



State of Ohio Environmental Protection Agency

STREET ADDRESS:

Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184
www.epa.state.oh.us

MAILING ADDRESS:

P.O. Box 1049
Columbus, OH 43216-1049

8/28/2009

JESSICA VIGNEAULT
AMERI-CAL CORP.
1001 LAKE ROAD
MEDINA, OH 44256

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 1652050083
Permit Number: P0105118
Permit Type: Renewal
County: Medina

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR
No	CEMS
No	MACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install and Operate ("PTIO") which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully.

Ohio EPA maintains a document entitled "Frequently Asked Questions about the PTIO". The document can be downloaded from the DAPC Web page, www.epa.state.oh.us/dapc, from the "Permits" link. This document contains additional information related to your permit, such as what activities are covered under the PTIO, who has enforcement authority over the permit and Ohio EPA's authorization to inspect your facility and records. Please contact the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469 if you need assistance.

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of \$70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

If you have any questions regarding this permit, please contact the Akron Regional Air Quality Management District. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page www.epa.state.oh.us/dapc.

Sincerely,

Michael W. Ahern
Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: ARAQMD

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director



**State of Ohio Environmental Protection Agency
Division of Air Pollution Control**

FINAL

**Air Pollution Permit-to-Install and Operate
for
AMERI-CAL CORP.**

Facility ID: 1652050083
Permit Number: P0105118
Permit Type: Renewal
Issued: 8/28/2009
Effective: 8/28/2009
Expiration: 8/28/2014



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Air Pollution Permit-to-Install and Operate
for
AMERI-CAL CORP.

Table of Contents

Authorization 1

A. Standard Terms and Conditions 3

 1. What does this permit-to-install and operate ("PTIO") allow me to do?..... 4

 2. Who is responsible for complying with this permit? 4

 3. What records must I keep under this permit? 4

 4. What are my permit fees and when do I pay them?..... 4

 5. When does my PTIO expire, and when do I need to submit my renewal application? 4

 6. What happens to this permit if my project is delayed or I do not install or modify my source? 5

 7. What reports must I submit under this permit? 5

 8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit? 5

 9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?... 5

 10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report? 5

 11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located? 6

 12. What happens if one or more emissions units operated under this permit is/are shut down permanently? 6

 13. Can I transfer this permit to a new owner or operator? 6

 14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"? 7

 15. What happens if a portion of this permit is determined to be invalid? 7

B. Facility-Wide Terms and Conditions 8

C. Emissions Unit Terms and Conditions 10

 1. K001, coating line 11



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate
Permit Number: P0105118
Facility ID: 1652050083
Effective Date: 8/28/2009

Authorization

Facility ID: 1652050083
Application Number(s): A0037603, A0037923
Permit Number: P0105118
Permit Description: Paper coater
Permit Type: Renewal
Permit Fee: \$0.00
Issue Date: 8/28/2009
Effective Date: 8/28/2009
Expiration Date: 8/28/2014
Permit Evaluation Report (PER) Annual Date: July 1 - June 30, Due Aug 15
This document constitutes issuance to:

AMERI-CAL CORP.
1001 LAKE ROAD
MEDINA, OH 44256

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Akron Regional Air Quality Management District
146 South High Street, Room 904
Akron, OH 44308
(330)375-2480

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate

Permit Number: P0105118

Facility ID: 1652050083

Effective Date: 8/28/2009

Authorization (continued)

Permit Number: P0105118
Permit Description: Paper coater

Permits for the following emissions unit(s) or groups of emissions units are in this document as indicated below:

Emissions Unit ID:	K001
Company Equipment ID:	K001 -coating line
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate

Permit Number: P0105118

Facility ID: 1652050083

Effective Date: 8/28/2009

A. Standard Terms and Conditions



1. What does this permit-to-install and operate ("PTIO") allow me to do?

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. Who is responsible for complying with this permit?

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. What records must I keep under this permit?

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. What are my permit fees and when do I pay them?

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. When does my PTIO expire, and when do I need to submit my renewal application?

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.



If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Akron Regional Air Quality Management District in accordance with



OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

12. What happens if one or more emissions units operated under this permit is/are shut down permanently?

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate

Permit Number: P0105118

Facility ID: 1652050083

Effective Date: 8/28/2009

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate

Permit Number: P0105118

Facility ID: 1652050083

Effective Date: 8/28/2009

B. Facility-Wide Terms and Conditions



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate

Permit Number: P0105118

Facility ID: 1652050083

Effective Date: 8/28/2009

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
 - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (1) None.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate

Permit Number: P0105118

Facility ID: 1652050083

Effective Date: 8/28/2009

C. Emissions Unit Terms and Conditions



1. K001, coating line

Operations, Property and/or Equipment Description:

Paper coating line controlled with catalytic incinerator

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b) Through g).
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-21-09(F)	<p>Volatile organic compound (VOC) emissions shall not exceed 4.8 pounds per gallon of coating solids.</p> <p>90 percent reduction of VOC emissions or maximum VOC outlet concentration of 20 ppmv on a dry basis.</p>
b.	OAC rule 3745-31-05(D)	<p>Combined annual emissions from this facility shall not exceed the following limitations, as rolling, 12-month summations:</p> <p>24 tons of combined hazardous air pollutants (HAPs); and 9.9 tons of any individual HAP.</p>

(2) Additional Terms and Conditions

- a. All of the VOC emissions from this emissions unit shall be vented to the catalytic incinerator that shall meet the operational, monitoring, and record keeping requirements of this permit, when the emissions unit is in operation.
- b. The permanent total enclosure shall be constructed to totally enclose the application stations, coating reservoirs, and all areas from the application station to the oven and the control device, such that all VOC emissions are captured, contained, and directed to the control device.
- c. The permanent total enclosure shall be maintained under negative pressure whenever the emissions unit is in operation, and shall be designed and maintained to have an average facial velocity of air through each natural draft opening of at least 200 feet per minute (3,600 m/hr). Compliance with the average facial velocity shall be demonstrated during the compliance test, by either using an air flow monitor or a differential pressure gauge at each natural draft opening, and maintaining the required facial velocity or the corresponding negative pressure. The permanent total enclosure shall meet all of the following criteria if the capture efficiency of the enclosure and control device is assumed to be 100%:
 - i. Any natural draft opening shall be at least four equivalent opening diameters, or 4 times the diameter of the opening, from each VOC emitting point. An equivalent diameter is the diameter of a circle that has the same area as the opening. If the opening is not circular the equivalent diameter (ED) is calculated as follows:
 - ii. $ED = (4 \text{ area} / \pi)^{0.5}$
 - iii. The total area of all natural draft openings (A_N) shall not exceed 5 percent of the total surface area of the enclosure (A_T), i.e., the four walls, floor, and ceiling. The natural draft opening to enclosure area ratio (NEAR) is calculated as follows:
 - iv. $NEAR = A_N / A_T$
 - v. The direction of air flow through all natural draft openings shall be into the enclosure, with an average facial velocity of no less than 200 feet per minute (3,600 m/hr) or a pressure drop of 0.013 mm Hg (0.007 in. H₂O).
 - vi. All access doors and windows to the enclosure that do not meet the requirements of a natural draft opening and whose surface areas are not included in the 5 percent surface area determination in A_b , shall be completely closed to any air movement during process operations.
 - vii. All VOC emissions shall be captured and contained for discharge through the control device.
 - d. The permanent total enclosure (PTE) serving this emissions unit shall be maintained in such a manner as to meet the criteria established for a permanent



total enclosure in 40 CFR, Part 51, Appendix M, Reference Method 204, and shall capture all of the VOC emissions from this emissions unit.

c) Operational Restrictions

- (1) The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.013 mm Hg (0.007 in. H₂O), whenever the emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall measure, document/calculate, and maintain a permanent record of the following information for the permanent total enclosure, which may be the same record documented during the compliance test(s):
 - a. the measured diameter of each natural draft opening;
 - b. the distance measured from each natural draft opening to each VOC emitting point;
 - c. the total calculated surface area of all natural draft openings and the surface area of the enclosure=s four walls, floor, and ceiling;
 - d. the calculation or demonstration that the distance from each VOC emitting point to each natural draft opening is at least 4 times the diameter of the opening; and
 - e. the calculation demonstrating that the sum of the surface areas of all of the natural draft openings to the enclosure is not more than 5 percent of the sum of the surface areas of the enclosure=s four walls, floor, and ceiling.
- (2) The permittee shall install, operate, and maintain monitoring devices and a recorder that continuously monitor and record the differential pressure between the inside and outside of the permanent total enclosure when the emissions unit is in operation. The monitoring and recording devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals, with any modifications deemed necessary by the permittee.

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

- a. all three-hour blocks of time during which the difference in pressure between the permanent total enclosure and the surrounding areas is not maintained at or above the minimum pressure differential of 0.007 inches of water, as a three-hour average; and
 - b. a log or record of downtime for the capture (collection) system when the emissions unit was in operation.
- (3) The permittee shall collect and record the following information for each day for the coating line:
 - a. The name and identification number of each coating employed, as applied;



- b. The pounds of VOC per gallon of coating solids, as applied, the volume solids content, in percent, as applied, and the volume, in number of gallons, as applied, of each coating;
- c. The maximum VOC content (in pounds of VOC per gallon of coating solids, as applied) or the daily volume-weighted average VOC content (in pounds of VOC per gallon of coating solids, as applied) of all the coatings; and
- d. The calculated, controlled VOC emission rate, in pounds of VOC per gallon of coating solids, as applied. The controlled VOC emission rate shall be calculated using:
 - i. Either the maximum VOC content or the daily volume-weighted VOC content recorded in accordance with section d)(3)c above and
 - ii. The overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance.

[Note: all coating information must be for coatings as employed, including any thinning solvents applied at the emissions unit.]

- (4) For each month, the permittee shall collect and record the following information for the purpose of calculating the rolling, 12-month HAP emissions:
 - a. The name and identification number of each coating and cleanup material employed, as applied;
 - b. The number of gallons of each coating and cleanup material employed, as applied;
 - c. The individual HAP content of each coating and cleanup material employed, as applied, in pounds per gallon;
 - d. The combined HAPs content of each coating and cleanup material employed, as applied, in pounds per gallon;
 - e. The total, uncontrolled emissions of each individual HAP from each coating and cleanup material employed, as applied, in pounds or tons;
 - f. The total, uncontrolled emissions of combined HAPs from each coating and cleanup material employed, as applied, in pounds or tons;
 - g. The total, uncontrolled emissions of each individual HAP from all coatings and cleanup materials employed, as applied, in pounds or tons;
 - h. The total, uncontrolled emissions of combined HAPs from all coatings and cleanup materials, as applied, in pounds or tons;
 - i. The total, controlled emissions of each individual HAP from all coatings and cleanup materials, as applied, in pounds or tons, to be calculated using:
 - i. The total, uncontrolled emissions of individual HAP (section d)(4)g); and



- ii. The overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance;
- j. The total, controlled emissions of combined HAPs from all coatings and cleanup materials, as applied, in pounds or tons, to be calculated using:
 - i. The total, uncontrolled emissions of combined HAPs (section d)(4)h); and
 - ii. The overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance;
- k. The rolling, 12-month summation of total, controlled emissions of each individual HAP from all coatings and cleanup materials, as applied, in pounds or tone; and
- l. The rolling 12-month summation of total, controlled combined HAPs emissions from all coatings and cleanup materials, as applied, in pounds or tons.

[Note: all coating information must be for coatings as employed, including any thinning solvents applied at the emissions unit.]

- (5) The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the temperature immediately upstream and downstream of the incinerator's catalyst bed during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall collect and record the following information for each day when the catalytic incinerator is in use:
 - a. 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 measured during the most recent emission test that demonstrated the emissions unit was in compliance.
 - b. 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. The permittee may use the incinerator's temperature chart to determine the temperature differential across the catalyst bed.
 - c. A log of operating time for the capture (collection) system, catalytic incinerator, monitoring equipment, and the associated emissions unit. The permittee may use the current temperature chart as the log documenting that the monitoring equipment and control device are operating. Bypass of the collection system by the emissions unit shall be logged as to the date and time.

Whenever the monitored value for the average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time, deviate from the value specified below, the permittee shall promptly investigate the cause of the deviation. The



permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable value specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

An acceptable value for 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, cannot be more than 50 degrees Fahrenheit below the average temperature measured during the most recent emission test that demonstrated the emissions unit was in compliance.

- (6) The catalytic incinerator 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 incinerator, as determined by the catalyst activity testing, shall be at least 90% at a test temperature that is representative of the normal temperature at the catalyst bed inlet. Solvent loading during the catalyst analysis shall be consistent with the test laboratory's normal testing protocol.
- (7) The permittee shall perform an inspection of the catalytic incinerator, including the catalyst bed, on at least an annual basis. Each inspection shall consist of internal and visual inspections in accordance with the manufacturer's recommendations, as specified in the document entitled "Recommended Annual Inspection Points and Procedures" as submitted to the Ohio EPA on February 26, 2002, and shall include a physical inspection of the unit and checks of associated equipment, including but not limited to burners, controls, dampers, valves, and monitoring and recording equipment. Repair and replacement of equipment shall be performed as determined by the inspection. In accordance with the testing schedule in f)(1) below, a sample of catalyst material shall be collected from the catalyst bed to perform the catalyst activity tests required in f)(1) below. The permittee shall also perform weekly inspections of the external integrity of the catalytic incinerator.

The permittee shall maintain a record of the results of each annual and weekly inspection of the catalytic incinerator, as well as the results of each catalyst activity test required in f)(1) below.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports for the following emissions unit(s) that identify:



- a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. all 3-hour blocks of time during which the average temperature of the exhaust gases immediately before the catalyst bed (as determined by the continuous temperature monitor) was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance when the emissions unit is in operation;
 - ii. 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;
 - iii. a summary of the operating time for the capture (collection) system, catalytic incinerator, monitoring equipment, and the emissions unit;
 - iv. an identification of each incident of deviation described in e)(1)a.i. above where a prompt investigation was not conducted;
 - v. an identification of each incident of deviation described in e)(1)a.i. above where prompt corrective action, that would bring the average temperature of the exhaust gases immediately before the catalyst bed into compliance with the acceptable value, was determined to be necessary and was not taken; and
 - vi. an identification of each incident of deviation described in e)(1)a.i. above where proper records were not maintained for the investigation and/or the corrective action.
 - vii. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the catalytic incinerator;
 - viii. all three-hour blocks of time, when the emissions unit was in operation, during which the permanent total enclosure was not maintained at the minimum pressure differential of 0.007 inches of water;
 - ix. all exceedances of the rolling, 12-month emission limitation for combined HAPs; and
 - x. all exceedances of the rolling, 12-month emission limitation for individual HAP. If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to



March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

NOTE: Information submitted pursuant to e)(1)a.i. above is not relevant for determining compliance with any operational restrictions and monitoring and record keeping contained in d) above.

- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (3) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing that the calculated, controlled VOC emission rate exceeded the applicable pounds of VOC per gallon of solids limitation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the exceedance occurs.
- (4) The permittee shall identify in the annual PER the following information concerning the operations of the catalytic oxidizer during the 12-month reporting period for this emissions unit: the results of any catalyst activity test(s) along with a summary of the results of the annual inspection of the external structural integrity of the catalytic incinerator has been jeopardized and it no longer operates as designed.

f) Testing Requirements

- (1) The permittee shall conduct, or have conducted, catalyst activity testing using the catalyst sample collected during the annual inspection described in d)(4) above. 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.
- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted 6 months prior to permit expiration.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for VOC, including a determination of control efficiency.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Methods 1-4 and 25/25A of 40 CFR Part 60, Appendix A.
Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.



The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

(3) Compliance with the emission limitation(s) in Section b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation:

100% capture of VOC emissions

Applicable Compliance Method:

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

- i. The emission testing shall be conducted 6 months prior to permit expiration.
- ii. The emission testing shall be conducted to demonstrate compliance with the 100% capture efficiency requirement for the permanent total enclosure. The following test methods shall be employed:



Method 204 of 40 CFR Part 51 Appendix M; and

Method 2 f of 40 CFR Part 60, Appendix A.

iii. During the compliance demonstration for the permanent total enclosure, monitoring devices shall be installed to measure the average facial velocity of the air flow through each natural draft opening.

iv. Method 2 of 40 CFR Part 60, Appendix A shall be conducted to determine the volumetric flow rate of the exhaust stream(s) exiting the permanent total enclosure, corrected to standard conditions. If the building is being used as the permanent total enclosure, it may be necessary to measure the volumetric flow, corrected to standard conditions, of each gas stream entering the enclosure through a forced makeup air duct, using Method 2. The facial velocity (FV) shall be calculated using the following equation:

$$FV = (Q_o - Q_i) / A_n$$

where:

Q_o is the sum of the volumetric flow from all gas streams exiting the enclosure through an exhaust duct or hood;

Q_i is the sum of the volumetric flow from all gas streams into the enclosure through a forced makeup air duct, and is equal to zero if there is no forced makeup air into the enclosure; and

A_n is the total area of all natural draft openings in the enclosure.

v. If the average facial velocity is measured at greater than 500 feet per minute (9,000 m/hr), the direction of air flow shall be assumed to be inward at all times during the compliance demonstration. If the average facial velocity is measured at less than 500 feet per minute, the continuous inward flow of air shall be verified at least once every 10 minutes for a minimum of 1 hour during the compliance demonstration, either by checking the flow or pressure meter(s) or through the use of streamers, smoke tubes, or tracer gases. All closed access doors and windows that are not considered natural draft openings shall also be checked once during the compliance demonstration for leakage around their perimeters using smoke tubes or tracer gases.

(a) The permittee shall also measure and record the following information for the permanent total enclosure and each natural draft opening:

(b) the diameter of each natural draft opening;

(c) the distance measured from each natural draft opening to each VOC emitting point in the process;



- (d) the distance measured from each exhaust duct or hood in the enclosure to each natural draft opening;
 - (e) the total surface area of each natural draft opening and the surface area of the enclosure=s four walls, floor, and ceiling; and
 - (f) the ratio of the total surface area (sum) of all natural draft openings to the total surface area of the permanent total enclosure.
- vi. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA.

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

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

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

Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA's refusal to accept the results of the emission test(s).

b. Emission Limitation:

VOC emissions shall not exceed 4.8 pounds per gallon of coating solids.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the record keeping requirements in section d)(3) above.

c. Emission Limitation:

24 tons of combined HAPs



Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the record keeping requirements in section d)(4) above.

d. Emission Limitation:

9.9 tons of any individual HAP

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the record keeping requirements in section d)(4) above.

e. Emission Limitation:

90 percent reduction of VOC emissions or maximum VOC outlet concentration of 20 ppmv on a dry basis.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the emissions testing requirements in section f)(2) above.

(4) USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotogravure printing inks and related coatings, respectively. If, pursuant to Method 24 as outlined in 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

(5) Formulation data or USEPA Method 24 (for coatings) or 24A (for flexographic and rotogravure printing inks and related coatings) shall be used to determine the VOC contents of the cleanup materials employed and the individual and combined HAPs contents of the coatings and cleanup materials employed in this emissions unit.

g) Miscellaneous Requirements

(1) None.