fume concentrator is operating at less than 95% removal efficiency or the catalytic incinerator is operating at less than 95% destruction efficiency the permittee may elect to comply with the alternative permit restriction set forth in the succeeding paragraph. The permittee shall have 30 days from the date of submission of the results for the initial performance testing to petition for compliance with the limits in this paragraph or this paragraph shall be waived.
 - a. If the required 90% overall VOC control efficiency for the fume concentrator/catalytic incinerator emission control system is achieved but the removal efficiency of the fume concentrator is less than 95%, then the permittee shall report the actual tested removal efficiency for the fume concentrator and the actual tested destruction efficiency for the catalytic incinerator. These tested efficiencies will then become the minimum efficiency requirements for the coating operations and emission control system identified in this permit.
 - b. If the required 90% overall VOC control efficiency for the fume concentrator/catalytic incinerator emission control system is achieved but the destruction efficiency if the catalytic incinerator is less than 95% then the

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permittee shall report the actual tested removal efficiency for the fume concentrator and the actual tested destruction efficiency for the catalytic incinerator. These tested efficiencies will then become the minimum efficiency requirements for the coating operations and emission control system identified in this permit.

1. This facility shall implement a Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) for the adhesive coating operation (emissions units K007 through K015 and K017) and the associated emission control system.

The PM&MAP shall be in writing and shall be submitted to the Regional Air Pollution Control Agency concurrently with the Title V application (required within 30 days after commencement of operation of the adhesive coating operation).

2. Emissions unit K017 is a mixing room which mixes all the paints for the emissions units K007 through K015 and K017. To ensure compliance with the overall usage limitation developed under OAC rule 3745-31-05(DC), usages for K017 are accounted for as the material lost in the mixing process.
3. This is a modification of PTI 08-03513 issued on August 27, 2002. No change of emissions will result from this modification.

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K015 - Manual Dip Tank and Oven, with a Permanent Total Enclosure, Fume Concentrator, and a Catalytic Incinerator		

2. Additional Terms and Conditions

2.a 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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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K017 - Adhesive Mixing Room, with a Permanent Total Enclosure, Fume Concentrator, and a Catalytic Incinerator	OAC rule 3745-31-05(A)(3)	3 lbs/day and 0.55 TPY volatile organic compounds (VOC), including cleanup (for this emissions unit); The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(DC).
	OAC rule 3745-31-05(DC)	390.0 TPY VOC usage, as a rolling, 365-day summation, for emissions unit K007 - K015 and K017, combined, including cleanup; 39.0 TPY VOC emissions, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup; and,
	OAC rule 3745-21-07(G)(2)	See Sections A.2.a., A.2.b., and A.2.c. The control efficiency requirement specified by this rule is less stringent than the overall control efficiency

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requirement established

pursuant to OAC rule

3745-31-05(DC).

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- 2.a The permittee shall control the VOC emissions for emissions units K007 through K015 and K017 through the application of a permanent total enclosure with a 100 % capture efficiency and a fume concentrator and catalytic incinerator system. The fume concentrator and catalytic incinerator system shall have a minimum 90% overall VOC removal/destruction efficiency.
- 2.b The permittee shall maintain a minimum VOC removal efficiency of 95% for the fume concentrator wheel (See Section VI.1.).
- 2.c The permittee shall maintain a minimum VOC destruction efficiency of 95% for the catalytic incinerator (See Section VI.1.).

II. Operational Restrictions

- 1. The coating operations identified as K007 through K015 and the mixing room identified as K017 shall each be equipped with a permanent total enclosure (PTE)* which shall be installed and operated in accordance with 40 CFR Part 51, Appendix M, Method 204. The PTE shall meet the following criteria:
 - a. Any "Natural Draft Opening" (NDO) shall be at least 4 equivalent diameters from each VOC emission point;
 - b. The total area of all NDOs shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;
 - c. The average facial velocity (FV) of air through all NDOs shall be at least 3,600 m/hr (200 fpm) which corresponds to a pressure differential of 0.007 inch of water. The direction of air through all NDOs shall be into the enclosure;
 - d. All access doors and windows whose area are not included in paragraph (b) and are not included in the calculation in paragraph (c) shall be closed during routine operation; and,
 - e. All VOC emissions must be captured and contained for discharge through the VOC control device.

By satisfying the criteria above for establishing permanent total enclosure, the total VOC capture efficiency shall be assumed to be 100%.

* Definitions for PTE and NDO:

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Permanent Total Enclosure (PTE) - a permanently installed enclosure that completely surrounds a source of emissions such that all VOC emissions are captured and contained for discharge through a control device.

Natural Draft Opening (NDO) - any permanent opening in the enclosure that remains open during operation of the facility and is not connected to a duct to which a fan is installed.

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2. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inch of water, as a 3-hour average, whenever the emissions unit is in operation.
3. Each of the ovens associated with emissions units K007 through K015 demonstrated that they meet the criteria established for a PTE in method 204. The permittee performed an additional demonstration to show that each PTE could not be compromised, under normal plant conditions, when the emissions unit was in operation (i.e., the air flow through the PTE to the control device was always maintained under negative pressure even when all additional egress points (non-natural draft opening) which could affect the PTE were opened). Therefore, the permittee will not be required to perform additional monitoring, record keeping and reporting requirements to ensure the ongoing integrity of the PTE for the ovens.
4. The number of revolutions per hour (RPH) of the fume concentrator shall be continuously maintained, when the emissions units is in operation, at a value within +/- 1 RPH of the value established during the most recent emissions test that demonstrated compliance.
5. The average temperature of the desorption air stream prior to the fume concentrator wheel, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 260 degrees Fahrenheit.
6. The average temperature of the exhaust gases immediately before the catalyst bed, 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. The average temperature difference across the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance.
7. The catalytic oxidizer shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The VOC conversion efficiency of the catalyst in the catalytic oxidizer, as determined by the catalyst activity testing, shall be at least 90% of the test temperature that is representative of the normal temperature at the catalyst bed inlet. Solvent loading during catalyst analysis shall be consistent with the test laboratory's normal testing protocol.
8. Exhaust gases from operation of the emissions unit shall be vented to the catalytic oxidizer.

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9. All ventilation fans associated with this emissions unit and the catalytic oxidizer shall be in operation at all times when this emissions unit is in operation.
10. When employing the catalytic oxidizer, all bypass dampers, actuator pins, and associated motors shall be in the correct position and in good operating condition at all times when this emissions unit is in operation to ensure that all captured VOC emissions are vented to the catalytic oxidizer. Also, all the hooding and ductwork comprising the VOC emission capture system for this emissions unit shall be free of leaks and holes that would permit the escape of the captured VOC emissions.

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711. The maximum VOC usage rate, for coating and cleanup materials (before control) for emissions units K007 through K015 and K017, combined, shall not exceed 390.0 TPY VOC as a rolling, 365-day summation.
8. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the coating usage levels specified in the following table:

Months	Maximum Allowable Cumulative VOC Usage, including purge solvents (tons)
0 - 6	195.00
1 - 7	227.50
1 - 8	260.00
1 - 9	292.50
1 - 10	325.00
1 - 11	357.50

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual VOC usage limitations shall be based upon a rolling, 365-day summation of the VOC usage figures.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall collect and record the following information each day for this emissions unit:
 - a. The company identification of each coating and cleanup material employed;

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- b. The number of gallons of each coating employed;
 - c. The VOC content of each coating employed, in pounds per gallon;
 - d. The number of gallons of each cleanup material employed;
 - e. The VOC content of each cleanup material employed, in pounds per gallon;
 - f. The total uncontrolled VOC usage rate (VOC input rate X 0.01 for coatings and VOC input for cleanup materials) for all coatings and cleanup materials employed, i.e., the summation of $(b \times c \times 0.01)$ for all coatings and the summation of $(d \times e)$ for all cleanup materials, in pounds; and
 - g. The total calculated controlled VOC emission rate for all coatings and cleanup materials, in tons (the controlled VOC emission rate shall be calculated using the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated the emissions unit was in compliance, i.e., (f) multiplied by a factor of $(1 - \text{the overall control efficiency})$).
2. The permittee shall collect and record the following information each day for emissions units K007 through K015 and K017, combined:
 - a. The total uncontrolled VOC usage rate for all coatings and cleanup materials employed, in tons [this is the summation of the total uncontrolled VOC usage rate for emissions units K007 through K015 and K017, combined], see Section VI.3.; and
 - b. The total calculated controlled VOC emission rate for all coatings and cleanup materials employed, in tons [this is the summation of the total calculated controlled VOC emission rate for emissions units K007 through K015 and K017, combined].
 3. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall maintain records of all 3-hour blocks of time during which the permanent total enclosure was not maintained at or above the minimum pressure

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differential of 0.007 inch of water, as a 3-hour average.

4. The permittee shall maintain records of the RPH daily, when the emissions unit is in operation and shall be recorded in an operations log.
5. The permittee shall install, maintain, and operate continuous temperature monitors and recorders which measure and record the temperature at the following points when the emissions unit is in operation:
 - a. The temperature of the desorption air stream prior to the VOC fume concentrator wheel;
 - b. The temperature immediately upstream of the incinerator's catalyst bed; and
 - c. The temperature immediately downstream of the incinerator's catalyst bed.

Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations.

6. The permittee shall collect and record the following information each day for this emissions unit:
 - a. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the desorption air stream was less than 260 degrees Fahrenheit;
 - b. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance;
 - c. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance; and
 - d. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

7. The permittee shall perform monthly external inspections of the catalytic oxidizer system including burner assembly and fuel supply lines for problems and, if necessary, adjust to assure proper air-to-fuel mixtures.

The permittee shall maintain a record of the results of each monthly inspection of the catalytic oxidizer system and any maintenance, repair or replacement performed.

8. The permittee shall perform an annual internal inspection of the catalytic oxidizer system, including the catalyst bed. Each inspection shall consist of internal and visual inspections in accordance with the manufacturer's recommendations and shall include a physical inspection of the unit and checks of associated equipment, including but not limited to burners, controls dampers, valves, seals, and monitoring and recording equipment. Repair and replacement of equipment shall be performed as determined by the inspection in accordance with manufacturer's recommendations. In accordance with the testing schedule in section A.V, a sample of catalyst material shall be collected from the catalyst bed to perform the catalyst activity tests required in section A.V.

The permittee shall maintain a record of the results of each annual inspection of the catalytic oxidizer system and any maintenance, repair or replacement performed, as well as the results of each catalyst activity test required in section A.V.

9. Each calendar month, the permittee shall inspect the operational condition and integrity of all hooding, ductwork, and bypass dampers comprising the capture system. Hooding and ductwork observations shall include visual inspections to verify that the damper setting is in the correct position (i.e., to oxidizer or to atmosphere) and visual inspections of the actuator and motor to verify that the actuator pin and the motor are operating properly. The permittee shall document the results of all monthly inspections, including any corrective actions taken.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports in accordance with paragraph A.1.c. of the General Terms and Conditions of this permit and shall include the following information:
 - a. An identification of each day during which the total controlled VOC emission rate for this emissions unit exceeded the allowable daily emission limit of 3.0 lbs and the actual daily VOC emission rate for each such day;
 - b. An identification of each day during which the total 365-day rolling VOC usage rates from all coatings and cleanup materials, for emissions units K007 through K015 and K017, combined, exceeded the allowable usage restrictions of 390.0 TPY VOC, and the actual 365-day rolling usage rate summation, for emissions units K007 through K015 and K017, combined, for each such day. For the first

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12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative VOC usage levels shall be reported;

- c. An identification of all 3-hour blocks of time during which the permanent total enclosure was not maintained at the minimum pressure differential of 0.007 inch of water, as a 3-hour average;
- d. An identification of each day during which the RPH was greater than ± 1 RPH from the value established at the most recent performance test which demonstrated compliance;
- e. An identification of all 3-hour blocks of time during which the average temperature of the desorption air stream prior to the VOC concentrator wheel did not comply with the temperature limitation specified in section A.II.4. of these terms and conditions;
- f. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated compliance; and,
- g. An identification of all 3-hour blocks of time during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated compliance.

NOTE: Information submitted pursuant to section A.IV.1.f is not relevant for determining compliance with any operational restriction contained in section A.II. As long as the permittee performs the monitoring, record keeping, and reporting specified in sections A.III.6.c and A.IV.1.f of these terms and conditions, an average temperature difference across the catalyst bed of less than 80 percent of the average temperature difference during the most recent emissions test that demonstrated the emissions unit was in compliance shall not constitute a violation of any operational restriction or be considered a deviation.

- 2. The permittee shall submit annual reports to the Director (the appropriate Ohio EPA District Office or local air agency) which specify the total actual annual VOC emissions

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from this emissions unit and from emissions units K007 - K015 and K017, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year

3. 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.
4. The permittee shall submit quarterly reports which summarize the results of the external monthly inspections conducted on the catalytic oxidizer system. The reports shall describe any maintenance conducted on the catalytic oxidizer system as a direct result of the inspections.
5. The permittee shall submit annual reports which summarize the results of the internal annual inspections conducted on the catalytic oxidizer system. The reports shall describe any maintenance conducted on the catalytic oxidizer system as a direct result of the inspections.

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6. The permittee shall submit reports that include the results of the catalyst activity tests required in section A.V. These reports shall be submitted within 45 days after each catalyst activity test is performed.

V. Testing Requirements

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

- a. Emission Limitation -
3.0lbs/day VOC, including cleanup (for this emissions unit)

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirement specified in Section III.1. of this permit.

- b. Emission Limitation -
0.55 TPY VOC, including cleanup (for this emissions unit)

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirement specified in Section III.1. of this permit, and shall be the summation of the daily VOC emission rates for the calendar year divided by 2000.

- c. Emission Limitation -
390.0 TPY VOC usage rate, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Sections III.1. and III.2. of this permit.

- d. Emission Limitation -
39.0 TPY VOC emissions, as a rolling, 365-day summation, for emissions units K007 - K015 and K017, combined, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Sections III.1. and III.2. of this permit.

- e. Emission Limitation -

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90% overall removal/destruction efficiency of the fume concentrator and catalytic incinerator system, with the corresponding 95% removal efficiency for the fume concentrator wheel and 95% destruction efficiency for the catalytic incinerator

Applicable Compliance Method-

Compliance shall be based on stack testing per OAC rule 3745-21-10(C). Compliance was demonstrated on May 17, 2000 through performance testing of emissions units K007 through K015 and K017. Compliance shall also be based on the results of emission testing conducted in accordance with the testing requirements specified in Section A.I.V.3. for emissions units K007 through K015 and K017 of the Title V permit issued final on September 26, 2001, for emissions units K007 through K015, K017, and K020.

2. U.S. EPA Method 24 shall be used to determine the VOC contents for coatings. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 cannot be used for a particulate coating or ink, the owner or operator shall notify the Administrator of the U.S. EPA and shall use formulation data for that coating to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24.
3. The permittee shall conduct , or have conducted, catalyst activity testing using the catalyst sample collected during the annual inspection described in section A.III. An intent to test notification shall not be required for the testing noted in this term. The procedures for the catalyst activity test shall be in accordance with the manufacturer's recommendations.

VI. Miscellaneous Requirements

1. In the event the results of initial performance tests show that the fume concentrator is operating at less than 95% removal efficiency or the catalytic incinerator is operating at less than 95% destruction efficiency the permittee may elect to comply with the alternative permit restriction set forth in the succeeding paragraph. The permittee shall have 30 days from the date of submission of the results for the initial performance testing to petition for compliance with the limits in this paragraph or this paragraph shall be waived.
 - a. If the required 90% overall VOC control efficiency for the fume concentrator/catalytic incinerator emission control system is achieved but the removal efficiency of the fume concentrator is less than 95%, then the permittee shall report the actual tested removal efficiency for the fume concentrator and the actual tested destruction efficiency for the catalytic incinerator. These tested efficiencies will then become the minimum efficiency requirements for the coating operations and emission control system identified in this permit.
 - b. If the required 90% overall VOC control efficiency for the fume concentrator/catalytic incinerator emission control system is achieved but the destruction efficiency if the catalytic incinerator is less than 95% then the

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permittee shall report the actual tested removal efficiency for the fume concentrator and the actual tested destruction efficiency for the catalytic incinerator. These tested efficiencies will then become the minimum efficiency requirements for the coating operations and emission control system identified in this permit.

1. This facility shall implement a Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) for the adhesive coating operation (emissions units K007 through K015 and K017) and the associated emission control system.

The PM&MAP shall be in writing and shall be submitted to the Regional Air Pollution Control Agency concurrently with the Title V application (required within 30 days after commencement of operation of the adhesive coating operation).

2. Emissions unit K017 is a mixing room which mixes all the paints for the emissions units K007 through K015 and K017. To ensure compliance with the overall usage limitation developed under OAC rule 3745-31-05(DC), usages for K017 are accounted for as the material lost in the mixing process.
3. This is a modification of PTI 08-03513 issued on August 27, 2002. No change of emissions will result from this modification.

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K017 - Adhesive Mixing Room, with a Permanent Total Enclosure, Fume Concentrator, and a Catalytic Incinerator		

2. Additional Terms and Conditions

2.a 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