



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

09/21/04

CERTIFIED MAIL

01-65-01-0026
GE Circleville Lamp Plant
Michelle Culpepper
G. E. Lighting, Inc - Circleville Lamp
559 East Ohio Street
Circleville, OH 43113

**RE: Final Title V Chapter 3745-77 permit
TVP009**

Dear Michelle Culpepper:

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
309 South Fourth Street, Room 222
Columbus, Ohio 43215

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

Sincerely,

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

cc: Central District Office
File, DAPC PMU



State of Ohio Environmental Protection Agency

FINAL TITLE V PERMIT

Issue Date: 09/21/04

Effective Date: 10/12/04

Expiration Date: 10/12/09

This document constitutes issuance of a Title V permit for Facility ID: 01-65-01-0026 to:
GE Circleville Lamp Plant
G. E. Lighting, Inc - Circleville Lamp
559 East Ohio Street
Circleville, OH 43113

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

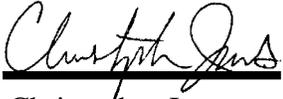
Table with 3 columns: Emissions Unit ID (Company ID), Emissions Unit Activity Description, and OEPA ID. Rows include units like B004, P007, P014, P019, P020, P029, P031, P045, P046, R001, R002, R003, R006, R007, R010, R011, R012, R013, R014, and R015.

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.

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

Central District Office
3232 Alum Creek Drive
Columbus, OH 43207-3417
(614) 728-3778

OHIO ENVIRONMENTAL PROTECTION AGENCY

A handwritten signature in cursive script, appearing to read "Christopher Jones", written in black ink. The signature is positioned above a solid black horizontal line.

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, i.e., in Section A.III of Part III of this Title V permit, 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. **All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:**

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 OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted by January 31, April 30, July 31, and October 31 of each year in accordance with General Term and Condition A.1.c.ii below; and each report shall cover the previous calendar quarter.

In accordance with OAC rule 3745-15-06, a malfunction constitutes a violation of an emission limitation (or control requirement) and, therefore, is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) 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. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any scheduled maintenance, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

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

- ii. **Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Section A.IV of Part III of this Title V permit or, in some cases, in Part II of this Title V permit, all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:**

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written reports shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. OAC rule 3745-77-07(A)(3)(c) is not fully satisfied until the permittee addresses all other deviations of the federally enforceable requirements specified in the permit.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement overrides the reporting requirements specified in this General Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this General Term and Condition.

See B.6 below if no deviations occurred during the quarter.

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

- iii. **All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with General Term and Condition A.1.c.ii above shall be submitted in the following manner:**

Written reports that identify all other deviations of the federally enforceable requirements contained in this permit, including the monitoring, record keeping, and reporting requirements, which are not reported in accordance with General Term and Condition A.1.c.ii above shall be submitted to the appropriate Ohio EPA District Office or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months.

In identifying each deviation, the permittee shall specify the federally enforceable 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 reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with General Term and Condition A.1.c.ii above.

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

- v. 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))

2. **Scheduled Maintenance**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance 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). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in General Term and Condition A.1.c.i above.

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

3. **Risk Management Plans**

If applicable, the permittee shall 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"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

- a. a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or
- b. as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management 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. 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.

(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))

21. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification by the responsible official of the date on which the emissions unit was permanently shut down. Authorization to operate the affected part or activity of the stationary source shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

If an emissions unit is permanently shut down (i.e., that has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent “modification” or “installation” as defined in OAC Chapter 3745-31 and therefore ceases to meet the definition of an “emissions unit” as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any monitoring, record keeping, reporting, or testing requirements, applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

No emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.

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 emission limitation (or control requirement), operational restriction and/or control device parameter limitation 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 by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

- a. where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in General Term and Condition A.1.c.ii;
- b. where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potentials to emit; and
- c. where the company's responsible official has certified that an emissions unit has been permanently shut down.

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforceable Section

1. This facility is subject to the applicable requirements specified in OAC Chapter 3745-25. In accordance with Ohio EPA Engineering Guide #64, the emission control action programs, as specified in OAC rule 3745-25-03, shall be developed and submitted within 60 days after receiving notification from the Ohio EPA.
2. All asbestos renovation and demolition activities conducted at this facility shall be performed in accordance with the applicable requirements specified in 40 CFR Part 61.
3. The permittee shall comply with all applicable provisions specified in 40 CFR Part 82, Subpart F as related to the operations at this facility.
4. The permittee shall not cause or allow any open burning in violation of OAC Chapter 3745-19 at this facility.
5. The following insignificant emissions units are located at this facility:

B002 - bulb prep area (PTI 01-3133);
B003 - 2.1 mmBtu/hr, natural gas boiler (PTI 01-3587);
B005 - 7.1 mmBtu/hr, natural gas heater;
B006 - 2.1 mmBtu/hr, natural gas boiler (PTI 01-4404);
B007 - fire water diesel pump;
B008 - DF heater no. 1, fan room #6;
B009 - DF heater fan room #11;
B010 - DF heater fan #1 room #8;
B011 - DF heater no. 2, fan room #6;
B012 - DF heater fan #2 room #8;
F001 - paved parking lots and driveways;
K001 - basefill machine 1;
K002 - basefill machine 2;
K003 - basefill machine 3;
K004 - basefill machine 4;
K005 - basefill machine 5;
K006 - basefill machine 6;
K007 - basefill machine 7;
L003 - shop solvent degreasing (PTI 01-2925);
L005 - nitro clean tank;
L006 - shop solvent degreasing (PTI 01-4331);
P002 - group No. 5 (Hitachi Circline) assembly operations;
P004 - group No. 18;
P008 - specialty lehr 1;
P011 - group No. 5 (Hitachi Circline) coater (PTI 01-435);
P012 - wastewater pretreatment (PTI 01-1427);
P013 - water coating mix rooms (PTI 01-2717);
P015 - shop sand blast (PTI 01-2925);
P016 - LWBXI coater (PTI 01-3133);
P017 - HLBX including grit blaster (PTI 01-4244);
P018 - reclamation furnace (PTI 01-2987);
P021 - biax mix room (PTI 01-2987);
P022 - tank farm (PTI 01-3133);
P023 - flare machines (PTI 01-3133);
P024 - group No. 16 (PTI 01-3454);
P025 - group No. 25 (PTI 01-3454);
P026 - group No. 26 (PTI 01-8449);

A. State and Federally Enforceable Section (continued)

P028 - base cement mixing;
P030 - group No. 21 (PTI 01-3454);
P034 - aqueous strip cleaning (PTI 01-3267);
P035 - LWBXII coater (PTI 01-4830);
P037 - HLXI coater (PTI 01-6083);
P038 - group No. 4;
P039 - group No. 7;
P040 - group No. 10;
P041 - group No. 11;
P042 - group No. 22;
P043 - group No. 24;
P044 - group No. 17;
P045 - miscellaneous chemical usage;
P046 - group 14 sandblast;
P047 - group 15 sandblast;
P048 - group 21 sandblast;
P049 - wastewater treatment plant sandblast;
P050 - coating department sand blast;
T001 - HCL acid tank (PTI 01-3031);
T010 - coating thinner tank (PTI 01-4564); and
T011 - synasol tank (PTI 01-4564).

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 the identified permit to install for the emissions unit. Insignificant emissions units listed above that are not subject to specific permit to install requirements are subject to one or more applicable requirements contained in the federally-approved versions of OAC Chapters 3745-17, 3745-18, and/or 3745-21.

B. State Only Enforceable Section

1. Air dispersion modeling was conducted on 2/18/92, for emissions units which have the potential to emit mercury air emissions. Emissions units included in the modeling were P014-bulb crusher, P020-group 15, P030-group 21 and the central vacuum system which serves emissions units P038-group 4, P039-group 7, P040-group 10, P041-group 11, P042-group 22, P043-group 24, P044-group 17. These emissions units were evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of their exhaust systems, as specified by the permittee in a permit to install application or in correspondence with the permittee. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for mercury emitted by these emissions units using data from permit to install applications, correspondence and/or the SCREEN 3.0 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: Mercury

TLV (mg/m³): 0.05

Maximum Hourly Emission Rate (lbs/hr): 0.0174

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m³): 0.85

MAGLC (ug/m³): 1.2

Physical changes to or changes in the method of operation of an emissions unit referenced above shall undergo an evaluation to determine if the changes satisfy the "Air Toxics Policy".

B. State Only Enforceable Section (continued)

2. Air dispersion modeling was conducted on 9/17/91 for emissions units R001-downflush coater 6, R002-downflush coater 10, R003-downflush coater 12, R005-downflush coater 8, R006-downflush coater 11, R007-downflush coater 15, P007-upflush coater 5, P016-LWBXI coater, P017-HLBX coater and P019-coater 14. These emissions units were evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of each emissions unit's exhaust system, as specified by the permittee in a permit to install application or correspondence to the permittee. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by these emissions units using data from the permit to install application, correspondence and/or the SCREEN 3.0 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: Ammonia

TLV (mg/m³): 17

Maximum Hourly Emission Rate (lbs/hr): 18.12

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 274

MAGLC (ug/m³): 405

Pollutant: Monoethanol Amine (MEA)

TLV (mg/m³): 7.5

Maximum Hourly Emission Rate (lbs/hr): 9.90

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 149

MAGLC (ug/m³): 179

Physical changes to or changes in the method of operation of an emissions unit referenced above shall undergo an evaluation to determine if the changes satisfy the "Air Toxics Policy".

3. Air dispersion modeling was conducted on 10/28/92 for emissions units R010 - upflush room coater #6, R011 - upflush room coater #10, R012 - upflush room coater #11, R013 - upflush room coater #12, and R014 - upflush room coater #13. These emissions units were evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions units' 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 these emissions units 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: 2- Ethoxyethanol

TLV (mg/m³): 18

Maximum Hourly Emission Rate (lbs/hr): 1.84

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 1.37

MAGLC (ug/m³): 240.

B. State Only Enforceable Section (continued)

4. The following insignificant emissions units located at this facility are exempt from permit requirements because they are not subject to any applicable requirements or because they meet the "de minimis" criteria established in OAC rule 3745-15-05:

B001 - 3.35 mmBtu/hr, natural gas boiler;
L001 - shop solvent degreasing;
L007 - basefill solvent parts cleaner;
P005 - coiling operations;
P027 - nitro based coating mixing room;
P033 - mercury cleaning;
R008 - case sealers (2); and
T008 - mixed acid tank.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: DF htr. fan room #4 (B004)
Activity Description: 11.2 mmBtu/hr natural gas fired room air heater

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>
11.2 mmBtu/hr natural gas (direct-fired) room air heater	OAC rule 3745-31-05(A)(3) (PTI 01-4250)	Nitrogen oxides emissions shall not exceed 1.1 pounds per mmBtu heat input.
	OAC rule 3745-17-11(B)(1)	Carbon monoxide emissions shall not exceed 0.9 pound per mmBtu heat input.
	OAC rule 3745-17-07(A)	None, see A.I.2.a below.
	OAC rule 3745-21-08(B)	None, see A.I.2.b below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.
		See A.I.2.d below.

2. Additional Terms and Conditions

- The uncontrolled mass rate of particulate emissions (PE)* from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero. "Process weight" is defined in OAC rule 3745-17-01(B)(14).

* The burning of natural gas is the only source of PE from this emissions unit.

- This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-4250.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2. Additional Terms and Conditions (continued)

- 2.d The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-4250.
- 2.e Sections A.I.2.a through A.I.2.d above are intended for clarification of current regulatory applicability under this permit at time of issuance, and are not intended to address or prohibit any change that could otherwise be processed under OAC rule 3745-77-07(I).

II. Operational Restrictions

- 1. The permittee shall burn only natural gas, or other such 'inherently clean' fuel that would result in emissions that comply with the limitations and restrictions of this permit, 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 or other such 'inherently clean' fuel, 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 quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas or other such 'inherently clean' fuel was burned in this emissions unit.

V. Testing Requirements

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

- 1.a Emission Limitation -
Nitrogen oxides emissions shall not exceed 1.1 pounds per mmBtu heat input.

Applicable Compliance Method -

Compliance may be demonstrated by multiplying the emission factor for natural gas combustion of 100 lbs NOx/mmcu.ft. (AP-42, section 1.4, 1998) by the maximum throughput of 10,695 cu.ft./hr.

If required, the permittee shall demonstrate compliance by emission testing in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 7.

- 1.b Emission Limitation -
Carbon monoxide emissions shall not exceed 0.9 pound per mmBtu heat input.

Applicable Compliance Method -

Compliance may be demonstrated by dividing the emission factor for natural gas combustion of 84 lbs CO/mmcu.ft. (AP-42, section 1.4, 1998) by the maximum throughput of 10,695 cu.ft./hr.

If required, the permittee shall demonstrate compliance by emission testing in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 10.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<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: Upflush coater #5 (P007)

Activity Description: Upflush coater # 5 with drying oven; 10 mmBtu/hr; non-insignificant for ammonia

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>
upflush coater #5 with 10 mmBtu/hr natural gas-fired drying oven	OAC rule 3745-21-07(G)	See A.I.2.a below.
	OAC rule 3745-17-11(B)(1)	None, see A.I.2.b below.
	OAC rule 3745-17-07(A)	None, see A.I.2.c below.
	OAC rule 3745-18-06(E)(2)	Sulfur dioxide emissions shall not exceed 33.9 pounds/hour. See A.V.1 below.

2. Additional Terms and Conditions

- 2.a To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

- 2.b The uncontrolled mass rate of particulate emissions (PE)* from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero. "Process weight" is defined in OAC rule 3745-17-01(B)(14).

* The burning of natural gas is the only source of PE from this emissions unit.

- 2.c This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

- 2.d Sections A.I.2.a through A.I.2.c above are intended for clarification of current regulatory applicability under this permit at time of issuance, and are not intended to address or prohibit any change that could otherwise be processed under OAC rule 3745-77-07(I).

II. Operational Restrictions

1. The permittee shall burn only natural gas, or other such 'inherently clean' fuel that would result in emissions that comply with the limitations and restrictions of this permit, 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 or other such 'inherently clean' fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. For each day during which the permittee employs a coating other than a non-photochemically reactive material, the permittee shall maintain a record of the type and quantity of coating used in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. each day when a fuel other than natural gas or other such 'inherently clean' fuel was burned in this emissions unit; and
 - b. all periods of time when a photochemically reactive material was employed in this emissions unit.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c.ii of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:
 - 1.a Emission Limitation:
Sulfur dioxide emissions shall not exceed 33.9 pounds/hour.

Applicable Compliance Method:

Compliance with this emission limitation may be assumed since the emissions unit's potential to emit for sulfur dioxide emissions (sum of the emissions from the firing of natural gas and the coating(s)) is less than the allowable emission limitation established by the applicable rule.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

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: Bulb crusher (P014)

Activity Description: Crush reject bulbs and lamps and store in a silo

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>
bulb crusher / MRT system controlled with a cyclone dust separator, fabric filter (carbon pre-filter), and carbon adsorption unit	OAC rule 3745-31-05(A)(3) (PTI 01-8614)	Particulate emissions shall not exceed 1.2 pounds per hour and 5.3 tons per year. Mercury emissions shall not exceed 0.0036 pound per hour and 0.02 ton per year. See A.I.2.a.
	OAC rule 3745-17-07(A)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A). Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)	The particulate emission limitation specified in this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a Best available technology (BAT) for this emissions unit has been determined to be the following:

- i. for the crusher: use of a control system consisting of a fabric filter (carbon pre-filter) followed by a carbon adsorption unit; and
- ii. for the sieve and silo: use of a control system consisting of a series of cyclone followed by a fabric filter (carbon pre-filter) and carbon adsorption unit.

The control systems for the crusher, sieve, and silo shall achieve an overall control efficiency of 99.5% and 100% capture efficiency for PE and Hg.

II. Operational Restrictions

1. Emissions from the crusher shall be vented to a fabric filter (carbon pre-filter) followed by a carbon adsorption unit whenever this emissions unit is crushing bulbs. Emissions from the sieve and silo shall be vented to a cyclone and fabric filter (carbon pre-filter) followed by a carbon adsorption unit whenever this emissions unit is crushing bulbs.
2. The pressure drop across the fabric filter (carbon pre-filter) shall be maintained within the range of 0.1 to 1 inch of water while the emissions unit is in operation.
3. The carbon in the MRT carbon adsorption unit will be changed out upon reaching 5686 tons of scrap bulb/lamp throughput (the throughput is based on an evaluation of the effectiveness of the MRT carbon adsorption unit from start up in July of 2002 through the emission tests conducted December 17, 2003).

The frequency for the carbon change-out will be effective for the duration of this permit unless additional performance testing is conducted which shows that the emissions unit is in compliance with the mercury emission limitation and establishes a more appropriate carbon change-out frequency. At that time, the emission test results will be reviewed by the Ohio EPA and the frequency of the carbon change-out may be adjusted accordingly, provided that written approval of the new carbon change-out frequency is obtained from the Ohio EPA, Central District Office.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the fabric filter (carbon pre-filter) while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s) or good engineering practice. The permittee shall record the pressure drop across the fabric filter (carbon pre-filter) on a daily basis.

The operation of the control equipment outside the range specified above may or may not indicate a mass emission and/or visible emission violation. If required by the Ohio EPA, Central District Office, compliance with the mass emission limitation and visible emission limitation shall be determined by performing concurrent mass emission tests and visible emissions readings, using US EPA - approved methods and procedures. The results of any required emission tests and visible emission readings shall be used in determining whether or not the operation of the control equipment outside the range specified above is indicative of a possible violation of the mass emission limitation and/or visible emission limitation.

2. The permittee shall perform weekly checks when the emissions unit is in operation, and when the weather conditions allow, for any visible particulate emissions (excluding uncombined water vapor) from the cyclone/fabric filter (carbon pre-filter) and carbon adsorption/fabric filter (carbon pre-filter) units serving this emissions unit. The presence or absence of any visible particulate emissions shall be recorded electronically or in an operations log. If visible particulate emissions are observed, the permittee shall also record the following:
 - a. the color of the emissions;
 - b. the total duration of any visible emission incident; and
 - c. any corrective actions taken to eliminate the visible emissions.
3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #01-8614, issued on June 11, 2002: Section A.III. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.
4. The permittee shall record the cumulative scrap bulb/lamp throughput since the last carbon adsorption unit carbon change-out, in tons, on a monthly basis.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. all periods of time during which the pressure drop across the fabric filter (carbon pre-filter) did not comply with the allowable range specified above;
 - b. all days during which any visible particulate emissions were observed from the cyclone/fabric filter (carbon pre-filter) and/or the carbon adsorption/fabric filter (carbon pre-filter) stack(s) serving this emissions unit and describe any corrective actions taken to eliminate the visible particulate emissions; and
 - c. all periods of time when the emissions unit was in operation and the carbon in the carbon adsorption unit had not been changed out in accordance with the change-out frequency specified above.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c.ii of this permit.

2. The permittee shall also submit annual reports that specify the total mercury and particulate emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

V. Testing Requirements

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

- 1.a Emission Limitation:
Particulate emissions shall not exceed 1.2 pounds per hour.

Applicable Compliance Method:

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

i. the emission testing shall be conducted within 6 months prior to permit expiration (this emissions unit shall be retested at the frequency specified in Ohio EPA Engineering Guide #16);

ii. the emission testing shall be conducted to demonstrate compliance with the hourly allowable mass emission rate for particulate emissions;

iii. the following test methods shall be employed to demonstrate compliance with the hourly allowable mass emission rate for particulate emissions: Methods 1 through 5, 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA; and

iv. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Ohio EPA, Central District Office.

- 1.b Emission Limitation:
Particulate emissions shall not exceed 5.3 tons per year.

Applicable Compliance Method:

The annual emission limitation was established by multiplying the hourly particulate emission limitation (1.2 lbs PE/hr) by a maximum operating schedule of 8,760 hours per year and dividing by a conversion factor of 2000 lbs per ton. Therefore, provided compliance is demonstrated with the hourly particulate emission limitation, compliance with the ton per year limitation will also be demonstrated.

V. Testing Requirements (continued)

1.c Emission Limitation:
Mercury emissions shall not exceed 0.0036 pound per hour.

Applicable Compliance Method:

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

i. the emission testing shall be conducted within 6 months prior to permit expiration (this emissions unit shall be retested at the frequency specified in Ohio EPA Engineering Guide #16);

ii. the emission testing shall be conducted to demonstrate compliance with the hourly allowable mass emission rate for mercury;

iii. the following test methods shall be employed to demonstrate compliance with the hourly allowable mass emission rate for mercury: Methods 1 through 4 and 29, 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA; and

iv. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Ohio EPA, Central District Office.

1.d Emission Limitation:
Mercury emissions shall not exceed 0.02 ton per year.

Applicable Compliance Method:

The annual emission limitation was established by multiplying the hourly mercury emission limitation (0.0036 lb Hg/hr) by a maximum operating schedule of 8,760 hours per year and dividing by a conversion factor of 2000 lbs per ton. Therefore, provided compliance is demonstrated with the hourly mercury emission limitation, compliance with the ton per year limitation will also be demonstrated.

1.e Emission Limitation:
Visible emissions shall not exceed 20 percent opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

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

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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>
bulb crusher / MRT system controlled with a cyclone dust separator, fabric filter (carbon pre-filter), and carbon adsorption unit		

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 P014 was evaluated based on the actual 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: Mercury

TLV (mg/m3): 0.025

Maximum Hourly Emission Rate (lbs/hr): 0.0036

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.21

MAGLC (ug/m3): 0.6

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:

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

- a. changes in the composition of the materials used, 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Group No. 14 (P019)

Activity Description: Medium speed horizontal assembly line #14 with coater and lehr

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>
lamp assembly line - group 14 with carbon adsorption unit	OAC rule 3745-31-05(A)(3) (PTI 01-8281)	Particulate emissions shall not exceed 1.03 pounds per hour and 4.5 tons per year. Sulfur dioxide emissions shall not exceed 1.06 pounds per hour and 4.6 tons per year. Nitrogen oxides emissions shall not exceed 2.10 pounds per hour and 9.2 tons per year. Carbon monoxide emissions shall not exceed 1.6 pounds per hour and 7.1 tons per year. Organic compound emissions shall not exceed 4.65 pounds per hour and 22.1 tons per year. Ammonia emissions shall not exceed 3.4 pounds per hour and 14.9 tons per year. Mercury emissions shall not exceed 0.0006 pound per hour and 0.003 ton per year. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-21-07(G), 3745-21-08(B), 3745-21-09(U), 3745-21-09(Y), and 3745-23-06(B). See A.I.2.a through A.I.2.e below.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-17-11(B)(1) OAC rule 3745-18-06(E)(2)	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)	See A.I.2.f below.
	OAC rule 3745-21-09(Y)	See A.I.2.g below.
	OAC rule 3745-21-09(U)	See A.I.2.h below.
	OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)	See A.I.2.i below.

2. Additional Terms and Conditions

- 2.a** The permittee shall use water-based coatings in phosphorous coating operations at all times when this emissions unit is in operation.
- "Water-based coatings" shall be defined, per OAC rule 3745-21-07(G)(9)(c)(ii), as a liquid organic material comprised not more than 20% of said volatile content.
- 2.b** The permittee shall vent all mercury emissions from this emissions unit to a carbon adsorption unit.
- 2.c** The permittee shall maintain the carbon adsorption system controlling the central vacuum system which serves emissions units P038-group 4, P039-group 7, P040-group 10, P041-group 11, P029-group 12, P019-group 14, P024-group 16, P044-group 17, P004-group 18, P042-group 22, P043-group 24, P025-group 25 and P026-group 26 at a control efficiency of at least 90% for mercury and a mercury emission rate of less than 0.0196 pound per hour at all times.
- 2.d** The permittee shall maintain tight fitting covers on the coating mixing tanks except that no hose opening shall have a diameter more than 1.5 inches greater than the outside diameter of the hose to be situated in the opening.
- 2.e** The pound(s) per hour emission limitations are based on the emissions unit's potentials to emit. Therefore, additional monitoring, record keeping and reporting requirements are not necessary to ensure compliance with these emission limitations.
- 2.f** To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.
- Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).
- 2.g** Pursuant to OAC rule 3745-21-09(Y)(2)(b), this emissions unit is exempt from the emission limitations specified in OAC rule 3745-21-09(Y) because the maximum potential usage of inks from all printing lines at this facility (P019) is less than 148 tons per year.
- 2.h** Pursuant to OAC rule 3745-21-09(U)(2)(e)(iii), this emissions unit is exempt from the emission limitation specified in OAC rule 3745-21-09(U)(1)(d) because the emissions unit never uses more than 10 gallons per day when coating miscellaneous metal parts.

2. Additional Terms and Conditions (continued)

- 2.i** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-8281.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-8281.

- 2.j** Sections A.I.2.e through A.I.2.i above are intended for clarification of current regulatory applicability under this permit at time of issuance, and are not intended to address or prohibit any change that could otherwise be processed under OAC rule 3745-77-07(I).

II. Operational Restrictions

1. The permittee shall burn only natural gas, or other such 'inherently clean' fuel that would result in emissions that comply with the limitations and restrictions of this permit, in this emissions unit.
2. The maximum daily coating usage when coating miscellaneous metal parts shall not exceed 10 gallons.
3. The permittee shall use only water-based coatings in the phosphorous coating operations.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas or other such 'inherently clean' fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain a log identifying the dates when the carbon, used in the carbon adsorber serving this emissions unit, is replaced.
3. For each day during which the permittee employs a coating other than a non-photochemically reactive material, the permittee shall maintain a record of the type and quantity of coating used in this emissions unit.
4. The permittee shall maintain daily records of the total coating usage when coating miscellaneous metal parts in this emissions unit.
5. For each day during which the permittee uses a coating other than a water-based coating, as defined in Section A.I.2.a, the permittee shall maintain a record of the type, quantity, and composition of each such non-water-based coating used in the phosphorous coating operations.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. each day when a fuel other than natural gas or other such 'inherently clean' fuel was burned in this emissions unit;
 - b. all periods of time when a photochemically reactive material was employed in this emissions unit;
 - c. any exceedances of the daily miscellaneous metal parts coating usage limitation; and
 - d. each day when a coating other than a water-based coating was used in the phosphorous coating operations.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c.ii of this permit.

2. The permittee shall also submit annual reports that specify the total particulate, sulfur dioxide, nitrogen oxides, carbon monoxide, organic compound, ammonia, and mercury emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

V. Testing Requirements

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

- 1.a Emission Limitations -
Particulate emissions shall not exceed 1.03 pounds per hour and 4.5 tons per year.

Applicable Compliance Methods -

Compliance shall be demonstrated by summing the emissions from the bulb end brushing operation and from the combustion of natural gas.

Emissions from the combustion of natural gas may be demonstrated by multiplying the emission factor for total particulates from natural gas combustion of 7.6 lbs of particulate/mmcu.ft. (AP-42, table 1.4-2, 7/98) by the maximum dryer throughput of 19300 cu.ft./hr. (0.15 lb/hr)

Emissions from the bulb end brushing operation are based on 0.1 gram (0.0002 lb) of particulate emitted per lamp. Maximum lamp rate is 4000 lamps per hour. This yeilds 0.80 lb of particulate per hour.

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained. The annual limitation was calculated by multiplying the hourly limitation by 8760 hours/year and dividing by 2000 pounds/ton.

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

V. Testing Requirements (continued)

1.b Emission Limitations -

Sulfur dioxide emissions shall not exceed 1.06 pounds per hour and 4.6 tons per year.

Applicable Compliance Methods -

Compliance shall be demonstrated by summing the emissions from the lehr lubrication and from the combustion of natural gas.

The emissions from the combustion of natural gas may be determined by multiplying the emission factor for natural gas combustion of 0.6 lb of sulfur dioxide/mmcu.ft. (AP-42, table 1.4-2, 7/98) by the maximum dryer throughput of 19300 cu.ft./hr. (0.01 lb/hr)

The hourly SO₂ lehr lubrication usage is 1.05 pounds of sulfur dioxide per hour.

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained. The annual limitation was calculated by multiplying the hourly limitation by 8760 hours/year and dividing by 2000 pounds/ton.

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

1.c Emission Limitations -

Nitrogen oxides emissions shall not exceed 2.10 pounds per hour and 9.2 tons per year.

Applicable Compliance Methods -

Compliance shall be demonstrated by summing the emissions from the binder in the phosphorous coating and from the combustion of natural gas.

Emissions from the combustion of natural gas shall be demonstrated by multiplying the emission factor for natural gas combustion of 94 lbs of nitrogen oxides/mmcu.ft. (AP-42, 1.4, 7/98) by the maximum dryer throughput of 19300 cu.ft./hr. (1.8 lbs/hr)

Emissions from the binder in the phosphorous coating shall be demonstrated by the following calculation:
 $(49 \text{ kg phosphorous coating/hr})(0.26 \text{ kg NO}/100 \text{ kg phosphorous coating})(2.2 \text{ lb/kg}) = 0.28 \text{ lb NO/hr}$

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained. The annual limitation was calculated by multiplying the hourly limitation by 8760 hours/year and dividing by 2000 pounds/ton.

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

1.d Emission Limitations -

Carbon monoxide emissions shall not exceed 1.6 pounds per hour and 7.1 tons per year.

Applicable Compliance Methods -

Compliance may be demonstrated by multiplying the emission factor for natural gas combustion of 40 lbs of carbon monoxide/mmcu.ft. (AP-42, 1.4-1, 7/98) by the maximum dryer throughput of 19300 cu.ft./hr. (0.8 lb/hr)

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained. The annual limitation was calculated by multiplying the hourly limitation by 8760 hours/year and dividing by 2000 pounds/ton.

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

V. Testing Requirements (continued)

- 1.e** Emission Limitations -
Organic compound emissions shall not exceed 4.65 pounds per hour and 22.1 tons per year.

Applicable Compliance Methods -

The hourly allowable OC emission rate was established based on the summation of the OC emissions generated during lamp manufacturing, OC emissions generated during lamp base cementing and OC emissions generated during natural gas combustion. The following outlines potential emissions generated during each process:

i. Natural gas combustion- calculated by multiplying the emission factor for natural gas combustion of 11 lbs of total organic compounds/mmcu.ft. (AP-42, Table 1.4-2, 7/98) by the maximum dryer throughput of 19300 cu.ft./hr. (0.2 lb/hr)

ii. Lamp manufacturing - the potential to emit for lamp manufacturing is 1.67 lbs of organic compounds/hr based on the summation of emissions from the following components of the line and a maximum lamp manufacturing rate of 4000 lamps/hr:

Monogram Ink - (0.0013 gallon/hr)(5.15 lbs OC/gallon) = 0.007 lb/hr
Monogram Ink Clean up Solvent - (0.0002 gallon/hr)(7 lbs/gallon) = 0.0014 lb/hr

Headmarking Ink - (0.0081 gallon/hr)(5.61 lbs OC/gallon) = 0.045 lb/hr
Headmarking Ink Clean up - (0.0057 gallon/hr)(7.0 lbs OC/gallon) = 0.04 lb/hr

E-Mix - (0.0276 gallon/hr)(3.49 lbs OC/gallon) = 0.096 lb/hr

Dry Film - (0.022 gallon/hr)(0.68 lb OC/gallon) = 0.015 lb/hr

Phosphor Coating - (24.36 gallons/hr)(0.059 lb/gallon) = 1.45 lbs/hr

Box Ink - (0.0201 gallon/hr)(0.35 lb OC/gallon) = 0.007 lb/hr
Box Ink Clean up - (0.008 gallon/hr)(1 lb OC/gallon) = 0.008 lb/hr

iii. Lamp base cementing - (4000 lamps/hr)(2 bases/lamp)(2.6 grams cement/base)(1 lb/454 grams)(0.065 lb OC/lb cement)(81% OC emitted during assembly) = 2.41 lbs/hr

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained. The annual limitation was calculated by multiplying the hourly limitation by 8760 hours/year and dividing by 2000 pounds/ton.

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18, 25, or 25A, as appropriate.

- 1.f** Emission Limitations -
Mercury emissions shall not exceed 0.0006 pound per hour and 0.003 ton per year.

Applicable Compliance Method -

Hg emissions were estimated to be 0.000175 lb/hr, based on emission tests in June 1995, and flow rates from all the emissions units controlled by the central vacuum system.

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained. The annual limitation was calculated by multiplying the hourly limitation by 8760 hours/year and dividing by 2000 pounds/ton.

The permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 29 or 101 and the requirements specified in A.V.1.i below.

V. Testing Requirements (continued)

- 1.g** Emission Limitations -
Ammonia emissions shall not exceed 3.4 pounds per hour and 14.9 tons per year.

Applicable Compliance Method -

The hourly allowable ammonia emission rate was established based on the water-based coating usages. The following outlines potential emissions generated from the coating:
(0.00825 lb ammonia /lb coating)(325 lbs coating /hr) = 2.69 lbs/hr

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained. The annual limitation was calculated by multiplying the hourly limitation by 8760 hours/year and dividing by 2000 pounds/ton.

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and CTM-027. Alternate U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- 1.h** Emission Limitation -
Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method -

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

- 1.i** Emission Limitations -
The carbon adsorption system controlling the central vacuum system which serves emissions units P038-group 4, P039-group 7, P040-group 10, P041-group 11, P029-group 12, P019-group 14, P024-group 16, P044-group 17, P004-group 18, P042-group 22, P043-group 24, P025-group 25 and P026-group 26 shall maintain a control efficiency of at least 90% for mercury and a mercury emission rate of less than 0.0196 pound per hour at all times.

Applicable Compliance Method -

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

- i. the emission testing shall be conducted within 6 months after the effective date of this permit (this emissions unit shall be retested at the frequency specified in Ohio EPA Engineering Guide #16);
- ii. the emission testing shall be conducted to demonstrate compliance with the control efficiency requirement and the hourly emission limitation for mercury;
- iii. the following test methods shall be employed to demonstrate compliance with the control efficiency requirement and the hourly emission limitation: Methods 1 through 4 and 29 or 101, 40 CFR Part 60, Appendix A (alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA); and
- iv. the test(s) shall be conducted while the following emissions units are operating at or near maximum capacities unless otherwise specified or approved by the Ohio EPA, Central District Office: P038-group 4, P039-group 7, P040-group 10, P041-group 11, P029-group 12, P019-group 14, P024-group 16, P044-group 17, P004-group 18, P042-group 22, P043-group 24, P025-group 25 and P026-group 26.

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>
lamp assembly line - group 14 with carbon adsorption unit		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. Physical changes to or changes in the method of operation of the emissions unit 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 (typically for 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; 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.).
2. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Group No. 15 (P020)

Activity Description: Medium speed horizontal line with lehr group no.15

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>
lamp assembly line - group 15 with a baghouse for endbrushing	OAC rule 3745-31-05(A)(3) (PTI 01-08180)	Particulate emissions shall not exceed 0.20 pound per hour and 0.9 ton per year.
		Sulfur dioxide emissions shall not exceed 1.25 pounds per hour and 5.5 tons per year.
		Nitrogen oxides emissions shall not exceed 1.60 pounds per hour and 7.0 tons per year.
		Carbon monoxide emissions shall not exceed 1.25 pounds per hour and 5.5 tons per year.
		Volatile organic compound emissions shall not exceed 3.25 pounds per hour and 14.2 tons per year.
		Mercury emissions shall not exceed 0.006 pound per hour and 0.026 ton per year.
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-21-07(G), 3745-21-08(B), 3745-21-09(U), and 3745-23-06(B).
	OAC rule 3745-17-11(B)(1) OAC rule 3745-18-06(E)(2)	See A.I.2.a through A.I.2.c below. The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)	See A.I.2.d below.
	OAC rule 3745-21-09(U)	See A.I.2.e below.
	OAC rule 3745-21-08(B)	See A.I.2.f below.
	OAC rule 3745-23-06(B)	

2. Additional Terms and Conditions

- 2.a** The permittee shall use water-based coatings in phosphorous coating operations at all times this emissions unit is in operation.

"Water-based coatings" shall be defined, per OAC rule 3745-21-07(G)(9)(c)(ii), as a liquid organic material comprised not more than 20% of said volatile content.

- 2.b** The permittee shall vent all emissions from the endbrushing operation to a baghouse.

- 2.c** The hourly emission limitations are based on the emissions unit's potentials to emit. Therefore, additional monitoring, record keeping and reporting requirements are not necessary to ensure compliance with these emission limitations.

- 2.d** To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

- 2.e** Pursuant to OAC rule 3745-21-09(U)(2)(e)(iii), this emissions unit is exempt from the emission limitation specified in OAC rule 3745-21-09(U)(1)(d) because the emission unit never uses more than 10 gallons per day when coating miscellaneous metal parts.

- 2.f** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-8180.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-8180.

- 2.g** Sections A.I.2.c through A.I.2.f above are intended for clarification of current regulatory applicability under this permit at time of issuance, and are not intended to address or prohibit any change that could otherwise be processed under OAC rule 3745-77-07(I).

II. Operational Restrictions

- 1.** The permittee shall burn only natural gas, or other such 'inherently clean' fuel that would result in emissions that comply with the limitations and restrictions of this permit, in this emissions unit.

II. Operational Restrictions (continued)

2. The pressure drop across the baghouse shall be maintained within the range of 1 to 4 inches of water while the emissions unit is in operation.

The operation of the control equipment outside the range specified above may or may not indicate a mass emission and/or visible emission violation. If required by the Ohio EPA, Central District Office, compliance with the mass emission limitation and visible emission limitations shall be determined by performing concurrent mass emission tests and visible emissions readings, using USEPA-approved methods and procedures. The results of any required emission tests and visible emission readings shall be used in determining whether or not the operation of the control equipment outside the range specified above is indicative of a possible violation of the mass emission limitation and/or visible emission limitations.

3. The maximum daily coating usage when coating miscellaneous metal parts shall not exceed 10 gallons.
4. The permittee shall use only water-based coatings in the phosphorous coating operations.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas or other such 'inherently clean' fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse 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 cause of the visible emissions;
 - b. the total duration of any visible emission incident; and
 - c. any corrective actions taken to eliminate the visible emissions.
3. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with good engineering practices or as determined by the permittee. The permittee shall record the pressure drop across the baghouse on a weekly basis.
4. The permittee shall maintain records for each material employed in this emissions unit that indicate whether or not the material is a photochemically reactive material.
5. The permittee shall maintain daily records of the total coating usage when coating miscellaneous metal parts in this emissions unit.
6. For each day during which the permittee uses a coating other than a water-based coating, as defined in Section A.1.2.a, the permittee shall maintain a record of the type, quantity, and composition of each such non-water-based coating used in the phosphorous coating operations.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. each day when a fuel other than natural gas or other such 'inherently clean' fuel was burned in this emissions unit;
 - b. all periods of time when a photochemically reactive material was employed in this emissions unit;
 - c. any exceedances of the daily miscellaneous metal parts coating usage limitation;
 - d. each day when a coating other than a water-based coating was used in the phosphorous coating operations; and
 - e. all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c.ii of this permit.

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 and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall also submit annual reports that specify the total particulate, sulfur dioxide, nitrogen oxides, carbon monoxide, volatile organic compound, and mercury emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

V. Testing Requirements

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

- 1.a Emission Limitations -
Particulate emissions shall not exceed 0.20 pound per hour and 0.9 ton per year.

Applicable Compliance Methods -

Compliance with the short and long term emission limitations shall be demonstrated by summing the combustion and assembly operation emissions.

The short term combustion emissions shall be calculated by multiplying the emission factor for natural gas combustion of 7.6 lbs PM/mm³.ft. (AP-42, 1998) by the maximum dryer throughput of 13,300 cu.ft./hr. (0.1 lb/hr)

Process emissions shall be demonstrated by an estimated 0.1 gram (0.00022 lb.) of particulate phosphor powder removed per lamp from end brushing, a maximum lamp rate of 4000 lamps per hour, and then multiplying by the baghouse 99% control factor (0.0088 lb/hr).

Compliance with the 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 hours/year and dividing by 2000 pounds/ton.

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

V. Testing Requirements (continued)

- 1.b** Emission Limitations -
Sulfur dioxide emissions shall not exceed 1.25 pounds per hour and 5.5 tons per year.

Applicable Compliance Methods -

Compliance with the pounds per hour and tons per year emission limitations shall be demonstrated by summing the combustion and assembly operation emissions.

The hourly combustion emissions may be calculated by multiplying the emission factor for natural gas combustion of 0.6 lb SO₂/mmcu.ft. (AP-42, 1998) by the maximum dryer throughput of 13,300 cu.ft./hr. (0.008 lb/hr)

Process SO₂ emissions are based on SO₂ usages. Maximum usage is 1.03 lbs SO₂/hr.

Compliance with the 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 hours/year and dividing by 2000 pounds/ton.

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

- 1.c** Emission Limitations -
Nitrogen oxides emissions shall not exceed 1.60 pounds per hour and 7.0 tons per year.

Applicable Compliance Methods -

Compliance with the pounds per hour emission limitation may be demonstrated by multiplying the emission factor for natural gas combustion of 94 lbs NO_x/mmcu.ft. (AP-42, 1998) by the maximum dryer throughput of 13,300 cu.ft./hr. (1.25 lbs/hr)

Compliance with the tons per year emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the tons per year emission limitation was calculated by multiplying the hourly emission limitation by 8760, and then dividing by 2000 lbs/ton).

If required, the permittee shall demonstrate compliance with the pounds per hour emission limitation through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

- 1.d** Emission Limitations -
Carbon monoxide emissions shall not exceed 1.25 pounds per hour and 5.5 tons per year.

Applicable Compliance Methods -

Compliance with the pounds per hour emission limitation may be demonstrated by multiplying the emission factor for natural gas combustion of 40 lbs CO/mmcu.ft. (AP-42, 1998) by the maximum dryer throughput of 13,300 cu.ft./hr. (0.532 lb/hr)

Compliance with the tons per year emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the tons per year emission limitation was calculated by multiplying the hourly emission limitation by 8760, and then dividing by 2000 lbs/ton).

If required, the permittee shall demonstrate compliance with the pounds per hour emission limitation through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

V. Testing Requirements (continued)

- 1.e** Emission Limitations -
Volatile organic compound emissions shall not exceed 3.25 pounds per hour and 14.2 tons per year.

Applicable Compliance Methods -

Compliance with the pounds per hour and tons per year emission limitations shall be demonstrated by summing the combustion operation and the two assembly operation emissions.

The hourly combustion emissions may be calculated by multiplying the emission factor for natural gas combustion of 11 lbs VOC/mm³.ft. (AP-42, 1998) by the maximum dryer throughput of 13,300 cu.ft./hr. (0.146 lb/hr)

The following outlines potential emissions generated during each process:

- i. Lamp manufacturing - the potential to emit for lamp manufacturing is 0.45 lb of OC per hour based on the summation of emissions from the following components of the line and a maximum lamp manufacturing rate of 4000 lamps per hour:

Headmarking Ink - 0.045 lb of OC per hour (based on a maximum ink usage rate of 0.0081 gallon/hr and a maximum OC content of 5.61 lbs /gallon).

Headmarking Ink Clean up - 0.04 lb OC per hour (based on a maximum usage rate of 0.0057 gallon/hr and a maximum OC content of 7.00 lbs /gallon).

E-Mix - 0.087 lb of OC per hour (based on a maximum usage rate of 0.0248 gallon/hr and a maximum OC content of 3.49 lbs/gallon).

Dri-film - 0.258 lb of OC per hour (based on a maximum usage rate of 0.38 gallon/hr and a maximum OC content of 0.68 lb/gallon).

Box Ink - 0.007 lb of OC per hour (based on a maximum usage rate of 0.0201 lb/hr and a maximum OC content of 0.35 lb OC /lb ink).

Box Ink Clean up - 0.008 lb of OC per hour (based on a maximum usage rate of 0.008 lb/hr and a maximum OC content of 1 lb OC/lb ink clean up).

- ii. Lamp base cementing - the potential to emit for lamp base cementing is 2.41 lbs of OC per hour based on a maximum lamp base cementing rate of 8000 bases per hour and a maximum cement usage rate of 2.6 grams/base (1 lb/454 grams), a maximum OC content of 0.065 lb OC/lb base cement and a maximum emission rate of 81% (19% of the OC assumed to be emitted during basefill operations).

Compliance with the tons per year emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the tons per year emission limitation was calculated by multiplying the hourly emission limitation by 8760, and then dividing by 2000 lbs/ton).

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18, 25, or 25A, as appropriate.

V. Testing Requirements (continued)

- 1.f** Emission Limitations -
Mercury emissions shall not exceed 0.006 pound per hour and 0.026 ton per year.

Applicable Compliance Method -

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

- i. the emission testing shall be conducted within 6 months after the effective date of this permit (this emissions unit shall be retested at the frequency specified in Ohio EPA Engineering Guide #16);
- ii. the emission testing shall be conducted to demonstrate compliance with the hourly allowable mass emission rate for mercury;
- iii. the following test methods shall be employed to demonstrate compliance with the hourly emission limitation for mercury: Methods 1 through 4 and 29 or 101, 40 CFR Part 60, Appendix A (alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA); and
- iv. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Ohio EPA, Central District Office.

Compliance with the ton per year emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the ton per year emission limitation was calculated by multiplying the hourly emission limitation by 8760, and then dividing by 2000 lbs/ton).

- 1.g** Emission Limitation -
Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method -

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

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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>
lamp assembly line - group 15 with baghouse		

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 P020 was evaluated based on the actual materials (typically 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: n-propyl alcohol

TLV (mg/m3): 492

Maximum Hourly Emission Rate (lbs/hr): 3.25

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 548.2

MAGLC (ug/m3): 11,714

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 (typically for 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.).
3. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Group No. 12 (P029)

Activity Description: Vertical lamp assembly line with lehr group no. 12

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>
lamp assembly line - group 12 with carbon adsorption unit	OAC rule 3745-31-05(A)(3) (PTI 01-08822)	Sulfur dioxide emissions shall not exceed 0.8 pound per hour and 3.5 tons per year. Nitrogen oxides emissions shall not exceed 1.00 pound per hour and 4.4 tons per year. Carbon monoxide emissions shall not exceed 0.33 pound per hour and 1.4 tons per year. Organic compound emissions shall not exceed 1.43 pounds per hour and 6.8 tons per year. Mercury emissions shall not exceed 0.001 pound per hour and 0.004 ton per year. The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-07(G), 3745-21-08(B), 3745-21-09(U), and 3745-23-06(B).
	OAC rule 3745-17-11(B)(1)	See A.I.2.a through A.I.2.c below.
	OAC rule 3745-17-07(A)	See A.I.2.d below.
	OAC rule 3745-18-06(E)(2)	See A.I.2.e below.
	OAC rule 3745-21-07(G)	The emission limitation specified by this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3). See A.I.2.f below.
	OAC rule 3745-21-09(U)	See A.I.2.g below.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)	See A.I.2.h below.

2. Additional Terms and Conditions

- 2.a** The permittee shall vent all mercury emissions from this emissions unit to a carbon adsorption unit.
- 2.b** The permittee shall maintain the carbon adsorption system controlling the central vacuum system which serves emissions units P038-group 4, P039-group 7, P040-group 10, P041-group 11, P029-group 12, P019-group 14, P024-group 16, P044-group 17, P004-group 18, P042-group 22, P043-group 24, P025-group 25 and P026-group 26 at a control efficiency of at least 90% for mercury and a mercury emission rate of less than 0.0196 pound per hour at all times.
- 2.c** The hourly emission limitations are based on the emissions unit's potentials to emit. Therefore, additional monitoring, record keeping and reporting requirements are not necessary to ensure compliance with these emission limitations.
- 2.d** The uncontrolled mass rate of particulate emissions (PE)* from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero. "Process weight" is defined in OAC rule 3745-17-01(B)(14).
- * The burning of natural gas is the only source of PE from this emissions unit.
- 2.e** This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- 2.f** To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

- 2.g** Pursuant to OAC rule 3745-21-09(U)(2)(e)(iii), this emissions unit is exempt from the emission limitation specified in OAC rule 3745-21-09(U)(1)(d) because the emissions unit never uses more than 10 gallons per day when coating miscellaneous metal parts.
- 2.h** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-8822.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-8822.

- 2.i** Sections A.I.2.c through A.I.2.h above are intended for clarification of current regulatory applicability under this permit at time of issuance, and are not intended to address or prohibit any change that could otherwise be processed under OAC rule 3745-77-07(I).

II. Operational Restrictions

1. The permittee shall burn only natural gas, or other such 'inherently clean' fuel that would result in emissions that comply with the limitations and restrictions of this permit, in this emissions unit.
2. The maximum daily coating usage when coating miscellaneous metal parts shall not exceed 10 gallons.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas or other such 'inherently clean' fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain a log identifying the dates when the carbon, used in the carbon adsorber serving this emissions unit, is replaced.
3. For each day during which the permittee employs a coating other than a non-photochemically reactive material, the permittee shall maintain a record of the type and quantity of coating used in this emissions unit.
4. The permittee shall maintain daily records of the total coating usage in this emissions unit when coating miscellaneous metal parts.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. each day when a fuel other than natural gas or other such 'inherently clean' fuel was burned in this emissions unit;
 - b. all periods of time when a photochemically reactive material was employed in this emissions unit; and
 - c. any exceedances of the daily miscellaneous metal parts coating usage limitation.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c.ii of this permit.

2. The permittee shall also submit annual reports that specify the total sulfur dioxide, nitrogen oxides, carbon monoxide, organic compound, and mercury emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

V. Testing Requirements

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

V. Testing Requirements (continued)

1.a Emission Limitations -

Sulfur dioxide emissions shall not exceed 0.8 pound per hour and 3.5 tons per year.

Applicable Compliance Methods -

Compliance shall be demonstrated by summing the emissions from the process and from the combustion of natural gas.

Natural gas combustion emissions may be demonstrated by multiplying the emission factor for natural gas combustion of 0.6 lb SO₂/mmcu.ft. (AP-42, Table 1.4-2, 7/98) by the maximum dryer throughput of 8350 cu.ft./hr. (0.005 lb SO₂/hr)

Process SO₂ emissions are based on SO₂ usages. Maximum usage is 0.785 lb SO₂/hr.

Compliance with the 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 hours/year and dividing by 2000 pounds/ton.

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6

1.b Emission Limitations -

Nitrogen oxides emissions shall not exceed 1.00 pound per hour and 4.4 tons per year.

Applicable Compliance Methods -

Compliance shall be demonstrated by calculating the emissions from the combustion of natural gas.

Compliance with the hourly emission limitation may be demonstrated by multiplying the emission factor for natural gas combustion of 94 lbs NO_x/mmcu.ft. (AP-42, Table 1.4-1, 7/98) by the maximum dryer throughput of 8350 cu.ft./hr. (1 lb NO_x/hr)

Compliance with the 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 hours/year and dividing by 2000 pounds/ton.

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

1.c Emission Limitations -

Carbon monoxide emissions shall not exceed 0.33 pound per hour and 1.4 tons per year.

Applicable Compliance Methods -

Compliance with the hourly emission limitation may be demonstrated by multiplying the emission factor for natural gas combustion of 40 lbs CO/mmcu.ft. (AP-42, Table 1.4-1, 7/98) by the maximum dryer throughput of 8350 cu.ft./hr. (0.33 lb CO/hr)

Compliance with the 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 hours/year and dividing by 2000 pounds/ton.

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

V. Testing Requirements (continued)

- 1.d** Emission Limitations -
Organic compound emissions shall not exceed 1.43 lbs per hour and 6.8 tons per year.

Applicable Compliance Methods -

Compliance shall be demonstrated by summing the emissions from the process and from the combustion of natural gas.

The emissions from the combustion of natural gas may be determined by multiplying the emission factor for natural gas combustion of 11 lbs VOC/mm³.ft. (AP-42, table 1.4-2, 7/1998) by the maximum dryer throughput of 8350 cu.ft./hr.

The following outlines potential emissions generated during each process:

- i. Lamp manufacturing - the potential to emit for lamp manufacturing is 0.13 lb of OC per hour based on the summation of emissions from the following components of the line and a maximum lamp manufacturing rate of 700 lamps per hour:

Headmarking Ink - 0.02 lb of OC per hour (based on a maximum usage rate of 0.003 gallons per hour and a maximum OC content of 5.61 lbs OC per gallon.)

Headmarking Ink Solvent Clean Up - 0.05 ton of OC per year (based on a maximum usage rate of 13 gallons per year and a maximum OC content of 7.0 lbs OC per gallon.)

E-Mix - 0.05 lb of OC per hour (based on a maximum usage rate of 0.0138 lb of mix per hour and a maximum OC content of 3.49 lbs OC per lb of mix.)

Dry Film - 0.3 lb of OC per hour (based on a maximum usage rate of 0.0834 gallon per hour and a maximum OC content of 3.49 lbs OC per gallon.)

- ii. Lamp base cementing - the potential to emit for lamp base cementing is 1.2 lbs of OC per hour based on a maximum lamp base cementing rate of 1400 bases per hour and a maximum cement usage rate of 6.5 grams per base (1 lb/454 grams), a maximum OC content of 0.074 lb OC per lb of cement and a maximum emission rate of 81% (19% of the OC assumed to be emitted during basefill operations.)

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18, 25, or 25A, as appropriate.

- 1.e** Emission Limitations -
Mercury emissions shall not exceed 0.001 pound per hour and 0.004 ton per year.

Applicable Compliance Methods -

Mercury emissions are based on mercury usages and 90% control efficiency, tested in June 1995. Maximum usage is 0.0585 lb mercury/hr.

Compliance with the 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 hours/year and dividing by 2000 pounds/ton.

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 29 or 101.

V. Testing Requirements (continued)

1.f Emission Limitations -

The carbon adsorption system controlling the central vacuum system which serves emissions units P038-group 4, P039-group 7, P040-group 10, P041-group 11, P029-group 12, P019-group 14, P024-group 16, P044-group 17, P004-group 18, P042-group 22, P043-group 24, P025-group 25 and P026-group 26 shall maintain a control efficiency of at least 90% for mercury and a mercury emission rate of less than 0.0196 pound per hour at all times.

Applicable Compliance Method -

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

- i. the emission testing shall be conducted within 6 months after the effective date of this permit (this emissions unit shall be retested at the frequency specified in Ohio EPA Engineering Guide #16);
- ii. the emission testing shall be conducted to demonstrate compliance with the control efficiency requirement and hourly emission limitation for mercury;
- iii. the following test methods shall be employed to demonstrate compliance with the control efficiency requirement and hourly emission limitation for mercury: Methods 1 through 4 and 29 or 101, 40 CFR Part 60, Appendix A (alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA); and
- iv. the test(s) shall be conducted while the following emissions units are operating at or near maximum capacities unless otherwise specified or approved by the Ohio EPA, Central District Office: P038-group 4, P039-group 7, P040-group 10, P041-group 11, P029-group 12, P019-group 14, P024-group 16, P044-group 17, P004-group 18, P042-group 22, P043-group 24, P025-group 25 and P026-group 26.

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>
lamp assembly line - group 12 with carbon adsorption unit		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. Physical changes to or changes in the method of operation of the emissions unit 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 (typically for 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; 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.).
2. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Mandrel dissolving (P031)
Activity Description: Coiling operations - coil mandrel dissolving

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>
coil mandrel dissolving with packed bed scrubber	OAC rule 3745-31-05(A)(3) (PTI 01-3133)	Nitrogen oxides emissions shall not exceed 0.41 pound per hour.
		Hydrochloric acid (HCl) emissions shall not exceed 0.06 pound per hour.
		Nitric acid (HNO ₃) emissions shall not exceed 0.0005 pound per hour.
		Sulfuric acid (H ₂ SO ₄) emissions shall not exceed 0.007 pound per hour.
		The requirements of this rule shall also include compliance with the requirements of OAC rule 3745-23-06(B).
	OAC rule 3745-17-11(B)	See A.I.2.a below.
	OAC rule 3745-17-07(A)	See A.I.2.b below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.
		See A.I.2.d below.

2. Additional Terms and Conditions

- The permittee shall vent all emissions from this emissions unit to a packed bed scrubber with a control efficiency of 99.7% or greater.
- The uncontrolled mass rate of particulate emissions (PE)* from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero. "Process weight" is defined in OAC rule 3745-17-01(B)(14).

* The burning of natural gas is the only source of PE from this emissions unit.

2. Additional Terms and Conditions (continued)

- 2.c** This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- 2.d** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-3133.

II. Operational Restrictions

1. The permittee shall vent all emissions from this emissions unit to the scrubber at all times the emissions unit is in operation.
2. The pH of the scrubber liquor shall be maintained within the range of 8 to 12.
3. The scrubber water flow rate shall be continuously maintained at a value of not less than 5.0 gallons per minute at all times while the emissions unit is in operation.
4. The operation of the control equipment outside the range or below the minimum value specified above may or may not indicate a mass emission and/or visible emission violation. If required by the Ohio EPA, Central District Office, compliance with the mass emission limitation and visible emission limitations shall be determined by performing concurrent mass emission tests and visible emissions readings, using USEPA-approved methods and procedures. The results of any required emission tests and visible emission readings shall be used in determining whether or not the operation of the control equipment outside the range or below the minimum value specified above is indicative of a possible violation of the mass emission limitation and/or visible emission limitations.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pH and record the pH of the scrubber liquor while the emissions unit is in operation. The pH monitor and recorder shall be installed, calibrated, operated and maintained in accordance with good engineering practices or as determined by the permittee.
2. The permittee shall properly operate and maintain equipment to monitor the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with good engineering practices or as determined by the permittee.
3. The permittee shall collect and record the following information each day:
 - a. the pH of the scrubber liquor;
 - b. the scrubber water flow rate, in gallons per minute; and
 - c. the downtime for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was in operation.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. all periods of time when the emissions unit was in operation and the pH of the scrubber liquor was not maintained within the specified range;
 - b. all periods of time when the emissions unit was in operation and the scrubber water flow rate was not maintained at or above the specified level; and
 - c. all periods of time when the emissions unit was in operation and all of the emissions were not vented to the scrubber.

The quarterly deviation reports shall be submitted in accordance with Part I - General Term and Condition A.1.c.ii.

V. Testing Requirements

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

- 1.a Emission Limitation -
Nitrogen oxides emissions shall not exceed 0.41 pound per hour.

Applicable Compliance Method -

Compliance may be demonstrated by multiplying the emission factor for natural gas combustion of 100 lbs NOx/mm³cu.ft. (AP-42, 1.4, 1998) by the maximum dryer throughput of 400 cu.ft./hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

- 1.b Emission Limitation -
HCl emissions shall not exceed 0.06 pound per hour.

Applicable Compliance Method -

Compliance with this emission limitation shall be demonstrated based upon the emission testing required pursuant to Section A.V.2 below.

- 1.c Emission Limitation -
HNO₃ emissions shall not exceed 0.0005 pound per hour.

Applicable Compliance Method -

Compliance with this emission limitation shall be demonstrated based upon the emission testing required pursuant to Section A.V.2 below.

- 1.d Emission Limitation -
H₂SO₄ emissions shall not exceed 0.007 pound per hour.

Applicable Compliance Method -

Compliance with this emission limitation shall be demonstrated based upon the emission testing required pursuant to Section A.V.2 below.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - i. the emission testing shall be conducted within 6 months after the effective date of this permit (this emissions unit shall be retested at the frequency specified in Ohio EPA Engineering Guide #16);
 - ii. inlet and outlet mass emission testing shall be conducted to demonstrate compliance with the hourly emission limitations for HCl, HNO₃, H₂SO₄ and the 99.7% scrubber control efficiency;
 - iii. the following test methods shall be employed to demonstrate compliance with the hourly emission limitations for HCl, HNO₃, H₂SO₄ and the 99.7% scrubber control efficiency:

for HCl, Methods 1 through 4 and 26 or 26A, as appropriate, 40 CFR Part 60, Appendix A;
for HNO₃, Methods 1 through 4, 40 CFR Part 60, Appendix A, and NIOSH Method 7903;
for H₂SO₄, Methods 1 through 4 and 8, 40 CFR Part 60, Appendix A
(alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA); and
 - iv. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Ohio EPA, Central District Office.

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>
coil mandrel dissolving with packed bed scrubber		

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

- Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Central Lehr 1 (P045)
Activity Description: Central Lehr 1

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>
central Lehr number 1 with end-brushing operation controlled by a baghouse	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)	Particulate emissions shall not exceed 4.61 pounds per hour.
	OAC rule 3745-18-06(E)	Sulfur dioxide emissions shall not exceed 33.71 pounds per hour.

2. Additional Terms and Conditions

None

II. Operational Restrictions

- The permittee shall burn only natural gas, or other such 'inherently clean' fuel that would result in emissions that comply with the limitations and restrictions of this permit, in this emissions unit.
- The pressure drop across the baghouse shall be maintained within the range of 1 to 4 inches of water while the emissions unit is in operation.

The operation of the control equipment outside the range specified above may or may not indicate a mass emission and/or visible emission violation. If required by the Ohio EPA, Central District Office, compliance with the mass emission limitation and visible emission limitations shall be determined by performing concurrent mass emission tests and visible emissions readings, using USEPA-approved methods and procedures. The results of any required emission tests and visible emission readings shall be used in determining whether or not the operation of the control equipment outside the range specified above is indicative of a possible violation of the mass emission limitation and/or visible emission limitations.

III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas or other such 'inherently clean' fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with good engineering practices or as determined by the permittee.. The permittee shall record the pressure drop across the baghouse on a weekly basis.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above; and
 - b. each day when a fuel other than natural gas or other such 'inherently clean' fuel was burned in this emissions unit.

The quarterly deviation reports shall be submitted in accordance with Part I - General Term and Condition A.1.c.ii.

V. Testing Requirements

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

- 1.a Emission Limitation -
Particulate emissions shall not exceed 4.61 pounds per hour.

Applicable Compliance Method -

Compliance shall be demonstrated by summing the emissions from the process and from the combustion of natural gas.

The maximum emissions from the process are 0.880 lb PE/hr (GE's 1990 Air Assessment).

The emissions from the combustion of natural gas may be determined by multiplying the emission factor for total particulates from natural gas combustion of 1.9 lbs PE/mmcu.ft. (AP-42, 1.4, 1998) by the maximum Lehr throughput of 0.0136 mmcu.ft./hr.

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

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

Applicable Compliance Method -

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

- 1.c Emission Limitation -
Sulfur dioxide emissions shall not exceed 33.71 pounds per hour.

Applicable Compliance Method -

Compliance shall be demonstrated by summing the emissions from the process and from the combustion of natural gas.

The maximum emissions from the process are 0.697 lb SO₂/hr (GE's 1990 Air Assessment).

The emissions from the combustion of natural gas may be determined by multiplying the emission factor for natural gas combustion of 0.6 lb SO₂/mmcu.ft. (AP-42, 1.4, 1998) by the maximum dryer throughput of 0.0136 mmcu.ft./hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

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: Central Lehr 2 (P046)
Activity Description: Central Lehr 2

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>
central Lehr number 2 with end-brushing operation controlled by a baghouse	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)	Particulate emissions shall not exceed 7.74 pounds per hour.
	OAC rule 3745-18-06(E)	Sulfur dioxide emissions shall not exceed 56.61 pounds per hour.

2. Additional Terms and Conditions

None

II. Operational Restrictions

- The permittee shall burn only natural gas, or other such 'inherently clean' fuel that would result in emissions that comply with the limitations and restrictions of this permit, in this emissions unit.
- The pressure drop across the baghouse shall be maintained within the range of 1 to 4 inches of water while the emissions unit is in operation.

The operation of the control equipment outside the range specified above may or may not indicate a mass emission and/or visible emission violation. If required by the Ohio EPA, Central District Office, compliance with the mass emission limitation and visible emission limitations shall be determined by performing concurrent mass emission tests and visible emissions readings, using USEPA-approved methods and procedures. The results of any required emission tests and visible emission readings shall be used in determining whether or not the operation of the control equipment outside the range specified above is indicative of a possible violation of the mass emission limitation and/or visible emission limitations.

III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas or other such 'inherently clean' fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with good engineering practices or as determined by the permittee. The permittee shall record the pressure drop across the baghouse on a weekly basis.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above; and
 - b. each day when a fuel other than natural gas or other such 'inherently clean' fuel was burned in this emissions unit.

The quarterly deviation reports shall be submitted in accordance with Part I - General Term and Condition A.1.c.ii.

V. Testing Requirements

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

- 1.a Emission Limitation -
Particulate emissions shall not exceed 7.74 pounds per hour.

Applicable Compliance Method -

Compliance shall be demonstrated by summing the emissions from the process and from the combustion of natural gas.

The maximum emissions from the process are 0.990 lb PE/hr (GE's 1990 Air Assessment).

The emissions from the combustion of natural gas may be determined by multiplying the emission factor for total particulates from natural gas combustion of 1.9 lbs PE/mmcu.ft. (AP-42, 1.4, 1998) by the maximum Lehr throughput of 0.0313 mmcu.ft./hr.

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

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

Applicable Compliance Method -

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

- 1.c Emission Limitation -
Sulfur dioxide emissions shall not exceed 56.61 pounds per hour.

Applicable Compliance Method -

Compliance shall be demonstrated by summing the emissions from the process and from the combustion of natural gas.

The maximum emissions from the process are 0.630 lb SO₂/hr (GE's 1990 Air Assessment).

The emissions from the combustion of natural gas may be determined by multiplying the emission factor for natural gas combustion of 0.6 lb SO₂/mmcu.ft. (AP-42, 1.4, 1998) by the maximum dryer throughput of 0.0313 mmcu.ft./hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

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: Central Lehr 3 (P047)
Activity Description: Central Lehr 3

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>
central Lehr number 3 with end-brushing operation controlled by a baghouse	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)	Particulate emissions shall not exceed 6.85 pounds per hour.
	OAC rule 3745-18-06(E)	Sulfur dioxide emissions shall not exceed 50.10 pounds per hour.

2. Additional Terms and Conditions

None

II. Operational Restrictions

- The permittee shall burn only natural gas, or other such 'inherently clean' fuel that would result in emissions that comply with the limitations and restrictions of this permit, in this emissions unit.
- The pressure drop across the baghouse shall be maintained within the range of 1 to 4 inches of water while the emissions unit is in operation.

The operation of the control equipment outside the range specified above may or may not indicate a mass emission and/or visible emission violation. If required by the Ohio EPA, Central District Office, compliance with the mass emission limitation and visible emission limitations shall be determined by performing concurrent mass emission tests and visible emissions readings, using USEPA-approved methods and procedures. The results of any required emission tests and visible emission readings shall be used in determining whether or not the operation of the control equipment outside the range specified above is indicative of a possible violation of the mass emission limitation and/or visible emission limitations.

III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas or other such 'inherently clean' fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with good engineering practices or as determined by the permittee. The permittee shall record the pressure drop across the baghouse on a weekly basis.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above; and
 - b. each day when a fuel other than natural gas or other such 'inherently clean' fuel was burned in this emissions unit.

The quarterly deviation reports shall be submitted in accordance with Part I - General Term and Condition A.1.c.ii.

V. Testing Requirements

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

- 1.a Emission Limitation -
Particulate emissions shall not exceed 6.85 pounds per hour.

Applicable Compliance Method -

Compliance shall be demonstrated by summing the emissions from the process and from the combustion of natural gas.

The maximum emissions from the process are 0.880 lb PE/hr (GE's 1990 Air Assessment).

The emissions from the combustion of natural gas may be determined by multiplying the emission factor for total particulates from natural gas combustion of 1.9 lbs PE/mmcu.ft. (AP-42, 1.4, 1998) by the maximum Lehr throughput of 0.0236 mmcu.ft./hr.

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

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

Applicable Compliance Method -

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

- 1.c Emission Limitation -
Sulfur dioxide emissions shall not exceed 50.10 pounds per hour.

Applicable Compliance Method -

Compliance shall be demonstrated by summing the emissions from the process and from the combustion of natural gas.

The maximum emissions from the process are 0.630 lb SO₂/hr (GE's 1990 Air Assessment).

The emissions from the combustion of natural gas may be determined by multiplying the emission factor for natural gas combustion of 0.6 lb SO₂/mmcu.ft. (AP-42, 1.4, 1998) by the maximum dryer throughput of 0.0236 mmcu.ft./hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

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: Glass Cullet truck loading system (P901)
Activity Description: Glass Cullet truck loading operation

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>
glass cullet truck loading system controlled by a baghouse and carbon adsorption system	OAC rule 3745-31-05(A)(3) (PTI 01-6394)	Particulate emissions shall not exceed 0.02 gr/dscf. Particulate emissions shall not exceed 0.37 pound per hour. Mercury emissions shall not exceed 0.017 pound per hour. Mercury emissions shall not exceed 0.01 ton per year. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).
	OAC rule 3745-17-07(A)	See A.I.2.a and A.I.2.b below. Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)	The emission limitation specified in this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05 (A)(3).

2. Additional Terms and Conditions

- 2.a** The permittee shall employ the telescoping chute and partial enclosure at their maximum control capabilities during all times of operation.
- 2.b** Visible particulate emissions of fugitive dust shall not exceed 10% opacity as a 3-minute average.

For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point during unloading operations.

II. Operational Restrictions

1. The pressure drop across the fabric filter (carbon pre-filter) shall be maintained within the range of 0.1 to 1 inch of water while the emissions unit is in operation.

The operation of the control equipment outside the range specified above may or may not indicate a mass emission and/or visible emission violation. If required by the Ohio EPA, Central District Office, compliance with the mass emission limitation and visible emission limitations shall be determined by performing concurrent mass emission tests and visible emissions readings, using USEPA-approved methods and procedures. The results of any required emission tests and visible emission readings shall be used in determining whether or not the operation of the control equipment outside the range specified above is indicative of a possible violation of the mass emission limitation and/or visible emission limitations.

2. The carbon in the MRT carbon adsorption unit will be changed out upon reaching 5686 tons of scrap bulb/lamp throughput (the throughput is based on an evaluation of the effectiveness of the MRT carbon adsorption unit from start up in July of 2002 through the emission tests conducted December 17, 2003).

The frequency for the carbon change-out will be effective for the duration of this permit unless additional performance testing is conducted which shows that the emissions unit is in compliance with the mercury emission limitation and establishes a more appropriate carbon change-out frequency. At that time, the emission test results will be reviewed by the Ohio EPA and the frequency of the carbon change-out may be adjusted accordingly, provided that written approval of the new carbon change-out frequency is obtained from the Ohio EPA, Central District Office.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform weekly checks when the emissions unit is in operation, and when the weather conditions allow, for any visible particulate emissions (excluding uncombined water vapor) from the cyclone/fabric filter (carbon pre-filter) and carbon adsorption/fabric filter (hose filter) units serving this emissions unit. The presence or absence of any visible particulate emissions shall be recorded electronically or in an operations log. If visible particulate emissions are observed, the permittee shall also record the following:
 - a. the cause of the visible emissions;
 - b. the total duration of any visible emission incident; and
 - c. any corrective actions taken to eliminate the visible emissions.
2. The permittee shall perform checks for visible fugitive particulate emissions during each unloading operation. If visible fugitive particulate emissions are seen, the permittee shall initiate corrective action to eliminate the source of visible fugitive particulate emissions. If the permittee is unable to eliminate the visible fugitive emissions, the permittee shall cease unloading operations until the repair can be made. 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 corrective actions taken to eliminate the visible emissions.
3. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the fabric filter (carbon pre-filter) while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s) or good engineering practice. The permittee shall record the pressure drop across the fabric filter (carbon pre-filter) on a daily basis.
4. The permittee shall record the cumulative scrap bulb/lamp throughput since the last carbon adsorption unit carbon change-out, in tons, on a monthly basis.
5. The permittee shall record the actual hours of operation for this emissions unit each year.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. all periods of time during which the pressure drop across the fabric filter (carbon pre-filter) did not comply with the allowable range specified above;
 - b. all days during which any visible particulate emissions were observed from the the stack serving this emissions unit, all days during which any visible fugitive particulate emissions were observed during truck loading operations from this emissions unit and describe any corrective actions taken to eliminate the visible particulate emissions; and
 - c. all periods of time when the emissions unit was in operation and the carbon in the carbon adsorption unit had not been changed out in accordance with the change-out frequency specified above.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c.ii of this permit.

2. The permittee shall submit quarterly written reports that include a log of the downtime for the dust collection and carbon absorption system when this emissions unit was in operation.
3. The permittee shall also submit annual reports that specify the total mercury emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

V. Testing Requirements

1. Compliance with the emission limitations specified in Section A.I of these terms and conditions shall be determined in accordance with the following methods:
 - 1.a Emission Limitation -
Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method -
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).
 - 1.b Emission Limitation -
Particulate emissions shall not exceed 0.02 gr/dscf.

Applicable Compliance Method -
Compliance with this emission limitation shall be demonstrated based upon the emission tests required pursuant to Section A.V.2 below.
 - 1.c Emission Limitation -
Particulate emissions shall not exceed 0.37 pound per hour.

Applicable Compliance Method -
Compliance with this emission limitation shall be demonstrated based upon the emission tests required pursuant to Section A.V.2 below.
 - 1.d Emission Limitation -
Mercury emissions shall not exceed 0.017 pound per hour.

Applicable Compliance Method -
Compliance with this emission limitation shall be demonstrated based upon the emission tests required pursuant to Section A.V.2 below.

V. Testing Requirements (continued)

- 1.e** Emission Limitation -
Mercury emissions shall not exceed 0.01 ton per year.

Applicable Compliance Method -

Compliance shall be demonstrated by multiplying the results from the most recent emission tests that demonstrated that the emissions unit was in compliance with the short-term mercury emission limitation by the emissions unit's actual hours of operation each year and dividing by 2000 pounds per ton.

- 1.f** Emission Limitation -
Visible particulate emissions of fugitive dust shall not exceed 10% opacity as a 3-minute average.

Applicable Compliance Method -

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

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

The emission testing shall be conducted within 6 months prior to permit expiration.

The emission testing shall be conducted to demonstrate compliance with the particulate and mercury emission limitations.

The following test method(s) shall be employed to demonstrate compliance with the particulate and mercury emission limitations:

for particulates, 40 CFR Part 60, Appendix A, Methods 1 through 5; and
for mercury, 40 CFR Part 60, Appendix A, Methods 1 through 4 and 29 or 101.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office.

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

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

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

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: Downflush coater #6 (R001)

Activity Description: Downflush coater # 6 with drying oven; 7.7 mmBtu/hr; non-insignificant only for ammonia

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>
downflush coater #6 with 7.7 mmBtu/hr drying oven	OAC rule 3745-31-05(A)(3) (PTI 01-2717)	Nitrogen oxides emissions shall not exceed 0.78 pound per hour. Carbon monoxide emissions shall not exceed 0.65 pound per hour. Volatile organic compound emissions shall not exceed 1.07 pounds per hour. Ammonia emissions shall not exceed 1.80 pounds per hour. The requirements of this rule also include compliance with OAC rules 3745-17-07(A), 3745-17-11(B), and 3745-21-07(G).
	OAC rules 3745-21-08(B) and 3745-23-06	See A.I.2.a, A.I.2.b and A.II.1 below. See A.I.2.c below.
	OAC rule 3745-21-07(G)	See A.I.2.d below.
	OAC rule 3745-18-06(E)(2)	See A .I.2.e below.
	OAC rule 3745-17-11(B)(1)	See A.I.2.f below.
	OAC rule 3745-17-07(A)	See A.I.2.g below.

2. Additional Terms and Conditions

- 2.a The permittee shall maintain tight fitting covers on the coating mixing tanks except that no hose opening shall have a diameter more than 1.5 inches greater than the outside diameter of the hose to be situated in the opening.

2. Additional Terms and Conditions (continued)

- 2.b** The permittee shall use water-based coatings in phosphorous coating operations at all times this emissions unit is in operation.

"Water-based coatings" shall be defined, per OAC rule 3745-21-07(G)(9)(c)(ii), as a liquid organic material comprised not more than 20% of said volatile content.

- 2.c** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-2717.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-2717.

- 2.d** To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

- 2.e** The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the glass bulbs, alumina slurry, and phosphorous coating suspension. The total weight of the glass bulbs, alumina slurry, and phosphorous coating suspension could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the glass bulbs, alumina slurry, and phosphorous coating suspension to establish the sulfur dioxide allowable emission limitation would yield a relatively high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

- 2.f** The uncontrolled mass rate of particulate emissions (PE)* from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero. "Process weight" is defined in OAC rule 3745-17-01(B)(14).

* The burning of natural gas is the only source of PE from this emissions unit.

- 2.g** This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- 2.h** The hourly emission limitations are based on the emissions unit's potentials to emit. Therefore, additional monitoring, record keeping and reporting requirements are not necessary to ensure compliance with these emission limitations.
- 2.i** Sections A.I.2.c through A.I.2.h above are intended for clarification of current regulatory applicability under this permit at time of issuance, and are not intended to address or prohibit any change that could otherwise be processed under OAC rule 3745-77-07(I).

II. Operational Restrictions

1. The permittee shall burn only natural gas, or other such 'inherently clean' fuel that would result in emissions that comply with the limitations and restrictions of this permit, 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 or other such 'inherently clean' fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. For each day during which the permittee employs a coating other than a non-photochemically reactive material, the permittee shall maintain a record of the type and quantity of coating used in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. each day when a fuel other than natural gas or other such 'inherently clean' fuel was burned in this emissions unit; and
 - b. all periods of time when a photochemically reactive material was employed in this emissions unit.

The quarterly deviation reports shall be submitted in accordance with Part I - General Term and Condition A.1.c.ii.

V. Testing Requirements

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

- 1.a Emission Limitation -
Nitrogen oxides emissions shall not exceed 0.78 pound per hour.

Applicable Compliance Method -

Compliance may be demonstrated by multiplying the emission factor for natural gas combustion of 100 lbs NO_x/mmcu.ft. (AP-42, 1998) by the maximum dryer throughput of 7,789 cu.ft./hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

- 1.b Emission Limitation -
Carbon monoxide emissions shall not exceed 0.65 pound per hour.

Applicable Compliance Method -

Compliance may be demonstrated by multiplying the emission factor for natural gas combustion of 84 lbs CO/mmcu.ft. (AP-42, 1998) by maximum dryer throughput of 7,789 cu.ft./hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

V. Testing Requirements (continued)

- 1.c** Emission Limitation -
Volatile organic compound emissions shall not exceed 1.07 pounds per hour.

Applicable Compliance Method -

Compliance shall be demonstrated by summing the maximum VOC emissions from natural gas combustion and the coating operation.

The VOC emissions from natural gas combustion may be determined by multiplying the emission factor for natural gas combustion of 11 lbs VOC/mmcf. (AP-42, 1998) by maximum dryer throughput of 7,789 cu.ft./hr.

The VOC emissions from the coating operation may be determined by multiplying the maximum usage of the primary coating (16 gals/hr) by the primary coating's maximum VOC content of 0.06 lb VOC/gal. Then multiplying the maximum usage of the secondary coating (0.003 gal/hr) by the secondary coating's maximum VOC content of 5.78 lbs/gal and summing the two emission rates (PTI application 01-2717).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18, 25 or 25A, as appropriate.

Formulation data or USEPA Method 24 (40 CFR Part 60, Appendix A) shall be used to determine the volatile organic compound contents of the coatings. The Director may require that USEPA Method 24 be used to determine the volatile organic compound contents of the coatings. If, pursuant to Method 24, an owner or operator determines that Method 24 cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24.

- 1.d** Emission Limitation -
Ammonia emissions shall not exceed 1.80 pounds per hour.

Applicable Compliance Method -

Compliance may be determined by multiplying the maximum usage of the ammonia containing coating (16 gals/hr) by the ammonia content (0.11 lb/gal) (PTI 01-2717 application).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and CTM-027. Alternative U.S. EPA-approved methods may be used with prior approval from the Ohio EPA.

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>
downflush coater #6 with 7.7 mmBtu/hr drying oven		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. Physical changes to or changes in the method of operation of the emissions unit 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 (typically for 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; 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.).
2. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Downflush coater #10 (R002)

Activity Description: Downflush coater # 10 with drying oven; 11.1 mmBtu/hr

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>
downflush coater #10 with 11.1 mmBtu/hr drying oven	OAC rule 3745-31-05(A)(3) (PTI 01-2717)	Nitrogen oxides emissions shall not exceed 1.5 pounds per hour. Carbon monoxide emissions shall not exceed 1.0 pound per hour. Volatile organic compound emissions shall not exceed 1.70 pounds per hour. Ammonia emissions shall not exceed 2.80 pounds per hour. The requirements of this rule also include compliance with OAC rules 3745-17-07(A), 3745-17-11(B), and 3745-21-07(G).
	OAC rules 3745-21-08(B) and 3745-23-06	See A.I.2.a, A.I.2.b and A.II.1 below. See A.I.2.c below.
	OAC rule 3745-21-07(G)	See A.I.2.d below.
	OAC rule 3745-18-06(E)(2)	See A .I.2.e below.
	OAC rule 3745-17-11(B)(1)	See A.I.2.f below.
	OAC rule 3745-17-07(A)	See A.I.2.g below.

2. Additional Terms and Conditions

- 2.a The permittee shall maintain tight fitting covers on the coating mixing tanks except that no hose opening shall have a diameter more than 1.5 inches greater than the outside diameter of the hose to be situated in the opening.

2. Additional Terms and Conditions (continued)

- 2.b** The permittee shall use water-based coatings in phosphorous coating operations at all times this emissions unit is in operation.

"Water-based coatings" shall be defined, per OAC rule 3745-21-07(G)(9)(c)(ii), as a liquid organic material comprised not more than 20% of said volatile content.

- 2.c** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-2717.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-2717.

- 2.d** To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

- 2.e** The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the glass bulbs, alumina slurry, and phosphorous coating suspension. The total weight of the glass bulbs, alumina slurry, and phosphorous coating suspension could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the glass bulbs, alumina slurry, and phosphorous coating suspension to establish the sulfur dioxide allowable emission limitation would yield a relatively high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

- 2.f** The uncontrolled mass rate of particulate emissions (PE)* from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero. "Process weight" is defined in OAC rule 3745-17-01(B)(14).

* The burning of natural gas is the only source of PE from this emissions unit.

- 2.g** This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

- 2.h** The hourly emission limitations are based on the emissions unit's potentials to emit. Therefore, additional monitoring, record keeping and reporting requirements are not necessary to ensure compliance with these emission limitations.

- 2.i** Sections A.I.2.c through A.I.2.h above are intended for clarification of current regulatory applicability under this permit at time of issuance, and are not intended to address or prohibit any change that could otherwise be processed under OAC rule 3745-77-07(I).

II. Operational Restrictions

1. The permittee shall burn only natural gas, or other such 'inherently clean' fuel that would result in emissions that comply with the limitations and restrictions of this permit, 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 or other such 'inherently clean' fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. For each day during which the permittee employs a coating other than a non-photochemically reactive material, the permittee shall maintain a record of the type and quantity of coating used in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. each day when a fuel other than natural gas or other such 'inherently clean' fuel was burned in this emissions unit; and
 - b. all periods of time when a photochemically reactive material was employed in this emissions unit.

The quarterly deviation reports shall be submitted in accordance with Part I - General Term and Condition A.1.c.ii.

V. Testing Requirements

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

- 1.a Emission Limitation -
Nitrogen oxides emissions shall not exceed 1.5 pounds per hour.

Applicable Compliance Method -

Compliance may be demonstrated by multiplying the emission factor for natural gas combustion of 100 lbs NO_x/mmcu.ft. (AP-42, 1998) by the maximum dryer throughput of 11,853 cu.ft./hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

- 1.b Emission Limitation -
Carbon monoxide emissions shall not exceed 1.0 pound per hour.

Applicable Compliance Method -

Compliance may be demonstrated by multiplying the emission factor for natural gas combustion of 84 lbs CO/mmcu.ft. (AP-42, 1998) by maximum dryer throughput of 11,853 cu.ft./hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

V. Testing Requirements (continued)

- 1.c** Emission Limitation -
Volatile organic compound emissions shall not exceed 1.70 pounds per hour.

Applicable Compliance Method -

Compliance shall be demonstrated by summing the maximum VOC emissions from natural gas combustion and the coating operation.

The VOC emissions from natural gas combustion may be determined by multiplying the emission factor for natural gas combustion of 11 lbs VOC/mmcu.ft. (AP-42, 1998) by maximum dryer throughput of 11,853 cu.ft./hr.

The VOC emissions from the coating operation may be determined by multiplying the maximum usage of the primary coating (25 gals/hr) by the primary coating's maximum VOC content of 0.06 lb VOC/gal. Then multiplying the maximum usage of the secondary coating (0.003 gal/hr) by the secondary coating's maximum VOC content of 5.78 lbs/gal and summing the two emission rates (PTI application 01-2717).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18, 25 or 25A, as appropriate.

Formulation data or USEPA Method 24 (40 CFR Part 60, Appendix A) shall be used to determine the volatile organic compound contents of the coatings. The Director may require that USEPA Method 24 be used to determine the volatile organic compound contents of the coatings. If, pursuant to Method 24, an owner or operator determines that Method 24 cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24.

- 1.d** Emission Limitation -
Ammonia emissions shall not exceed 2.80 pounds per hour.

Applicable Compliance Method -

Compliance may be determined by multiplying the maximum usage of the ammonia containing coating (25 gals/hr) by the ammonia content (0.11 lb/gal) (PTI 01-2717 application).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and CTM-027. Alternative U.S. EPA-approved methods may be used with prior approval from the Ohio EPA.

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>
downflush coater #10 with 11.1 mmBtu/hr drying oven		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. Physical changes to or changes in the method of operation of the emissions unit 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 (typically for 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; 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.).
2. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Downflush coater #12 (R003)

Activity Description: Downflush coater # 12 with drying oven; 6.0 mmBtu/hr; non-insignificant only for ammonia

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>
downflush coater #12 with 6.0 mmBtu/hr drying oven	OAC rule 3745-31-05(A)(3) (PTI 01-2717)	Nitrogen oxides emissions shall not exceed 0.6 pound per hour.
		Carbon monoxide emissions shall not exceed 0.5 pound per hour.
		Volatile organic compound emissions shall not exceed 0.8 pound per hour.
		Ammonia emissions shall not exceed 1.3 pounds per hour.
		The requirements of this rule also include compliance with OAC rules 3745-17-07(A), 3745-17-11(B), and 3745-21-07(G).
		See A.I.2.a, A.I.2.b and A.II.1 below.
		See A.I.2.c below.
	OAC rules 3745-21-08(B) and 3745-23-06	See A.I.2.d below.
	OAC rule 3745-21-07(G)	See A.I.2.e below.
	OAC rule 3745-18-06(E)(2)	See A.I.2.f below.
	OAC rule 3745-17-11(B)(1)	See A.I.2.g below.
	OAC rule 3745-17-07(A)	See A.I.2.g below.

2. Additional Terms and Conditions

- The permittee shall maintain tight fitting covers on the coating mixing tanks except that no hose opening shall have a diameter more than 1.5 inches greater than the outside diameter of the hose to be situated in the opening.

2. Additional Terms and Conditions (continued)

- 2.b** The permittee shall use water-based coatings in phosphorous coating operations at all times this emissions unit is in operation.

"Water-based coatings" shall be defined, per OAC rule 3745-21-07(G)(9)(c)(ii), as a liquid organic material comprised not more than 20% of said volatile content.

- 2.c** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-2717.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-2717.

- 2.d** To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

- 2.e** The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the glass bulbs, alumina slurry, and phosphorous coating suspension. The total weight of the glass bulbs, alumina slurry, and phosphorous coating suspension could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the glass bulbs, alumina slurry, and phosphorous coating suspension to establish the sulfur dioxide allowable emission limitation would yield a relatively high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

- 2.f** The uncontrolled mass rate of particulate emissions (PE)* from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero. "Process weight" is defined in OAC rule 3745-17-01(B)(14).

* The burning of natural gas is the only source of PE from this emissions unit.

- 2.g** This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- 2.h** The hourly emission limitations are based on the emissions unit's potentials to emit. Therefore, additional monitoring, record keeping and reporting requirements are not necessary to ensure compliance with these emission limitations.
- 2.i** Sections A.I.2.c through A.I.2.h above are intended for clarification of current regulatory applicability under this permit at time of issuance, and are not intended to address or prohibit any change that could otherwise be processed under OAC rule 3745-77-07(I).

II. Operational Restrictions

1. The permittee shall burn only natural gas, or other such 'inherently clean' fuel that would result in emissions that comply with the limitations and restrictions of this permit, 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 or other such 'inherently clean' fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. For each day during which the permittee employs a coating other than a non-photochemically reactive material, the permittee shall maintain a record of the type and quantity of coating used in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. each day when a fuel other than natural gas or other such 'inherently clean' fuel was burned in this emissions unit; and
 - b. all periods of time when a photochemically reactive material was employed in this emissions unit.

The quarterly deviation reports shall be submitted in accordance with Part I - General Term and Condition A.1.c.ii.

V. Testing Requirements

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

- 1.a Emission Limitation -
Nitrogen oxides emissions shall not exceed 0.6 pound per hour.

Applicable Compliance Method -

Compliance may be demonstrated by multiplying the emission factor for natural gas combustion of 100 lbs NO_x/mmcu.ft. (AP-42, 1998) by the maximum dryer throughput of 5,714 cu.ft./hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

- 1.b Emission Limitation -
Carbon monoxide emissions shall not exceed 0.5 pound per hour.

Applicable Compliance Method -

Compliance may be demonstrated by multiplying the emission factor for natural gas combustion of 84 lbs CO/mmcu.ft. (AP-42, 1998) by maximum dryer throughput of 5,714 cu.ft./hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

V. Testing Requirements (continued)

- 1.c** Emission Limitation -
Volatile organic compound emissions shall not exceed 0.8 pound per hour.

Applicable Compliance Method -

Compliance shall be demonstrated by summing the maximum VOC emissions from natural gas combustion and the coating operation.

The VOC emissions from natural gas combustion may be determined by multiplying the emission factor for natural gas combustion of 11 lbs VOC/mmcf. (AP-42, 1998) by maximum dryer throughput of 5,714 cu.ft./hr.

The VOC emissions from the coating operation may be determined by multiplying the maximum usage of the primary coating (12 gals/hr) by the primary coating's maximum VOC content of 0.06 lb VOC/gal. Then multiplying the maximum usage of the secondary coating (0.003 gal/hr) by the secondary coating's maximum VOC content of 5.78 lbs/gal and summing the two emission rates (PTI application 01-2717).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18, 25 or 25A, as appropriate.

Formulation data or USEPA Method 24 (40 CFR Part 60, Appendix A) shall be used to determine the volatile organic compound contents of the coatings. The Director may require that USEPA Method 24 be used to determine the volatile organic compound contents of the coatings. If, pursuant to Method 24, an owner or operator determines that Method 24 cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24.

- 1.d** Emission Limitation -
Ammonia emissions shall not exceed 1.3 pounds per hour.

Applicable Compliance Method -

Compliance may be determined by multiplying the maximum usage of the ammonia containing coating (12 gals/hr) by the ammonia content (0.11 lb/gal) (PTI 01-2717 application).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and CTM-027. Alternative U.S. EPA-approved methods may be used with prior approval from the Ohio EPA.

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>
downflush coater #12 with 6.0 mmBtu/hr drying oven		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. Physical changes to or changes in the method of operation of the emissions unit 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 (typically for 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; 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.).
2. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Downflush coater #8 (R005)

Activity Description: Downflush coater # 8 with drying oven; 6.9 mmBtu/hr

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>
downflush coater #8 with 6.9 mmBtu/hr drying oven	OAC rule 3745-31-05(A)(3) (PTI 01-2988)	Nitrogen oxides emissions shall not exceed 0.66 pound per hour.
		Carbon monoxide emissions shall not exceed 0.55 pound per hour.
		Volatile organic compound emissions shall not exceed 1.60 pounds per hour.
		Ammonia emissions shall not exceed 2.70 pounds per hour.
		The requirements of this rule also include compliance with OAC rules 3745-17-07(A), 3745-17-11(B), and 3745-21-07(G).
		See A.I.2.a, A.I.2.b and A.II.1 below.
		See A.I.2.c below.
	OAC rules 3745-21-08(B) and 3745-23-06	See A.I.2.d below.
	OAC rule 3745-21-07(G)	See A.I.2.e below.
	OAC rule 3745-18-06(E)(2)	See A.I.2.f below.
	OAC rule 3745-17-11(B)(1)	See A.I.2.g below.
	OAC rule 3745-17-07(A)	See A.I.2.g below.

2. Additional Terms and Conditions

- The permittee shall maintain tight fitting covers on the coating mixing tanks except that no hose opening shall have a diameter more than 1.5 inches greater than the outside diameter of the hose to be situated in the opening.

2. Additional Terms and Conditions (continued)

- 2.b** The permittee shall use water-based coatings in phosphorous coating operations at all times this emissions unit is in operation.

"Water-based coatings" shall be defined, per OAC rule 3745-21-07(G)(9)(c)(ii), as a liquid organic material comprised not more than 20% of said volatile content.

- 2.c** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-2988.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-2988.

- 2.d** To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

- 2.e** The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the glass bulbs, alumina slurry, and phosphorous coating suspension. The total weight of the glass bulbs, alumina slurry, and phosphorous coating suspension could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the glass bulbs, alumina slurry, and phosphorous coating suspension to establish the sulfur dioxide allowable emission limitation would yield a relatively high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

- 2.f** The uncontrolled mass rate of particulate emissions (PE)* from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero. "Process weight" is defined in OAC rule 3745-17-01(B)(14).

* The burning of natural gas is the only source of PE from this emissions unit.

- 2.g** This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

- 2.h** The hourly emission limitations are based on the emissions unit's potentials to emit. Therefore, additional monitoring, record keeping and reporting requirements are not necessary to ensure compliance with these emission limitations.

- 2.i** Sections A.I.2.c through A.I.2.h above are intended for clarification of current regulatory applicability under this permit at time of issuance, and are not intended to address or prohibit any change that could otherwise be processed under OAC rule 3745-77-07(I).

II. Operational Restrictions

1. The permittee shall burn only natural gas, or other such 'inherently clean' fuel that would result in emissions that comply with the limitations and restrictions of this permit, 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 or other such 'inherently clean' fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. For each day during which the permittee employs a coating other than a non-photochemically reactive material, the permittee shall maintain a record of the type and quantity of coating used in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. each day when a fuel other than natural gas or other such 'inherently clean' fuel was burned in this emissions unit; and
 - b. all periods of time when a photochemically reactive material was employed in this emissions unit.

The quarterly deviation reports shall be submitted in accordance with Part I - General Term and Condition A.1.c.ii.

V. Testing Requirements

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

- 1.a Emission Limitation -
Nitrogen oxides emissions shall not exceed 0.66 pound per hour.

Applicable Compliance Method -

Compliance may be demonstrated by multiplying the emission factor for natural gas combustion of 100 lbs NO_x/mmcu.ft. (AP-42, 1998) by the maximum dryer throughput of 6,593 cu.ft./hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

- 1.b Emission Limitation -
Carbon monoxide emissions shall not exceed 0.55 pound per hour.

Applicable Compliance Method -

Compliance may be demonstrated by multiplying the emission factor for natural gas combustion of 84 lbs CO/mmcu.ft. (AP-42, 1998) by maximum dryer throughput of 6,593 cu.ft./hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

V. Testing Requirements (continued)

- 1.c** Emission Limitation -
Volatile organic compound emissions shall not exceed 1.60 pounds per hour.

Applicable Compliance Method -

Compliance shall be demonstrated by summing the maximum VOC emissions from natural gas combustion and the coating operation.

The VOC emissions from natural gas combustion may be determined by multiplying the emission factor for natural gas combustion of 11 lbs VOC/mmcu.ft. (AP-42, 1998) by maximum dryer throughput of 6,593 cu.ft./hr.

The VOC emissions from the coating operation may be determined by multiplying the maximum usage of the primary coating (24.4 gals/hr) by the primary coating's maximum VOC content of 0.06 lb VOC/gal. Then multiplying the maximum usage of the secondary coating (0.0026 gal/hr) by the secondary coating's maximum VOC content of 5.78 lbs/gal and summing the two emission rates (PTI application 01-2988).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18, 25 or 25A, as appropriate.

Formulation data or USEPA Method 24 (40 CFR Part 60, Appendix A) shall be used to determine the volatile organic compound contents of the coatings. The Director may require that USEPA Method 24 be used to determine the volatile organic compound contents of the coatings. If, pursuant to Method 24, an owner or operator determines that Method 24 cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24.

- 1.d** Emission Limitation -
Ammonia emissions shall not exceed 2.70 pounds per hour.

Applicable Compliance Method -

Compliance may be determined by multiplying the maximum usage of the ammonia containing coating (24.4 gals/hr) by the ammonia content (0.11 lb/gal) (PTI 01-2988 application).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and CTM-027. Alternative U.S. EPA-approved methods may be used with prior approval from the Ohio EPA.

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>
downflush coater #8 with 6.9 mmBtu/hr drying oven		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. Physical changes to or changes in the method of operation of the emissions unit 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 (typically for 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; 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.).
2. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Downflush coater #11 (R006)
Activity Description: Downflush coater # 11 with drying oven; 8.2 mmBtu/hr

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>
downflush coater #11 with 8.2 mmBtu/hr drying oven	OAC rule 3745-31-05(A)(3) (PTI 01-2988)	Nitrogen oxides emissions shall not exceed 0.78 pound per hour. Carbon monoxide emissions shall not exceed 0.66 pound per hour. Volatile organic compound emissions shall not exceed 1.5 pounds per hour. Ammonia emissions shall not exceed 2.4 pounds per hour. The requirements of this rule also include compliance with OAC rules 3745-17-07(A), 3745-17-11(B), and 3745-21-07(G).
	OAC rules 3745-21-08(B) and 3745-23-06	See A.I.2.a, A.I.2.b and A.II.1 below. See A.I.2.c below.
	OAC rule 3745-21-07(G)	See A.I.2.d below.
	OAC rule 3745-18-06(E)(2)	See A .I.2.e below.
	OAC rule 3745-17-11(B)(1)	See A.I.2.f below.
	OAC rule 3745-17-07(A)	See A.I.2.g below.

2. Additional Terms and Conditions

- 2.a The permittee shall maintain tight fitting covers on the coating mixing tanks except that no hose opening shall have a diameter more than 1.5 inches greater than the outside diameter of the hose to be situated in the opening.

2. Additional Terms and Conditions (continued)

- 2.b** The permittee shall use water-based coatings in phosphorous coating operations at all times this emissions unit is in operation.

"Water-based coatings" shall be defined, per OAC rule 3745-21-07(G)(9)(c)(ii), as a liquid organic material comprised not more than 20% of said volatile content.

- 2.c** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-2988.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-2988.

- 2.d** To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

- 2.e** The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the glass bulbs, alumina slurry, and phosphorous coating suspension. The total weight of the glass bulbs, alumina slurry, and phosphorous coating suspension could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the glass bulbs, alumina slurry, and phosphorous coating suspension to establish the sulfur dioxide allowable emission limitation would yield a relatively high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

- 2.f** The uncontrolled mass rate of particulate emissions (PE)* from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero. "Process weight" is defined in OAC rule 3745-17-01(B)(14).

* The burning of natural gas is the only source of PE from this emissions unit.

- 2.g** This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- 2.h** The hourly emission limitations are based on the emissions unit's potentials to emit. Therefore, additional monitoring, record keeping and reporting requirements are not necessary to ensure compliance with these emission limitations.
- 2.i** Sections A.I.2.c through A.I.2.h above are intended for clarification of current regulatory applicability under this permit at time of issuance, and are not intended to address or prohibit any change that could otherwise be processed under OAC rule 3745-77-07(I).

II. Operational Restrictions

1. The permittee shall burn only natural gas, or other such 'inherently clean' fuel that would result in emissions that comply with the limitations and restrictions of this permit, 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 or other such 'inherently clean' fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. For each day during which the permittee employs a coating other than a non-photochemically reactive material, the permittee shall maintain a record of the type and quantity of coating used in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. each day when a fuel other than natural gas or other such 'inherently clean' fuel was burned in this emissions unit; and
 - b. all periods of time when a photochemically reactive material was employed in this emissions unit.

The quarterly deviation reports shall be submitted in accordance with Part I - General Term and Condition A.1.c.ii.

V. Testing Requirements

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

- 1.a Emission Limitation -
Nitrogen oxides emissions shall not exceed 0.78 pound per hour.

Applicable Compliance Method -

Compliance may be demonstrated by multiplying the emission factor for natural gas combustion of 100 lbs NO_x/mmcu.ft. (AP-42, 1998) by the maximum dryer throughput of 7,826 cu.ft./hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

- 1.b Emission Limitation -
Carbon monoxide emissions shall not exceed 0.66 pound per hour.

Applicable Compliance Method -

Compliance may be demonstrated by multiplying the emission factor for natural gas combustion of 84 lbs CO/mmcu.ft. (AP-42, 1998) by maximum dryer throughput of 7,826 cu.ft./hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

V. Testing Requirements (continued)

- 1.c** Emission Limitation -
Volatile organic compound emissions shall not exceed 1.5 pounds per hour.

Applicable Compliance Method -

Compliance shall be demonstrated by summing the maximum VOC emissions from natural gas combustion and the coating operation.

The VOC emissions from natural gas combustion may be determined by multiplying the emission factor for natural gas combustion of 11 lbs VOC/mmcu.ft. (AP-42, 1998) by maximum dryer throughput of 7,826 cu.ft./hr.

The VOC emissions from the coating operation may be determined by multiplying the maximum usage of the primary coating (22.2 gals/hr) by the primary coating's maximum VOC content of 0.06 lb VOC/gal. Then multiplying the maximum usage of the secondary coating (0.0025 gal/hr) by the secondary coating's maximum VOC content of 5.78 lbs/gal and summing the two emission rates (PTI application 01-2988).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18, 25 or 25A, as appropriate.

Formulation data or USEPA Method 24 (40 CFR Part 60, Appendix A) shall be used to determine the volatile organic compound contents of the coatings. The Director may require that USEPA Method 24 be used to determine the volatile organic compound contents of the coatings. If, pursuant to Method 24, an owner or operator determines that Method 24 cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24.

- 1.d** Emission Limitation -
Ammonia emissions shall not exceed 2.4 pounds per hour.

Applicable Compliance Method -

Compliance may be determined by multiplying the maximum usage of the ammonia containing coating (22.2 gals/hr) by the ammonia content (0.11 lb/gal) (PTI 01-2988 application).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and CTM-027. Alternative U.S. EPA-approved methods may be used with prior approval from the Ohio EPA.

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>
downflush coater #11 with 8.2 mmBtu/hr drying oven		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. Physical changes to or changes in the method of operation of the emissions unit 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 (typically for 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; 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.).
2. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Downflush coater #15 (R007)

Activity Description: Downflush coater # 15 with drying oven; 10.4 mmBtu/hr

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>
downflush coater #15 with 10.4 mmBtu/hr drying oven	OAC rule 3745-31-05(A)(3) (PTI 01-4306)	Nitrogen oxides emissions shall not exceed 1.46 pounds per hour. Carbon monoxide emissions shall not exceed 0.83 pound per hour. Volatile organic compound emissions shall not exceed 1.5 pounds per hour. Ammonia emissions shall not exceed 2.5 pounds per hour. The requirements of this rule also include compliance with OAC rules 3745-17-07(A), 3745-17-11(B), and 3745-21-07(G).
		See A.I.2.a, A.I.2.b and A.II.1 below.
	OAC rules 3745-21-08(B) and 3745-23-06	See A.I.2.c below.
	OAC rule 3745-21-07(G)	See A.I.2.d below.
	OAC rule 3745-18-06(E)(2)	See A .I.2.e below.
	OAC rule 3745-17-11(B)(1)	See A.I.2.f below.
	OAC rule 3745-17-07(A)	See A.I.2.g below.

2. Additional Terms and Conditions

- The permittee shall maintain tight fitting covers on the coating mixing tanks except that no hose opening shall have a diameter more than 1.5 inches greater than the outside diameter of the hose to be situated in the opening.

2. Additional Terms and Conditions (continued)

- 2.b** The permittee shall use water-based coatings in phosphorous coating operations at all times this emissions unit is in operation.

"Water-based coatings" shall be defined, per OAC rule 3745-21-07(G)(9)(c)(ii), as a liquid organic material comprised not more than 20% of said volatile content.

- 2.c** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-4306.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-4306.

- 2.d** To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

- 2.e** The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the glass bulbs, alumina slurry, and phosphorous coating suspension. The total weight of the glass bulbs, alumina slurry, and phosphorous coating suspension could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the glass bulbs, alumina slurry, and phosphorous coating suspension to establish the sulfur dioxide allowable emission limitation would yield a relatively high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

- 2.f** The uncontrolled mass rate of particulate emissions (PE)* from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero. "Process weight" is defined in OAC rule 3745-17-01(B)(14).

* The burning of natural gas is the only source of PE from this emissions unit.

- 2.g** This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- 2.h** The hourly emission limitations are based on the emissions unit's potentials to emit. Therefore, additional monitoring, record keeping and reporting requirements are not necessary to ensure compliance with these emission limitations.
- 2.i** Sections A.I.2.c through A.I.2.h above are intended for clarification of current regulatory applicability under this permit at time of issuance, and are not intended to address or prohibit any change that could otherwise be processed under OAC rule 3745-77-07(I).

II. Operational Restrictions

1. The permittee shall burn only natural gas, or other such 'inherently clean' fuel that would result in emissions that comply with the limitations and restrictions of this permit, 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 or other such 'inherently clean' fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. For each day during which the permittee employs a coating other than a non-photochemically reactive material, the permittee shall maintain a record of the type and quantity of coating used in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. each day when a fuel other than natural gas or other such 'inherently clean' fuel was burned in this emissions unit; and
 - b. all periods of time when a photochemically reactive material was employed in this emissions unit.

The quarterly deviation reports shall be submitted in accordance with Part I - General Term and Condition A.1.c.ii.

V. Testing Requirements

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

- 1.a Emission Limitation -
Nitrogen oxides emissions shall not exceed 1.46 pound per hour.

Applicable Compliance Method -

Compliance may be demonstrated by multiplying the emission factor for natural gas combustion of 100 lbs NO_x/mmcu.ft. (AP-42, 1998) by the maximum dryer throughput of 9,905 cu.ft./hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

- 1.b Emission Limitation -
Carbon monoxide emissions shall not exceed 0.83 pound per hour.

Applicable Compliance Method -

Compliance may be demonstrated by multiplying the emission factor for natural gas combustion of 84 lbs CO/mmcu.ft. (AP-42, 1998) by maximum dryer throughput of 9,905 cu.ft./hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

V. Testing Requirements (continued)

- 1.c** Emission Limitation -
Volatile organic compound emissions shall not exceed 1.5 pounds per hour.

Applicable Compliance Method -

Compliance shall be demonstrated by summing the maximum VOC emissions from natural gas combustion and the coating operation.

The VOC emissions from natural gas combustion may be determined by multiplying the emission factor for natural gas combustion of 11 lbs VOC/mmcu.ft. (AP-42, 1998) by maximum dryer throughput of 9,905 cu.ft./hr.

The VOC emissions from the coating operation may be determined by multiplying the maximum usage of the primary coating (23.3 gals/hr) by the primary coating's maximum VOC content of 0.45 lb VOC/gal. Then multiplying the maximum usage of the secondary coating (0.044 gal/hr) by the secondary coating's maximum VOC content of 3.94 lbs/gal and summing the two emission rates (PTI application 01-4306).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18, 25 or 25A, as appropriate.

Formulation data or USEPA Method 24 (40 CFR Part 60, Appendix A) shall be used to determine the volatile organic compound contents of the coatings. The Director may require that USEPA Method 24 be used to determine the volatile organic compound contents of the coatings. If, pursuant to Method 24, an owner or operator determines that Method 24 cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24.

- 1.d** Emission Limitation -
Ammonia emissions shall not exceed 2.5 pounds per hour.

Applicable Compliance Method -

Compliance may be determined by multiplying the maximum usage of the ammonia containing coating (23.3 gals/hr) by the ammonia content (0.11 lb/gal) (PTI 01-4306 application).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and CTM-027. Alternative U.S. EPA-approved methods may be used with prior approval from the Ohio EPA.

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>
downflush coater #15 with 10.4 mmBtu/hr drying oven		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. Physical changes to or changes in the method of operation of the emissions unit 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 (typically for 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; 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.).
2. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Upflush room Coater (R010)

Activity Description: Nitro coating - upflush room coater # 6 OEPA ID R010

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>
upflush room coater #6 - Nitro coating	OAC rule 3745-31-05(C) (PTI 01-2780)	See A.I.2.b through A.I.2.e and A.II.1 through A.II.3 below.
	OAC rule 3745-31-05(A)(3) (PTI 01-2780)	See A.I.2.a below.
	OAC rule 3745-21-07(G)	See A.I.2.g below.

2. Additional Terms and Conditions

- 2.a The organic compound (OC) content of each coating, excluding water and exempt solvents, employed in emissions units R010, R011, R012, R013, and R014 shall not exceed 6.06 pounds per gallon.
- 2.b The OC content of each cleanup material employed in emissions units R010, R011, R012, R013, and R014 shall not exceed 6.8 pounds per gallon.
- 2.c The total combined OC emission rate from any two upflush room coaters (emissions units R010, R011, R012, R013, and R014) shall not exceed 30.3 pounds per hour.
- 2.d The total OC emission rate for all coatings and cleanup materials from emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 3.02 tons per month.
- 2.e The total OC emission rate for all coatings and cleanup materials from emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 36.24 tons per rolling, 12-month period.
- 2.f The pounds per hour emission limitation specified in A.I.2.c above reflects the potential to emit for these emissions units based upon the maximum hourly coating throughputs for any two upflush room coaters, combined, using the coating with the highest OC content. Therefore, additional monitoring, record keeping and reporting requirements are not necessary to ensure compliance with this emission limitation.
- 2.g To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).
- 2.h Sections A.I.2.f and A.I.2.g above are intended for clarification of current regulatory applicability under this permit at time of issuance, and are not intended to address or prohibit any change that could otherwise be processed under OAC rule 3745-77-07(I).

II. Operational Restrictions

1. The total monthly coating usage in emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 920.0 gallons.
2. The total monthly usage of cleanup material in emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 69.0 gallons.
3. The permittee shall not operate more than two upflush room coaters (emissions units R010, R011, R012, R013, or R014) at any time.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each day for emissions units R010, R011, R012, R013, and R014:
 - a. the actual coating time for each emissions unit;
 - b. the duration of time during which more than two upflush room coaters (emissions units R010, R011, R012, R013, or R014) operated at one time, in hours;
 - c. the name and identification of each coating and cleanup material as applied;
 - d. the OC content of each coating, in pounds per gallon, excluding water and exempt solvents, as applied;
 - e. the OC content of each cleanup material, in pounds per gallon, as applied; and
 - f. the number of gallons of each coating, excluding water and exempt solvents, and each cleanup material as applied.
2. The permittee shall collect and record the following information each month for emissions units R010, R011, R012, R013, and R014, combined:
 - a. the total number of gallons of coating, excluding water and exempt solvents, as applied;
 - b. the total number of gallons of cleanup materials, as applied;
 - c. the total OC emissions from coating and cleanup operations, in tons; and
 - d. the rolling, 12-month summation of the OC emission rate for all coatings and cleanup materials, in tons.
3. For each day during which the permittee employs a coating other than a non-photochemically reactive material, the permittee shall maintain a record of the type and quantity of coating used in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. any time periods during which more than two upflush room coaters (emissions units R010, R011, R012, R013, and R014) operated at one time;
 - b. any exceedences of the coating OC content limitation for emissions units R010, R011, R012, R013, and R014;
 - c. any exceedences of the cleanup material OC content limitation for emissions units R010, R011, R012, R013, and R014;
 - d. any exceedences of the monthly coating usage limitation for emissions units R010, R011, R012, R013, and R014, combined;
 - e. any exceedences of the monthly cleanup material usage limitation for emissions units R010, R011, R012, R013, and R014, combined;
 - f. any exceedences of the monthly combined OC emission limitation for emissions units R010, R011, R012, R013, and R014;
 - g. any exceedences of the combined rolling, 12-month summation of the OC emission rate for all coatings and cleanup materials from emissions units R010, R011, R012, R013, and R014; and
 - h. all periods of time when a photochemically reactive material was employed in this emissions unit.

The quarterly deviation reports shall be submitted in accordance with Part I - General Term and Condition A.1.c.ii.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:
 - 1.a Emission Limitation -
The total combined OC emission rate from any two upflush room coaters (emissions units R010, R011, R012, R013 and R014) shall not exceed 30.3 pounds per hour.

Applicable Compliance Method -

The hourly emission limitation was developed by multiplying the maximum hourly coating throughput for any two upflush room coaters (emissions units R010, R011, R012, R013, and R014), of 5.0 gallons per hour by the maximum coating OC content of 6.06 pounds per gallon (PTI application 01-2780).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18, 25, or 25A, as appropriate.

- 1.b Emission Limitation -
OC emissions from emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 3.02 tons per month.

Applicable Compliance Method -

Compliance shall be based on the record keeping in Section A.III.2.

- 1.c Emission Limitation -
The OC content of each coating, excluding water and exempt solvents, employed in emissions units R010, R011, R012, R013, and R014 shall not exceed 6.06 pounds per gallon.

Applicable Compliance Method -

Compliance shall be based on the record keeping in Section A.III.1.

V. Testing Requirements (continued)

- 1.d** Emission Limitation -
The OC content of each cleanup material employed in emissions units R010, R011, R012, R013, and R014 shall not exceed 6.8 pounds per gallon.

Applicable Compliance Method -
Compliance shall be based on the record keeping in Section A.III.1.

- 1.e** Emission Limitation -
The combined rolling, 12-month summation of the OC emission rate for all coatings and cleanup materials from emissions units R010, R011, R012, R013, and R014 shall not exceed 36.24 tons per year.

Applicable Compliance Method -
Compliance shall be based on the record keeping in Section A.III.2.

- 2.** Formulation data or USEPA Method 24 (40 CFR Part 60, Appendix A) shall be used to determine the OC contents of the coatings. Formulation data shall be used to determine the OC contents of the cleanup materials. The Director may require that USEPA Method 24 be used to determine the OC contents of the coatings. If, pursuant to Method 24, an owner or operator determines that Method 24 cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24.

VI. Miscellaneous Requirements

- 1.** Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 01-2780, issued on 10/28/92: Section A.III.2.d. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.
- 2.** Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install # 01-2780, issued on 10/28/92: Section A.IV.1.e. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

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>
upflush room coater #6 - Nitro coating		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. 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 (typically for 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.).
2. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Upflush room Coater (R011)

Activity Description: Nitro coating - upflush room coater #10 OEPA ID R011

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>
upflush room coater #10 - Nitro coating	OAC rule 3745-31-05(C) (PTI 01-2780)	See A.I.2.b through A.I.2.e and A.II.1 through A.II.3 below.
	OAC rule 3745-31-05(A)(3) (PTI 01-2780)	See A.I.2.a below.
	OAC rule 3745-21-07(G)	See A.I.2.g below.

2. Additional Terms and Conditions

- 2.a The organic compound (OC) content of each coating, excluding water and exempt solvents, employed in emissions units R010, R011, R012, R013, and R014 shall not exceed 6.06 pounds per gallon.
- 2.b The OC content of each cleanup material employed in emissions units R010, R011, R012, R013, and R014 shall not exceed 6.8 pounds per gallon.
- 2.c The total combined OC emission rate from any two upflush room coaters (emissions units R010, R011, R012, R013, and R014) shall not exceed 30.3 pounds per hour.
- 2.d The total OC emission rate for all coatings and cleanup materials from emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 3.02 tons per month.
- 2.e The total OC emission rate for all coatings and cleanup materials from emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 36.24 tons per rolling, 12-month period.
- 2.f The pounds per hour emission limitation specified in A.I.2.c above reflects the potential to emit for these emissions units based upon the maximum hourly coating throughputs for any two upflush room coaters, combined, using the coating with the highest OC content. Therefore, additional monitoring, record keeping and reporting requirements are not necessary to ensure compliance with this emission limitation.
- 2.g To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).
- 2.h Sections A.I.2.f and A.I.2.g above are intended for clarification of current regulatory applicability under this permit at time of issuance, and are not intended to address or prohibit any change that could otherwise be processed under OAC rule 3745-77-07(I).

II. Operational Restrictions

1. The total monthly coating usage in emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 920.0 gallons.
2. The total monthly usage of cleanup material in emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 69.0 gallons.
3. The permittee shall not operate more than two upflush room coaters (emissions units R010, R011, R012, R013, or R014) at any time.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each day for emissions units R010, R011, R012, R013, and R014:
 - a. the actual coating time for each emissions unit;
 - b. the duration of time during which more than two upflush room coaters (emissions units R010, R011, R012, R013, or R014) operated at one time, in hours;
 - c. the name and identification of each coating and cleanup material as applied;
 - d. the OC content of each coating, in pounds per gallon, excluding water and exempt solvents, as applied;
 - e. the OC content of each cleanup material, in pounds per gallon, as applied; and
 - f. the number of gallons of each coating, excluding water and exempt solvents, and each cleanup material as applied.
2. The permittee shall collect and record the following information each month for emissions units R010, R011, R012, R013, and R014, combined:
 - a. the total number of gallons of coating, excluding water and exempt solvents, as applied;
 - b. the total number of gallons of cleanup materials, as applied;
 - c. the total OC emissions from coating and cleanup operations, in tons; and
 - d. the rolling, 12-month summation of the OC emission rate for all coatings and cleanup materials, in tons.
3. For each day during which the permittee employs a coating other than a non-photochemically reactive material, the permittee shall maintain a record of the type and quantity of coating used in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. any time periods during which more than two upflush room coaters (emissions units R010, R011, R012, R013, and R014) operated at one time;
 - b. any exceedences of the coating OC content limitation for emissions units R010, R011, R012, R013, and R014;
 - c. any exceedences of the cleanup material OC content limitation for emissions units R010, R011, R012, R013, and R014;
 - d. any exceedences of the monthly coating usage limitation for emissions units R010, R011, R012, R013, and R014, combined;
 - e. any exceedences of the monthly cleanup material usage limitation for emissions units R010, R011, R012, R013, and R014, combined;
 - f. any exceedences of the monthly combined OC emission limitation for emissions units R010, R011, R012, R013, and R014;
 - g. any exceedences of the combined rolling, 12-month summation of the OC emission rate for all coatings and cleanup materials from emissions units R010, R011, R012, R013, and R014; and
 - h. all periods of time when a photochemically reactive material was employed in this emissions unit.

The quarterly deviation reports shall be submitted in accordance with Part I - General Term and Condition A.1.c.ii.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:
 - 1.a Emission Limitation -
The total combined OC emission rate from any two upflush room coaters (emissions units R010, R011, R012, R013 and R014) shall not exceed 30.3 pounds per hour.

Applicable Compliance Method -

The hourly emission limitation was developed by multiplying the maximum hourly coating throughput for any two upflush room coaters (emissions units R010, R011, R012, R013, and R014), of 5.0 gallons per hour by the maximum coating OC content of 6.06 pounds per gallon (PTI application 01-2780).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18, 25, or 25A, as appropriate.

- 1.b Emission Limitation -
OC emissions from emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 3.02 tons per month.

Applicable Compliance Method -

Compliance shall be based on the record keeping in Section A.III.2.

- 1.c Emission Limitation -
The OC content of each coating, excluding water and exempt solvents, employed in emissions units R010, R011, R012, R013, and R014 shall not exceed 6.06 pounds per gallon.

Applicable Compliance Method -

Compliance shall be based on the record keeping in Section A.III.1.

V. Testing Requirements (continued)

- 1.d** Emission Limitation -
The OC content of each cleanup material employed in emissions units R010, R011, R012, R013, and R014 shall not exceed 6.8 pounds per gallon.

Applicable Compliance Method -
Compliance shall be based on the record keeping in Section A.III.1.

- 1.e** Emission Limitation -
The combined rolling, 12-month summation of the OC emission rate for all coatings and cleanup materials from emissions units R010, R011, R012, R013, and R014 shall not exceed 36.24 tons per year.

Applicable Compliance Method -
Compliance shall be based on the record keeping in Section A.III.2.

- 2.** Formulation data or USEPA Method 24 (40 CFR Part 60, Appendix A) shall be used to determine the OC contents of the coatings. Formulation data shall be used to determine the OC contents of the cleanup materials. The Director may require that USEPA Method 24 be used to determine the OC contents of the coatings. If, pursuant to Method 24, an owner or operator determines that Method 24 cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24.

VI. Miscellaneous Requirements

- 1.** Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 01-2780, issued on 10/28/92: Section A.III.2.d. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.
- 2.** Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install # 01-2780, issued on 10/28/92: Section A.IV.1.e. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

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>
upflush room coater #10 - Nitro coating		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. 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 (typically for 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.).
2. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Upflush room Coater (R012)

Activity Description: Nitro coating - upflush room coater #11 OEPA ID R012

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>
upflush room coater #11 - Nitro coating	OAC rule 3745-31-05(C) (PTI 01-2780)	See A.I.2.b through A.I.2.e and A.II.1 through A.II.3 below.
	OAC rule 3745-31-05(A)(3) (PTI 01-2780)	See A.I.2.a below.
	OAC rule 3745-21-07(G)	See A.I.2.g below.

2. Additional Terms and Conditions

- 2.a The organic compound (OC) content of each coating, excluding water and exempt solvents, employed in emissions units R010, R011, R012, R013, and R014 shall not exceed 6.06 pounds per gallon.
- 2.b The OC content of each cleanup material employed in emissions units R010, R011, R012, R013, and R014 shall not exceed 6.8 pounds per gallon.
- 2.c The total combined OC emission rate from any two upflush room coatiers (emissions units R010, R011, R012, R013, and R014) shall not exceed 30.3 pounds per hour.
- 2.d The total OC emission rate for all coatings and cleanup materials from emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 3.02 tons per month.
- 2.e The total OC emission rate for all coatings and cleanup materials from emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 36.24 tons per rolling, 12-month period.
- 2.f The pounds per hour emission limitation specified in A.I.2.c above reflects the potential to emit for these emissions units based upon the maximum hourly coating throughputs for any two upflush room coatiers, combined, using the coating with the highest OC content. Therefore, additional monitoring, record keeping and reporting requirements are not necessary to ensure compliance with this emission limitation.
- 2.g To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

- 2.h Sections A.I.2.f and A.I.2.g above are intended for clarification of current regulatory applicability under this permit at time of issuance, and are not intended to address or prohibit any change that could otherwise be processed under OAC rule 3745-77-07(I).

II. Operational Restrictions

1. The total monthly coating usage in emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 920.0 gallons.
2. The total monthly usage of cleanup material in emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 69.0 gallons.
3. The permittee shall not operate more than two upflush room coaters (emissions units R010, R011, R012, R013, or R014) at any time.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each day for emissions units R010, R011, R012, R013, and R014:
 - a. the actual coating time for each emissions unit;
 - b. the duration of time during which more than two upflush room coaters (emissions units R010, R011, R012, R013, or R014) operated at one time, in hours;
 - c. the name and identification of each coating and cleanup material as applied;
 - d. the OC content of each coating, in pounds per gallon, excluding water and exempt solvents, as applied;
 - e. the OC content of each cleanup material, in pounds per gallon, as applied; and
 - f. the number of gallons of each coating, excluding water and exempt solvents, and each cleanup material as applied.
2. The permittee shall collect and record the following information each month for emissions units R010, R011, R012, R013, and R014, combined:
 - a. the total number of gallons of coating, excluding water and exempt solvents, as applied;
 - b. the total number of gallons of cleanup materials, as applied;
 - c. the total OC emissions from coating and cleanup operations, in tons; and
 - d. the rolling, 12-month summation of the OC emission rate for all coatings and cleanup materials, in tons.
3. For each day during which the permittee employs a coating other than a non-photochemically reactive material, the permittee shall maintain a record of the type and quantity of coating used in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. any time periods during which more than two upflush room coaters (emissions units R010, R011, R012, R013, and R014) operated at one time;
 - b. any exceedences of the coating OC content limitation for emissions units R010, R011, R012, R013, and R014;
 - c. any exceedences of the cleanup material OC content limitation for emissions units R010, R011, R012, R013, and R014;
 - d. any exceedences of the monthly coating usage limitation for emissions units R010, R011, R012, R013, and R014, combined;
 - e. any exceedences of the monthly cleanup material usage limitation for emissions units R010, R011, R012, R013, and R014, combined;
 - f. any exceedences of the monthly combined OC emission limitation for emissions units R010, R011, R012, R013, and R014;
 - g. any exceedences of the combined rolling, 12-month summation of the OC emission rate for all coatings and cleanup materials from emissions units R010, R011, R012, R013, and R014; and
 - h. all periods of time when a photochemically reactive material was employed in this emissions unit.

The quarterly deviation reports shall be submitted in accordance with Part I - General Term and Condition A.1.c.ii.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:
 - 1.a Emission Limitation -
The total combined OC emission rate from any two upflush room coaters (emissions units R010, R011, R012, R013 and R014) shall not exceed 30.3 pounds per hour.

Applicable Compliance Method -

The hourly emission limitation was developed by multiplying the maximum hourly coating throughput for any two upflush room coaters (emissions units R010, R011, R012, R013, and R014), of 5.0 gallons per hour by the maximum coating OC content of 6.06 pounds per gallon (PTI application 01-2780).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18, 25, or 25A, as appropriate.

- 1.b Emission Limitation -
OC emissions from emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 3.02 tons per month.

Applicable Compliance Method -

Compliance shall be based on the record keeping in Section A.III.2.

- 1.c Emission Limitation -
The OC content of each coating, excluding water and exempt solvents, employed in emissions units R010, R011, R012, R013, and R014 shall not exceed 6.06 pounds per gallon.

Applicable Compliance Method -

Compliance shall be based on the record keeping in Section A.III.1.

V. Testing Requirements (continued)

- 1.d** Emission Limitation -
The OC content of each cleanup material employed in emissions units R010, R011, R012, R013, and R014 shall not exceed 6.8 pounds per gallon.

Applicable Compliance Method -
Compliance shall be based on the record keeping in Section A.III.1.

- 1.e** Emission Limitation -
The combined rolling, 12-month summation of the OC emission rate for all coatings and cleanup materials from emissions units R010, R011, R012, R013, and R014 shall not exceed 36.24 tons per year.

Applicable Compliance Method -
Compliance shall be based on the record keeping in Section A.III.2.

- 2.** Formulation data or USEPA Method 24 (40 CFR Part 60, Appendix A) shall be used to determine the OC contents of the coatings. Formulation data shall be used to determine the OC contents of the cleanup materials. The Director may require that USEPA Method 24 be used to determine the OC contents of the coatings. If, pursuant to Method 24, an owner or operator determines that Method 24 cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24.

VI. Miscellaneous Requirements

- 1.** Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 01-2780, issued on 10/28/92: Section A.III.2.d. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.
- 2.** Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install # 01-2780, issued on 10/28/92: Section A.IV.1.e. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

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>
upflush room coater #11 - Nitro coating		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. 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 (typically for 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.).
2. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Upflush room Coater (R013)

Activity Description: Nitro coating - upflush room coater #12 OEPA ID R013

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>
upflush room coater #12 - Nitro coating	OAC rule 3745-31-05(C) (PTI 01-2780)	See A.I.2.b through A.I.2.e and A.II.1 through A.II.3 below.
	OAC rule 3745-31-05(A)(3) (PTI 01-2780)	See A.I.2.a below.
	OAC rule 3745-21-07(G)	See A.I.2.g below.

2. Additional Terms and Conditions

- 2.a The organic compound (OC) content of each coating, excluding water and exempt solvents, employed in emissions units R010, R011, R012, R013, and R014 shall not exceed 6.06 pounds per gallon.
- 2.b The OC content of each cleanup material employed in emissions units R010, R011, R012, R013, and R014 shall not exceed 6.8 pounds per gallon.
- 2.c The total combined OC emission rate from any two upflush room coatiers (emissions units R010, R011, R012, R013, and R014) shall not exceed 30.3 pounds per hour.
- 2.d The total OC emission rate for all coatings and cleanup materials from emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 3.02 tons per month.
- 2.e The total OC emission rate for all coatings and cleanup materials from emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 36.24 tons per rolling, 12-month period.
- 2.f The pounds per hour emission limitation specified in A.I.2.c above reflects the potential to emit for these emissions units based upon the maximum hourly coating throughputs for any two upflush room coatiers, combined, using the coating with the highest OC content. Therefore, additional monitoring, record keeping and reporting requirements are not necessary to ensure compliance with this emission limitation.
- 2.g To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

 Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).
- 2.h Sections A.I.2.f and A.I.2.g above are intended for clarification of current regulatory applicability under this permit at time of issuance, and are not intended to address or prohibit any change that could otherwise be processed under OAC rule 3745-77-07(I).

II. Operational Restrictions

1. The total monthly coating usage in emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 920.0 gallons.
2. The total monthly usage of cleanup material in emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 69.0 gallons.
3. The permittee shall not operate more than two upflush room coaters (emissions units R010, R011, R012, R013, or R014) at any time.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each day for emissions units R010, R011, R012, R013, and R014:
 - a. the actual coating time for each emissions unit;
 - b. the duration of time during which more than two upflush room coaters (emissions units R010, R011, R012, R013, or R014) operated at one time, in hours;
 - c. the name and identification of each coating and cleanup material as applied;
 - d. the OC content of each coating, in pounds per gallon, excluding water and exempt solvents, as applied;
 - e. the OC content of each cleanup material, in pounds per gallon, as applied; and
 - f. the number of gallons of each coating, excluding water and exempt solvents, and each cleanup material as applied.
2. The permittee shall collect and record the following information each month for emissions units R010, R011, R012, R013, and R014, combined:
 - a. the total number of gallons of coating, excluding water and exempt solvents, as applied;
 - b. the total number of gallons of cleanup materials, as applied;
 - c. the total OC emissions from coating and cleanup operations, in tons; and
 - d. the rolling, 12-month summation of the OC emission rate for all coatings and cleanup materials, in tons.
3. For each day during which the permittee employs a coating other than a non-photochemically reactive material, the permittee shall maintain a record of the type and quantity of coating used in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. any time periods during which more than two upflush room coaters (emissions units R010, R011, R012, R013, and R014) operated at one time;
 - b. any exceedences of the coating OC content limitation for emissions units R010, R011, R012, R013, and R014;
 - c. any exceedences of the cleanup material OC content limitation for emissions units R010, R011, R012, R013, and R014;
 - d. any exceedences of the monthly coating usage limitation for emissions units R010, R011, R012, R013, and R014, combined;
 - e. any exceedences of the monthly cleanup material usage limitation for emissions units R010, R011, R012, R013, and R014, combined;
 - f. any exceedences of the monthly combined OC emission limitation for emissions units R010, R011, R012, R013, and R014;
 - g. any exceedences of the combined rolling, 12-month summation of the OC emission rate for all coatings and cleanup materials from emissions units R010, R011, R012, R013, and R014; and
 - h. all periods of time when a photochemically reactive material was employed in this emissions unit.

The quarterly deviation reports shall be submitted in accordance with Part I - General Term and Condition A.1.c.ii.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:
 - 1.a Emission Limitation -
The total combined OC emission rate from any two upflush room coaters (emissions units R010, R011, R012, R013 and R014) shall not exceed 30.3 pounds per hour.

Applicable Compliance Method -

The hourly emission limitation was developed by multiplying the maximum hourly coating throughput for any two upflush room coaters (emissions units R010, R011, R012, R013, and R014), of 5.0 gallons per hour by the maximum coating OC content of 6.06 pounds per gallon (PTI application 01-2780).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18, 25, or 25A, as appropriate.

- 1.b Emission Limitation -
OC emissions from emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 3.02 tons per month.

Applicable Compliance Method -

Compliance shall be based on the record keeping in Section A.III.2.

- 1.c Emission Limitation -
The OC content of each coating, excluding water and exempt solvents, employed in emissions units R010, R011, R012, R013, and R014 shall not exceed 6.06 pounds per gallon.

Applicable Compliance Method -

Compliance shall be based on the record keeping in Section A.III.1.

V. Testing Requirements (continued)

- 1.d** Emission Limitation -
The OC content of each cleanup material employed in emissions units R010, R011, R012, R013, and R014 shall not exceed 6.8 pounds per gallon.

Applicable Compliance Method -
Compliance shall be based on the record keeping in Section A.III.1.

- 1.e** Emission Limitation -
The combined rolling, 12-month summation of the OC emission rate for all coatings and cleanup materials from emissions units R010, R011, R012, R013, and R014 shall not exceed 36.24 tons per year.

Applicable Compliance Method -
Compliance shall be based on the record keeping in Section A.III.2.

- 2.** Formulation data or USEPA Method 24 (40 CFR Part 60, Appendix A) shall be used to determine the OC contents of the coatings. Formulation data shall be used to determine the OC contents of the cleanup materials. The Director may require that USEPA Method 24 be used to determine the OC contents of the coatings. If, pursuant to Method 24, an owner or operator determines that Method 24 cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24.

VI. Miscellaneous Requirements

- 1.** Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 01-2780, issued on 10/28/92: Section A.III.2.d. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.
- 2.** Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install # 01-2780, issued on 10/28/92: Section A.IV.1.e. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

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>
upflush room coater #12 - Nitro coating		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. 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 (typically for 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.).
2. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Upflush room Coater (R014)

Activity Description: Nitro coating - upflush room coater #13 OEPA ID R014.

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>
upflush room coater #13 - Nitro coating	OAC rule 3745-31-05(C) (PTI 01-2780)	See A.I.2.b through A.I.2.e and A.II.1 through A.II.3 below.
	OAC rule 3745-31-05(A)(3) (PTI 01-2780)	See A.I.2.a below.
	OAC rule 3745-21-07(G)	See A.I.2.g below.

2. Additional Terms and Conditions

- 2.a The organic compound (OC) content of each coating, excluding water and exempt solvents, employed in emissions units R010, R011, R012, R013, and R014 shall not exceed 6.06 pounds per gallon.
- 2.b The OC content of each cleanup material employed in emissions units R010, R011, R012, R013, and R014 shall not exceed 6.8 pounds per gallon.
- 2.c The total combined OC emission rate from any two upflush room coaters (emissions units R010, R011, R012, R013, and R014) shall not exceed 30.3 pounds per hour.
- 2.d The total OC emission rate for all coatings and cleanup materials from emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 3.02 tons per month.
- 2.e The total OC emission rate for all coatings and cleanup materials from emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 36.24 tons per rolling, 12-month period.
- 2.f The pounds per hour emission limitation specified in A.I.2.c above reflects the potential to emit for these emissions units based upon the maximum hourly coating throughputs for any two upflush room coaters, combined, using the coating with the highest OC content. Therefore, additional monitoring, record keeping and reporting requirements are not necessary to ensure compliance with this emission limitation.
- 2.g To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

 Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).
- 2.h Sections A.I.2.f and A.I.2.g above are intended for clarification of current regulatory applicability under this permit at time of issuance, and are not intended to address or prohibit any change that could otherwise be processed under OAC rule 3745-77-07(I).

II. Operational Restrictions

1. The total monthly coating usage in emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 920.0 gallons.
2. The total monthly usage of cleanup material in emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 69.0 gallons.
3. The permittee shall not operate more than two upflush room coaters (emissions units R010, R011, R012, R013, or R014) at any time.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each day for emissions units R010, R011, R012, R013, and R014:
 - a. the actual coating time for each emissions unit;
 - b. the duration of time during which more than two upflush room coaters (emissions units R010, R011, R012, R013, or R014) operated at one time, in hours;
 - c. the name and identification of each coating and cleanup material as applied;
 - d. the OC content of each coating, in pounds per gallon, excluding water and exempt solvents, as applied;
 - e. the OC content of each cleanup material, in pounds per gallon, as applied; and
 - f. the number of gallons of each coating, excluding water and exempt solvents, and each cleanup material as applied.
2. The permittee shall collect and record the following information each month for emissions units R010, R011, R012, R013, and R014, combined:
 - a. the total number of gallons of coating, excluding water and exempt solvents, as applied;
 - b. the total number of gallons of cleanup materials, as applied;
 - c. the total OC emissions from coating and cleanup operations, in tons; and
 - d. the rolling, 12-month summation of the OC emission rate for all coatings and cleanup materials, in tons.
3. For each day during which the permittee employs a coating other than a non-photochemically reactive material, the permittee shall maintain a record of the type and quantity of coating used in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. any time periods during which more than two upflush room coaters (emissions units R010, R011, R012, R013, and R014) operated at one time;
 - b. any exceedences of the coating OC content limitation for emissions units R010, R011, R012, R013, and R014;
 - c. any exceedences of the cleanup material OC content limitation for emissions units R010, R011, R012, R013, and R014;
 - d. any exceedences of the monthly coating usage limitation for emissions units R010, R011, R012, R013, and R014, combined;
 - e. any exceedences of the monthly cleanup material usage limitation for emissions units R010, R011, R012, R013, and R014, combined;
 - f. any exceedences of the monthly combined OC emission limitation for emissions units R010, R011, R012, R013, and R014;
 - g. any exceedences of the combined rolling, 12-month summation of the OC emission rate for all coatings and cleanup materials from emissions units R010, R011, R012, R013, and R014; and
 - h. all periods of time when a photochemically reactive material was employed in this emissions unit.

The quarterly deviation reports shall be submitted in accordance with Part I - General Term and Condition A.1.c.ii.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:
 - 1.a Emission Limitation -
The total combined OC emission rate from any two upflush room coaters (emissions units R010, R011, R012, R013 and R014) shall not exceed 30.3 pounds per hour.

Applicable Compliance Method -

The hourly emission limitation was developed by multiplying the maximum hourly coating throughput for any two upflush room coaters (emissions units R010, R011, R012, R013, and R014), of 5.0 gallons per hour by the maximum coating OC content of 6.06 pounds per gallon (PTI application 01-2780).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18, 25, or 25A, as appropriate.

- 1.b Emission Limitation -
OC emissions from emissions units R010, R011, R012, R013, and R014, combined, shall not exceed 3.02 tons per month.

Applicable Compliance Method -

Compliance shall be based on the record keeping in Section A.III.2.

- 1.c Emission Limitation -
The OC content of each coating, excluding water and exempt solvents, employed in emissions units R010, R011, R012, R013, and R014 shall not exceed 6.06 pounds per gallon.

Applicable Compliance Method -

Compliance shall be based on the record keeping in Section A.III.1.

V. Testing Requirements (continued)

- 1.d** Emission Limitation -
The OC content of each cleanup material employed in emissions units R010, R011, R012, R013, and R014 shall not exceed 6.8 pounds per gallon.

Applicable Compliance Method -
Compliance shall be based on the record keeping in Section A.III.1.

- 1.e** Emission Limitation -
The combined rolling, 12-month summation of the OC emission rate for all coatings and cleanup materials from emissions units R010, R011, R012, R013, and R014 shall not exceed 36.24 tons per year.

Applicable Compliance Method -
Compliance shall be based on the record keeping in Section A.III.2.

- 2.** Formulation data or USEPA Method 24 (40 CFR Part 60, Appendix A) shall be used to determine the OC contents of the coatings. Formulation data shall be used to determine the OC contents of the cleanup materials. The Director may require that USEPA Method 24 be used to determine the OC contents of the coatings. If, pursuant to Method 24, an owner or operator determines that Method 24 cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24.

VI. Miscellaneous Requirements

- 1.** Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 01-2780, issued on 10/28/92: Section A.III.2.d. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.
- 2.** Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install # 01-2780, issued on 10/28/92: Section A.IV.1.e. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

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>
upflush room coater #13 - Nitro coating		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. 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 (typically for 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.).
2. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Downflush coater #16 (R015)

Activity Description: Downflush coater # 16 for fluorescent lamp manufacturing with dryer and bulb wash; 10.8 mmBtu/hr

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>
downflush coater #16 with 10.8 mmBtu/hr drying oven	OAC rule 3745-31-05(A)(3) (PTI 01-4603)	Nitrogen oxides emissions shall not exceed 1.03 pounds per hour.
		Carbon monoxide emissions shall not exceed 0.86 pound per hour.
		Volatile organic compound emissions shall not exceed 1.41 pounds per hour.
		Ammonia emissions shall not exceed 2.56 pounds per hour.
		Monoethanolamine (MEA) emissions shall not exceed 1.40 pounds per hour.
		The requirements of this rule also include compliance with OAC rules 3745-17-07(A), 3745-17-11(B), and 3745-21-07(G).
		See A.I.2.a, A.I.2.b and A.II.1 below.
	OAC rules 3745-21-08(B) and 3745-23-06	See A.I.2.c below.
	OAC rule 3745-21-07(G)	See A.I.2.d below.
	OAC rule 3745-18-06(E)(2)	See A .I.2.e below.
	OAC rule 3745-17-11(B)(1)	See A.I.2.f below.
	OAC rule 3745-17-07(A)	See A.I.2.g below.

2. Additional Terms and Conditions

- The permittee shall maintain tight fitting covers on the coating mixing tanks except that no hose opening shall have a diameter more than 1.5 inches greater than the outside diameter of the hose to be situated in the opening.

2. Additional Terms and Conditions (continued)

- 2.b** The permittee shall use water-based coatings in phosphorous coating operations at all times this emissions unit is in operation.

"Water-based coatings" shall be defined, per OAC rule 3745-21-07(G)(9)(c)(ii), as a liquid organic material comprised not more than 20% of said volatile content.

- 2.c** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-4603.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-4603.

- 2.d** To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

- 2.e** The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the glass bulbs, alumina slurry, and phosphorous coating suspension. The total weight of the glass bulbs, alumina slurry, and phosphorous coating suspension could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the glass bulbs, alumina slurry, and phosphorous coating suspension to establish the sulfur dioxide allowable emission limitation would yield a relatively high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

- 2.f** The uncontrolled mass rate of particulate emissions (PE)* from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero. "Process weight" is defined in OAC rule 3745-17-01(B)(14).

* The burning of natural gas is the only source of PE from this emissions unit.

- 2.g** This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

- 2.h** The hourly emission limitations are based on the emissions unit's potentials to emit. Therefore, additional monitoring, record keeping and reporting requirements are not necessary to ensure compliance with these emission limitations.

- 2.i** Sections A.I.2.c through A.I.2.h above are intended for clarification of current regulatory applicability under this permit at time of issuance, and are not intended to address or prohibit any change that could otherwise be processed under OAC rule 3745-77-07(I).

II. Operational Restrictions

1. The permittee shall burn only natural gas, or other such 'inherently clean' fuel that would result in emissions that comply with the limitations and restrictions of this permit, 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 or other such 'inherently clean' fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. For each day during which the permittee employs a coating other than a non-photochemically reactive material, the permittee shall maintain a record of the type and quantity of coating used in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. each day when a fuel other than natural gas or other such 'inherently clean' fuel was burned in this emissions unit; and
 - b. all periods of time when a photochemically reactive material was employed in this emissions unit.

The quarterly deviation reports shall be submitted in accordance with Part I - General Term and Condition A.1.c.ii.

V. Testing Requirements

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

- 1.a Emission Limitation -
Nitrogen oxides emissions shall not exceed 1.03 pounds per hour.

Applicable Compliance Method -

Compliance may be demonstrated by multiplying the emission factor for natural gas combustion of 100 lbs NOx/mmcu.ft. (AP-42, 1998) by the maximum dryer throughput of 10,281 cu.ft./hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

- 1.b Emission Limitation -
Carbon monoxide emissions shall not exceed 0.86 pound per hour.

Applicable Compliance Method -

Compliance may be demonstrated by multiplying the emission factor for natural gas combustion of 84 lbs CO/mmcu.ft. (AP-42, 1998) by maximum dryer throughput of 10,281 cu.ft./hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

V. Testing Requirements (continued)

- 1.c** Emission Limitation -
Volatile organic compound emissions shall not exceed 1.41 pounds per hour.

Applicable Compliance Method -

Compliance shall be demonstrated by summing the maximum VOC emissions from natural gas combustion and the coating operation.

The VOC emissions from natural gas combustion may be determined by multiplying the emission factor for natural gas combustion of 11 lbs VOC/mmcu.ft. (AP-42, 1998) by maximum dryer throughput of 10,281 cu.ft./hr.

The VOC emissions from the coating operation may be determined by multiplying the maximum usage of the primary coating (23.3 gals/hr) by the primary coating's maximum VOC content of 0.449 lb VOC/gal. Then multiplying the maximum usage of the secondary coating (0.044 gal/hr) by the secondary coating's maximum VOC content of 3.94 lbs/gal and summing the two emission rates (PTI application 01-4603).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18, 25 or 25A, as appropriate.

Formulation data or USEPA Method 24 (40 CFR Part 60, Appendix A) shall be used to determine the volatile organic compound contents of the coatings. The Director may require that USEPA Method 24 be used to determine the volatile organic compound contents of the coatings. If, pursuant to Method 24, an owner or operator determines that Method 24 cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24.

- 1.d** Emission Limitation -
Ammonia emissions shall not exceed 2.56 pounds per hour.

Applicable Compliance Method -

Compliance may be determined by multiplying the maximum usage of the ammonia containing coating (23.3 gals/hr) by the ammonia content (0.11 lb/gal) (PTI 01-4603 application).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and CTM-027. Alternative U.S. EPA-approved methods may be used with prior approval from the Ohio EPA.

- 1.e** Emission Limitation:
MEA emissions shall not exceed 1.40 pounds per hour.

Applicable Compliance Method:

Compliance may be determined by multiplying the maximum usage of the MEA containing coating (23.3 gals/hr) by the MEA content (0.06 lb/gal) (PTI 01-4603 application).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18. Alternative U.S. EPA-approved methods may be used with prior approval from the Ohio EPA.

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>
downflush coater #6 with 7.7 mmBtu/hr drying oven		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. Physical changes to or changes in the method of operation of the emissions unit 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 (typically for 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; 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.).
2. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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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