



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

4/11/2013

Certified Mail

Troy Smith
GE Circleville Lamp Plant
G. E. Lighting, Inc - Circleville Lamp
559 East Ohio Street
Circleville, OH 43113

Facility ID: 0165010026
Permit Number: P0104736
County: Pickaway

RE: PRELIMINARY PROPOSED AIR POLLUTION TITLE V PERMIT
Permit Type: Renewal

Dear Permit Holder:

Enclosed is the Ohio Environmental Protection Agency (EPA) Preliminary Proposed Title V permit that was issued in draft form on 3/7/2013. The comment period for the Draft permit has ended. We are now ready to submit this permit to U.S. EPA for approval.

We are submitting this for your review and comment. If you do not agree with the Preliminary Proposed Title V permit as written, you now have the opportunity to raise your concerns. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. Comments will be accepted as a marked-up copy of the permit or in narrative format. Any comments must be sent to the following within 14 days of your receipt of this letter:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

and Ohio EPA DAPC, Central District Office
50 West Town Street, 6th Floor
P.O. Box 1049
Columbus, OH 43216-1049

If you believe that it is necessary to have an informal conference with us, then, as part of your written comments, you should request a conference concerning the written comments. If comments are not submitted within 14 days of your receipt of this letter, we will forward the proposed permit to U.S. EPA for approval. All comments received will be carefully considered before proceeding with the proposed permit.

Sincerely,

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

Cc: Ohio EPA DAPC, Central District Office



Response to Comments

Facility ID:	0165010026
Facility Name:	GE Circleville Lamp Plant
Facility Description:	Electric lamps
Facility Address:	G. E. Lighting, Inc - Circleville Lamp 559 East Ohio Street Circleville, OH 43113 Pickaway County
Permit:	P0104736, Title V Permit - Renewal
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the Circleville Herald on 03/09/2013. The comment period ended on 04/08/2013.	
Hearing date (if held)	
Hearing Public Notice Date (if different from draft public notice)	

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

1. Topic: None

- a. Comment: None
- b. Response: None



PRELIMINARY PROPOSED

Division of Air Pollution Control Title V Permit for GE Circleville Lamp Plant

Facility ID:	0165010026
Permit Number:	P0104736
Permit Type:	Renewal
Issued:	4/11/2013
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance



Division of Air Pollution Control
Title V Permit
for
GE Circleville Lamp Plant

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Preliminary Proposed Title V Permit

GE Circleville Lamp Plant

Permit Number: P0104736

Facility ID: 0165010026

Effective Date: To be entered upon final issuance

Authorization

Facility ID: 0165010026
Facility Description: Electric lamps
Application Number(s): A0014277, A0014278, A0036699, A0042405, A0045843
Permit Number: P0104736
Permit Description: Renewal Title V permit for fluorescent lamp manufacturing facility. Emissions units include upflush and downflush phosphor coating operations, filling and capping, bulb crushing, and cullet load-out.
Permit Type: Renewal
Issue Date: 4/11/2013
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Superseded Permit Number: P0083845

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

GE Circleville Lamp Plant
G. E. Lighting, Inc - Circleville Lamp
559 East Ohio Street
Circleville, OH 43113

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Central District Office
50 West Town Street, 6th Floor
P.O. Box 1049
Columbus, OH 43216-1049
(614)728-3778

The above named entity is hereby granted a Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. 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. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Ohio EPA DAPC, Central District Office. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months (540 days) and no later than 6 months (180 days) prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally
Director



Preliminary Proposed Title V Permit
GE Circleville Lamp Plant
Permit Number: P0104736
Facility ID: 0165010026
Effective Date: To be entered upon final issuance

A. Standard Terms and Conditions



1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
- (1) Standard Term and Condition A. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions
 - (2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions
 - (3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting
 - (4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(Authority for term: ORC 3704.036(A))

2. 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 C. Emissions Unit Terms and Conditions of this Title V permit), the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
- (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) 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:

- (1) 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 (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c)(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) 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))

- (2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions 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 (i.e., postmarked) 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 deviation reports shall satisfy the requirements 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. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

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 satisfies the reporting requirements specified in this Standard 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 (for the deviations so reported) the requirements 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 Standard Term and Condition.

See A.29 below if no deviations occurred during the quarter.

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

- (3) 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 Standard Term and Condition A.2)c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.19, A.20, A.21, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted (i.e., postmarked) 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. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable requirements not specifically addressed by permit or rule for the



insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

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 and 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 Standard Term and Condition A.2.c)(2) 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) and OAC rule 3745-77-07(A)(13)(b))

- (4) 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))

- (5) Reports of any required monitoring and/or record keeping information shall be submitted to Ohio EPA DAPC, Central District Office.

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

3. 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 Standard Term and Condition A.2.c)(1) above.

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

4. 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))

5. 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))

6. 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))

7. 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 Standard Term and Condition A.11 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.

- f) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:
- (1) the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or
 - (2) the permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or
 - (3) a combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminant sources once this permit ceases to be enforceable. The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.

(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

8. 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))

9. 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))

10. 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 standard terms and conditions shall apply to all operating scenarios authorized in this permit.



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

11. 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))

12. 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))

13. 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:
 - (1) 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.



- (2) 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.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) 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:
- (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) 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:
- (1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted (i.e., postmarked) on or before April 30th of each year during the permit term.
 - (2) 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.



- (3) 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))

14. 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))

15. 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))

16. 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))

17. Off-Permit Changes

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



- a) The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.
- b) The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.
- c) The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).
- d) The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- e) The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

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

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

18. 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.)

19. Insignificant Activities or Emissions Levels

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

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

20. 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))



21. 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))

22. 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 from the responsible official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

After the date on which 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 Title V permit 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.

(Authority for term: OAC rule 3745-77-01)

23. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

- a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.
- b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.
- c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(Authority for term: OAC rule 3745-77-01(H)(11))



24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only

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 (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

25. Records Retention Requirements Under State Law Only

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.

26. 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.

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



27. 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).

28. 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.

(Authority for term: OAC rule 3745-77-01(C))

29. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

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 (i.e., postmarked) 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 Standard Term and Condition A.2.c)(2); or
- 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; or
- c) where the company's responsible official has certified that an emissions unit has been permanently shut down.



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GE Circleville Lamp Plant
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Facility ID: 0165010026
Effective Date: To be entered upon final issuance

B. Facility-Wide Terms and Conditions



1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

a) None.

2. The GE Circleville Lamp Plant shall limit the facility wide use of natural gas to avoid major source status of the facility for Green House Gas (GHG) emissions.

a) Operational Restriction

This facility has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the natural gas usage, upon issuance of this permit. The maximum annual facility wide natural gas usage for the facility shall not exceed 1200 million standard cubic feet based upon a rolling, 12-month summation of the natural gas usage figures.

[Authority for terms: OAC 3745-77-07(B)]

b) Record Keeping Requirements

The permittee shall maintain monthly records of the following information:

- (1) the natural gas usage for each month; and
- (2) the rolling, 12-month summation of the natural gas usage.

c) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

(2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

- (a) all exceedances of the rolling, 12-month natural gas usage limitation.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[OAC rule 3745-15-03(B)(1)(a)], [OAC rule 3745-15-03(C)], and [OAC rule 3745-77-07(A)(3)(c)]

d) Testing Requirements

This usage limit would equate to approximately 72,000 tons of CO₂e emissions according to emission factors published in 40 CFR 98 regarding Mandatory of Greenhouse Gas Reporting.



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

- a) B007 – Fire water diesel pump
- b) F001 – Roadways and parking lots
- c) K001 – Basefill machine 1
- d) K002 – Basefill machine 2
- e) K003 – Basefill machine 3
- f) K004 – Basefill machine 4
- g) K005 – Basefill machine 5
- h) K006 – Basefill machine 6
- i) K007 – Basefill machine 7
- j) L005 – Nitro clean tank
- k) P004 – Group No. 18
- l) P008 – Specialty lehr 1
- m) P017 – HLBX including grit blaster
- n) P023 – Flare machines
- o) P024 – Group No. 16
- p) P026 – Group No. 26
- q) P028 – Base cement mixing
- r) P030 – Group No. 21
- s) P039 – Group No. 7
- t) P042 – Group No. 22
- u) P043 – Group No. 24
- v) P044 – Group No. 17
- w) P051 – Group 21 lehr

Each insignificant emissions unit at this facility must comply with all 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



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permit to install requirements are subject to one or more applicable requirements contained in the federally-approved versions of OAC rule 3745.

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



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C. Emissions Unit Terms and Conditions



1. B004, DF htr.fan room #4

Operations, Property and/or Equipment Description:

11.2 mmBtu Natural Gas DF Heater Fan Room No. 4

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 01-4250)	Nitrogen oxides emissions shall not exceed 1.1 pounds per mmBtu heat input. Carbon monoxide emissions shall not exceed 0.9 pound per mmBtu heat input.
b.	OAC rule 3745-17-11(B)(1)	None, see b)(2)a. below.
c.	OAC rule 3745-17-07(A)	None, see b)(2)b. below.

(2) Additional Terms and Conditions

a. 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.

b. 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.

c) 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.



[Authority for term – OAC 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping 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.

[Authority for term – OAC 3745-77-07(C)]

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit 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.

Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term – OAC 3745-77-07(A)(3)(c)]

f) Testing Requirements

- (1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

- 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 lbsNOx/mm³cu.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.

- 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/mm³cu.ft. (AP-42, section 1.4, 1998) by the maximum throughput of 10,695 cu.ft./hr.



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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.

[Authority for term – OAC 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.



2. P007, Upflush coater #5

Operations, Property and/or Equipment Description:

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-11(B)(1)	None, see b)(2)a. below.
b.	OAC rule 3745-17-07(A)	None, see b)(2)b. below.
c.	OAC rule 3745-18-06(E)(2)	Sulfur dioxide emissions shall not exceed 33.9 pounds/hour.

(2) Additional Terms and Conditions

a. 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.

b. 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.

c) 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.

[Authority for term – OAC 3745-77-07(A)(1)]



d) Monitoring and/or Recordkeeping 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.

[Authority for term – OAC 3745-77-07(C)]

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term – OAC 3745-77-07(A)(3)(c)]

f) Testing Requirements

- (1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

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.

[Authority for term – OAC 3745-77-07(C)(1)]

g) Miscellaneous Requirements

- (1) None.



3. P014, Bulb crusher

Operations, Property and/or Equipment Description:

P014 - Bulb crusher / MRT system with fabric filters and carbon adsorption units

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)d., d)(3), d)(4), d)(5), d)(6) and e)(4)

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(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 b)(2)a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).
b.	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
c.	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).
d.	ORC 3704.03(F)(4)(d)	See d)(3), d)(4), d)(5), d)(6) & e)(4)
e.	40 CFR 64 (Compliance Assurance Monitoring)	See c)(1), c)(2), d)(1), d)(2)



(2) Additional Terms and Conditions

- a. Best available technology (BAT) for this emissions unit has been determined to be the following:
 - i. for the chopper house and 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 hopper: 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 hopper shall achieve an overall control efficiency of 99.5% and 100% capture efficiency for PE and Hg.

- b. In order to avoid federal applicable requirements in 40 CFR 64 (Compliance Assurance Monitoring), the maximum annual operating hours for this emissions unit shall not exceed 3000 hours, based upon a rolling, 12-month summation of the operating hours.

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

c) 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.
- (2) Emissions from the sieve and sieve hopper shall be vented to a cyclone and fabric filter (carbon pre-filter) followed by a carbon adsorption unit whenever this emissions unit is operating.

[Authority for term – OAC 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping 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 whenever this emissions unit is operating.
- (2) Whenever the pressure drop is outside of the range specified below (hereinafter the "Pressure Drop Range"), the permittee shall promptly conduct an investigation to determine if there is a malfunction of the fabric filter (carbon pre-filter) and, if so, comply with the requirements of OAC rule 3745-15-06. For each such occasion (i.e. when the recorded pressure drop is outside of the Pressure Drop Range), the permittee shall



record the number of days during which the pressure drop remained outside of the Pressure Drop Range and a description of the maintenance or repairs, if any, made to the fabric filter (carbon pre-filter). If upon the investigation the permittee determines there is no malfunction that is subject to OAC rule 3745-15-06, the permittee shall also maintain records documenting the basis for such determination

Pressure Drop Range is 0.1 - 1 inches of water.

This pressure Drop Range is effective for the duration of this permit, unless a revision is requested by the permittee and approved in writing by the Ohio EPA, Central District Office. The permittee may request revisions to the range based upon information that demonstrates compliance with the allowable particulate emission limit for this emissions unit. If the permittee submits a written request to establish a new Pressure Drop Range, Ohio EPA shall promptly evaluate and act on that request and, if approved, incorporate the new range into this permit as a minor permit modification.

- (3) The permit-to-install (PTI) application 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. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:
 - a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
 - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
 - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
 - b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).



- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., “X” hours per day and “Y” days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or “worst case” toxic contaminant(s):

Toxic Contaminant: **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**

The permittee, has demonstrated that emissions of mercury, from emissions unit P014, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F).

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (4) Prior to making any physical changes to or changes in the method of operation of the emissions unit, that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
 - a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV 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 toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
 - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the “Toxic Air Contaminant Statute” 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 a non-restrictive change to a parameter or process operation, where compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a



“modification”, the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (5) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F):
- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
 - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F);
 - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
 - d. the documentation of the initial evaluation of compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (6) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (7) The permittee shall maintain monthly records of the following information:
- a. the operating hours for each month; and
 - b. the rolling, 12-month summation of the operating hours.



e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit semiannual reports that identify the following information concerning operation of the fabric filter (carbon pre-filter) during the operation of this emission unit:
 - a. the total duration (in days) that the pressure drop across the fabric filter (carbonpre-filter) was outside the Pressure Drop Range;
 - b. any and all omissions of the monitoring, recordkeeping, investigation, and malfunction reporting requirements specified in Section c) of this permit; and
 - c. all exceedances of the rolling, 12-month limitation on the hours of operation for this emissions unit.

- (3) The permittee shall submit annual reports that specify the total mercury and particulate emissions from this emission unit for the previous calendar year. These 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.

[Authority for term – OAC 3745-77-07(A)(3)(c)]

- (4) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Toxic Air Contaminate Statute", ORC 3704.03(F), through the predicted 1 hour maximum concentration. The report should include:
 - a. the original model input;
 - b. the updated model input;
 - c. the reason for the change(s) to the input parameter(s); and
 - d. a summary of the results of the updated modeling, including the input changes; and
 - e. a statement that the model results indicate that the 1-hour maximum ground-level concentration is less than 80% of the MAGLC.

If no changes to the emissions, emissions unit(s), or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01] and Option A, Engineering Guide #70



f) Testing Requirements

(1) Compliance with the emission limitations specified in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Particulate emissions shall not exceed 1.2 pounds per hour.

Applicable Compliance Method:

The emission limitation was established by multiplying a maximum bulb crushing rate of 6600 bulbs per hour, a "worst case" PE rate of 7.0 grams per bulb (based on a maximum phosphor content), a conversion factor of 1 lb/453.59 grams, an overall control efficiency of 99%, plus a 20% safety factor. The permittee shall demonstrate compliance with the hourly limitation by the most recent emissions test and in accordance with Ohio EPA Engineering Guide 16.

b. Emissions Limitation:

Particulate emissions shall not exceed 5.3 ton per year

Applicable Compliance Method:

The annual emission limitation was established by multiplying the lb per hour limitation (1.2 lb 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 lb per hour limitation, compliance with the ton per year limitation will also be demonstrated.

c. Emission Limitation:

Mercury emissions shall not exceed 0.0036 pound per hour

Applicable Compliance Method:

The emission limitation was established by multiplying a maximum bulb crushing rate of 6,000 bulbs per hour, a maximum Hg content of 50.0 mg per bulb, conversion factors of 1 g/1000 mg and 1 lb/453.59 g, and an overall control efficiency of 99.5%. The permittee shall demonstrate compliance with the hourly limitation by the most recent emissions test and in accordance with Ohio EPA Engineering Guide 16.

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.

e. Emission Limitation:

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



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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).

[Authority for term – OAC 3745-77-07(C)(1)]

g) **Miscellaneous Requirements**

(1) None.



4. P020, Group No. 15

Operations, Property and/or Equipment Description:

P020 - Lamp assembly line - Group 15 with baghouse for endbrushing

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(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.
b.	OAC rule 3745-17-11(B)(1)	See b)(2)a. 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).
c.	OAC rule 3745-17-07(A)	Visible particulate emissions shall not



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		exceed 20% opacity, as a 6-minute average, except as provided by rule.

(2) Additional Terms and Conditions

a. The permittee shall vent all emissions from the endbrushing operation through a baghouse.

c) 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.

[Authority for term – OAC 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping 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 monitor at least once every fifteen minutes the pressure drop across the baghouse during operation of this emissions unit, and record the average of those values over the period during which this emissions unit operates each day. For purposes of this requirement, the permittee shall record on average total pressure drop value for each day for a period beginning at midnight or such time after midnight when the emissions unit begins to operate and ending at the time the emissions unit ceases that day or at midnight should the emissions unit operated beyond midnight. If the emissions unit starts and stops more than once during this 24-hour period, the permittee shall record the average value for the time during this 24-hour period when the emissions unit is in operation. Hereinafter this value shall be called a "Daily Pressure Drop Value".

Whenever the Daily Pressure Drop Value is outside of the range specified below (hereinafter the "Pressure Drop Range"), the permittee shall promptly conduct an investigation to determine if there is a malfunction of the baghouse, and if so, comply with the requirements of OAC rule 3745-15-06. For each such occasion (i.e. when a Daily Pressure Drop Value is outside of the Pressure Drop Range), the permittee shall record the number of days during which the Daily Pressure Drop Value remained outside of the Pressure Drop Range and a description of the maintenance and repairs, if any, made to the baghouse. If upon the investigation the permittee determines that there is no malfunction that is subject to OAC rule 3745-15-06, the permittee shall also maintain records documenting the basis for such determination.



Pressure Drop Range is 1 - 4 inches of water

The Pressure Drop Range is effective for the duration of this permit, unless a revision is requested by the permittee and approved in writing by the Ohio EPA, Central District Office. The permittee may request revisions to the range based upon information that demonstrates compliance with the allowable particulate emission rate for this emission unit. If the permittee submits a written request to establish a new Pressure Drop Range, Ohio EPA shall promptly evaluate and act on that request, and, if approved, incorporate the new range into this permit as a minor permit modification.

[Authority for term – OAC 3745-77-07(C)]

- (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.

[Authority for terms – OAC 3745-77-07(C)]

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit 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. Each report shall be submitted within 30 days after the deviation occurs.
- (3) The permittee shall submit semiannual reports that identify the following information concerning the operation of the baghouse during the operation of this emissions unit:
 - a. The total duration (in days) that the Daily Pressure Drop Value was outside of its applicable pressure drop range; and
 - b. Each day when a fuel other than natural gas or other such "inherently clean" fuel was burned in the emissions unit.

The semiannual reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[OAC rule 3745-15-03(B)(1)(a)], [OAC rule 3745-15-03(C)], and [OAC rule 3745-77-07(A)(3)(c)]

- (4) The permittee shall also submit annual reports that specify the total particulate, sulfur dioxide, nitrogen oxides, carbon monoxide, volatile organic compounds, 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.



[Authority for terms – OAC 3745-77-07(A)(3)(c)]

f) Testing Requirements

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

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)

The long term combustion emissions shall be calculated by multiplying the maximum short term emission by 8,760 hours per year and dividing by 2,000 pounds per ton. The long term assembly emissions shall be calculated by multiplying the baghouse emission rate by 8,760 hours per year and dividing by 2,000 pounds per 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.

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 short term combustion emissions shall be calculated by multiplying the emission factor for natural gas combustion of 0.06 lbs SO₂/mm³.ft. (AP-42, 1998) by the maximum dryer throughput of 13,300 cu ft/hr. The short term assembly operation emissions shall be calculated by multiplying the emission rate of 0.825 lb/hr (SEC, Inc., Chemical Usage Evaluation, 1997) by the percent increase in throughput of 25% (1.25).

The long term combustion emissions shall be calculated by multiplying the maximum short term emissions by 8760 hours per year divided by 2000 pounds per ton. The long term assembly operation emissions shall be calculated by multiplying the maximum short term emissions by 8760 hours per year and dividing by 2000 pounds per ton.



- 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 short term emissions limitation shall be demonstrated by multiplying the emission factor for natural gas combustion of 100 lbsNOx/mm³.ft (AP-42, 1998) by the maximum dryer throughput of 13,000 cu.ft./hr.

Compliance with the long term emissions limitation shall be demonstrated by multiplying the maximum hourly emission rate by 8760 hours per year and dividing by 2000 pounds per ton.

- 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 short term emissions limitation shall be demonstrated by multiplying the emission factor for natural gas consumption of 84 lbs CO/mm³.ft. (AP-42, 1998) by the maximum dryer throughput of 13,300 cu.ft./hr.

Compliance with the long term emissions limitation shall be demonstrated by multiplying the maximum hourly emission rate by 8670 hours per year and dividing by 2000 pounds per ton.

- 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).



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Headmarking Ink Cleanup - 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 base fill 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.

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

Applicable Compliance Method:

Compliance with the short term emissions limitation shall be demonstrated by the maximum emissions of 0.002 lb/hr (SEC, Inc., Chemical Usage Evaluation, 1997) by the percent increase in the throughput of 25% (1.25).

The long term assembly operation emissions shall be demonstrated by multiplying the maximum short term emissions by 8760 hours per year and dividing by 2000 pounds per ton.

[Authority for term – OAC 3745-77-07(C)(1)]



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g) Miscellaneous Requirements

(1) None.



5. P045, Central Lehr 1

Operations, Property and/or Equipment Description:

Central Lehr 1 with end-brushing operation controlled by a baghouse

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
b.	OAC rule 3745-17-11(B)	Particulate emissions shall not exceed 4.61 pounds per hour.
c.	OAC rule 3745-18-06(E)	Sulfur dioxide emissions shall not exceed 33.71 pounds per hour.

(2) Additional Terms and Conditions

a. None.

c) 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.

[Authority for term – OAC 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping 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) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 1 to 4 inches of water.



[Authority for term – OAC rule 3745-77-07(C)(1)]

- (3) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by



the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for term – OAC 3745-77-07(C)]

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit 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. Each report shall be submitted within 30 days after the deviation occurs.
- (3) The permittee shall submit quarterly reports that identify the following information concerning the operation of the baghouse during operation of this emissions unit:
 - a. The total duration (in days) that its daily pressure drop value was outside of its applicable pressure drop range.

The quarterly reports shall be submitted in accordance with the specifications in the general terms and conditions.

- (4) The permittee shall submit semi-annual reports that identify any and all omissions of the monitoring, record keeping, investigation, and malfunction reporting requirements specified in the general terms and conditions.

The semiannual monitoring reports shall be submitted by January 31 for the six-month period ending December 31 and by July 31 for the six-month period ending June 30 in accordance with the general terms and conditions.

[Authority for term – OAC 3745-77-07(A)(3)(c)]

f) Testing Requirements

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



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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/mm³.ft. (AP-42, 1.4, 1998) by the maximum lehr throughput of 0.0136 mm³.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).

- 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).

- 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/mm³.ft. (AP-42, 1.4, 1998) by the maximum dryer throughput of 0.0136 mm³.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.

[Authority for term – OAC 3745-77-07(C)(1)]

- g) Miscellaneous Requirements
 - (1) None.



6. P046, Central Lehr 2

Operations, Property and/or Equipment Description:

Central Lehr 2

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
b.	OAC rule 3745-17-11(B)	Particulate emissions shall not exceed 7.74 pounds per hour.
c.	OAC rule 3745-18-06(E)	Sulfur dioxide emissions shall not exceed 56.61 pounds per hour.

(2) Additional Terms and Conditions

a. None.

c) 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.

d) Monitoring and/or Recordkeeping 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) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 1 to 4 inches of water.

[Authority for term – OAC rule 3745-77-07(C)(1)]



- (3) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information



obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for term – OAC 3745-77-07(C)]

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit 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. Each report shall be submitted within 30 days after the deviation occurs.
- (3) The permittee shall submit quarterly reports that identify the following information concerning the operation of the baghouse during operation of this emissions unit:
 - a. The total duration (in days) that its daily pressure drop value was outside of its applicable pressure drop range.

The quarterly reports shall be submitted in accordance with the specifications in the general terms and conditions.

- (4) The permittee shall submit semi-annual reports that identify any and all omissions of the monitoring, record keeping, investigation, and malfunction reporting requirements specified in the general terms and conditions.

The semiannual monitoring reports shall be submitted by January 31 for the six-month period ending December 31 and by July 31 for the six-month period ending June 30 in accordance with the general terms and conditions.

[Authority for term – OAC 3745-77-07(A)(3)(c)]

f) Testing Requirements

- (1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:
 - 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/mm³.ft. (AP-42, 1.4, 1998) by the maximum lehr throughput of 0.0313 mm³.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).

- 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).

- 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/mm³.ft. (AP-42, 1.4, 1998) by the maximum dryer throughput of 0.0313 mm³.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.

[Authority for term – OAC 3745-77-07(C)(1)]

- g) Miscellaneous Requirements

- (1) None.



7. P901, Glass Cullet truck loading system

Operations, Property and/or Equipment Description:

Truck loading operations of crushed bulbs and lamps, controlled with baghouse and carbon adsorption

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 01-6394)	<p>Particulate emissions shall not exceed 0.02 gr/dscf.</p> <p>Particulate emissions shall not exceed 0.37 pound per hour and 0.20 ton per year.</p> <p>Mercury emissions shall not exceed 0.017 pound per hour.</p> <p>Mercury emissions shall not exceed 0.01 ton per year.</p> <p>Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.</p> <p>Visible particulate fugitive emissions shall not exceed 10% opacity as a three-minute average.</p>
b.	OAC rule 3745-17-07(A)	See b)(2)a. below.
c.	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

- a. The permittee shall employ the telescoping chute and partial enclosure at their maximum control capabilities during all times of operation.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly operate and maintain equipment to monitor 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.
- (2) The permittee shall monitor and record the pressure drop across the fabric filter (carbon pre-filter) once each day that this emissions unit operates.

Whenever the pressure drop is outside of the range specified below, hereinafter the ("Pressure Drop Range"), the permittee shall promptly conduct an investigation to determine if there is a malfunction of the fabric filter (carbon pre-filter), and if so, comply with the requirements of OAC rule 3745-15-06. For each such occasion (i.e. when the recorded pressure drop is outside the Pressure Drop Ranges), the permittee shall record the number of days during which the pressure drop remained outside of the Pressure Drop Range and a description of the maintenance or repairs, if any, made to the fabric filter (carbon pre-filter). If upon the investigation the permittee determines that there is no malfunction that is subject to OAC rule 3745-15-06, the permittee shall also maintain records documenting the basis for such determination.

Pressure Drop Range is 0.1 - 1 inches of water

The Pressure Drop Range is effective for the duration of this permit, unless a revision is requested by the permittee and approved in writing by the Ohio EPA, Central District Office. The permittee may request revisions to the range based upon information that demonstrates compliance with the allowable particulate emission limit for this emissions unit. If the permittee submits a written request to establish a new Pressure Drop Range, Ohio EPA shall promptly evaluate and act on that request and, if approved, incorporate the new range into this permit as a minor permit modification.

[Authority for term – OAC 3745-77-07(A)(3)(c)]

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.



- (2) The permittee shall submit quarterly reports that specify the following information concerning the operation of the fabric filter (carbon pre-filter) during the operation of the emissions unit:
 - a. The total duration (in days) that the pressure drop range across the fabric filter (carbon pre-filter) was outside the Pressure Drop Range.

The quarterly reports shall be submitted in accordance with the specifications in the general terms and conditions.

- (3) The permittee shall submit semiannual reports that identify any and all omissions of the monitoring, recordkeeping, investigation and malfunction reporting requirements specified in the general terms and conditions of this permit.

These semiannual monitoring reports shall be submitted by January 31 for the six-month period ending December 31 and by July 31 for the six-month period ending June 30, in accordance with the general terms and conditions of this permit.

- (4) 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.

[Authority for term – OAC 3745-77-07(A)(3)(c)]

f) Testing Requirements

- (1) Compliance with the emission limitations specified in Section 9.b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:
Particulate emissions shall not exceed 0.02 gr/dscf, 0.37 lb PM/hr, and 0.20 tpy

Applicable Compliance Method:

These limits were set by converting the BAT limit of 0.02 grains/dscf to pounds/hour to tons/year as follows:

$$(0.02 \text{ gr/dscf})(2152 \text{ dscf})(60 \text{ min/hr}) / (7000 \text{ gr/lb}) = 0.37 \text{ lb PM/hour}$$

$$(0.37 \text{ lb/hour})(1095 \text{ hours/year}) / (2000 \text{ \#/ton}) = 0.20 \text{ tpy PM}$$

If required, compliance with the 0.37 lbs PM/hour limit shall be based on stack testing per 40 CFR 60.8, Method 5.

- b. Emission Limitation:
Visible particulate emissions from the stack shall not exceed 20% opacity, as a 6-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 and the procedures specified in OAC rule 3745-17-03(B)(1).

c. **Emission Limitation:**

Visible particulate fugitive emission shall not exceed 10% opacity as a three-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 and the procedures specified in OAC rule 3745-17-03(B)(1).

d. **Emission Limitation:**

Mercury emissions shall not exceed 0.017 pound per hour and 0.01 tpy.

Applicable Compliance Method:

The December 17 and 18, 1991, General Electric Bulb Crusher mercury stack test yielded an average mercury emission rate of 0.017 lb/hr at maximum operating rates.

$$(0.017 \text{ lb/hour})(1095 \text{ hours/year}) / (2000\#/\text{ton}) = 0.01 \text{ tpy}$$

- (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



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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.

[Authority for term – OAC 3745-77-07(C)(1)]

g) Miscellaneous Requirements

- (1) None.



8. R001, Downflush coater #6

Operations, Property and/or Equipment Description:

Downflush Coater No. 6

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(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), and 3745-17-11(B). See b)(2)a and c)(1) below.
b.	OAC rule 3745-18-06(E)(2)	See b)(2)b. below.
c.	OAC rule 3745-17-11(B)(1)	See b)(2)c. below.
d.	OAC rule 3745-17-07(A)	See b)(2)d. below.

(2) Additional Terms and Conditions

a. When the tanks contain coating material, the permittee shall maintain tight fitting covers on the coating mixing tanks except that no hose or mixing equipment opening shall have a diameter more than 1.5 inches greater than the outside diameter of the hose or mixing equipment to be situated in the opening.



b. 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.

c. 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.

d. 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.

e. 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.

c) **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.

[Authority for term – OAC 3745-77-07(A)(1)]

d) **Monitoring and/or Recordkeeping 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.

[Authority for term – OAC 3745-77-07(C)]



e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) 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.

The quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

[Authority for term – OAC 3745-77-07(A)(3)(c)]

f) Testing Requirements

- (1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

- 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 lbsNO_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.

- 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/mm_{cu}.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.

- 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/mm³cu.ft. (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.

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.

[Authority for term – OAC 3745-77-07(C)(1)]

g) **Miscellaneous Requirements**

(1) None.



9. R002, Downflush coater #10

Operations, Property and/or Equipment Description:

Downflush Coater No. 10

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(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) and 3745-17-11(B). See b)(2)a. and c)(1) below.
b.	OAC rule 3745-18-06(E)(2)	See b)(2)b. below.
c.	OAC rule 3745-17-11(B)(1)	See b)(2)c. below.
d.	OAC rule 3745-17-07(A)	See b)(2)d. below.

(2) Additional Terms and Conditions

a. When the tanks contain coating material, the permittee shall maintain tight fitting covers on the coating mixing tanks except that no hose or mixing equipment opening shall have a diameter more than 1.5 inches greater than the outside diameter of the hose or mixing equipment to be situated in the opening.



b. 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.

c. 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.

d. 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.

e. 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.

c) **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.

[Authority for term – OAC 3745-77-07(A)(1)]

d) **Monitoring and/or Recordkeeping 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.

[Authority for term – OAC 3745-77-07(C)]



e) 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.

The quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

[Authority for term – OAC 3745-77-07(A)(3)(c)]

f) Testing Requirements

- (1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

- 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 lbsNOx/mm³cu.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.

- 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/mm³cu.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.

- 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/mm³cu.ft. (AP-42, 1998) by maximum dryer throughput of 11,853 cu.ft./hr.



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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.

- 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.

[Authority for term – OAC 3745-77-07(C)(1)]

- g) Miscellaneous Requirements
 - (1) None.



10. R003, Downflush coater #12

Operations, Property and/or Equipment Description:

Downflush Coater No. 12

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(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) and 3745-17-11(B). See b)(2)a., and c)(1) below.
b.	OAC rule 3745-18-06(E)(2)	See b)(2)b. below.
c.	OAC rule 3745-17-11(B)(1)	See b)(2)c. below.
d.	OAC rule 3745-17-07(A)	See b)(2)d. below.

(2) Additional Terms and Conditions

a. When the tanks contain coating material, the permittee shall maintain tight fitting covers on the coating mixing tanks except that no hose or mixing equipment opening shall have a diameter more than 1.5 inches greater than the outside diameter of the hose or mixing equipment to be situated in the opening.



- b. 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.
- c. 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.
- d. 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.
- e. 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.
- f. Sections b)(2)b through b)(2)e 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).

c) **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.

[Authority for term – OAC 3745-77-07(A)(1)]

d) **Monitoring and/or Recordkeeping 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.



[Authority for term – OAC 3745-77-07(C)]

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that 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 the General Terms and Conditions of this permit.

[Authority for term – OAC 3745-77-07(A)(3)(c)]

f) Testing Requirements

- (1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

- 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 lbsNOx/mm³cu.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.

- 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/mm³cu.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.

- 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.



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The VOC emissions from natural gas combustion may be determined by multiplying the emission factor for natural gas combustion of 11 lbs VOC/mm³.ft. (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.

- 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.

[Authority for term – OAC 3745-77-07(C)(1)]

- g) Miscellaneous Requirements
 - (1) None.



11. R005, Downflush coater #8

Operations, Property and/or Equipment Description:

Downflush coater 8 with oven (6.9 mmBTU/hr)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(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) and 3745-17-11(B). See b)(2)a. and c)(1) below.
b.	OAC rule 3745-18-06(E)(2)	See b)(2)b. below.
c.	OAC rule 3745-17-11(B)(1)	See b)(2)c. below.
d.	OAC rule 3745-17-07(A)	See b)(2)d. below.

(2) Additional Terms and Conditions

a. When the tanks contain coating material, the permittee shall maintain tight fitting covers on the coating mixing tanks except that no hose or mixing equipment opening shall have a diameter more than 1.5 inches greater than the outside diameter of the hose or mixing equipment to be situated in the opening.



- b. 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.
- c. 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.
- d. 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.
- e. 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.

c) 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.

[Authority for term – OAC 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping 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.

[Authority for term – OAC 3745-77-07(C)]



e) 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.

The quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

[Authority for term – OAC 3745-77-07(A)(3)(c)]

f) Testing Requirements

- (1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

- (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 lbsNO_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.

- (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.

- (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.



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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.

- (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.

[Authority for term – OAC 3745-77-07(C)(1)]

- g) Miscellaneous Requirements

- (1) None.



12. R006, Downflush coater #11

Operations, Property and/or Equipment Description:

Downflush coater 11 with oven (8.2 mmBTU/hr)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(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) and 3745-17-11(B). See b)(2)a. and c)(1) below.
b.	OAC rule 3745-18-06(E)(2)	See b)(2)b. below.
c.	OAC rule 3745-17-11(B)(1)	See b)(2)c. below.
d.	OAC rule 3745-17-07(A)	See b)(2)d. below.

(2) Additional Terms and Conditions

a. When the tanks contain coating material, the permittee shall maintain tight fitting covers on the coating mixing tanks except that no hose or mixing equipment opening shall have a diameter more than 1.5 inches greater than the outside diameter of the hose or mixing equipment to be situated in the opening.



b. 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.

c. 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.

d. 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.

e. 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.

c) **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.

[Authority for term – OAC 3745-77-07(A)(1)]

d) **Monitoring and/or Recordkeeping 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.

[Authority for term – OAC 3745-77-07(C)]



e) 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.

The quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

[Authority for term – OAC 3745-77-07(A)(3)(c)]

f) Testing Requirements

- (1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

- 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 lbsNO_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.

- 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.

- 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.



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The VOC emissions from natural gas combustion may be determined by multiplying the emission factor for natural gas combustion of 11 lbs VOC/mm³cu.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.

- 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.

[Authority for term – OAC 3745-77-07(C)(1)]

- g) Miscellaneous Requirements
 - (1) None.



13. R007, Downflush coater #15

Operations, Property and/or Equipment Description:

Downflush coater 15 with oven (10.4 mmBTU/hr) - This unit was modified with PTI 01-4306

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(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) and 3745-17-11(B). See b)(2)a. and c)(1) below.
b.	OAC rule 3745-18-06(E)(2)	See b)(2)b. below.
c.	OAC rule 3745-17-11(B)(1)	See b)(2)c. below.
d.	OAC rule 3745-17-07(A)	See b)(2)d. below.

(2) Additional Terms and Conditions

a. When the tanks contain coating material, the permittee shall maintain tight fitting covers on the coating mixing tanks except that no hose or mixing equipment opening shall have a diameter more than 1.5 inches greater than the outside diameter of the hose or mixing equipment to be situated in the opening.



- b. 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.
- c. 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.
- d. 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.
- e. 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.

c) 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.

[Authority for term – OAC 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping 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.

[Authority for term – OAC 3745-77-07(C)]



e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) 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.

The quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

[Authority for term – OAC 3745-77-07(A)(3)(c)]

f) Testing Requirements

- (1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

- 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 lbsNO_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.

- 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.

- 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.



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The VOC emissions from natural gas combustion may be determined by multiplying the emission factor for natural gas combustion of 11 lbs VOC/mm³.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.

- 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.

[Authority for term – OAC 3745-77-07(C)(1)]

- g) Miscellaneous Requirements

- (1) None.



14. R014, Upflush room Coater

Operations, Property and/or Equipment Description:

Nitro coating – upflush room coater #13

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI 01-2780)	See b)(2)b. through b)(2)e. and c)(1) through c)(2) below.
b.	OAC rule 3745-31-05(A)(3) (PTI 01-2780)	See b)(2)a. below.

(2) Additional Terms and Conditions

a. The organic compound (OC) content of each coating, excluding water and exempt solvents, employed shall not exceed 6.06 pounds per gallon.

b. The OC content of each cleanup material employed shall not exceed 6.8 pounds per gallon.

c. The total OC emission rate shall not exceed 30.3 pounds per hour.

d. The OC emission rate shall not exceed 3.02 tons per month.

e. The OC emission rate shall not exceed 36.24 tons per rolling, 12-month period.

f. The pounds per hour emission limitation specified in b)(2)c above reflects the potential to emit for this emissions unit based upon the maximum hourly coating throughput, 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.



c) Operational Restrictions

- (1) The total monthly coating usage shall not exceed 920.0 gallons.
- (2) The total monthly usage of cleanup shall not exceed 69.0 gallons.

[Authority for term – OAC 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information each day:
 - a. the actual coating time for this emissions unit;
 - b. the name and identification of each coating and cleanup material as applied;
 - c. the OC content of each coating, in pounds per gallon, excluding water and exempt solvents, as applied;
 - d. the OC content of each cleanup material, in pounds per gallon, as applied; and
 - e. 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:
 - 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.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. any exceedences of the coating OC content limitation;
 - b. any exceedences of the cleanup material OC content limitation;
 - c. any exceedences of the monthly coating usage limitation;
 - d. any exceedences of the monthly cleanup material usage limitation;
 - e. any exceedences of the monthly OC emission limitation; and



- f. any exceedences of the rolling, 12-month summation of the OC emission rate for all coatings and cleanup materials.

The quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

f) Testing Requirements

- (1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:
The total combined OC emission rate 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.

- b. Emission Limitation:
OC emissions shall not exceed 3.02 tons per month.

Applicable Compliance Method:

Compliance shall be based on the record keeping in Section d)(2).

- c. Emission Limitation:
The OC content of each coating, excluding water and exempt solvents, employed shall not exceed 6.06 pounds per gallon.

Applicable Compliance Method:

Compliance shall be based on the record keeping in Section d)(1).

- d. Emission Limitation:
The OC content of each cleanup material shall not exceed 6.8 pounds per gallon.

Applicable Compliance Method:

Compliance shall be based on the record keeping in Section d)(1).

- e. Emission Limitation:
The combined rolling, 12-month summation of the OC emission rate for all coatings and cleanup materials shall not exceed 36.24 tons per year.

Applicable Compliance Method:

Compliance shall be based on the record keeping in Section d)(2).



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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.

g) 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 d)(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 e)(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.



15. R015, Downflush coater #16

Operations, Property and/or Equipment Description:

Coater 16

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(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) and 3745-17-11(B). See b)(2)a. and c)(1) below.
b.	OAC rule 3745-18-06(E)(2)	See b)(2)b. below.
c.	OAC rule 3745-17-11(B)(1)	See b)(2)c. below.
d.	OAC rule 3745-17-07(A)	See b)(2)d. below.

(2) Additional Terms and Conditions

a. When the tanks contain coating material, the permittee shall maintain tight fitting covers on the coating mixing tanks except that no hose or mixing equipment



opening shall have a diameter more than 1.5 inches greater than the outside diameter of the hose or mixing equipment to be situated in the opening.

b. 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.

c. 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.

d. 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.

e. 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.

f. Sections b)(2)b through b)(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(l).

c) **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.



d) Monitoring and/or Recordkeeping 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.

e) 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.

The quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

f) Testing Requirements

- (1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

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 lbsNO_x/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.

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.

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/mm³.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.

- 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.

- 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,



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Appendix A, Methods 1 through 4 and 18. Alternative U.S. EPA-approved methods may be used with prior approval from the Ohio EPA.

- g) Miscellaneous Requirements
 - (1) None.