



State of Ohio Environmental Protection Agency

Street Address:

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

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

Mailing Address:

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

08/28/02

**CERTIFIED MAIL**

**RE: Final Title V Chapter 3745-77 permit**

03-69-00-0128

Philips Display Components Company  
Jeffrey Armstrong  
700 N. Pratt Street  
Ottawa, OH 45875-1599

Dear Jeffrey Armstrong:

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

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

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

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

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

Very truly yours,

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

cc: Northwest District Office  
File, DAPC PMU



State of Ohio Environmental Protection Agency

FINAL TITLE V PERMIT

Issue Date: <b>08/28/02</b>	Effective Date: <b>08/28/02</b>	Expiration Date: <b>08/28/07</b>
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This document constitutes issuance of a Title V permit for Facility ID: 03-69-00-0128 to:  
 Philips Display Components Company  
 700 N. Pratt Street  
 Ottawa, OH 45875-1599

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

B008 (Energy Center Boiler #1) 25.1 MMBTU natural gas fired steam generating boiler.	P169 (Lacquer Line #3) Aluminizing lacquer, containing 5% solids, is applied to panels which are held horizontally and spun.	applied to panels which are held horizontally and spun.
B009 (Energy Center Boiler #2) 25.1 MMBTU natural gas fired steam generating boiler.	P170 (Lacquer Line #4) Aluminizing lacquer, containing 5% solids, is applied to panels which are held horizontally and spun.	P174 (Lacquer Line #8) Aluminizing lacquer, containing 5% solids, is applied to panels which are held horizontally and spun.
B010 (60K Boiler) 71.7 MMBTU natural gas fired steam generating boiler.	P171 (Lacquer Line #5) Aluminizing lacquer, containing 5% solids, is applied to panels which are held horizontally and spun.	P175 (Lacquer Line #9) Aluminizing lacquer, containing 5% solids, is applied to panels which are held horizontally and spun.
P167 (Lacquer Line #1) Aluminizing lacquer, containing 5% solids, is applied to panels which are held horizontally and spun.	P172 (Lacquer Line #6) Aluminizing lacquer, containing 5% solids, is applied to panels which are held horizontally and spun.	P176 (32V Lacquer Line) Application of lacquer to television panels. Equipment: Prewet spray (PVA, Methanol 12%, H2O) Lacquer Spray, Toluene edge wipe, drying oven.
P168 (Lacquer Line #2) Aluminizing lacquer, containing 5% solids, is applied to panels which are held horizontally and spun.	P173 (Lacquer Line #7) Aluminizing lacquer, containing 5% solids, is	

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

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

Northwest District Office  
 347 North Dunbridge Road  
 Bowling Green, OH 43402  
 (419) 352-8461

OHIO ENVIRONMENTAL PROTECTION AGENCY

Christopher Jones  
Director

## PART I - GENERAL TERMS AND CONDITIONS

### A. *State and Federally Enforceable Section*

#### 1. **Monitoring and Related Record Keeping and Reporting Requirements**

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.  
*(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))*
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.  
*(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))*
- c. The permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.  
*(Authority for term: OAC rule 3745-77-07(A)(3)(c))*
  - ii. **For emission limitations, operational restrictions, and control device operating parameter limitations:**
    - (a) Written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring and record keeping requirements specified in this permit; (ii) the probable cause of such deviations; and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Part III of this Title V permit, the written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarters. In identifying each deviation, the permittee shall specify the applicable requirement for which the

deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. These written reports shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations. See B.6 below if no deviations occurred during the quarter.

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

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

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

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

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

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

Written reports that identify any deviations from the federally enforceable monitoring, record keeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year, for the previous six calendar months. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, record keeping, and

reporting requirements. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no deviations occurred during that period.

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

- iv. Each written report shall be signed by a responsible official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in the report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."

*(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))*

## **2. Scheduled Maintenance/Malfunction Reporting**

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

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

## **3. Risk Management Plans**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

*(Authority for term: OAC rule 3745-77-07(A)(4))*

## **4. Title IV Provisions**

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

*(Authority for term: OAC rule 3745-77-07(A)(5))*

## **5. Severability Clause**

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

*(Authority for term: OAC rule 3745-77-07(A)(6))*

## **6. General Requirements**

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

- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.10 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

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

**7. Fees**

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

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

**8. Marketable Permit Programs**

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

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

**9. Reasonably Anticipated Operating Scenarios**

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

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

**10. Reopening for Cause**

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

- a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

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

## **11. Federal and State Enforceability**

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

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

## **12. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

- i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:
- i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
  - ii. Compliance certifications shall include the following:
    - (a) An identification of each term or condition of this permit that is the basis of the certification.
    - (b) The permittee's current compliance status.
    - (c) Whether compliance was continuous or intermittent.
    - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
    - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
  - iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

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

### **13. Permit Shield**

- a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.
- b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

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

#### **14. Operational Flexibility**

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

*(Authority for term: OAC rules 3745-77-07(H)(1) and (2))*

#### **15. Emergencies**

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

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

#### **16. Off-Permit Changes**

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

- a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.
- b. The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as

insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.

- c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).
- d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

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

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

#### **17. Compliance Method Requirements**

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

*(This term is provided for informational purposes only.)*

#### **18. Insignificant Activities**

Each insignificant activity that has one or more applicable requirements shall comply with those applicable requirements.

*(Authority for term: OAC rule 3745-77-07(A)(1))*

#### **19. Permit to Install Requirement**

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

*(Authority for term: OAC rule 3745-77-07(A)(1))*

#### **20. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

*(Authority for term: OAC rule 3745-77-07(A)(1))*

**B. State Only Enforceable Section**

**1. Reporting Requirements Related to Monitoring and Record Keeping Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

**2. Records Retention Requirements**

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

**3. Inspections and Information Requests**

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

shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**4. Scheduled Maintenance/Malfunction Reporting**

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

**5. Permit Transfers**

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

**6. Additional Reporting Requirements When There Are No Deviations of 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., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

## **Part II - Specific Facility Terms and Conditions**

### **A. State and Federally Enforcable Section**

**None**

### **B. State Only Enforceable Section**

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

Phosphor Preparation, Ohio EPA emissions unit P003;  
Panel Phosphorous Duster, Ohio EPA emissions unit P004;  
Panel Pre-Washers, Ohio EPA emissions unit P008;  
Salvage Panel Washr, Funnel Washer, Ohio EPA emissions unit P011;  
Funnel Spray Soft-Flash, Ohio EPA emissions unit P021;  
Exposure Table, Ohio EPA emissions unit P032;  
Aqua dag Mix Room, Ohio EPA emissions unit P037;  
Color Frit Prep, Ohio EPA emissions unit P061;  
Bismuth Spray Booth, Ohio EPA emissions unit P062;  
Reject Panel Wash, Ohio EPA emissions unit P063;  
Waste Treatment System, Ohio EPA emissions unit P064;  
Treatment Lime Conveyor System, Ohio EPA emissions unit P065;  
Base Cure Station, Ohio EPA emissions unit P069;  
Mask Washers, Ohio EPA emissions unit P072;  
Vacuum Cleaning Systems, Ohio EPA emissions unit P076;  
TV Tube Sealer #10, Ohio EPA emissions unit P078;  
TV Tube Sealer #11, Ohio EPA emissions unit P079;  
Vacuum Lab Hood, Ohio EPA emissions unit P080;  
Buff and Polish Stand 1, Ohio EPA emissions unit P081;  
Buff and Polish Stand 2, Ohio EPA emissions unit P082;  
Buff and Polish Stand 3, Ohio EPA emissions unit P083;  
Buff and Polish Stand 4, Ohio EPA emissions unit P084;  
Buff and Polish Stand 5, Ohio EPA emissions unit P085;  
Buff and Polish Stand 6, Ohio EPA emissions unit P086;  
32V Bismuth Spray Booth, Ohio EPA emissions unit P088;  
32V Jumbo Line Gun Seal Unit, Ohio EPA emissions unit P092;  
32V Jumbo Line Processing & Aging, Ohio EPA emissions unit P093;  
32V Jumbo Line Shrink Fit Unit, Ohio EPA emissions unit P094;  
32V Jumbo Line Matching Unit, Ohio EPA emissions unit P095;  
Adsorption Chiller (gas fired), Ohio EPA emissions unit P096;

**B. State Only Enforceable Section (continued)**

32-V Reject Funnel Wash, Ohio EPA emissions unit P101;  
Soft Flash #5, Ohio EPA emissions unit P102;  
Frit Applicator 1, Ohio EPA emissions unit P151;  
Frit Applicator 2, Ohio EPA emissions unit P152;  
Frit Applicator 3, Ohio EPA emissions unit P153;  
Frit Applicator 4, Ohio EPA emissions unit P154;  
Frit Applicator 5, Ohio EPA emissions unit P155;  
Frit Applicator 6, Ohio EPA emissions unit P156;  
Frit Applicator 7, Ohio EPA emissions unit P157;  
Frit Applicator 8, Ohio EPA emissions unit P158;  
Frit Applicator 9, Ohio EPA emissions unit P159;  
Frit Applicator 10, Ohio EPA emissions unit P160;  
Frit Dryer 1 - Steam, Ohio EPA emissions unit P161;  
Frit Dryer 2 - Electric, Ohio EPA emissions unit P162;  
Lehr Oven 1, Ohio EPA emissions unit P163;  
Lehr Oven 2, Ohio EPA emissions unit P164;  
Lehr Oven 3, Ohio EPA emissions unit P165;  
32V Rewash Line, EPA emissions unit P177;  
32V Panel Washer, EPA emissions unit P178;  
32V Lehr Oven, Ohio EPA emissions unit P179;  
32V Frit Application, Ohio EPA emissions unit P180;  
32V Funnel Washer, Ohio EPA emissions unit P181;  
32V External Coating, Ohio EPA emissions unit P182;  
32 V Anode Silicone Layer, Ohio EPA emissions unit P183;  
Panel Wash 8a, Ohio EPA emissions unit P188;  
Panel Wash 8b, Ohio EPA emissions unit P189;  
Panel Wash 9a, Ohio EPA emissions unit P190;  
Panel Wash 9b, Ohio EPA emissions unit P191;  
Bismuth Spray Booth, Ohio EPA emissions unit R001;  
Automatic External Coat 1, Ohio EPA emissions unit R002;  
Automatic External Coat 2, Ohio EPA emissions unit R003;  
Automatic External Coat 3, Ohio EPA emissions unit R004;  
Automatic External Coat 4, Ohio EPA emissions unit R005;

**B. State Only Enforceable Section (continued)**

Battery Chargers 1, Ohio EPA emissions unit X004;  
Battery Chargers 2, Ohio EPA emissions unit X005;  
NG Fired TV Sealing Unit #1-6,8,9, Ohio EPA emissions unit X006;  
Card Board Baler, Ohio EPA emissions unit X008;  
Mask & Shield Washer/Dryer, Ohio EPA emissions unit X009;  
Bead Blast, Ohio EPA emissions unit X012;  
Implosion Testing with baghouse, Ohio EPA emissions unit Z004;  
Salvage Funnel Clean and Buff, Ohio EPA emissions unit Z005;  
Lacquer Pumping Station, Ohio EPA emissions unit Z009;  
Toluene Pumping Station, Ohio EPA emissions unit Z010;  
Lacquer Line Cleaning Booth, Ohio EPA emissions unit Z011;  
Final Inspection, Manual Cleaning, Ohio EPA emissions unit Z015;  
Panel Grind & Repair, Ohio EPA emissions unit Z017;  
Nitric Acid Cracker Tank, Ohio EPA emissions unit Z018;  
500 Degree C Oven, Ohio EPA emissions unit Z019;  
Salvage Area CO2 Laser Cutters, Ohio EPA emissions unit Z020;  
Salvage Area Reneck Jigs, Ohio EPA emissions unit Z021;  
Matrix Mix Station, Ohio EPA emissions unit Z022;  
Shrinkfit Machines #1-12, Ohio EPA emissions unit Z023;  
Diesel Fuel Pumps, Ohio EPA emissions unit Z024;  
Wastewater Plant Diesel Generator, Ohio EPA emissions unit Z025;  
Lab Table With Hood, Ohio EPA emissions unit Z032;  
Aluminizers, Ohio EPA emissions unit Z033;  
Reject Funnel Washers, Ohio EPA emissions unit Z034;  
Blue M Ovens, Ohio EPA emissions unit Z035;  
Wet Vacuum System, Ohio EPA emissions unit Z036;  
Red Dag Mix Station, Ohio EPA emissions unit Z038;  
Internal Coat Mix Station, Ohio EPA emissions unit Z039;

Bismuth Oxide Mix Station, Ohio EPA emissions unit Z040;  
Salvage Funnel Cleaning Booth, Ohio EPA emissions unit Z041;  
Cleaning Table with hood, Ohio EPA emissions unit Z044;  
400 Deg. C Oven, Ohio EPA emissions unit Z045;  
Maintenance Table with Hood, Ohio EPA emissions unit Z050;  
Methanol Pump Station, Ohio EPA emissions unit Z051;  
Panel Buff, Ohio EPA emissions unit Z052;  
Panel Polish, Ohio EPA emissions unit Z053;  
TV Tube Inlines A-G, Ohio EPA emissions unit Z054;  
Internal Magnetic Shield Wash, Ohio EPA emissions unit Z055;  
Regun Units, Ohio EPA emissions unit Z056;  
Neck Seal Machine #5-19, Ohio EPA emissions unit Z060;  
Waste Lacquer Tank, Ohio EPA emissions unit Z100;  
Methanol Tank, Ohio EPA emissions unit Z101;  
Mineral Spirits Cleaning Station 1, Ohio EPA emissions unit Z105;  
Mineral Spirits Cleaning Station 2, Ohio EPA emissions unit Z106;  
Mineral Spirits Cleaning Station 3, Ohio EPA emissions unit Z107;  
Mineral Spirits Cleaning Station 4, Ohio EPA emissions unit Z108;  
Mineral Spirits Cleaning Station 5, Ohio EPA emissions unit Z109;  
Mineral Spirits Cleaning Station 6, Ohio EPA emissions unit Z110;  
External Coat Drying Oven 1, Ohio EPA emissions unit Z111;  
External Coat Drying Oven 2, Ohio EPA emissions unit Z112;  
External Coat Drying Oven 3, Ohio EPA emissions unit Z113;  
External Coat Drying Oven 4, Ohio EPA emissions unit Z114;

**B. State Only Enforceable Section (continued)**

Matrix PVA Application 1, Ohio EPA emissions unit Z115;  
Matrix PVA Application 2, Ohio EPA emissions unit Z116;  
Matrix PVA Application 3, Ohio EPA emissions unit Z117;  
Matrix PVA Application 4, Ohio EPA emissions unit Z118;  
Matrix PVA Application 5, Ohio EPA emissions unit Z119;  
Screen Room PVA Application 1, Ohio EPA emissions unit Z120;  
Screen Room PVA Application 2, Ohio EPA emissions unit Z121;  
Screen Room PVA Application 3, Ohio EPA emissions unit Z122;  
Screen Room PVA Application 4, Ohio EPA emissions unit Z123;  
Screen Room PVA Application 5, Ohio EPA emissions unit Z124;  
Screen Room PVA Application 6, Ohio EPA emissions unit Z125;  
Screen Room PVA Application 7, Ohio EPA emissions unit Z126;  
Screen Room PVA Application 8, Ohio EPA emissions unit Z127;  
Screen Room PVA Application 9, Ohio EPA emissions unit Z128;  
Screen Room PVA Application 10, Ohio EPA emissions unit Z129;  
Screen Room PVA Application 11, Ohio EPA emissions unit Z130;  
Screen Room PVA Application 12, Ohio EPA emissions unit Z131;  
Screen Room PVA Application 13, Ohio EPA emissions unit Z132;  
Screen Room PVA Application 14, Ohio EPA emissions unit Z133;  
Screen Room PVA Application 15, Ohio EPA emissions unit Z134;  
External Coat Drying Oven, Ohio EPA emissions unit Z135;  
External Coat Drying Oven, Ohio EPA emissions unit Z136;  
Buff Area External Coat Booth, Ohio EPA emissions unit Z137;  
ADI Neck Cut-Off Machine, Ohio EPA emissions unit Z138;  
Salvage Techneglass Neck Cut-Off, Ohio EPA emissions unit Z139;  
Nitric Acid Recycle System, Ohio EPA emissions unit Z140;  
32V Acid Makeup Room, Ohio EPA emissions unit Z326;  
32V Chr. Wastewater Tank, Ohio EPA emissions unit Z327;  
32V Acid Wastewater Tank, Ohio EPA emissions unit Z328;

**B. State Only Enforceable Section (continued)**

32V Transfer Wastewater Tank, Ohio EPA emissions unit Z329;  
32V Flow Coat Line, Ohio EPA emissions unit Z333;  
32V Soft Flash, Ohio EPA emissions unit Z335;  
32V Mask Wash Unit, Ohio EPA emissions unit Z336;  
32V Assembly Line, Ohio EPA emissions unit Z337;  
32V Aluminizing Mill, Ohio EPA emissions unit Z338;  
32V Matrix Line, Ohio EPA emissions unit Z339;  
32V Chem Prep, Ohio EPA emissions unit Z340;  
32V PVA Prep, Ohio EPA emissions unit Z341;  
32V Aluminizing Shop, Mill Cleaning, Ohio EPA emissions unit Z344;  
32V Alum Shop, Bismuth Pallet Clean, Ohio EPA emissions unit Z345;  
32V Aluminizing Shop, Blue M Oven, Ohio EPA emissions unit Z346;  
32V Parts Cleaner, General Mntc, Ohio EPA emissions unit Z347;  
32V 2% Boric Acid Mix Tank, Ohio EPA emissions unit Z348;  
32V Research Pilot Screening Room, Ohio EPA emissions unit Z349;  
32V Matrix Dag Mix Room, Ohio EPA emissions unit Z350;  
32V Phosphor Susp Prep Room, Green, Ohio EPA emissions unit Z351;  
32V Phosphor Susp Prep Room, Red, Ohio EPA emissions unit Z352;  
32V Phosphor Susp Prep Room, Blue, Ohio EPA emissions unit Z353;  
32V Corner Cup Cleaning Room, Ohio EPA emissions unit Z354;  
32V Centrifuge Room, Green, Ohio EPA emissions unit Z355;  
32V Centrifuge Room, Blue, Ohio EPA emissions unit Z356;  
32V Centrifuge Room, Red, Ohio EPA emissions unit Z357;  
32V Pin Contact Apply, Ohio EPA emissions unit Z358;  
32V Optic Lab, Ohio EPA emissions unit Z359;  
32V Chem Lab Fume Hoods (2), Ohio EPA emissions unit Z360;  
32V Seal Edge Inspection, Ohio EPA emissions unit Z361;  
B# 22 HF Acid Tote Supply System, Ohio EPA emissions unit Z363;  
  
B# 22 HCL Tote Supply System, Ohio EPA emissions unit Z364;  
B# 22 Na2CO3 Supply System, Ohio EPA emissions unit Z365;  
Ass'y Room A, Insp. Lines 1,2,3,4,&5, Ohio EPA emissions unit Z500;  
Ass'y Room B, Insp. Lines 1,2,3,4,&5, Ohio EPA emissions unit Z501;  
32V Lacquer Pump Station, Ohio EPA emissions unit Z502;  
32V Prewet Mix Tank, Ohio EPA emissions unit Z503;  
32V Mineral Spirits Parts Cleaner, Ohio EPA emissions unit Z504;  
32V Waste Lacquer tank, Ohio EPA emissions unit Z505;  
TV Tube Sealer #4, Ohio EPA emissions unit Z506;  
TV Tube Sealer #3, Ohio EPA emissions unit Z507;  
TV Tube Sealer #1, Ohio EPA emissions unit Z508;  
TV Tube Sealer #2, Ohio EPA emissions unit Z509;  
TV Tube Sealer #8, Ohio EPA emissions unit Z512; and  
TV Tube Sealer #5, Ohio EPA emissions unit Z513.

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

**B. State Only Enforceable Section (continued)**

2. a. Pursuant to the Consent Order issued to the permittee on August 21, 1997, the organic compounds (OC) emissions from emissions unit P161 (steam frit dryer 1) shall be controlled through the application of a permanent total enclosure, and a catalytic incinerator with a minimum 95% destruction efficiency by weight.

The OC emissions from emissions unit P161 shall be controlled through the application of a permanent total enclosure (PTE) with a 100% capture efficiency. The PTE serving emissions unit P161 shall be maintained in such a manner as to meet the criteria established for a PTE in Method 204 (40 CFR Part 51, Appendix M) whenever emissions unit P161 is in operation, unless the permittee is successful in making the determination described in 2.b below.

b. The permittee has the option to perform a demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device is always maintained under negative pressure even when all openings (including, non-natural draft openings) which could affect the PTE are opened) in lieu of installing, maintaining and operating monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the demonstration to show that the PTE can not be compromised or the demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below.

3. a. 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.
- b. Except as provided in 2.b above, the permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than the minimum pressure differential (inches of water) established during the most recent emission test that demonstrated the emissions unit was in compliance, whenever the emissions unit is in operation.

**B. State Only Enforceable Section (continued)**

4.
  - a. The permittee shall operate and maintain continuous temperature monitors and recorder(s) that measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder(s) shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
  - b. The permittee shall collect and record the following information each day for emissions unit P161:
    - i. 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.
    - 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 log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
    - iv. Except as provided in 2.b above, the difference in pressure between the permanent total enclosure and the surrounding area(s), in inches of water.
  - c. Except as provided in 2.b above, the permittee shall 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 calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
5.
  - a. The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time when emissions unit P161 was in operation during which the average temperature of the exhaust gases immediately before the catalyst bed or the average temperature difference across the catalyst bed did not comply with the temperature limitations specified above.
  - b. Except as provided in 2.b, the permittee shall submit quarterly pressure differential deviation (excursion) reports that identify all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified above.
  - c. The deviation reports shall be submitted in accordance with paragraph B.2 of the General Terms and Conditions of this permit.
  - d. 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.
6.
  - a. Compliance with the emission limitation(s) in Section 2 above shall be determined in accordance with the following method(s):

Emission Limitation-  
95% destruction efficiency for OC, by weight

Applicable Compliance Method-  
The permittee shall demonstrate compliance with the limitation above based upon the results of emission testing conducted in accordance with the methods and procedures outlined in Section 6.b of this permit.

**B. State Only Enforceable Section (continued)**

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

i. The emission testing shall be conducted within six months prior to the expiration of this permit.

ii. The emission testing shall be conducted to demonstrate compliance with the overall control system efficiency for OCs which will be determined as the product of the capture efficiency and the destruction efficiency of the catalytic incinerator.

iii. The following test method(s) shall be employed to demonstrate compliance with the overall control system efficiency for OCs:

(a) The capture efficiency shall be determined using the test methods specified in 40 CFR Part 51, Appendix M, Method 204 through 204F, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency as specified in the USEPA Guidelines for Determining Capture Efficiency, dated January 9, 1995. Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.

(b) The destruction efficiency of the catalytic incinerator shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-21-10 and shall measure the percent reduction in mass emissions of organic compounds or organic materials between the inlet and outlet of the vapor control system.

iv. The test(s) shall be conducted while this 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.

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 appropriate Ohio EPA District Office or local air agency.

7. During any emission testing for this emissions unit, the permittee shall record the following additional information:

- a. the average temperature of the exhaust gases immediately before the catalyst bed, in degrees Fahrenheit;
- b. the average temperature difference across the catalyst bed, in degrees Fahrenheit; and
- c. the minimum pressure differential established, in inches of water.

**B. State Only Enforceable Section (continued)**

8. Unless a determination is made pursuant to 2.b, the overall control efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement. ) 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 the approved alternative test protocol. 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.

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Energy Center Boiler #1 (B008)  
**Activity Description:** 25.1 MMBTU natural gas fired steam generating boiler.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
25.1 mmBtu/hr, natural gas, No. 2 oil, and No. 4 oil fired-boiler (Energy Center boiler No. 1)	OAC rule 3745-31-05 PTI 03-4995	13.8 lbs sulfur dioxide (SO <sub>2</sub> ) per hr  9.68 lbs nitrogen oxides (NO <sub>x</sub> ) per hr  1.23 lbs particulate emissions (PE) per hr  60.5 tons SO <sub>2</sub> per year* 56.6 tons NO <sub>x</sub> per year* 5.52 tons PE per year*
		* for emissions units B008 and B009, combined
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-18-06(D), 3745-17-10(B)(1) and 3745-17-07(A), and 40 CFR 60.42c.
	OAC rule 3745-18-06(D)	1.6 lbs SO <sub>2</sub> per mmBtu heat input (when firing No. 2 and/or No. 4 fuel oil)
	OAC rule 3745-17-10(B)(1)	0.020 lb PE per mmBtu heat input (when firing natural gas and/or No. 2 fuel oil)
	OAC rule 3745-17-10(C)(2)	0.45 lb PE per mmBtu heat input (when firing No. 4 fuel oil)
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20 percent opacity, as a six-minute average, except as provided by rule.
	40 CFR 60.42c (d) NSPS Subpart Dc	See A.II.2.
	OAC rules 3745-21-08(B) and 3745-23-06(B)	See A.I.2.a.

## 2. Additional Terms and Conditions

- 2.a The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 03-4995.

## II. Operational Restrictions

1. The permittee shall combust only natural gas, No.2 fuel oil, and/or No. 4 fuel oil in this emissions unit.
2. The maximum sulfur content of the fuel oil burned in this emissions unit shall not exceed 0.5%, by weight.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain records of the fuel supplier certification for each shipment of fuel oil. The fuel supplier certification for each shipment of fuel oil shall include the following information:
  - 1.a For distillate oil (No. 2 fuel oil):
    - i. the name of the oil supplier; and
    - ii. a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c.\*

\* Distillate oil means fuel oil that complies with the specifications for fuel oil Nos. 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78, "Standard Specification for Fuel Oils."
  - 1.b For residual oil (No. 4 oil):
    - i. the name of the oil supplier;
    - ii. the location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;
    - iii. the sulfur content of the oil from which the shipment came (or of the shipment itself); and
    - iv. the method used to determine the sulfur content of the oil.
2. For each day during which the permittee burns a fuel other than natural gas, No. 2 fuel oil, and/or No. 4 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
3. For each day during which the permittee burns No. 4 fuel oil, the permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

### III. Monitoring and/or Record Keeping Requirements (continued)

4. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content (weight percent) and heat content (lb/mmBtu).
5. The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. For each sample, the permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the Ohio EPA, Northwest District Office.
6. The permittee shall collect and record the following information each month for this emissions unit:
  - a. the type and amount of each fuel oil fired, in gallons;
  - b. the sulfur content of each fuel oil fired, in weight percent;
  - c. the sulfur dioxide emissions, in tons, calculated as follows:  
  
SO<sub>2</sub> emissions (lbs/month) = summation of (a x b x 0.000071\*) for all fuel oils fired
  - d. the annual, year-to-date, sulfur dioxide emissions, in tons, from all the fuel oil firing (summation of c for each calendar month, from January through December).

\* 0.000071 = conversion factor of 142\*\* per 1000 gallons of oil, divided by 2000 lb per ton

\*\* AP-42, Table 1.3-1 (revised 9/98)

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that include an identification of each day during which a fuel other than natural gas, No. 2 fuel oil, and/or No. 4 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit while No. 4 fuel oil was being burned and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Northwest District Office by January 31 and July 31 of each year and shall cover the previous 6-month period
3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the fuel oil sulfur content restriction of 0.5% by weight.  
  
The deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.
4. The permittee shall submit annual reports that summarize the actual annual SO<sub>2</sub> emissions from fuel oil firing for this emissions unit and emissions unit B009, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

### V. Testing Requirements

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

## V. Testing Requirements (continued)

- 1.a** Emission Limitation:  
13.8 lbs SO<sub>2</sub> per hr

Applicable Compliance Method:

For the use of natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 0.6 lb SO<sub>2</sub>/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

For the use of No. 2 fuel oil and/or No. 4 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 142S\* lbs SO<sub>2</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance with the hourly allowable SO<sub>2</sub> emission limitation above in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

\* S indicates the weight percent of sulfur in the fuel oil. For example, if the fuel oil is 1% sulfur, then S = 1.

- 1.b** Emission Limitation:  
1.6 lbs SO<sub>2</sub> per mmBtu heat input (when firing No. 2 and/or No. 4 oil)

Applicable Compliance Method:

Compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 142S\* lbs SO<sub>2</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit, and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

If required, the permittee shall demonstrate compliance with the allowable SO<sub>2</sub> emission limitation above in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

\* S indicates the weight percent of sulfur in the fuel oil. For example, if the fuel oil is 1% sulfur, then S = 1.

- 1.c** Emission Limitation:  
9.68 lbs NO<sub>x</sub> per hr

Applicable Compliance Method:

For the use of natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-1 (revised 2/98) emission factor of 100 lbs NO<sub>x</sub>/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

For the use of No. 2 fuel oil and/or No. 4 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 20 lbs NO<sub>x</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance with the hourly allowable NO<sub>x</sub> emission limitation above in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

## V. Testing Requirements (continued)

- 1.d** Emission Limitation:  
1.23 lbs PE per hr

Applicable Compliance Method:

For the use of natural gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu. ft./hour) by the AP-42, Table 1.4-2 ( revised 7/98) emission factor for natural gas (1.9 lbs PE/mm cu. ft).

For the use of No. 2 fuel oil, compliance may be determined by multiplying the maximum fuel oil capacity of the emissions unit (gallons/hour) by the AP-42, Table 1.3-1 (revised 9/98) emission factor for No. 2 fuel oil (2 lbs PE/1000 gallons).

For the use of No. 4 fuel oil, compliance may be determined by multiplying the maximum fuel oil capacity of the emissions unit (gallons/hour) by the AP-42, Table 1.3-1 (revised 9/98) emission factor for No. 4 fuel oil (7 lbs PE/1000 gallons).

If required, compliance with the hourly allowable PE limitation above shall be demonstrated in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

- 1.e** Emission Limitations:  
0.020 lb PE per mmBtu heat input (when firing natural gas and/or No. 2 fuel oil)  
0.45 lb PE per mmBtu heat input (when firing No. 4 fuel oil)

Applicable Compliance Method:

For the use of natural gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu. ft./hour) by the AP-42, Table 1.4-2 ( revised 7/98) emission factor for natural gas (1.9 lbs PE/mm cu. ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

For the use of No. 2 fuel oil, compliance may be determined by multiplying the maximum fuel oil capacity of the emissions unit (gallons/hour) by the AP-42, Table 1.3-1 (revised 9/98) emission factor for No. 2 fuel oil (2 lbs PE/1000 gallons), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

For the use of No. 4 fuel oil, compliance may be determined by multiplying the maximum fuel oil capacity of the emissions unit (gallons/hour) by the AP-42, Table 1.3-1 (revised 9/98) emission factor for No. 4 fuel oil (7 lbs PE/1000 gallons), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

If required, compliance with the PE limitation above shall be demonstrated in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

- 1.f** Emission Limitation:  
Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible PE limitation pursuant to OAC rule 3745-17-03(B)(1).

- 1.g** Operational Restriction:  
0.5 weight percent sulfur for fuel oils

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in Sections A.III.1, A.III.4, and A.III.5 of this permit.

## **V. Testing Requirements (continued)**

- 1.h** Emission Limitations:  
56.6 tons NOx per year\*  
5.52 tons PE per year\*  
\* for emissions units B008 and B009, combined

Applicable Compliance Method:

Compliance with hourly allowable NOx emission limitation for both emissions units B008 and B009\* ensures compliance with the annual allowable NOx emission limitation because the potential to emit for NOx for either emissions unit is less than the annual NOx emission limitation established pursuant to OAC rule 3745-31-05(A) [the potential to emit was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000].

Compliance with hourly allowable PE limitation for both emissions units B008 and B009\* ensures compliance with the annual allowable PE limitation because the potential to emit for PE for either emissions unit is less than the annual PE limitation established pursuant to OAC rule 3745-31-05(A) [the potential to emit was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000].

\* The permittee cannot operate both emissions units (B008 and B009) at the same time.

- 1.i** Emission Limitation:  
60.5 tons SO2 per year, for emissions units B008 and B009, combined

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in Section A.III.6 of this permit.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Energy Center Boiler #2 (B009)  
**Activity Description:** 25.1 MMBTU natural gas fired steam generating boiler.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
25.1 mmBtu/hr, natural gas, No. 2 oil, and No. 4 oil fired-boiler (Energy Center boiler No. 2)	OAC rule 3745-31-05 PTI 03-4995	13.8 lbs sulfur dioxide (SO <sub>2</sub> ) per hr  9.68 lbs nitrogen oxides (NO <sub>x</sub> ) per hr  1.23 lbs particulate emissions (PE) per hr  60.5 tons SO <sub>2</sub> per year* 56.6 tons NO <sub>x</sub> per year* 5.52 tons PE per year*
		* for emissions units B008 and B009, combined
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-18-06(D), 3745-17-10(B)(1) and 3745-17-07(A), and 40 CFR 60.42c.
	OAC rule 3745-18-06(D)	1.6 lbs SO <sub>2</sub> per mmBtu heat input (when firing No. 2 and/or No. 4 fuel oil)
	OAC rule 3745-17-10(B)(1)	0.020 lb PE per mmBtu heat input (when firing natural gas and/or No. 2 fuel oil)
	OAC rule 3745-17-10(C)(2)	0.45 lb PE per mmBtu heat input (when firing No. 4 fuel oil)
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20 percent opacity, as a six-minute average, except as provided by rule.
	40 CFR 60.42c (d) NSPS Subpart Dc	See A.II.2.
	OAC rules 3745-21-08(B) and 3745-23-06(B)	See A.I.2.a.

## **2. Additional Terms and Conditions**

- 2.a** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 03-4995.

## **II. Operational Restrictions**

1. The permittee shall combust only natural gas, No.2 fuel oil, and/or No. 4 fuel oil in this emissions unit.
2. The maximum sulfur content of the fuel oil burned in this emissions unit shall not exceed 0.5%, by weight.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain records of the fuel supplier certification for each shipment of fuel oil. The fuel supplier certification for each shipment of fuel oil shall include the following information:
    - 1.a** For distillate oil (No. 2 fuel oil):
      - i. the name of the oil supplier; and
      - ii. a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c.\*

\* Distillate oil means fuel oil that complies with the specifications for fuel oil Nos. 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78, "Standard Specification for Fuel Oils."

  - 1.b** For residual oil (No. 4 oil):
    - i. the name of the oil supplier;
    - ii. the location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;
    - iii. the sulfur content of the oil from which the shipment came (or of the shipment itself); and
    - iv. the method used to determine the sulfur content of the oil.
2. For each day during which the permittee burns a fuel other than natural gas, No. 2 fuel oil, and/or No. 4 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
3. For each day during which the permittee burns No. 4 fuel oil, the permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

### III. Monitoring and/or Record Keeping Requirements (continued)

4. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content (weight percent) and heat content (lb/mmBtu).
5. The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. For each sample, the permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the Ohio EPA, Northwest District Office.
6. The permittee shall collect and record the following information each month for this emissions unit:
  - a. the type and amount of each fuel oil fired, in gallons;
  - b. the sulfur content of each fuel oil fired, in weight percent;
  - c. the sulfur dioxide emissions, in tons, calculated as follows:  
  
SO<sub>2</sub> emissions (lbs/month) = summation of (a x b x 0.000071\*) for all fuel oils fired
  - d. the annual, year-to-date, sulfur dioxide emissions, in tons, from all the fuel oil firing (summation of c for each calendar month, from January through December).

\* 0.000071 = conversion factor of 142\*\* per 1000 gallons of oil, divided by 2000 lb per ton

\*\* AP-42, Table 1.3-1 (revised 9/98)

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that include an identification of each day during which a fuel other than natural gas, No. 2 fuel oil, and/or No. 4 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit while No. 4 fuel oil was being burned and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Northwest District Office by January 31 and July 31 of each year and shall cover the previous 6-month period
3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the fuel oil sulfur content restriction of 0.5% by weight.  
  
The deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.
4. The permittee shall submit annual reports that summarize the actual annual SO<sub>2</sub> emissions from fuel oil firing for this emissions unit and emissions unit B008, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

### V. Testing Requirements

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

## V. Testing Requirements (continued)

- 1.a** Emission Limitation:  
13.8 lbs SO<sub>2</sub> per hr

Applicable Compliance Method:

For the use of natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 0.6 lb SO<sub>2</sub>/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

For the use of No. 2 fuel oil and/or No. 4 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 142S\* lbs SO<sub>2</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance with the hourly allowable SO<sub>2</sub> emission limitation above in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

\* S indicates the weight percent of sulfur in the fuel oil. For example, if the fuel oil is 1% sulfur, then S = 1.

- 1.b** Emission Limitation:  
1.6 lbs SO<sub>2</sub> per mmBtu heat input (when firing No. 2 and/or No. 4 oil)

Applicable Compliance Method:

Compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 142S\* lbs SO<sub>2</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit, and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

If required, the permittee shall demonstrate compliance with the allowable SO<sub>2</sub> emission limitation above in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

\* S indicates the weight percent of sulfur in the fuel oil. For example, if the fuel oil is 1% sulfur, then S = 1.

- 1.c** Emission Limitation:  
9.68 lbs NO<sub>x</sub> per hr

Applicable Compliance Method:

For the use of natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-1 (revised 2/98) emission factor of 100 lbs NO<sub>x</sub>/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

For the use of No. 2 fuel oil and/or No. 4 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 20 lbs NO<sub>x</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance with the hourly allowable NO<sub>x</sub> emission limitation above in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

## V. Testing Requirements (continued)

- 1.d** Emission Limitation:  
1.23 lbs PE per hr

**Applicable Compliance Method:**

For the use of natural gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu. ft./hour) by the AP-42, Table 1.4-2 ( revised 7/98) emission factor for natural gas (1.9 lbs PE/mm cu. ft).

For the use of No. 2 fuel oil, compliance may be determined by multiplying the maximum fuel oil capacity of the emissions unit (gallons/hour) by the AP-42, Table 1.3-1 (revised 9/98) emission factor for No. 2 fuel oil (2 lbs PE/1000 gallons).

For the use of No. 4 fuel oil, compliance may be determined by multiplying the maximum fuel oil capacity of the emissions unit (gallons/hour) by the AP-42, Table 1.3-1 (revised 9/98) emission factor for No. 4 fuel oil (7 lbs PE/1000 gallons).

If required, compliance with the hourly allowable PE limitation above shall be demonstrated in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

- 1.e** Emission Limitations:  
0.020 lb PE per mmBtu heat input (when firing natural gas and/or No. 2 fuel oil)  
0.45 lb PE per mmBtu heat input (when firing No. 4 fuel oil)

**Applicable Compliance Method:**

For the use of natural gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu. ft./hour) by the AP-42, Table 1.4-2 ( revised 7/98) emission factor for natural gas (1.9 lbs PE/mm cu. ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

For the use of No. 2 fuel oil, compliance may be determined by multiplying the maximum fuel oil capacity of the emissions unit (gallons/hour) by the AP-42, Table 1.3-1 (revised 9/98) emission factor for No. 2 fuel oil (2 lbs PE/1000 gallons), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

For the use of No. 4 fuel oil, compliance may be determined by multiplying the maximum fuel oil capacity of the emissions unit (gallons/hour) by the AP-42, Table 1.3-1 (revised 9/98) emission factor for No. 4 fuel oil (7 lbs PE/1000 gallons), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

If required, compliance with the PE limitation above shall be demonstrated in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

- 1.f** Emission Limitation:  
Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

**Applicable Compliance Method:**

If required, the permittee shall demonstrate compliance with the visible PE limitation pursuant to OAC rule 3745-17-03(B)(1).

- 1.g** Operational Restriction:  
0.5 weight percent sulfur for fuel oils

**Applicable Compliance Method:**

Compliance shall be based upon the record keeping requirements specified in Sections A.III.1, A.III.4, and A.III.5 of this permit.

## **V. Testing Requirements (continued)**

- 1.h** Emission Limitations:  
56.6 tons NOx per year\*  
5.52 tons PE per year\*  
\* for emissions units B008 and B009, combined

Applicable Compliance Method:

Compliance with hourly allowable NOx emission limitation for both emissions units B008 and B009\* ensures compliance with the annual allowable NOx emission limitation because the potential to emit for NOx for either emissions unit is less than the annual NOx emission limitation established pursuant to OAC rule 3745-31-05(A) [the potential to emit was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000].

Compliance with hourly allowable PE limitation for both emissions units B008 and B009\* ensures compliance with the annual allowable PE limitation because the potential to emit for PE for either emissions unit is less than the annual PE limitation established pursuant to OAC rule 3745-31-05(A) [the potential to emit was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000].

\* The permittee cannot operate both emissions units (B008 and B009) at the same time.

- 1.i** Emission Limitation:  
60.5 tons SO2 per year, for emissions units B008 and B009, combined

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in Section A.III.6 of this permit.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** 60K Boiler (B010)

**Activity Description:** 71.7 MMBTU natural gas fired steam generating boiler.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
71.7 mmBtu/hr, natural gas-fired boiler	OAC rule 3745-31-05 PTI 03-9394	3.21 lbs nitrogen oxides (NOx) per hr  1.15 lbs volatile organic compounds (VOC) per hr  1.43 lbs particulate emissions (PE) per hr  13.0 lbs carbon monoxide (CO) per hr  The requirements of this rule also include compliance with the requirements of OAC rules 3745-18-06(A), 3745-17-10(B)(1) and 3745-17-07(A), and 40 CFR 60.42c.
	OAC rules 3745-21-08(B) and 3745-23-06(B)	See A.I.2.b.
	OAC rule 3745-17-10(B)(1)	0.020 lb PE per mmBtu heat input
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20 percent opacity, as a six-minute average, except as provided by rule.
	40 CFR 60.48c (g) NSPS Subpart Dc	See A.III.2.
	OAC rule 3745-18-06(A)	See A.I.2.a.

## **2. Additional Terms and Conditions**

- 2.a** OAC rule 3745-18-06(A) does not establish sulfur dioxide emission limitations for this emissions unit because the emissions unit only employs natural gas as fuel. However, OAC rule 3745-18-06(A) requires that the natural gas being combusted meet certain fuel quality restrictions (a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pound per million standard cubic feet). Because the natural gas being burned in this emissions unit is the standard, pipeline quality natural gas supplied to industrial, commercial, and residential users throughout the State, it is assumed that it meets the fuel quality restrictions; and no monitoring, record keeping or reporting requirements are necessary to ensure ongoing compliance with OAC rule 3745-18-06(A).
- 2.b** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 03-9394.

## **II. Operational Restrictions**

1. The permittee shall burn only natural gas in this emissions unit.

## **III. Monitoring and/or Record Keeping Requirements**

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

## **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

## **V. Testing Requirements**

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

## V. Testing Requirements (continued)

- 1.a** Emission Limitation:  
3.21 lbs NO<sub>x</sub> per hr

Applicable Compliance Method:

The permittee may determine compliance with the hourly allowable NO<sub>x</sub> emission limitation by using the following equation:

$$\text{NO}_x \text{ emissions (lbs/hr)} = \text{MWN} \times \text{P} \times \text{VNO} \times 60^{**} / (359^{**})$$

Where:

MWN = average molecular weight of NO<sub>x</sub> (46 grams/gram-mole)

P = atmospheric pressure (1 atm)

VNO = volume of the NO<sub>x</sub> in the exhaust gases calculated by dividing 30<sup>\*\*\*</sup> by a million, and then multiplying by the maximum flow rate of the exhaust gases (13,800 dry scfm)

\* This is a factor to convert minutes to hours.

\*\* This is a factor to convert SCFM to lb-moles.

\*\*\* This is the manufacturer-guaranteed maximum outlet concentration of NO<sub>x</sub> (based on flue gas recirculation), in ppmv.

If required, the permittee shall demonstrate compliance with the hourly allowable NO<sub>x</sub> emission limitation in accordance with 40 CFR 60, Appendix A, Methods 1 through 4, and 7.

- 1.b** Emission Limitation:  
1.15 lbs VOC per hr

Applicable Compliance Method:

Compliance with the hourly allowable VOC emission limitation may be determined by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 5.5 lbs VOC/mm cu. ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

If required, the permittee shall demonstrate compliance with the hourly allowable VOC emission limitation in accordance with 40 CFR 60, Appendix A, Methods 18, 25, or 25A, as appropriate.

- 1.c** Emission Limitation:  
1.43 lbs PE per hr

Applicable Compliance Method:

Compliance with the hourly allowable PE limitation may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu. ft./hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor for natural gas (1.9 lbs particulates/mm cu. ft).

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

## V. Testing Requirements (continued)

- 1.d** Emission Limitation:  
13.0 lbs CO per hr

Applicable Compliance Method:

The permittee may determine compliance with the hourly allowable CO emission limitation by using the following equation:

$$\text{CO emissions (lbs/hr)} = \text{MWN} \times \text{P} \times \text{VCO} \times 60^{**} / (359^{**})$$

Where:

MWN = average molecular weight of CO (28 grams/gram-mole)

P = atmospheric pressure (1 atm)

VCO = volume of the CO in the exhaust gases calculated by dividing 200<sup>\*\*\*</sup> by a million, and then multiplying by the maximum flow rate of the exhaust gases (13,800 scfm)

\* This is a factor to convert minutes to hours.

\*\* This is a factor to convert SCFM to lb-moles.

\*\*\* This is the manufacturer-guaranteed maximum outlet concentration of CO (based on flue gas recirculation), in ppmv.

If required, the permittee shall demonstrate compliance with the hourly allowable CO emissions limitation pursuant to 40 CFR 60, Appendix A, Methods 1 through 4 and 10.

- 1.e** Emission Limitation:  
0.020 lb PE per mmBtu heat input

Applicable Compliance Method:

Compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu. ft./hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor for natural gas (1.9 lbs particulates/mm cu. ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

If required, the permittee shall demonstrate compliance with the PE standard above in accordance with OAC rule 3745-17-03(B)(9).

- 1.f** Emission Limitation:  
Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible PE limitation pursuant to OAC rule 3745-17-03(B)(1).

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Lacquer Line #1 (P167)

**Activity Description:** Aluminizing lacquer, containing 5% solids, is applied to panels which are held horizontally and spun.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
lacquer coating line 1 - monitor screens - 'spin' rotary application	OAC rule 3745-21-07(G)	none (See A.1.2.a.)

##### 2. Additional Terms and Conditions

- 2.a This facility is located in Putnam County, which is not a "Priority I" county as indicated in paragraph (A) of OAC rule 3745-21-06, and the emissions unit is not a "new source." Therefore, pursuant to OAC rule 3745-21-07(A), it is exempt from the requirements of OAC rule 3745-21-07(G).

##### II. Operational Restrictions

None

##### III. Monitoring and/or Record Keeping Requirements

None

##### IV. Reporting Requirements

None

##### V. Testing Requirements

None

##### VI. Miscellaneous Requirements

None

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
lacquer coating line 1 - monitor screens - 'spin' rotary application	none	none

**2. Additional Terms and Conditions**

- 2.a Pursuant to the Consent Order issued to the permittee on August 21, 1997, the organic compounds (OC) emissions from this emissions unit shall be controlled through the application of a permanent total enclosure, and a catalytic incinerator with a minimum 95% destruction efficiency by weight.

The OC emissions from this emissions unit shall be controlled through the application of a permanent total enclosure (PTE) with a 100% capture efficiency. The PTE serving this emissions unit shall be maintained in such a manner as to meet the criteria established for a PTE in Method 204 (40 CFR Part 51, Appendix M) whenever the emissions unit is in operation, unless the permittee is successful in making the determination described in B.I.2.b.

- 2.b The permittee has the option to perform a demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device is always maintained under negative pressure even when all openings (including, non-natural draft openings) which could affect the PTE are opened) in lieu of installing, maintaining and operating monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the demonstration to show that the PTE can not be compromised or the demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below (see Sections B.II, B.III, and B.IV below) to ensure the ongoing integrity of the PTE and meet the criteria specified in Method 204.

**II. Operational Restrictions**

1. 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.

## **II. Operational Restrictions (continued)**

2. Except as provided in B.1.2.b, the permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than the minimum pressure differential (inches of water) established during the most recent emission test that demonstrated the emissions unit was in compliance, whenever the emissions unit is in operation.
3. The doors to the lacquer line room shall remain closed at all times, except for entry or exit or for an emergency.
4. To minimize fugitive emissions, all spent cleanup solvent which will not be reused shall be returned to the waste recovery tank from a point within the permanent total enclosure of the lacquer line room.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall operate and maintain continuous temperature monitors and recorder(s) that measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder(s) shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
2. The permittee shall collect and record the following information 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 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.
  - 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.
  - c. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
  - d. Except as provided in B.1.2.b, the difference in pressure between the permanent total enclosure and the surrounding area(s), in inches of water.
3. Except as provided in B.1.2.b, the permittee shall 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 calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

## **IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify 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 or the average temperature difference across the catalyst bed did not comply with the temperature limitations specified above.
2. Except as provided in B.1.2.b, the permittee shall submit quarterly pressure differential deviation (excursion) reports that identify all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified above.
3. The deviation reports shall be submitted in accordance with paragraph B.2 of the General Terms and Conditions of this permit.
4. 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.

## V. Testing Requirements

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

Emission Limitation-  
95% destruction efficiency for OC, by weight

Applicable Compliance Method-

The permittee shall demonstrate compliance with the limitation above based upon the results of emission testing conducted in accordance with the methods and procedures outlined in Section B.V.2 of this permit.

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 within six months prior to the expiration of this permit.
  - b. The emission testing shall be conducted to demonstrate compliance with the overall control system efficiency for OCs which will be determined as the product of the capture efficiency and the destruction efficiency of the catalytic incinerator.
  - c. The following test method(s) shall be employed to demonstrate compliance with the overall control system efficiency for OCs:
    - i. The capture efficiency shall be determined using the test methods specified in 40 CFR Part 51, Appendix M, Method 204 through 204F, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency as specified in the USEPA Guidelines for Determining Capture Efficiency, dated January 9, 1995. Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.
    - ii. The destruction efficiency of the catalytic incinerator shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-21-10 and shall measure the percent reduction in mass emissions of organic compounds or organic materials between the inlet and outlet of the vapor control system.
  - d. The test(s) shall be conducted while this 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.
3. 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 appropriate Ohio EPA District Office or local air agency.

**V. Testing Requirements (continued)**

4. During any emission testing for this emissions unit, the permittee shall record the following additional information:
  - a. the average temperature of the exhaust gases immediately before the catalyst bed, in degrees Fahrenheit;
  - b. the average temperature difference across the catalyst bed, in degrees Fahrenheit; and
  - c. the minimum pressure differential established, in inches of water.
5. Unless a determination is made pursuant to B.1.2.b, the overall control efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement. ) 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 the approved alternative test protocol. 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.

**VI. Miscellaneous Requirements**

**None**

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Lacquer Line #2 (P168)

**Activity Description:** Aluminizing lacquer, containing 5% solids, is applied to panels which are held horizontally and spun.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
lacquer coating line 2 - monitor screens - 'spin' rotary application	OAC rule 3745-21-07(G)	none (See A.1.2.a.)

##### 2. Additional Terms and Conditions

- 2.a This facility is located in Putnam County, which is not a "Priority I" county as indicated in paragraph (A) of OAC rule 3745-21-06, and the emissions unit is not a "new source." Therefore, pursuant to OAC rule 3745-21-07(A), it is exempt from the requirements of OAC rule 3745-21-07(G).

##### II. Operational Restrictions

None

##### III. Monitoring and/or Record Keeping Requirements

None

##### IV. Reporting Requirements

None

##### V. Testing Requirements

None

##### VI. Miscellaneous Requirements

None

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
lacquer coating line 2 - monitor screens - 'spin' rotary application	none	none

**2. Additional Terms and Conditions**

- 2.a Pursuant to the Consent Order issued to the permittee on August 21, 1997, the organic compounds (OC) emissions from this emissions unit shall be controlled through the application of a permanent total enclosure, and a catalytic incinerator with a minimum 95% destruction efficiency by weight.

The OC emissions from this emissions unit shall be controlled through the application of a permanent total enclosure (PTE) with a 100% capture efficiency. The PTE serving this emissions unit shall be maintained in such a manner as to meet the criteria established for a PTE in Method 204 (40 CFR Part 51, Appendix M) whenever the emissions unit is in operation, unless the permittee is successful in making the determination described in B.I.2.b.

- 2.b The permittee has the option to perform a demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device is always maintained under negative pressure even when all openings (including, non-natural draft openings) which could affect the PTE are opened) in lieu of installing, maintaining and operating monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the demonstration to show that the PTE can not be compromised or the demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below (see Sections B.II, B.III, and B.IV below) to ensure the ongoing integrity of the PTE and meet the criteria specified in Method 204.

**II. Operational Restrictions**

1. 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.

## **II. Operational Restrictions (continued)**

2. Except as provided in B.1.2.b, the permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than the minimum pressure differential (inches of water) established during the most recent emission test that demonstrated the emissions unit was in compliance, whenever the emissions unit is in operation.
3. The doors to the lacquer line room shall remain closed at all times, except for entry or exit or for an emergency.
4. To minimize fugitive emissions, all spent cleanup solvent which will not be reused shall be returned to the waste recovery tank from a point within the permanent total enclosure of the lacquer line room.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall operate and maintain continuous temperature monitors and recorder(s) that measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder(s) shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
2. The permittee shall collect and record the following information 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 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.
  - 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.
  - c. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
  - d. Except as provided in B.1.2.b, the difference in pressure between the permanent total enclosure and the surrounding area(s), in inches of water.
3. Except as provided in B.1.2.b, the permittee shall 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 calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

## **IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify 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 or the average temperature difference across the catalyst bed did not comply with the temperature limitations specified above.
2. Except as provided in B.1.2.b, the permittee shall submit quarterly pressure differential deviation (excursion) reports that identify all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified above.
3. The deviation reports shall be submitted in accordance with paragraph B.2 of the General Terms and Conditions of this permit.
4. 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.

## V. Testing Requirements

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

Emission Limitation-  
95% destruction efficiency for OC, by weight

Applicable Compliance Method-

The permittee shall demonstrate compliance with the limitation above based upon the results of emission testing conducted in accordance with the methods and procedures outlined in Section B.V.2 of this permit.

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 within six months prior to the expiration of this permit.
  - b. The emission testing shall be conducted to demonstrate compliance with the overall control system efficiency for OCs which will be determined as the product of the capture efficiency and the destruction efficiency of the catalytic incinerator.
  - c. The following test method(s) shall be employed to demonstrate compliance with the overall control system efficiency for OCs:
    - i. The capture efficiency shall be determined using the test methods specified in 40 CFR Part 51, Appendix M, Method 204 through 204F, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency as specified in the USEPA Guidelines for Determining Capture Efficiency, dated January 9, 1995. Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.
    - ii. The destruction efficiency of the catalytic incinerator shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-21-10 and shall measure the percent reduction in mass emissions of organic compounds or organic materials between the inlet and outlet of the vapor control system.
  - d. The test(s) shall be conducted while this 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.
3. 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 appropriate Ohio EPA District Office or local air agency.

**V. Testing Requirements (continued)**

4. During any emission testing for this emissions unit, the permittee shall record the following additional information:
  - a. the average temperature of the exhaust gases immediately before the catalyst bed, in degrees Fahrenheit;
  - b. the average temperature difference across the catalyst bed, in degrees Fahrenheit; and
  - c. the minimum pressure differential established, in inches of water.
5. Unless a determination is made pursuant to B.1.2.b, the overall control efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement. ) 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 the approved alternative test protocol. 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.

**VI. Miscellaneous Requirements**

**None**

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Lacquer Line #3 (P169)

**Activity Description:** Aluminizing lacquer, containing 5% solids, is applied to panels which are held horizontally and spun.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
lacquer coating line 3 - monitor screens - 'spin' rotary application	OAC rule 3745-21-07(G)	none (See A.1.2.a.)

##### 2. Additional Terms and Conditions

- 2.a This facility is located in Putnam County, which is not a "Priority I" county as indicated in paragraph (A) of OAC rule 3745-21-06, and the emissions unit is not a "new source." Therefore, pursuant to OAC rule 3745-21-07(A), it is exempt from the requirements of OAC rule 3745-21-07(G).

##### II. Operational Restrictions

None

##### III. Monitoring and/or Record Keeping Requirements

None

##### IV. Reporting Requirements

None

##### V. Testing Requirements

None

##### VI. Miscellaneous Requirements

None

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
lacquer coating line 3 - monitor screens - 'spin' rotary application	none	none

**2. Additional Terms and Conditions**

- 2.a Pursuant to the Consent Order issued to the permittee on August 21, 1997, the organic compounds (OC) emissions from this emissions unit shall be controlled through the application of a permanent total enclosure, and a catalytic incinerator with a minimum 95% destruction efficiency by weight.

The OC emissions from this emissions unit shall be controlled through the application of a permanent total enclosure (PTE) with a 100% capture efficiency. The PTE serving this emissions unit shall be maintained in such a manner as to meet the criteria established for a PTE in Method 204 (40 CFR Part 51, Appendix M) whenever the emissions unit is in operation, unless the permittee is successful in making the determination described in B.I.2.b.

- 2.b The permittee has the option to perform a demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device is always maintained under negative pressure even when all openings (including, non-natural draft openings) which could affect the PTE are opened) in lieu of installing, maintaining and operating monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the demonstration to show that the PTE can not be compromised or the demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below (see Sections B.II, B.III, and B.IV below) to ensure the ongoing integrity of the PTE and meet the criteria specified in Method 204.

**II. Operational Restrictions**

1. 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.

## **II. Operational Restrictions (continued)**

2. Except as provided in B.1.2.b, the permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than the minimum pressure differential (inches of water) established during the most recent emission test that demonstrated the emissions unit was in compliance, whenever the emissions unit is in operation.
3. The doors to the lacquer line room shall remain closed at all times, except for entry or exit or for an emergency.
4. To minimize fugitive emissions, all spent cleanup solvent which will not be reused shall be returned to the waste recovery tank from a point within the permanent total enclosure of the lacquer line room.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall operate and maintain continuous temperature monitors and recorder(s) that measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder(s) shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
2. The permittee shall collect and record the following information 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 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.
  - 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.
  - c. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
  - d. Except as provided in B.1.2.b, the difference in pressure between the permanent total enclosure and the surrounding area(s), in inches of water.
3. Except as provided in B.1.2.b, the permittee shall 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 calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

## **IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify 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 or the average temperature difference across the catalyst bed did not comply with the temperature limitations specified above.
2. Except as provided in B.1.2.b, the permittee shall submit quarterly pressure differential deviation (excursion) reports that identify all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified above.
3. The deviation reports shall be submitted in accordance with paragraph B.2 of the General Terms and Conditions of this permit.
4. 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.

## V. Testing Requirements

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

Emission Limitation-  
95% destruction efficiency for OC, by weight

Applicable Compliance Method-

The permittee shall demonstrate compliance with the limitation above based upon the results of emission testing conducted in accordance with the methods and procedures outlined in Section B.V.2 of this permit.

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 within six months prior to the expiration of this permit.
  - b. The emission testing shall be conducted to demonstrate compliance with the overall control system efficiency for OCs which will be determined as the product of the capture efficiency and the destruction efficiency of the catalytic incinerator.
  - c. The following test method(s) shall be employed to demonstrate compliance with the overall control system efficiency for OCs:
    - i. The capture efficiency shall be determined using the test methods specified in 40 CFR Part 51, Appendix M, Method 204 through 204F, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency as specified in the USEPA Guidelines for Determining Capture Efficiency, dated January 9, 1995. Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.
    - ii. The destruction efficiency of the catalytic incinerator shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-21-10 and shall measure the percent reduction in mass emissions of organic compounds or organic materials between the inlet and outlet of the vapor control system.
  - d. The test(s) shall be conducted while this 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.
3. 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 appropriate Ohio EPA District Office or local air agency.

#### **V. Testing Requirements (continued)**

4. During any emission testing for this emissions unit, the permittee shall record the following additional information:
  - a. the average temperature of the exhaust gases immediately before the catalyst bed, in degrees Fahrenheit;
  - b. the average temperature difference across the catalyst bed, in degrees Fahrenheit; and
  - c. the minimum pressure differential established, in inches of water.
5. Unless a determination is made pursuant to B.1.2.b, the overall control efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement. ) 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 the approved alternative test protocol. 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.

#### **VI. Miscellaneous Requirements**

**None**

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Lacquer Line #4 (P170)

**Activity Description:** Aluminizing lacquer, containing 5% solids, is applied to panels which are held horizontally and spun.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
lacquer coating line 4 - monitor screens - 'spin' rotary application	OAC rule 3745-21-07(G)	none (See A.1.2.a.)

##### 2. Additional Terms and Conditions

- 2.a This facility is located in Putnam County, which is not a "Priority I" county as indicated in paragraph (A) of OAC rule 3745-21-06, and the emissions unit is not a "new source." Therefore, pursuant to OAC rule 3745-21-07(A), it is exempt from the requirements of OAC rule 3745-21-07(G).

##### II. Operational Restrictions

None

##### III. Monitoring and/or Record Keeping Requirements

None

##### IV. Reporting Requirements

None

##### V. Testing Requirements

None

##### VI. Miscellaneous Requirements

None

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
lacquer coating line 4 - monitor screens - 'spin' rotary application	none	none

**2. Additional Terms and Conditions**

- 2.a Pursuant to the Consent Order issued to the permittee on August 21, 1997, the organic compounds (OC) emissions from this emissions unit shall be controlled through the application of a permanent total enclosure, and a catalytic incinerator with a minimum 95% destruction efficiency by weight.

The OC emissions from this emissions unit shall be controlled through the application of a permanent total enclosure (PTE) with a 100% capture efficiency. The PTE serving this emissions unit shall be maintained in such a manner as to meet the criteria established for a PTE in Method 204 (40 CFR Part 51, Appendix M) whenever the emissions unit is in operation, unless the permittee is successful in making the determination described in B.I.2.b.

- 2.b The permittee has the option to perform a demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device is always maintained under negative pressure even when all openings (including, non-natural draft openings) which could affect the PTE are opened) in lieu of installing, maintaining and operating monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the demonstration to show that the PTE can not be compromised or the demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below (see Sections B.II, B.III, and B.IV below) to ensure the ongoing integrity of the PTE and meet the criteria specified in Method 204.

**II. Operational Restrictions**

1. 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.

## **II. Operational Restrictions (continued)**

2. Except as provided in B.1.2.b, the permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than the minimum pressure differential (inches of water) established during the most recent emission test that demonstrated the emissions unit was in compliance, whenever the emissions unit is in operation.
3. The doors to the lacquer line room shall remain closed at all times, except for entry or exit or for an emergency.
4. To minimize fugitive emissions, all spent cleanup solvent which will not be reused shall be returned to the waste recovery tank from a point within the permanent total enclosure of the lacquer line room.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall operate and maintain continuous temperature monitors and recorder(s) that measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder(s) shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
2. The permittee shall collect and record the following information 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 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.
  - 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.
  - c. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
  - d. Except as provided in B.1.2.b, the difference in pressure between the permanent total enclosure and the surrounding area(s), in inches of water.
3. Except as provided in B.1.2.b, the permittee shall 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 calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

## **IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify 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 or the average temperature difference across the catalyst bed did not comply with the temperature limitations specified above.
2. Except as provided in B.1.2.b, the permittee shall submit quarterly pressure differential deviation (excursion) reports that identify all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified above.
3. The deviation reports shall be submitted in accordance with paragraph B.2 of the General Terms and Conditions of this permit.
4. 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.

## V. Testing Requirements

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

Emission Limitation-  
95% destruction efficiency for OC, by weight

Applicable Compliance Method-

The permittee shall demonstrate compliance with the limitation above based upon the results of emission testing conducted in accordance with the methods and procedures outlined in Section B.V.2 of this permit.

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 within six months prior to the expiration of this permit.
  - b. The emission testing shall be conducted to demonstrate compliance with the overall control system efficiency for OCs which will be determined as the product of the capture efficiency and the destruction efficiency of the catalytic incinerator.
  - c. The following test method(s) shall be employed to demonstrate compliance with the overall control system efficiency for OCs:
    - i. The capture efficiency shall be determined using the test methods specified in 40 CFR Part 51, Appendix M, Method 204 through 204F, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency as specified in the USEPA Guidelines for Determining Capture Efficiency, dated January 9, 1995. Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.
    - ii. The destruction efficiency of the catalytic incinerator shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-21-10 and shall measure the percent reduction in mass emissions of organic compounds or organic materials between the inlet and outlet of the vapor control system.
  - d. The test(s) shall be conducted while this 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.
3. 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 appropriate Ohio EPA District Office or local air agency.

#### **V. Testing Requirements (continued)**

4. During any emission testing for this emissions unit, the permittee shall record the following additional information:
  - a. the average temperature of the exhaust gases immediately before the catalyst bed, in degrees Fahrenheit;
  - b. the average temperature difference across the catalyst bed, in degrees Fahrenheit; and
  - c. the minimum pressure differential established, in inches of water.
5. Unless a determination is made pursuant to B.1.2.b, the overall control efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement. ) 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 the approved alternative test protocol. 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.

#### **VI. Miscellaneous Requirements**

**None**

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Lacquer Line #5 (P171)

**Activity Description:** Aluminizing lacquer, containing 5% solids, is applied to panels which are held horizontally and spun.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
lacquer coating line 5 - monitor screens - 'spin' rotary application	OAC rule 3745-21-07(G)	none (See A.1.2.a.)

##### 2. Additional Terms and Conditions

- 2.a This facility is located in Putnam County, which is not a "Priority I" county as indicated in paragraph (A) of OAC rule 3745-21-06, and the emissions unit is not a "new source." Therefore, pursuant to OAC rule 3745-21-07(A), it is exempt from the requirements of OAC rule 3745-21-07(G).

##### II. Operational Restrictions

None

##### III. Monitoring and/or Record Keeping Requirements

None

##### IV. Reporting Requirements

None

##### V. Testing Requirements

None

##### VI. Miscellaneous Requirements

None

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
lacquer coating line 5 - monitor screens - 'spin' rotary application	none	none

**2. Additional Terms and Conditions**

- 2.a Pursuant to the Consent Order issued to the permittee on August 21, 1997, the organic compounds (OC) emissions from this emissions unit shall be controlled through the application of a permanent total enclosure, and a catalytic incinerator with a minimum 95% destruction efficiency by weight.

The OC emissions from this emissions unit shall be controlled through the application of a permanent total enclosure (PTE) with a 100% capture efficiency. The PTE serving this emissions unit shall be maintained in such a manner as to meet the criteria established for a PTE in Method 204 (40 CFR Part 51, Appendix M) whenever the emissions unit is in operation, unless the permittee is successful in making the determination described in B.I.2.b.

- 2.b The permittee has the option to perform a demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device is always maintained under negative pressure even when all openings (including, non-natural draft openings) which could affect the PTE are opened) in lieu of installing, maintaining and operating monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the demonstration to show that the PTE can not be compromised or the demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below (see Sections B.II, B.III, and B.IV below) to ensure the ongoing integrity of the PTE and meet the criteria specified in Method 204.

**II. Operational Restrictions**

1. 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.

## II. Operational Restrictions (continued)

2. Except as provided in B.1.2.b, the permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than the minimum pressure differential (inches of water) established during the most recent emission test that demonstrated the emissions unit was in compliance, whenever the emissions unit is in operation.
3. The doors to the lacquer line room shall remain closed at all times, except for entry or exit or for an emergency.
4. To minimize fugitive emissions, all spent cleanup solvent which will not be reused shall be returned to the waste recovery tank from a point within the permanent total enclosure of the lacquer line room.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall operate and maintain continuous temperature monitors and recorder(s) that measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder(s) shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
2. The permittee shall collect and record the following information 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 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.
  - 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.
  - c. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
  - d. Except as provided in B.1.2.b, the difference in pressure between the permanent total enclosure and the surrounding area(s), in inches of water.
3. Except as provided in B.1.2.b, the permittee shall 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 calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

## IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify 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 or the average temperature difference across the catalyst bed did not comply with the temperature limitations specified above.
2. Except as provided in B.1.2.b, the permittee shall submit quarterly pressure differential deviation (excursion) reports that identify all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified above.
3. The deviation reports shall be submitted in accordance with paragraph B.2 of the General Terms and Conditions of this permit.
4. 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.

## V. Testing Requirements

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

Emission Limitation-  
95% destruction efficiency for OC, by weight

Applicable Compliance Method-

The permittee shall demonstrate compliance with the limitation above based upon the results of emission testing conducted in accordance with the methods and procedures outlined in Section B.V.2 of this permit.

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 within six months prior to the expiration of this permit.
  - b. The emission testing shall be conducted to demonstrate compliance with the overall control system efficiency for OCs which will be determined as the product of the capture efficiency and the destruction efficiency of the catalytic incinerator.
  - c. The following test method(s) shall be employed to demonstrate compliance with the overall control system efficiency for OCs:
    - i. The capture efficiency shall be determined using the test methods specified in 40 CFR Part 51, Appendix M, Method 204 through 204F, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency as specified in the USEPA Guidelines for Determining Capture Efficiency, dated January 9, 1995. Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.
    - ii. The destruction efficiency of the catalytic incinerator shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-21-10 and shall measure the percent reduction in mass emissions of organic compounds or organic materials between the inlet and outlet of the vapor control system.
  - d. The test(s) shall be conducted while this 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.
3. 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 appropriate Ohio EPA District Office or local air agency.

**V. Testing Requirements (continued)**

4. During any emission testing for this emissions unit, the permittee shall record the following additional information:
  - a. the average temperature of the exhaust gases immediately before the catalyst bed, in degrees Fahrenheit;
  - b. the average temperature difference across the catalyst bed, in degrees Fahrenheit; and
  - c. the minimum pressure differential established, in inches of water.
5. Unless a determination is made pursuant to B.1.2.b, the overall control efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement. ) 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 the approved alternative test protocol. 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.

**VI. Miscellaneous Requirements**

**None**

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Lacquer Line #6 (P172)

**Activity Description:** Aluminizing lacquer, containing 5% solids, is applied to panels which are held horizontally and spun.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
lacquer coating line 6 - monitor screens - 'spin' rotary application	OAC rule 3745-21-07(G)	none (See A.1.2.a.)

##### 2. Additional Terms and Conditions

- 2.a This facility is located in Putnam County, which is not a "Priority I" county as indicated in paragraph (A) of OAC rule 3745-21-06, and the emissions unit is not a "new source." Therefore, pursuant to OAC rule 3745-21-07(A), it is exempt from the requirements of OAC rule 3745-21-07(G).

##### II. Operational Restrictions

None

##### III. Monitoring and/or Record Keeping Requirements

None

##### IV. Reporting Requirements

None

##### V. Testing Requirements

None

##### VI. Miscellaneous Requirements

None

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
lacquer coating line 6 - monitor screens - 'spin' rotary application	none	none

**2. Additional Terms and Conditions**

- 2.a Pursuant to the Consent Order issued to the permittee on August 21, 1997, the organic compounds (OC) emissions from this emissions unit shall be controlled through the application of a permanent total enclosure, and a catalytic incinerator with a minimum 95% destruction efficiency by weight.

The OC emissions from this emissions unit shall be controlled through the application of a permanent total enclosure (PTE) with a 100% capture efficiency. The PTE serving this emissions unit shall be maintained in such a manner as to meet the criteria established for a PTE in Method 204 (40 CFR Part 51, Appendix M) whenever the emissions unit is in operation, unless the permittee is successful in making the determination described in B.I.2.b.

- 2.b The permittee has the option to perform a demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device is always maintained under negative pressure even when all openings (including, non-natural draft openings) which could affect the PTE are opened) in lieu of installing, maintaining and operating monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the demonstration to show that the PTE can not be compromised or the demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below (see Sections B.II, B.III, and B.IV below) to ensure the ongoing integrity of the PTE and meet the criteria specified in Method 204.

**II. Operational Restrictions**

1. 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.

## **II. Operational Restrictions (continued)**

2. Except as provided in B.1.2.b, the permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than the minimum pressure differential (inches of water) established during the most recent emission test that demonstrated the emissions unit was in compliance, whenever the emissions unit is in operation.
3. The doors to the lacquer line room shall remain closed at all times, except for entry or exit or for an emergency.
4. To minimize fugitive emissions, all spent cleanup solvent which will not be reused shall be returned to the waste recovery tank from a point within the permanent total enclosure of the lacquer line room.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall operate and maintain continuous temperature monitors and recorder(s) that measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder(s) shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
2. The permittee shall collect and record the following information 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 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.
  - 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.
  - c. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
  - d. Except as provided in B.1.2.b, the difference in pressure between the permanent total enclosure and the surrounding area(s), in inches of water.
3. Except as provided in B.1.2.b, the permittee shall 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 calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

## **IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify 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 or the average temperature difference across the catalyst bed did not comply with the temperature limitations specified above.
2. Except as provided in B.1.2.b, the permittee shall submit quarterly pressure differential deviation (excursion) reports that identify all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified above.
3. The deviation reports shall be submitted in accordance with paragraph B.2 of the General Terms and Conditions of this permit.
4. 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.

## V. Testing Requirements

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

Emission Limitation-  
95% destruction efficiency for OC, by weight

Applicable Compliance Method-

The permittee shall demonstrate compliance with the limitation above based upon the results of emission testing conducted in accordance with the methods and procedures outlined in Section B.V.2 of this permit.

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 within six months prior to the expiration of this permit.
  - b. The emission testing shall be conducted to demonstrate compliance with the overall control system efficiency for OCs which will be determined as the product of the capture efficiency and the destruction efficiency of the catalytic incinerator.
  - c. The following test method(s) shall be employed to demonstrate compliance with the overall control system efficiency for OCs:
    - i. The capture efficiency shall be determined using the test methods specified in 40 CFR Part 51, Appendix M, Method 204 through 204F, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency as specified in the USEPA Guidelines for Determining Capture Efficiency, dated January 9, 1995. Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.
    - ii. The destruction efficiency of the catalytic incinerator shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-21-10 and shall measure the percent reduction in mass emissions of organic compounds or organic materials between the inlet and outlet of the vapor control system.
  - d. The test(s) shall be conducted while this 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.
3. 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 appropriate Ohio EPA District Office or local air agency.

#### **V. Testing Requirements (continued)**

4. During any emission testing for this emissions unit, the permittee shall record the following additional information:
  - a. the average temperature of the exhaust gases immediately before the catalyst bed, in degrees Fahrenheit;
  - b. the average temperature difference across the catalyst bed, in degrees Fahrenheit; and
  - c. the minimum pressure differential established, in inches of water.
5. Unless a determination is made pursuant to B.1.2.b, the overall control efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement. ) 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 the approved alternative test protocol. 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.

#### **VI. Miscellaneous Requirements**

**None**

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Lacquer Line #7 (P173)

**Activity Description:** Aluminizing lacquer, containing 5% solids, is applied to panels which are held horizontally and spun.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
lacquer coating line 7 - monitor screens - 'spin' rotary application	OAC rule 3745-31-05 (PTI 03-9479)	0.30 ton organic compounds (OC) per month (for emissions units P173, P174, and P175, combined) 3.6 tons OC/rolling, 12-month summation (for emissions units P173, P174, and P175, combined) 0.27 lb toluene/hr 0.007 lb methanol/hr  See A.I.2.d.
	OAC rule 3745-21-07(G)(2)	See A.I.2.c.

##### 2. Additional Terms and Conditions

- 2.a The OC emissions from this emissions unit shall be controlled through the application of a permanent total enclosure, and a catalytic incinerator with a minimum 95% destruction efficiency by weight.

The OC emissions from this emission unit shall be controlled through the application of a permanent total enclosure (PTE) with a 100% capture efficiency. The PTE serving this emissions unit shall be maintained in such a manner as to meet the criteria established for a PTE in Method 204 (40 CFR Part 51, Appendix M) whenever the emissions unit is in operation, unless the permittee is successful in making the determination described in A.I.2.b.

## **2. Additional Terms and Conditions (continued)**

- 2.b** The permittee has the option to perform a demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device is always maintained under negative pressure even when all openings (including, non-natural draft openings) which could affect the PTE are opened) in lieu of installing, maintaining and operating monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the demonstration to show that the PTE can not be compromised or the demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below (see Sections A.II, A.III, and A.IV below) to ensure the ongoing integrity of the PTE and meet the criteria specified in Method 204.

- 2.c** The emission limitations/ control requirements specified by this rule are less stringent than the emission limitations/ control requirements established pursuant to OAC rule 3745-31-05(A)(3).
- 2.d** The hourly emission limitations above are established for PTI purposes to reflect the emissions unit's potential to emit. Therefore, no record keeping, monitoring, and reporting requirements are necessary to ensure compliance with these limits.

## **II. Operational Restrictions**

- 1.** 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.
- 2.** Except as provided in A.I.2.b, the permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than the minimum pressure differential (inches of water) established during the most recent emission test that demonstrated the emissions unit was in compliance, whenever the emissions unit is in operation.
- 3.** The doors to the lacquer line room shall remain closed at all times, except for entry or exit or for an emergency.
- 4.** To minimize fugitive emissions, all spent cleanup solvent which will not be reused shall be returned to the waste recovery tank from a point within the permanent total enclosure of the lacquer line room.
- 5.** The lacquer shall contain no more than 95% toluene by weight, and toluene shall be the only VOC in the lacquer.

## **III. Monitoring and/or Record Keeping Requirements**

- 1.** The permittee shall operate and maintain continuous temperature monitors and recorder(s) which measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder(s) shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

### **III. Monitoring and/or Record Keeping Requirements (continued)**

2. The permittee shall collect and record the following information each day:
  - 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 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.
  - c. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
  - d. Except as provided in A.1.2.b, the difference in pressure between the permanent total enclosure and the surrounding area(s), in inches of water.
3. Except as provided in A.1.2.b, the permittee shall 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 calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
4. All lacquer supplied to emissions units P173, P174 and P175 shall be supplied through one flow meter capable of measuring and recording the volume of lacquer employed daily to an accuracy of plus or minus 0.2%. The weight percent of toluene in the lacquer shall be considered to be 95% for the purpose of these calculations. The volume of lacquer supplied shall be converted to pounds of toluene in the lacquer and shall be recorded daily. The weight of toluene used each day in the lacquer in emissions units P173, P174 and P175 shall be summed for each calendar month and recorded in pounds.
5. All pure toluene supplied to emissions units P173, P174 and P175 shall be supplied through one flow meter capable of measuring and recording the volume of toluene employed daily to an accuracy of plus or minus 0.2%. The volume of pure toluene supplied shall be converted to pounds and recorded daily. The daily pounds of pure toluene used shall be summed for each calendar month and recorded.
6. The permittee shall record and maintain each calendar month the sum of the toluene usages recorded pursuant to sections III.4 and 5, in pounds, for emissions units P173, P174 and P175, combined.
7. The weight of all methanol supplied to emissions units P173, P174 and P175 shall be either determined gravimetrically or through the use of a flowmeter capable of measuring and recording the volume of methanol employed daily to an accuracy of plus or minus 0.2%. The volume of methanol supplied shall be converted to pounds and recorded daily. The daily pounds shall be summed for each calendar month and recorded.
8. The weights of toluene and methanol recovered from the waste recovery tank shall be calculated each month from the total weight of recovered material and the analysis of a representative sample. If no recovery has been made in a particular calendar month, the weights shall be recorded as zero. The weights of toluene and methanol recovered from the waste recovery tank shall each be recorded for each calendar month. The weight of toluene recovered each month shall be subtracted from the weight of total toluene usage each calendar month as determined in section III.6. The resulting number shall be recorded each month as the weight of toluene emitted before controls. The weight of methanol recovered each month shall be subtracted from the weight of total methanol usage each calendar month as determined in section III.7. The resulting number shall be recorded each month as the weight of methanol emitted before controls.

### **III. Monitoring and/or Record Keeping Requirements (continued)**

9. The permittee shall collect and record the following information each month for emissions units P173, P174 and P175, combined:
  - a. The name and identification number of each cleanup material employed.
  - b. The number of gallons of each cleanup material employed.
  - c. The OC content of each cleanup material employed, in pounds per gallon.
  - d. The total uncontrolled OC emissions for all the cleanup materials employed, i.e., the summation of (b x c) for all cleanup materials, in pounds.
  - e. The total calculated controlled OC emission rate for all the cleanup materials employed, in pounds (the controlled OC emission rate shall be calculated using 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, i.e., (d) multiplied by a factor of (1 - the overall control efficiency).
  - f. The total controlled OC emissions from all the lacquer, pure toluene, and methanol employed, calculated using the weights of toluene and methanol emitted before controls (from section III.8 of this section) and an overall capture and destruction efficiency of 95%, in pounds (or the most recent destruction efficiency as demonstrated in accordance with emissions testing approved by Ohio EPA).
  - g. The total controlled OC emissions from all the lacquer, pure toluene, methanol and cleanup materials employed  $[(e + f)/2000]$ , in tons.
  - h. The rolling, twelve-month summation of the total controlled OC emissions from all the lacquer, pure toluene, methanol and cleanup materials, in tons.

### **IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify 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 or the average temperature difference across the catalyst bed did not comply with the temperature limitations specified above.
2. Except as provided in A.1.2.b, the permittee shall submit quarterly pressure differential deviation (excursion) reports that identify all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified above.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the monthly OC emission limitation and the rolling, 12-month OC emission limitation of 0.3 ton and 3.6 tons, respectively.
4. The deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.
5. The permittee shall submit annual reports that summarize the controlled OC emissions for emissions units P173, P174 and P175, combined. The reports shall be submitted by January 31 of each year and shall cover the previous calendar year.
6. 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.

### **V. Testing Requirements**

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

**V. Testing Requirements (continued)**

**1.a** Emission Limitations:

0.30 ton OC per month (for emissions units P173, P174, and P175, combined)

3.6 tons OC/rolling, 12-month summation (for emissions units P173, P174, and P175, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the limitations above based upon the record keeping requirements established in section A.III.9 of this permit.

**1.b** Emission Limitation-

95% destruction efficiency for OC by weight

Applicable Compliance Method-

The permittee shall demonstrate compliance with the limitation above based upon the results of emission testing conducted in accordance with the methods and procedures specified in Section A.V.2 of this permit.

**1.c** Emission Limitation:

0.27 lb toluene/hr

Applicable Compliance Method:

The hourly allowable toluene emission limitation was established by using the following equation:

$$\text{toluene emissions (lbs/hr)} = [(L1 \times Ct \times (1 - 0.67^*)) + (L2 \times (1-0.97^{**}))] \times Dt \times (1 - 0.941)^{***}$$

Where:

L1 = maximum hourly lacquer usage rate (gallons/hr)

Ct = percent of toluene in the lacquer (95%, by volume)

L2 = maximum hourly gallons of toluene (gallons/hr) used in the edge wipe operation that is associated with this emissions unit

Dt = density of toluene (7.23 lbs/gallon)

\* 67% of the toluene in the lacquer is recovered and shipped off site for reclamation.

\*\* 97% of the toluene used in the edge wipe operation is recovered and shipped off site for reclamation.

\*\*\* The overall control efficiency of the control equipment is assumed to be a minimum of 95%.

If required, the permittee shall demonstrate compliance with the hourly allowable toluene emission limitation in accordance with 40 CFR 60, Appendix A, Method 18. [The results of the emission testing conducted on April 28, 1998 indicated that the actual toluene emission rate was 0.017 lb/hr.]

## V. Testing Requirements (continued)

**1.d** Emission Limitation:  
0.007 lb methanol/hr

Applicable Compliance Method:

The hourly allowable methanol emission limitation was established by using the following equation:

$$\text{methanol emissions (lbs/hr)} = L_m \times D_m \times C_m \times (1-0.97^*) \times (1 - 0.95)^{**}$$

Where:

$L_m$  = maximum hourly gallon usage rate of the solution used in the prewet spray operation that is associated with this emissions unit (gallons/hour)

$C_m$  = percent of methanol in the prewet spray solution (12%, by volume)

$D_m$  = density of methanol (6.58 lbs/gallon)

\* 97% of the methanol used in the prewet spray solution is recovered and shipped off site for reclamation.

\*\* The overall control efficiency of the control equipment is assumed to be a minimum of 95%.

If required, the permittee shall demonstrate compliance with the hourly allowable methanol emission limitation in accordance with 40 CFR 60, Appendix A, Method 18. [The results of the emission testing conducted on April 28, 1998 indicated that the actual methanol emission rate was 0.002 lb/hr.]

- 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 within six months prior to the expiration of this permit.
  - b. The emission testing shall be conducted to demonstrate compliance with the overall control system efficiency for OCs which will be determined as the product of the capture efficiency and the destruction efficiency of the catalytic incinerator.
  - c. The following test method(s) shall be employed to demonstrate compliance with the overall control system efficiency for OCs:
    - i. The capture efficiency may be determined using the test methods specified in 40 CFR Part 51, Appendix M, Method 204 through 204F, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency as specified in the USEPA Guidelines for Determining Capture Efficiency, dated January 9, 1995. Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.
    - ii. The destruction efficiency of the catalytic incinerator shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-21-10 and shall measure the percent reduction in mass emissions of organic compounds or organic materials between the inlet and outlet of the vapor control system.
  - d. The test(s) shall be conducted while this 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.

## **V. Testing Requirements (continued)**

3. 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 appropriate Ohio EPA District Office or local air agency.

4. During any emission testing for this emissions unit, the permittee shall record the following additional information:
  - a. the average temperature of the exhaust gases immediately before the catalyst bed, in degrees Fahrenheit;
  - b. the average temperature difference across the catalyst bed, in degrees Fahrenheit; and
  - c. the minimum pressure differential established, in inches of water.
5. Unless a determination is made pursuant to A.I.2.b, the overall control efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement. ) 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 the approved alternative test protocol. 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.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Lacquer Line #8 (P174)

**Activity Description:** Aluminizing lacquer, containing 5% solids, is applied to panels which are held horizontally and spun.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
lacquer coating line 8 - monitor screens - 'spin' rotary application	OAC rule 3745-31-05 (PTI 03-9479)	0.30 ton organic compounds (OC) per month (for emissions units P173, P174, and P175, combined) 3.6 tons OC/rolling, 12-month summation (for emissions units P173, P174, and P175, combined) 0.27 lb toluene/hr 0.007 lb methanol/hr
	OAC rule 3745-21-07(G)(2)	See A.I.2.d. See A.I.2.c.

##### 2. Additional Terms and Conditions

- 2.a The OC emissions from this emissions unit shall be controlled through the application of a permanent total enclosure, and a catalytic incinerator with a minimum 95% destruction efficiency by weight.

The OC emissions from this emission unit shall be controlled through the application of a permanent total enclosure (PTE) with a 100% capture efficiency. The PTE serving this emissions unit shall be maintained in such a manner as to meet the criteria established for a PTE in Method 204 (40 CFR Part 51, Appendix M) whenever the emissions unit is in operation, unless the permittee is successful in making the determination described in A.I.2.b.

## **2. Additional Terms and Conditions (continued)**

- 2.b** The permittee has the option to perform a demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device is always maintained under negative pressure even when all openings (including, non-natural draft openings) which could affect the PTE are opened) in lieu of installing, maintaining and operating monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the demonstration to show that the PTE can not be compromised or the demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below (see Sections A.II, A.III, and A.IV below) to ensure the ongoing integrity of the PTE and meet the criteria specified in Method 204.

- 2.c** The emission limitations/ control requirements specified by this rule are less stringent than the emission limitations/ control requirements established pursuant to OAC rule 3745-31-05(A)(3).
- 2.d** The hourly emission limitations above are established for PTI purposes to reflect the emissions unit's potential to emit. Therefore, no record keeping, monitoring, and reporting requirements are necessary to ensure compliance with these limits.

## **II. Operational Restrictions**

- 1.** 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.
- 2.** Except as provided in A.I.2.b, the permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than the minimum pressure differential (inches of water) established during the most recent emission test that demonstrated the emissions unit was in compliance, whenever the emissions unit is in operation.
- 3.** The doors to the lacquer line room shall remain closed at all times, except for entry or exit or for an emergency.
- 4.** To minimize fugitive emissions, all spent cleanup solvent which will not be reused shall be returned to the waste recovery tank from a point within the permanent total enclosure of the lacquer line room.
- 5.** The lacquer shall contain no more than 95% toluene by weight, and toluene shall be the only VOC in the lacquer.

## **III. Monitoring and/or Record Keeping Requirements**

- 1.** The permittee shall operate and maintain continuous temperature monitors and recorder(s) which measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder(s) shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

### **III. Monitoring and/or Record Keeping Requirements (continued)**

2. The permittee shall collect and record the following information each day:
  - 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 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.
  - c. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
  - d. Except as provided in A.I.2.b, the difference in pressure between the permanent total enclosure and the surrounding area(s), in inches of water.
3. Except as provided in A.I.2.b, the permittee shall 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 calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
4. All lacquer supplied to emissions units P173, P174 and P175 shall be supplied through one flow meter capable of measuring and recording the volume of lacquer employed daily to an accuracy of plus or minus 0.2%. The weight percent of toluene in the lacquer shall be considered to be 95% for the purpose of these calculations. The volume of lacquer supplied shall be converted to pounds of toluene in the lacquer and shall be recorded daily. The weight of toluene used each day in the lacquer in emissions units P173, P174 and P175 shall be summed for each calendar month and recorded in pounds.
5. All pure toluene supplied to emissions units P173, P174 and P175 shall be supplied through one flow meter capable of measuring and recording the volume of toluene employed daily to an accuracy of plus or minus 0.2%. The volume of pure toluene supplied shall be converted to pounds and recorded daily. The daily pounds of pure toluene used shall be summed for each calendar month and recorded.
6. The permittee shall record and maintain each calendar month the sum of the toluene usages recorded pursuant to sections III.4 and 5, in pounds, for emissions units P173, P174 and P175, combined.
7. The weight of all methanol supplied to emissions units P173, P174 and P175 shall be either determined gravimetrically or through the use of a flowmeter capable of measuring and recording the volume of methanol employed daily to an accuracy of plus or minus 0.2%. The volume of methanol supplied shall be converted to pounds and recorded daily. The daily pounds shall be summed for each calendar month and recorded.
8. The weights of toluene and methanol recovered from the waste recovery tank shall be calculated each month from the total weight of recovered material and the analysis of a representative sample. If no recovery has been made in a particular calendar month, the weights shall be recorded as zero. The weights of toluene and methanol recovered from the waste recovery tank shall each be recorded for each calendar month. The weight of toluene recovered each month shall be subtracted from the weight of total toluene usage each calendar month as determined in section III.6. The resulting number shall be recorded each month as the weight of toluene emitted before controls. The weight of methanol recovered each month shall be subtracted from the weight of total methanol usage each calendar month as determined in section III.7. The resulting number shall be recorded each month as the weight of methanol emitted before controls.

### III. Monitoring and/or Record Keeping Requirements (continued)

9. The permittee shall collect and record the following information each month for emissions units P173, P174 and P175, combined:
  - a. The name and identification number of each cleanup material employed.
  - b. The number of gallons of each cleanup material employed.
  - c. The OC content of each cleanup material employed, in pounds per gallon.
  - d. The total uncontrolled OC emissions for all the cleanup materials employed, i.e., the summation of (b x c) for all cleanup materials, in pounds.
  - e. The total calculated controlled OC emission rate for all the cleanup materials employed, in pounds (the controlled OC emission rate shall be calculated using 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, i.e., (d) multiplied by a factor of (1 - the overall control efficiency).
  - f. The total controlled OC emissions from all the lacquer, pure toluene, and methanol employed, calculated using the weights of toluene and methanol emitted before controls (from section III.8 of this section) and an overall capture and destruction efficiency of 95%, in pounds (or the most recent destruction efficiency as demonstrated in accordance with emissions testing approved by Ohio EPA).
  - g. The total controlled OC emissions from all the lacquer, pure toluene, methanol and cleanup materials employed  $[(e + f)/2000]$ , in tons.
  - h. The rolling, twelve-month summation of the total controlled OC emissions from all the lacquer, pure toluene, methanol and cleanup materials, in tons.

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify 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 or the average temperature difference across the catalyst bed did not comply with the temperature limitations specified above.
2. Except as provided in A.1.2.b, the permittee shall submit quarterly pressure differential deviation (excursion) reports that identify all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified above.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the monthly OC emission limitation and the rolling, 12-month OC emission limitation of 0.3 ton and 3.6 tons, respectively.
4. The deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.
5. The permittee shall submit annual reports that summarize the controlled OC emissions for emissions units P173, P174 and P175, combined. The reports shall be submitted by January 31 of each year and shall cover the previous calendar year.
6. 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.

### V. Testing Requirements

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

## V. Testing Requirements (continued)

**1.a** Emission Limitations:

0.30 ton OC per month (for emissions units P173, P174, and P175, combined)

3.6 tons OC/rolling, 12-month summation (for emissions units P173, P174, and P175, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the limitations above based upon the record keeping requirements established in section A.III.9 of this permit.

**1.b** Emission Limitation-

95% destruction efficiency for OC by weight

Applicable Compliance Method-

The permittee shall demonstrate compliance with the limitation above based upon the results of emission testing conducted in accordance with the methods and procedures specified in Section A.V.2 of this permit.

**1.c** Emission Limitation:

0.27 lb toluene/hr

Applicable Compliance Method:

The hourly allowable toluene emission limitation was established by using the following equation:

$$\text{toluene emissions (lbs/hr)} = [(L1 \times Ct \times (1 - 0.67^*)) + (L2 \times (1 - 0.97^{**}))] \times Dt \times (1 - 0.941)^{***}$$

Where:

L1 = maximum hourly lacquer usage rate (gallons/hr)

Ct = percent of toluene in the lacquer (95%, by volume)

L2 = maximum hourly gallons of toluene (gallons/hr) used in the edge wipe operation that is associated with this emissions unit

Dt = density of toluene (7.23 lbs/gallon)

\* 67% of the toluene in the lacquer is recovered and shipped off site for reclamation.

\*\* 97% of the toluene used in the edge wipe operation is recovered and shipped off site for reclamation.

\*\*\* The overall control efficiency of the control equipment is assumed to be a minimum of 95%.

If required, the permittee shall demonstrate compliance with the hourly allowable toluene emission limitation in accordance with 40 CFR 60, Appendix A, Method 18. [The results of the emission testing conducted on April 28, 1998 indicated that the actual toluene emission rate was 0.017 lb/hr.]

## V. Testing Requirements (continued)

- 1.d Emission Limitation:  
0.007 lb methanol/hr

Applicable Compliance Method:

The hourly allowable methanol emission limitation was established by using the following equation:

$$\text{methanol emissions (lbs/hr)} = L_m \times D_m \times C_m \times (1-0.97^*) \times (1 - 0.95)^{**}$$

Where:

$L_m$  = maximum hourly gallon usage rate of the solution used in the prewet spray operation that is associated with this emissions unit (gallons/hour)

$C_m$  = percent of methanol in the prewet spray solution (12% by volume)

$D_m$  = density of methanol (6.58 lbs/gallon)

\* 97% of the methanol used in the prewet spray solution is recovered and shipped off site for reclamation.

\*\* The overall control efficiency of the control equipment is assumed to be a minimum of 95%.

If required, the permittee shall demonstrate compliance with the hourly allowable methanol emission limitation in accordance with 40 CFR 60, Appendix A, Method 18. [The results of the emission testing conducted on April 28, 1998 indicated that the actual methanol emission rate was 0.002 lb/hr.]

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 within six months prior to the expiration of this permit.
  - b. The emission testing shall be conducted to demonstrate compliance with the overall control system efficiency for OCs which will be determined as the product of the capture efficiency and the destruction efficiency of the catalytic incinerator.
  - c. The following test method(s) shall be employed to demonstrate compliance with the overall control system efficiency for OCs:
    - i. The capture efficiency may be determined using the test methods specified in 40 CFR Part 51, Appendix M, Method 204 through 204F, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency as specified in the USEPA Guidelines for Determining Capture Efficiency, dated January 9, 1995. Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.
    - ii. The destruction efficiency of the catalytic incinerator shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-21-10 and shall measure the percent reduction in mass emissions of organic compounds or organic materials between the inlet and outlet of the vapor control system.
  - d. The test(s) shall be conducted while this 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.

## **V. Testing Requirements (continued)**

3. 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 appropriate Ohio EPA District Office or local air agency.

4. During any emission testing for this emissions unit, the permittee shall record the following additional information:
- a. the average temperature of the exhaust gases immediately before the catalyst bed, in degrees Fahrenheit;
  - b. the average temperature difference across the catalyst bed, in degrees Fahrenheit; and
  - c. the minimum pressure differential established, in inches of water.
5. Unless a determination is made pursuant to A.I.2.b, the overall control efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement. ) 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 the approved alternative test protocol. 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.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Lacquer Line #9 (P175)

**Activity Description:** Aluminizing lacquer, containing 5% solids, is applied to panels which are held horizontally and spun.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
lacquer coating line 9 - monitor screens - 'spin' rotary application	OAC rule 3745-31-05 (PTI 03-9479)	0.30 ton organic compounds (OC) per month (for emissions units P173, P174, and P175, combined) 3.6 tons OC/rolling, 12-month summation (for emissions units P173, P174, and P175, combined) 0.27 lb toluene/hr 0.007 lb methanol/hr  See A.I.2.d.
	OAC rule 3745-21-07(G)(2)	See A.I.2.c.

##### 2. Additional Terms and Conditions

- 2.a The OC emissions from this emissions unit shall be controlled through the application of a permanent total enclosure, and a catalytic incinerator with a minimum 95% destruction efficiency by weight.

The OC emissions from this emission unit shall be controlled through the application of a permanent total enclosure (PTE) with a 100% capture efficiency. The PTE serving this emissions unit shall be maintained in such a manner as to meet the criteria established for a PTE in Method 204 (40 CFR Part 51, Appendix M) whenever the emissions unit is in operation, unless the permittee is successful in making the determination described in A.I.2.b.

## **2. Additional Terms and Conditions (continued)**

- 2.b** The permittee has the option to perform a demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device is always maintained under negative pressure even when all openings (including, non-natural draft openings) which could affect the PTE are opened) in lieu of installing, maintaining and operating monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the demonstration to show that the PTE can not be compromised or the demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below (see Sections A.II, A.III, and A.IV below) to ensure the ongoing integrity of the PTE and meet the criteria specified in Method 204.

- 2.c** The emission limitations/ control requirements specified by this rule are less stringent than the emission limitations/ control requirements established pursuant to OAC rule 3745-31-05(A)(3).
- 2.d** The hourly emission limitations above are established for PTI purposes to reflect the emissions unit's potential to emit. Therefore, no record keeping, monitoring, and reporting requirements are necessary to ensure compliance with these limits.

## **II. Operational Restrictions**

- 1.** 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.
- 2.** Except as provided in A.I.2.b, the permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than the minimum pressure differential (inches of water) established during the most recent emission test that demonstrated the emissions unit was in compliance, whenever the emissions unit is in operation.
- 3.** The doors to the lacquer line room shall remain closed at all times, except for entry or exit or for an emergency.
- 4.** To minimize fugitive emissions, all spent cleanup solvent which will not be reused shall be returned to the waste recovery tank from a point within the permanent total enclosure of the lacquer line room.
- 5.** The lacquer shall contain no more than 95% toluene by weight, and toluene shall be the only VOC in the lacquer.

## **III. Monitoring and/or Record Keeping Requirements**

- 1.** The permittee shall operate and maintain continuous temperature monitors and recorder(s) which measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder(s) shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

### **III. Monitoring and/or Record Keeping Requirements (continued)**

2. The permittee shall collect and record the following information each day:
  - 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 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.
  - c. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
  - d. Except as provided in A.1.2.b, the difference in pressure between the permanent total enclosure and the surrounding area(s), in inches of water.
3. Except as provided in A.1.2.b, the permittee shall 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 calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
4. All lacquer supplied to emissions units P173, P174 and P175 shall be supplied through one flow meter capable of measuring and recording the volume of lacquer employed daily to an accuracy of plus or minus 0.2%. The weight percent of toluene in the lacquer shall be considered to be 95% for the purpose of these calculations. The volume of lacquer supplied shall be converted to pounds of toluene in the lacquer and shall be recorded daily. The weight of toluene used each day in the lacquer in emissions units P173, P174 and P175 shall be summed for each calendar month and recorded in pounds.
5. All pure toluene supplied to emissions units P173, P174 and P175 shall be supplied through one flow meter capable of measuring and recording the volume of toluene employed daily to an accuracy of plus or minus 0.2%. The volume of pure toluene supplied shall be converted to pounds and recorded daily. The daily pounds of pure toluene used shall be summed for each calendar month and recorded.
6. The permittee shall record and maintain each calendar month the sum of the toluene usages recorded pursuant to sections III.4 and 5, in pounds, for emissions units P173, P174 and P175, combined.
7. The weight of all methanol supplied to emissions units P173, P174 and P175 shall be either determined gravimetrically or through the use of a flowmeter capable of measuring and recording the volume of methanol employed daily to an accuracy of plus or minus 0.2%. The volume of methanol supplied shall be converted to pounds and recorded daily. The daily pounds shall be summed for each calendar month and recorded.
8. The weights of toluene and methanol recovered from the waste recovery tank shall be calculated each month from the total weight of recovered material and the analysis of a representative sample. If no recovery has been made in a particular calendar month, the weights shall be recorded as zero. The weights of toluene and methanol recovered from the waste recovery tank shall each be recorded for each calendar month. The weight of toluene recovered each month shall be subtracted from the weight of total toluene usage each calendar month as determined in section III.6. The resulting number shall be recorded each month as the weight of toluene emitted before controls. The weight of methanol recovered each month shall be subtracted from the weight of total methanol usage each calendar month as determined in section III.7. The resulting number shall be recorded each month as the weight of methanol emitted before controls.

### **III. Monitoring and/or Record Keeping Requirements (continued)**

9. The permittee shall collect and record the following information each month for emissions units P173, P174 and P175, combined:
  - a. The name and identification number of each cleanup material employed.
  - b. The number of gallons of each cleanup material employed.
  - c. The OC content of each cleanup material employed, in pounds per gallon.
  - d. The total uncontrolled OC emissions for all the cleanup materials employed, i.e., the summation of (b x c) for all cleanup materials, in pounds.
  - e. The total calculated controlled OC emission rate for all the cleanup materials employed, in pounds (the controlled OC emission rate shall be calculated using 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, i.e., (d) multiplied by a factor of (1 - the overall control efficiency).
  - f. The total controlled OC emissions from all the lacquer, pure toluene, and methanol employed, calculated using the weights of toluene and methanol emitted before controls (from section III.8 of this section) and an overall capture and destruction efficiency of 95%, in pounds (or the most recent destruction efficiency as demonstrated in accordance with emissions testing approved by Ohio EPA).
  - g. The total controlled OC emissions from all the lacquer, pure toluene, methanol and cleanup materials employed  $[(e + f)/2000]$ , in tons.
  - h. The rolling, twelve-month summation of the total controlled OC emissions from all the lacquer, pure toluene, methanol and cleanup materials, in tons.

### **IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify 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 or the average temperature difference across the catalyst bed did not comply with the temperature limitations specified above.
2. Except as provided in A.1.2.b, the permittee shall submit quarterly pressure differential deviation (excursion) reports that identify all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified above.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the monthly OC emission limitation and the rolling, 12-month OC emission limitation of 0.3 ton and 3.6 tons, respectively.
4. The deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.
5. The permittee shall submit annual reports that summarize the controlled OC emissions for emissions units P173, P174 and P175, combined. The reports shall be submitted by January 31 of each year and shall cover the previous calendar year.
6. 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.

### **V. Testing Requirements**

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

**V. Testing Requirements (continued)**

**1.a** Emission Limitations:

0.30 ton OC per month (for emissions units P173, P174, and P175, combined)

3.6 tons OC/rolling, 12-month summation (for emissions units P173, P174, and P175, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the limitations above based upon the record keeping requirements established in section A.III.9 of this permit.

**1.b** Emission Limitation-

95% destruction efficiency for OC by weight

Applicable Compliance Method-

The permittee shall demonstrate compliance with the limitation above based upon the results of emission testing conducted in accordance with the methods and procedures specified in Section A.V.2 of this permit.

**1.c** Emission Limitation:

0.27 lb toluene/hr

Applicable Compliance Method:

The hourly allowable toluene emission limitation was established by using the following equation:

$$\text{toluene emissions (lbs/hr)} = [(L1 \times Ct \times (1 - 0.67^*)) + (L2 \times (1 - 0.97^{**}))] \times Dt \times (1 - 0.941)^{***}$$

Where:

L1 = maximum hourly lacquer usage rate (gallons/hr)

Ct = percent of toluene in the lacquer (95%, by volume)

L2 = maximum hourly gallons of toluene (gallons/hr) used in the edge wipe operation that is associated with this emissions unit

Dt = density of toluene (7.23 lbs/gallon)

\* 67% of the toluene in the lacquer is recovered and shipped off site for reclamation.

\*\* 97% of the toluene used in the edge wipe operation is recovered and shipped off site for reclamation.

\*\*\* The overall control efficiency of the control equipment is assumed to be a minimum of 95%.

If required, the permittee shall demonstrate compliance with the hourly allowable toluene emission limitation in accordance with 40 CFR 60, Appendix A, Method 18. [The results of the emission testing conducted on April 28, 1998 indicated that the actual toluene emission rate was 0.017 lb/hr.]

## V. Testing Requirements (continued)

**1.d** Emission Limitation:  
0.007 lb methanol/hr

Applicable Compliance Method:

The hourly allowable methanol emission limitation was established by using the following equation:

$$\text{methanol emissions (lbs/hr)} = L_m \times D_m \times C_m \times (1-0.97^*) \times (1 - 0.95)^{**}$$

Where:

$L_m$  = maximum hourly gallon usage rate of the solution used in the prewet spray operation that is associated with this emissions unit (gallons/hour)

$C_m$  = percent of methanol in the prewet spray solution (12% by volume)

$D_m$  = density of methanol (6.58 lbs/gallon)

\* 97% of the methanol used in the prewet spray solution is recovered and shipped off site for reclamation.

\*\* The overall control efficiency of the control equipment is assumed to be a minimum of 95%.

If required, the permittee shall demonstrate compliance with the hourly allowable methanol emission limitation in accordance with 40 CFR 60, Appendix A, Method 18. [The results of the emission testing conducted on April 28, 1998 indicated that the actual methanol emission rate was 0.002 lb/hr.]

- 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 within six months prior to the expiration of this permit.
  - b. The emission testing shall be conducted to demonstrate compliance with the overall control system efficiency for OCs which will be determined as the product of the capture efficiency and the destruction efficiency of the catalytic incinerator.
  - c. The following test method(s) shall be employed to demonstrate compliance with the overall control system efficiency for OCs:
    - i. The capture efficiency may be determined using the test methods specified in 40 CFR Part 51, Appendix M, Method 204 through 204F, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency as specified in the USEPA Guidelines for Determining Capture Efficiency, dated January 9, 1995. Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.
    - ii. The destruction efficiency of the catalytic incinerator shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-21-10 and shall measure the percent reduction in mass emissions of organic compounds or organic materials between the inlet and outlet of the vapor control system.
  - d. The test(s) shall be conducted while this 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.

## **V. Testing Requirements (continued)**

3. 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 appropriate Ohio EPA District Office or local air agency.

4. During any emission testing for this emissions unit, the permittee shall record the following additional information:
- a. the average temperature of the exhaust gases immediately before the catalyst bed, in degrees Fahrenheit;
  - b. the average temperature difference across the catalyst bed, in degrees Fahrenheit; and
  - c. the minimum pressure differential established, in inches of water.
5. Unless a determination is made pursuant to A.I.2.b, the overall control efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement. ) 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 the approved alternative test protocol. 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.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** 32V Lacquer Line (P176)

**Activity Description:** Application of lacquer to television panels. Equipment: Prewet spray (PVA, Methanol 12%, H2O) Lacquer Spray, Toluene edge wipe, drying oven.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
32V lacquer coating line - monitor screens - 'spin' rotary application	OAC rule 3745-31-05 (PTI 03-9777)	0.46 lb organic compounds (OC)/hr, 2.02 tons/yr OC 0.36 lb toluene/hr, 1.56 tons/yr toluene 0.10 lb methanol/hr, 0.44 ton/yr methanol
	OAC rule 3745-21-07(G)(2)	See A.I.2.d. See A.I.2.c.

##### 2. Additional Terms and Conditions

- 2.a The organic compounds (OC) emissions from this emissions unit shall be controlled through the application of a permanent total enclosure, and a catalytic incinerator with a minimum 95% destruction efficiency by weight.

The OC emissions from this emission unit shall be controlled through the application of a permanent total enclosure (PTE) with a 100% capture efficiency. The PTE serving this emissions unit shall be maintained in such a manner as to meet the criteria established for a PTE in Method 204 (40 CFR Part 51, Appendix M) whenever the emissions unit is in operation, unless the permittee is successful in making the determination described in A.I.2.b.

## **2. Additional Terms and Conditions (continued)**

- 2.b** The permittee has the option to perform a demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device is always maintained under negative pressure even when all openings (including, non-natural draft openings) which could affect the PTE are opened) in lieu of installing, maintaining and operating monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the demonstration to show that the PTE can not be compromised or the demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below (see Sections A.II, A.III, and A.IV below) to ensure the ongoing integrity of the PTE and meet the criteria specified in Method 204.

- 2.c** The emission limitations/ control requirements specified by this rule are less stringent than the emission limitations/ control requirements established pursuant to OAC rule 3745-31-05(A)(3).
- 2.d** The hourly emission limitations above are established for PTI purposes to reflect the emissions unit's potential to emit. Therefore, no record keeping, monitoring, and reporting requirements are necessary to ensure compliance with these limits.

## **II. Operational Restrictions**

- 1.** 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.
- 2.** Except as provided in A.I.2.b, the permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than the minimum pressure differential (inches of water) established during the most recent emission test that demonstrated the emissions unit was in compliance, whenever the emissions unit is in operation.
- 3.** The doors to the lacquer line room shall remain closed at all times, except for entry or exit or for an emergency.
- 4.** To minimize fugitive emissions, all spent cleanup solvent which will not be reused shall be returned to the waste recovery tank from a point within the permanent total enclosure of the lacquer line room.
- 5.** Toluene shall be the only VOC in the lacquer, and in the edge wipe.
- 6.** The prewet spray shall contain no more than 12% methanol by volume, and methanol shall be the only VOC in the prewet spray.

## **III. Monitoring and/or Record Keeping Requirements**

- 1.** The permittee shall operate and maintain continuous temperature monitors and recorder(s) which measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder(s) shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

### III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall collect and record the following information each day:
  - 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 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.
  - c. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
  - d. Except as provided in A.1.2.b, the difference in pressure between the permanent total enclosure and the surrounding area(s), in inches of water.
3. Except as provided in A.1.2.b, the permittee shall 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 calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
4. All lacquer supplied to this emissions unit shall be supplied through one flow meter capable of measuring and recording the volume of lacquer employed daily to an accuracy of plus or minus 0.2%. The volume percent of toluene in the lacquer shall be considered to be 95% for the purpose of these calculations. The volume of toluene in the lacquer supplied shall be converted to pounds and recorded daily. The weight of toluene used each day in the lacquer in this emissions unit shall be summed for each calendar month and recorded in pounds.
5. All pure toluene supplied to this emissions unit shall be supplied through one flow meter capable of measuring and recording the volume of toluene employed daily to an accuracy of plus or minus 0.2%. The volume of pure toluene supplied shall be converted to pounds and recorded daily. The daily pounds of pure toluene used shall be summed for each calendar month and recorded.
6. The permittee shall record and maintain each calendar month the sum of the toluene usages recorded pursuant to sections III.4 and 5, in pounds, for this emissions unit.
7. The weight of all methanol supplied to this emissions unit shall be either determined gravimetrically or through the use of a flowmeter capable of measuring and recording the volume of methanol employed daily to an accuracy of plus or minus 0.2%. The volume of methanol supplied shall be converted to pounds and recorded daily. The daily pounds shall be summed for each calendar month and recorded.
8. The weights of toluene and methanol recovered from the waste recovery tank shall be calculated each month from the total weight of recovered material and the analysis of a representative sample. If no recovery has been made in a particular calendar month, the weights shall be recorded as zero. The weights of toluene and methanol recovered from the waste recovery tank shall each be recorded for each calendar month. The weight of toluene recovered each month shall be subtracted from the weight of total toluene usage each calendar month as determined in section III.6. The resulting number shall be recorded each month as the weight of toluene emitted before controls. The weight of methanol recovered each month shall be subtracted from the weight of total methanol usage each calendar month as determined in section III.7. The resulting number shall be recorded each month as the weight of methanol emitted before controls.

### III. Monitoring and/or Record Keeping Requirements (continued)

9. The permittee shall collect and record the following information each month for this emissions unit:
  - a. The name and identification number of each cleanup material employed.
  - b. The number of gallons of each cleanup material employed.
  - c. The OC content of each cleanup material employed, in pounds per gallon.
  - d. The total uncontrolled OC emissions for all the cleanup materials employed, i.e., the summation of (b x c) for all cleanup materials, in pounds.
  - e. The total calculated controlled OC emission rate for all the cleanup materials employed, in pounds (the controlled OC emission rate shall be calculated using 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, i.e., (d) multiplied by a factor of (1 - the overall control efficiency).
  - f. The total controlled OC emissions from all the lacquer, pure toluene, and methanol employed, calculated using the weights of toluene and methanol emitted before controls (from section III.8 of this section) and an overall capture and destruction efficiency of 95%, in pounds (or the most recent destruction efficiency as demonstrated in accordance with emissions testing approved by Ohio EPA).
  - g. The total controlled OC emissions from all the lacquer, pure toluene, methanol and cleanup materials employed  $[(e + f)/2000]$ , in tons.
  - h. The rolling, twelve-month summation of the total controlled OC emissions from all the lacquer, pure toluene, methanol and cleanup materials, in tons.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify 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 or the average temperature difference across the catalyst bed did not comply with the temperature limitations specified above.
2. Except as provided in A.1.2.b, the permittee shall submit quarterly pressure differential deviation (excursion) reports that identify all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified above.
3. The deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.
4. The permittee shall submit annual reports that summarize the controlled OC, toluene, and methanol emissions for this emissions unit. The reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

### V. Testing Requirements

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

## V. Testing Requirements (continued)

- 1.a** Emission Limitations:  
0.46 lb OC/hr, 2.02 tons/yr OC

Applicable Compliance Method:

As long as compliance with the hourly emission limitations for toluene and methanol are maintained, compliance with the hourly OC emission limitation is shown. (The OC limitation was established by adding the toluene and methanol limitations.)

Compliance with annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

If required, the permittee shall demonstrate compliance with the hourly limit above in accordance with 40 CFR 60, Appendix A, Method 25. [The results of the emission testing conducted on April 2, 1998 indicated that the OC emission rate was 0.018 lb/hr.]

- 1.b** Emission Limitation-  
95% destruction efficiency for OC

Applicable Compliance Method-

The permittee shall demonstrate compliance with the limitation above based upon the results of emission testing conducted in accordance with the methods and procedures specified in Section A.V.2 of this permit.

- 1.c** Emission Limitations:  
0.36 lb toluene/hr, 1.56 tons/yr toluene

Applicable Compliance Method:

The hourly allowable toluene emission limitation was established by using the following equation:

$$\text{toluene emissions (lbs/hr)} = [(L1 \times Ct \times (1 - 0.67^*)) + (L2 \times (1 - 0.97^{**}))] \times Dt \times (1 - 0.95)^{***}$$

Where:

L1 = maximum hourly lacquer usage rate (gallons/hr)

Ct = percent of toluene in the lacquer (95%, by volume)

L2 = maximum hourly gallons of toluene (gallons/hr) used in the edge wipe operation that is associated with this emissions unit

Dt = density of toluene (7.23 lbs/gallon)

\* 67% of the toluene in the lacquer is recovered and shipped off site for reclamation.

\*\* 97% of the toluene used in the edge wipe operation is recovered and shipped off site for reclamation.

\*\*\* The overall control efficiency of the control equipment is assumed to be a minimum of 95%.

Compliance with annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

If required, the permittee shall demonstrate compliance with the hourly allowable toluene emission limitation in accordance with 40 CFR 60, Appendix A, Method 18. [The results of the emission testing conducted on April 2, 1998 indicated that the actual toluene emission rate was 0.009 lb/hr.]

## V. Testing Requirements (continued)

- 1.d** Emission Limitations:  
0.10 lb methanol/hr, 0.44 ton/yr

Applicable Compliance Method:

The hourly allowable methanol emission limitation was established by using the following equation:

$$\text{methanol emissions (lbs/hr)} = L_m \times D_m \times C_m \times (1-0.97^*) \times (1 - 0.95)^{**}$$

Where:

$L_m$  = maximum hourly gallon usage rate of the solution used in the prewet spray operation that is associated with this emissions unit (gallons/hour)

$C_m$  = percent of methanol in the prewet spray solution (12% by volume)

$D_m$  = density of methanol (6.58 lbs/gallon)

\* 97% of the methanol used in the prewet spray solution is recovered and shipped off site for reclamation.

\*\* The overall control efficiency of the control equipment is assumed to be a minimum of 95%.

Compliance with annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

If required, the permittee shall demonstrate compliance with the hourly allowable methanol emission limitation in accordance with 40 CFR 60, Appendix A, Method 18. [The results of the emission testing conducted on April 28, 1998 indicated that the actual methanol emission was 0.0004 lb/hr.]

- 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 within six months prior to the expiration of this permit.
  - b. The emission testing shall be conducted to demonstrate compliance with the overall control system efficiency for OCs which will be determined as the product of the capture efficiency and the destruction efficiency of the catalytic incinerator.
  - c. The following test method(s) shall be employed to demonstrate compliance with the overall control system efficiency for OCs:
    - i. The capture efficiency may be determined using the test methods specified in 40 CFR Part 51, Appendix M, Method 204 through 204F, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency as specified in the USEPA Guidelines for Determining Capture Efficiency, dated January 9, 1995. Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.
    - ii. The destruction efficiency of the catalytic incinerator shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-21-10 and shall measure the percent reduction in mass emissions of organic compounds or organic materials between the inlet and outlet of the vapor control system.
  - d. The test(s) shall be conducted while this 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.

## **V. Testing Requirements (continued)**

3. 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 appropriate Ohio EPA District Office or local air agency.

4. During any emission testing for this emissions unit, the permittee shall record the following additional information:
- a. the average temperature of the exhaust gases immediately before the catalyst bed, in degrees Fahrenheit;
  - b. the average temperature difference across the catalyst bed, in degrees Fahrenheit; and
  - c. the minimum pressure differential established, in inches of water.
5. Unless a determination is made pursuant to A.I.2.b, the overall control efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement. ) 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 the approved alternative test protocol. 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.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
32V lacquer coating line - monitor screens - 'spin' rotary application	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

- The permit to install for this emissions unit (P176) was evaluated based on the actual materials (coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: toluene

TLV (ug/m3): 188,000

Maximum Hourly Emission Rate (lbs/hr): 0.36

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 18

MAGLC (ug/m3): 4480

### **III. Monitoring and/or Record Keeping Requirements (continued)**

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
  - a. changes in the composition of the materials used (coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"
  - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

### **IV. Reporting Requirements**

**None**

### **V. Testing Requirements**

**None**

### **VI. Miscellaneous Requirements**

**None**

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