



State of Ohio Environmental Protection Agency

Street Address:

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

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

Mailing Address:

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

12/20/02

CERTIFIED MAIL

**RE: Preliminary Proposed Title V
Chapter 3745-77 permit**

03-17-01-0010
GE Lighting Inc - Bucyrus Lamp Plant
Richard J Strickland
1250 South Walnut Street
Bucyrus, OH 44820

Dear Richard J Strickland:

Enclosed is the Ohio EPA Preliminary Proposed Title V permit that was issued in draft form on (not issued). The comment period for the Draft permit has ended. We are now ready to submit this permit to USEPA 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. **Please submit, in writing, any comments you may have within fourteen (14) days from your receipt of this letter to:**

Ohio Environmental Protection Agency
Jim Orlemann, Manager, Engineering Section
Division of Air Pollution Control
P.O.Box 1049
Columbus, OH 43216-1049

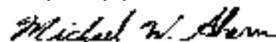
and

Northwest District Office
(419) 352-8461

Also, 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 fourteen (14) days of your receipt of this letter, we will forward the proposed permit to USEPA for approval. All comments received will be carefully considered before proceeding to the proposed permit.

Very truly yours,


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

cc: Northwest District Office
File, DAPC PMU



State of Ohio Environmental Protection Agency

PRELIMINARY PROPOSED TITLE V PERMIT

Issue Date: 12/20/02

Effective Date: To be entered upon final issuance

Expiration Date: To be entered upon final issuance

This document constitutes issuance of a Title V permit for Facility ID: 03-17-01-0010 to:

GE Lighting Inc - Bucyrus Lamp Plant
347 North Dunbridge Road
Bowling Green, OH 43402

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

F001 (BR-2) Crushed Bulb Silo and Truck Loading	P013 (C-2A) East Spray Lehr	P020 (L-1, L-3) Medium speed Horizontal (MSH) lamp assembly line with Lehr Group H
K002 (BC-3) Ecolux Base Coating Machine	P014 (C-5) L2 Spray Lehr - Sn Chloride application	P021 (L-1, L-3) Medium speed Horizontal (MSH) lamp assembly line with Lehr Group I
P001 (C-1A) Coater 1	P015 (C-4) L2 Spray Lehr - Natural gas fired oven	P022 (C-2B) West Spray Lehr
P006 (L-4) High Speed Horizontal (HSH) Lamp Assembly Line J	P016 (C-1B) Coater 2	P033 (BR-1) Bulb Crushing System
P007 (L-5) High Speed Horizontal (HSH) Lamp Assembly Line K	P017 (C-1C) Coater 3	R001 (MX-1) Varnish Mix Tank and planetary mixer
P008 (L-6) High Speed Horizontal (HSH) Lamp Assembly Line L	P018 (L-1,L-2) Vertical lamp assembly line with Lehr Group 4	
	P019 (L-1,L-2) Vertical lamp assembly line with Lehr Group 7	

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-04(A) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

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

Northwest District Office
(419) 352-8461

OHIO ENVIRONMENTAL PROTECTION AGENCY

Christopher Jones
Director

PART I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Section

1. Monitoring and Related Record Keeping and Reporting Requirements

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

months and the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations. See B.6 below if no deviations occurred during the quarter.

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

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

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

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

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

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

Written reports that identify any deviations from the federally enforceable monitoring, record keeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year, for the previous six calendar months. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, record keeping, and reporting requirements. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no deviations occurred during that period.

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

- iv. Each written report shall be signed by a responsible official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in the

report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."
(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions unit(s) or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).
(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iii))

3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.
(Authority for term: OAC rule 3745-77-07(A)(4))

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.
(Authority for term: OAC rule 3745-77-07(A)(5))

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
(Authority for term: OAC rule 3745-77-07(A)(6))

6. General Requirements

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.10 below. The filing of a request by the permittee for a permit modification, revocation and

reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

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

7. Fees

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

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

8. Marketable Permit Programs

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

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

9. Reasonably Anticipated Operating Scenarios

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

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

10. Reopening for Cause

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

- a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

- b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

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

11. Federal and State Enforceability

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

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

12. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:
 - i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
 - ii. Compliance certifications shall include the following:
 - (a) An identification of each term or condition of this permit that is the basis of the certification.
 - (b) The permittee's current compliance status.
 - (c) Whether compliance was continuous or intermittent.
 - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
 - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
 - iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

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

13. Permit Shield

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

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

14. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification

under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

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

15. Emergencies

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

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

16. Off-Permit Changes

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

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

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

(I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(For purposes of clarification, the permittee can refer to Engineering Guide #63 that is available in the STARSHIP software package.)

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

17. Compliance Method Requirements

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

(This term is provided for informational purposes only.)

18. Insignificant Activities

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

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

19. Permit to Install Requirement

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

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

20. Air Pollution Nuisance

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

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

B. State Only Enforceable Section

1. Reporting Requirements Related to Monitoring and Record Keeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. In identifying each deviation, the permittee

shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

2. Records Retention Requirements

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

3. Inspections and Information Requests

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

4. Scheduled Maintenance/Malfunction Reporting

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

5. Permit Transfers

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

6. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforcable Section

None

B. State Only Enforceable Section

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

York-Shipley N.G. Boilers # 1,2,3,4,5, Ohio EPA emissions unit B001;
York Shipley N.G. Boilers # 6,7,8,9, Ohio EPA emissions unit B002;
Cleaver Brooks N.G. Boiler # 1, Ohio EPA emissions unit B003;
Coating Mix Room, Ohio EPA emissions unit P010;
Base Cement Mixing, Ohio EPA emissions unit P011;
Base Fill Machines, Ohio EPA emissions unit P023;
Mercury Cleaning Hoods, Ohio EPA emissions unit P026;
Solvent Shop Degreaser # 1, Ohio EPA emissions unit P027;
Solvent Shop Degreaser # 2, Ohio EPA emissions unit P028;
Solvent Shop Degreaser # 3, Ohio EPA emissions unit P029;
Solvent Shop Degreaser # 4, Ohio EPA emissions unit P030;
Parking Lot Fugitive Dust, Ohio EPA emissions unit P031; and
Automatic Twin Packing Machine, Ohio EPA emissions unit P032.

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

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: BR-2 (F001)
Activity Description: Crushed Bulb Silo and Truck Loading

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
crushed bulb silo and truck loading	OAC rule 3745-17-07(B)	none (See A.1.2.a.)
	OAC rule 3745-17-08(B)	none (See A.1.2.b.)

2. Additional Terms and Conditions

- 2.a This emissions unit is exempt from the visible emissions limitation specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).
- 2.b This facility is not located within the areas identified in "Appendix A" of OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: BC-3 (K002)
Activity Description: Ecolux Base Coating Machine

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
'Ecolux' base coating machine	OAC rule 3745-21-09(U)(1)(c)	3.5 lbs volatile organic compounds (VOC) per gallon of coating, excluding water and exempt solvents
	OAC rule 3745-31-05 (PTI 03-10446)	4.0 lbs VOC per hour (including cleanup materials) The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(U)(1)(c).

2. Additional Terms and Conditions

- 2.a The VOC limitation of 4.0 lbs/hr is established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with this limit.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each month for the line:
 - a. The name and identification number of each coating, as applied.
 - b. The VOC content of each coating, in lbs/gallon (excluding water and exempt solvents), as applied.

(This information does not have to be kept on a line-by-line basis, unless one or more of the lines is a new emissions unit and subject to specific "gallons/year" and "tons/year" limitations, or just a "tons/year" limitation in a Permit to Install. In such cases, for each such new emissions unit only, the above-mentioned information must be maintained separately for that line. Also, if the permittee mixes complying coatings at a line, it is not necessary to record the VOC content of the resulting mixture.)

IV. Reporting Requirements

1. The permittee shall notify the Director (the Ohio EPA, Northwest District Office) in writing of any monthly record showing the use of noncomplying coatings (i.e., for VOC content). The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA, Northwest District Office) within 30 days following the end of the calendar month.

V. Testing Requirements

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

- 1.a VOC Content Limitation:
3.5 lbs VOC per gallon of coating, excluding water and exempt solvents

Applicable Compliance Method:

The permittee shall demonstrate compliance with the VOC content limitation above through the record keeping requirements established in Section A.III.1 of this permit.

- 1.b Emission Limitation:
4.0 lbs VOC per hour (including cleanup materials)

Applicable Compliance Method:

The permittee may determine compliance with the hourly allowable VOC emission limitation above as follows:

- i. multiply the maximum VOC content of all the coatings employed (lbs/gallon) by the maximum coatings usage rate (gallons/hr);
- ii. multiply the maximum VOC content of all the cleanup materials employed (lbs/gallon) by the maximum cleanup materials usage rate (gallons/hr); and
- iii. add A.V.1.b.i + A.V.1.b.ii.

If required, the permittee shall demonstrate compliance with the hourly allowable VOC emission limitation in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR, Part 6y0, Appendix A.

2. Formulation data or USEPA Method 24 shall be used to determine the VOC contents of all the coatings and cleanup materials.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
'Ecolux' base coating machine	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

Pollutant: ethanol

TLV (ug/m3): 1,880,000

Maximum Hourly Emission Rate (lbs/hr): 1.67

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3221

MAGLC (ug/m3): 44,760

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

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

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

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

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: C-1A (P001)

Activity Description: Coater 1

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
phosphor coating - coater 1	OAC rule 3745-21-07(G)	none (See A.I.2.a.)
	OAC rule 3745-17-11(B)(2)	none (See A.I.2.b.)
	OAC rule 3745-17-07(A)	none (See A.I.2.c.)

2. Additional Terms and Conditions

- 2.a This facility is not located in a "Priority I" county (it is located in Crawford County) as indicated in paragraph (A) of OAC rule 3745-21-06, and is not a "new source" as defined in OAC 3745-15-01(R). Therefore, pursuant to OAC rule 3745-21-07(A), it is exempt from the requirements of OAC rule 3745-21-07(G).
- 2.b The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. 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 facility is located in Crawford County, which is identified as a P-2 county.
- 2.c This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Facility Name: **General Electric Company - Bucyrus Lamp Plant**
Facility ID: **03-17-01-0010**
Emissions Unit: **C-1A (P001)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: L-4 (P006)
Activity Description: High Speed Horizontal (HSH) Lamp Assembly Line J

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
L - 4, high speed horizontal (HSH) lamp assembly line J - coating, end brushing, natural gas combustion, and mercury evacuation, with cyclone and carbon adsorber	OAC rule 3745-31-05 (PTI 03-2156)	0.3 lb particulate emissions (PE)/hr (excluding mercury)
		0.012 lb organic compounds (OC)/hr
		7.44 lbs sulfur dioxide (SO ₂)/hr
		0.00048 lb mercury (Hg)/hr
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-09(U)(1)(c), 3745-21-07(G), 3745-21-08(B) and 3745-23-06(B).
	OAC rule 3745-21-09(U)(1)(c)	for coatings used for the metal parts, 3.5 pounds of volatile organic compounds (VOC) per gallon of coating, excluding water and exempt solvents
	OAC rule 3745-17-11(B)	none (See A.I.2.a.)
	OAC rule 3745-17-07(A)	none (See A.I.2.b.)
OAC rule 3745-18-06(E)	Exempt, see A.I.2.c.	
OAC rule 3745-21-07(G)	for the coatings used for the non-metal parts, none (See A.II.2.)	
OAC rules 3745-21-08(B) and 3745-23-06(B)	See A.I.2.d.	

2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. 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 facility is located in Crawford County, which is identified as a P-2 county.
- 2.b This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c The maximum process weight rate for this emissions unit is less than 1000 lbs/hr. Therefore, pursuant to OAC rule 3745-18-06(C), this emissions unit is exempt from OAC rule 3745-18-06(E).
- 2.d The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 03-2156.

II. Operational Restrictions

- 1. Until the emission testing required in Section A.V.3 is performed, the pressure drop across the carbon adsorber shall be maintained in accordance with the manufacturer's recommendations. After the testing required in Section A.V.3 of this permit has been completed, the pressure drop across the carbon adsorber shall be maintained within the range established during the emission testing that demonstrated the emissions unit was in compliance.
- 2. The permittee shall not employ any coating or cleanup material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

III. Monitoring and/or Record Keeping Requirements

- 1. For the coatings used for the metal parts, the permittee shall collect and record the following information each month for the coating line:
 - a. the name and identification number of each coating, as applied.
 - b. the VOC content of each coating, in lbs/gallon (excluding water and exempt solvents), as applied.

(This information does not have to be kept on a line-by-line basis, unless one or more of the lines is a new emissions unit and subject to specific "gallons/year" and "tons/year" limitations, or just a "tons/year" limitation in a Permit to Install. In such cases, for each such new emissions unit only, the above-mentioned information must be maintained separately for that line. Also, if the permittee mixes complying coatings at a line, it is not necessary to record the VOC content of the resulting mixture.)

- 2. The permittee shall operate and maintain a continuous monitor that measures the pressure drop across the carbon adsorber serving the mercury evacuation for this emissions unit. The monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

- a. The pressure drop across the carbon adsorber, in inches of water.
- b. A log or record of the downtime for the capture (collection) system, control device and monitoring equipment while the emissions unit was in operation.

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

3. For the coatings used for the non-metal parts, the permittee shall maintain the following information each day for this emissions unit:
 - a. The company identification for each coating and cleanup material employed.
 - b. Documentation on whether or not each coating and cleanup material employed is a photochemically reactive material.
4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the cyclone serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
5. Notwithstanding the frequency of the reporting requirements specified in section A.III.4, the permittee may reduce the visual observations from daily readings to weekly readings if the following are met:
 - a. for 1 full quarter the facility's visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.4.

The permittee shall revert to daily readings if any abnormal visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall notify the Director (the Ohio EPA, Northwest District Office) in writing of any monthly record showing the use of noncomplying coatings (i.e., for VOC content). The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA, Northwest District Office) within 30 days following the end of the calendar month.
2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the carbon adsorber did not comply with the allowable range specified in section A.II.1 of the terms and conditions of this permit.

The deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.
3. The permittee shall notify the Director (the Ohio EPA, Northwest District Office) in writing of any daily record showing the use of any photochemically reactive coating and/or cleanup material in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA, Northwest District Office) within 45 days after the event occurs.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the cyclone serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
5. The permittee shall submit quarterly summaries that include a log or record of the downtime for the capture (collection) system, control device and monitoring equipment while the emissions unit was in operation.

V. Testing Requirements

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

1.a Emission Limitation:
0.3 lb PE/hr

Applicable Compliance Method:

Compliance with the hourly allowable PE limitation may be determined as follows:

i. for the combustion emissions (lbs PE/hr), multiply the emission factor for natural gas combustion of 1.9 lbs PE/mm cu. ft. (AP-42, 1998) by the maximum dryer throughput of 17,800 cu. ft./hr;

ii. for the assembly operation emissions (lbs PE/hr), use an end brushing emission rate of 0.25 lb/hr (GE's PTI application 03-2156 from April 17, 1985).

iii. sum A.V.1.a.i + A.V.1.a.ii.

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

1.b Emission Limitation:
0.012 lb OC/hr

Applicable Compliance Method:

Compliance with the hourly allowable OC emission limitation may be determined as follows:

i. for the combustion emissions (lbs OC/hr), multiply the emission factor for natural gas combustion of 5.5 lbs OC/mm cu. ft. (AP-42, 1998) by the maximum dryer throughput of 17,800 cu. ft./hr;

ii. for the assembly operation emissions (lbs OC/hr), use a solvent emission rate of 0.01 lb/hr (GE's PTI application 03-2156 from April 17, 1985).

ii. sum A.V.1.a.i + A.V.1.a.ii.

If required, the permittee shall demonstrate compliance with the hourly allowable OC emission limitation by emission testing in accordance with the procedures specified in 40 CFR, Part 60, Appendix A, Methods 18, 25 or 25A, as appropriate.

V. Testing Requirements (continued)

- 1.c** Emission Limitation:
7.44 lbs SO₂/hr

Applicable Compliance Method:

To determine the actual maximum sulfur dioxide emission rate (E), the permittee may use the following equation:

$$E = E1 + E2$$

E1 = maximum injection rate of compressed SO₂ gas = 0.73 lb/hr of SO₂* (for flares**)

E2 = maximum injection rate of compressed SO₂ gas = 0.12 lb/hr of SO₂* (for Lehrs)

* assume all SO₂ injected is emitted (SO₂ is injected for lubrication purposes)

** a term used to describe glass tubes

*** assume SO₂ emissions from natural gas combustion are negligible

If required, the permittee shall demonstrate compliance with the allowable hourly SO₂ emission limitation above in accordance with 40 CFR, Part 60, Appendix A, Methods 1 - 4 and 6.

- 1.d** Emission Limitation:
0.00048 lb mercury /hr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable Hg limitation above based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Method 29.

- 1.e** VOC Content Limitation:
3.5 lbs VOC per gallon of coating, excluding water and exempt solvents

Applicable Compliance Method:

The permittee shall demonstrate compliance with this VOC content limitation through the record keeping requirements established in Section A.III.1 of this permit.

- 2.** Formulation data or USEPA Method 24 shall be used to determine the VOC contents of all the coatings and cleanup materials.

V. Testing Requirements (continued)

3. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 3 months following the issuance of this permit.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for Hg.
 - c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate: Method 29, 40 CFR, Part 60, Appendix A;*

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

* The permittee also shall conduct additional testing for Hg within 3 months after issuance of this permit. This emission testing shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency, and the testing shall be conducted shortly after the carbon adsorption canister has been replaced.

d. The test(s) shall be conducted while the emissions unit and the carbon adsorption canister* are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency .

* worst-case for the carbon adsorption canister should be shortly before the carbon canister is to be replaced

4. 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, Northwest District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Northwest District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Northwest 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 emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northwest 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 appropriate Ohio EPA District Office or local air agency.

5. for each run during any emission testing for this emissions unit, the permittee shall record the pressure drop across the carbon absorption canister, in inches of water.

VI. Miscellaneous Requirements

1. The permittee incorrectly represented the maximum emission rates for particulates, OC and Hg in its application for PTI # 03-2156, dated April 17, 1985. As a result, the permittee cannot demonstrate compliance with the current PTI limitations of 0.3 lb PE/hr, 0.012 lb OC/hr and 0.000048 lb Hg/hr. Therefore, as the initial step for this emissions unit to achieve compliance with the applicable requirements, the permittee shall submit a complete permit to install modification application within 2 months following the issuance of this permit.

VI. Miscellaneous Requirements (continued)

2. The permittee failed to account for the NO_x and CO emissions from this emissions unit in its application for PTI # 03-2156, dated April 17, 1985. Therefore, as the initial step for this emissions unit to achieve compliance with the applicable requirements, the permittee shall submit a complete permit to install modification application within 2 months following the issuance of this permit.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: L-5 (P007)
Activity Description: High Speed Horizontal (HSH) Lamp Assembly Line K

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
L - 5, high speed horizontal (HSH) lamp assembly line K - coating, end brushing, natural gas combustion, and mercury evacuation, with cyclone and carbon adsorber	OAC rule 3745-31-05 (PTI 03-2156)	0.3 lb particulate emissions (PE)/hr (excluding mercury)
		0.012 lb organic compounds (OC)/hr
		7.44 lbs sulfur dioxide (SO ₂)/hr
		0.00048 lb mercury (Hg)/hr
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-09(U)(1)(c), 3745-21-07(G), 3745-21-08(B) and 3745-23-06(B).
	OAC rule 3745-21-09(U)(1)(c)	for coatings used for the metal parts, 3.5 pounds of volatile organic compounds (VOC) per gallon of coating, excluding water and exempt solvents
	OAC rule 3745-17-11(B)	none (See A.I.2.a.)
	OAC rule 3745-17-07(A)	none (See A.I.2.b.)
OAC rule 3745-18-06(E)	Exempt, see A.I.2.c.	
OAC rule 3745-21-07(G)	for the coatings used for the non-metal parts, none (See A.II.2.)	
OAC rules 3745-21-08(B) and 3745-23-06(B)	See A.I.2.d.	

2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. 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 facility is located in Crawford County, which is identified as a P-2 county.
- 2.b This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c The maximum process weight rate for this emissions unit is less than 1000 lbs/hr. Therefore, pursuant to OAC rule 3745-18-06(C), this emissions unit is exempt from OAC rule 3745-18-06(E).
- 2.d The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 03-2156.

II. Operational Restrictions

- 1. Until the emission testing required in Section A.V.3 is performed, the pressure drop across the carbon adsorber shall be maintained in accordance with the manufacturer's recommendations. After the testing required in Section A.V.3 of this permit has been completed, the pressure drop across the carbon adsorber shall be maintained within the range established during the emission testing that demonstrated the emissions unit was in compliance.
- 2. The permittee shall not employ any coating or cleanup material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

III. Monitoring and/or Record Keeping Requirements

- 1. For the coatings used for the metal parts, the permittee shall collect and record the following information each month for the coating line:
 - a. the name and identification number of each coating, as applied.
 - b. the VOC content of each coating, in lbs/gallon (excluding water and exempt solvents), as applied.

(This information does not have to be kept on a line-by-line basis, unless one or more of the lines is a new emissions unit and subject to specific "gallons/year" and "tons/year" limitations, or just a "tons/year" limitation in a Permit to Install. In such cases, for each such new emissions unit only, the above-mentioned information must be maintained separately for that line. Also, if the permittee mixes complying coatings at a line, it is not necessary to record the VOC content of the resulting mixture.)

- 2. The permittee shall operate and maintain a continuous monitor that measures the pressure drop across the carbon adsorber serving the mercury evacuation for this emissions unit. The monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

- a. The pressure drop across the carbon adsorber, in inches of water.
- b. A log or record of the downtime for the capture (collection) system, control device and monitoring equipment while the emissions unit was in operation.

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

3. For the coatings used for the non-metal parts, the permittee shall maintain the following information each day for this emissions unit:
 - a. The company identification for each coating and cleanup material employed.
 - b. Documentation on whether or not each coating and cleanup material employed is a photochemically reactive material.
4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the cyclone serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
5. Notwithstanding the frequency of the reporting requirements specified in section A.III.4, the permittee may reduce the visual observations from daily readings to weekly readings if the following are met:
 - a. for 1 full quarter the facility's visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.4.

The permittee shall revert to daily readings if any abnormal visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall notify the Director (the Ohio EPA, Northwest District Office) in writing of any monthly record showing the use of noncomplying coatings (i.e., for VOC content). The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA, Northwest District Office) within 30 days following the end of the calendar month.
2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the carbon adsorber did not comply with the allowable range specified in section A.II.1 of the terms and conditions of this permit.

The deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.
3. The permittee shall notify the Director (the Ohio EPA, Northwest District Office) in writing of any daily record showing the use of any photochemically reactive coating and/or cleanup material in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA, Northwest District Office) within 45 days after the event occurs.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the cyclone serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
5. The permittee shall submit quarterly summaries that include a log or record of the downtime for the capture (collection) system, control device and monitoring equipment while the emissions unit was in operation.

V. Testing Requirements

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

1.a Emission Limitation:
0.3 lb PE/hr

Applicable Compliance Method:

Compliance with the hourly allowable PE limitation may be determined as follows:

i. for the combustion emissions (lbs PE/hr), multiply the emission factor for natural gas combustion of 1.9 lbs PE/mm cu. ft. (AP-42, 1998) by the maximum dryer throughput of 17,800 cu. ft./hr;

ii. for the assembly operation emissions (lbs PE/hr), use an end brushing emission rate of 0.25 lb/hr (GE's PTI application 03-2156 from April 17, 1985).

iii. sum A.V.1.a.i + A.V.1.a.ii.

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

1.b Emission Limitation:
0.012 lb OC/hr

Applicable Compliance Method:

Compliance with the hourly allowable OC emission limitation may be determined as follows:

i. for the combustion emissions (lbs OC/hr), multiply the emission factor for natural gas combustion of 5.5 lbs OC/mm cu. ft. (AP-42, 1998) by the maximum dryer throughput of 17,800 cu. ft./hr;

ii. for the assembly operation emissions (lbs OC/hr), use a solvent emission rate of 0.01 lb/hr (GE's PTI application 03-2156 from April 17, 1985).

ii. sum A.V.1.a.i + A.V.1.a.ii.

If required, the permittee shall demonstrate compliance with the hourly allowable OC emission limitation by emission testing in accordance with the procedures specified in 40 CFR, Part 60, Appendix A, Methods 18, 25 or 25A, as appropriate.

V. Testing Requirements (continued)

- 1.c** Emission Limitation:
7.44 lbs SO₂/hr

Applicable Compliance Method:

To determine the actual maximum sulfur dioxide emission rate (E), the permittee may use the following equation:

$$E = E1 + E2$$

E1 = maximum injection rate of compressed SO₂ gas = 0.73 lb/hr of SO₂* (for flares**)

E2 = maximum injection rate of compressed SO₂ gas = 0.12 lb/hr of SO₂* (for Lehrs)

* assume all SO₂ injected is emitted (SO₂ is injected for lubrication purposes)

** a term used to describe glass tubes

*** assume SO₂ emissions from natural gas combustion are negligible

If required, the permittee shall demonstrate compliance with the allowable hourly SO₂ emission limitation above in accordance with 40 CFR, Part 60, Appendix A, Methods 1 - 4 and 6.

- 1.d** Emission Limitation:
0.00048 lb mercury /hr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable Hg limitation above based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Method 29.

- 1.e** VOC Content Limitation:
3.5 lbs VOC per gallon of coating, excluding water and exempt solvents

Applicable Compliance Method:

The permittee shall demonstrate compliance with this VOC content limitation through the record keeping requirements established in Section A.III.1 of this permit.

- 2.** Formulation data or USEPA Method 24 shall be used to determine the VOC contents of all the coatings and cleanup materials.

V. Testing Requirements (continued)

3. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 3 months following the issuance of this permit.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for Hg.
 - c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate: Method 29, 40 CFR, Part 60, Appendix A;*

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

* The permittee also shall conduct additional testing for Hg within 3 months after issuance of this permit. This emission testing shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency, and the testing shall be conducted shortly after the carbon adsorption canister has been replaced.

d. The test(s) shall be conducted while the emissions unit and the carbon adsorption canister* are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency .

* worst-case for the carbon adsorption canister should be shortly before the carbon canister is to be replaced

4. 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, Northwest District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Northwest District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Northwest 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 emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northwest 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 appropriate Ohio EPA District Office or local air agency.

5. for each run during any emission testing for this emissions unit, the permittee shall record the pressure drop across the carbon absorption canister, in inches of water.

VI. Miscellaneous Requirements

1. The permittee incorrectly represented the maximum emission rates for particulates, OC and Hg in its application for PTI # 03-2156, dated April 17, 1985. As a result, the permittee cannot demonstrate compliance with the current PTI limitations of 0.3 lb PE/hr, 0.012 lb OC/hr and 0.000048 lb Hg/hr. Therefore, as the initial step for this emissions unit to achieve compliance with the applicable requirements, the permittee shall submit a complete permit to install modification application within 2 months following the issuance of this permit.

VI. Miscellaneous Requirements (continued)

2. The permittee failed to account for the NO_x and CO emissions from this emissions unit in its application for PTI # 03-2156, dated April 17, 1985. Therefore, as the initial step for this emissions unit to achieve compliance with the applicable requirements, the permittee shall submit a complete permit to install modification application within 2 months following the issuance of this permit.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: L-6 (P008)
Activity Description: High Speed Horizontal (HSH) Lamp Assembly Line L

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
L - 6, high speed horizontal (HSH) lamp assembly line L - coating, end brushing, natural gas combustion, and mercury evacuation - cyclones and carbon adsorber	OAC rule 3745-31-05 (PTI 03-5056)	0.32 lb particulate emissions (PE)/hr (not including mercury)
		2.35 lbs sulfur dioxide (SO ₂) /hr
		0.025 lb mercury (Hg) /hr
		1.68 lbs ammonia (NH ₃) /hr
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-09(U)(1)(c), 3745-21-07(G), 3745-18-06(E), 3745-21-08(B) and 3745-23-06(B).
	OAC rule 3745-21-09(U)(1)(c)	for the base cement coatings used for the metal parts, 3.5 pounds of volatile organic compounds (VOC) per gallon of coating, excluding water and exempt solvents
	OAC rule 3745-17-11(B)	none (See A.I.2.a.)
	OAC rule 3745-17-07(A)	none (See A.I.2.b.)
	OAC rule 3745-21-07(G)	for the coatings used for the non-metal parts, none (See A.II.2.)
	OAC rule 3745-18-06(E)	Exempt, see A.I.2.c.
OAC rules 3745-21-08(B) and 3745-23-06(B)	See A.I.2.d.	

2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. 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 facility is located in Crawford County, which is identified as a P-2 county.
- 2.b This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c The maximum process weight rate for this emissions unit is less than 1000 lbs/hr. Therefore, pursuant to OAC rule 3745-18-06(C), this emissions unit is exempt from OAC rule 3745-18-06(E).
- 2.d The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 03-5056.

II. Operational Restrictions

- 1. Until the emission testing required in Section A.V.3 is performed, the pressure drop across the carbon adsorber shall be maintained in accordance with the manufacturer's recommendations. After the testing required in Section A.V.3 of this permit has been completed, the pressure drop across the carbon adsorber shall be maintained within the range established during the emission testing that demonstrated the emissions unit was in compliance.
- 2. The permittee shall not employ any coating or cleanup material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

III. Monitoring and/or Record Keeping Requirements

- 1. For the coatings used for the metal parts, the permittee shall collect and record the following information each month for the coating line:
 - a. the name and identification number of each coating, as applied.
 - b. the VOC content of each coating, in lbs/gallon (excluding water and exempt solvents), as applied.

(This information does not have to be kept on a line-by-line basis, unless one or more of the lines is a new emissions unit and subject to specific "gallons/year" and "tons/year" limitations, or just a "tons/year" limitation in a Permit to Install. In such cases, for each such new emissions unit only, the above-mentioned information must be maintained separately for that line. Also, if the permittee mixes complying coatings at a line, it is not necessary to record the VOC content of the resulting mixture.)

- 2. The permittee shall operate and maintain a continuous monitor and recorder that measures and records the pressure drop across the carbon adsorber serving the mercury evacuation for this emissions unit. The monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

- a. The pressure drop across the carbon adsorber, in inches of water.
- b. A log or record of all downtime for the capture (collection) system, control device and monitoring equipment while the emissions unit was in operation.

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

3. For the coatings used for the non-metal parts, the permittee shall maintain the following information each day for this emissions unit:
 - a. The company identification for each coating and cleanup material employed.
 - b. Documentation on whether or not each coating and cleanup material employed is a photochemically reactive material.
4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the cyclone serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
5. Notwithstanding the frequency of the reporting requirements specified in section A.III.4, the permittee may reduce the visual observations from daily readings to weekly readings if the following are met:
 - a. for 1 full quarter the facility's visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.4.

The permittee shall revert to daily readings if any abnormal visible emissions are observed.
6. The permittee shall collect and record the following information each day for this emissions unit:
 - a. The name and identification number of each coating employed.
 - b. The volume, in gallons, of each coating employed.
 - c. The NH₃ content of each coating employed, in pounds per gallon.
 - d. The NH₃ emission rate from each coating employed (b x c), in pounds.
 - e. The total NH₃ emission rate from all the coatings employed [summation of d for all coatings], in pounds.
 - f. The total number of hours the emissions unit was in operation.
 - g. The average hourly NH₃ emission rate from all the coatings employed, i.e., (e)/(f), in pounds per hour (average).

IV. Reporting Requirements

1. The permittee shall notify the Director (the Ohio EPA, Northwest District Office) in writing of any monthly record showing the use of noncomplying coatings (i.e., for VOC content). The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA, Northwest District Office) within 30 days following the end of the calendar month.

IV. Reporting Requirements (continued)

2. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the carbon adsorber did not comply with the allowable range specified in section A.II.1 of the terms and conditions of this permit.

The deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

3. The permittee shall notify the Director (the Ohio EPA, Northwest District Office) in writing of any daily record showing the use of any photochemically reactive coating and/or cleanup material in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA, Northwest District Office) within 45 days after the event occurs.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the cyclone serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
5. The permittee shall submit quarterly summaries that include a log or record of the downtime for the capture (collection) system, control device and monitoring equipment while the emissions unit was in operation.
6. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the hourly NH₃ emission limitation of 1.68 pounds, and the actual average hourly NH₃ emissions for each such day.

The quarterly deviation reports shall be submitted in accordance with paragraph A.1.c., Part I - General Terms and Conditions- of this permit.

V. Testing Requirements

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

- 1.a Emission Limitation:
0.32 lb PE/hr

Applicable Compliance Method:

Compliance with the hourly allowable PE limitation may be determined as follows:

- i. for the combustion emissions (lbs PE/hr), multiply the emission factor for natural gas combustion of 1.9 lbs PE/mm cu. ft. (AP-42, 1998) by the maximum dryer throughput of 17,800 cu. ft./hr;
- ii. for the assembly operation emissions (lbs PE/hr), use an end brushing emission rate of 0.27 lb/hr (GE's PTI application 03-5056 from February 5, 1990).
- iii. sum A.V.1.a.i + A.V.1.a.ii.

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

V. Testing Requirements (continued)

1.b Emission Limitation:
2.35 lbs SO₂/hr

Applicable Compliance Method:

To determine the actual maximum sulfur dioxide emission rate (E), the permittee may use the following equation:

$$E = E1 + E2$$

E1 = maximum injection rate of compressed SO₂ gas = 0.73 lb/hr of SO₂* (for flares**)

E2 = maximum injection rate of compressed SO₂ gas = 0.12 lb/hr of SO₂* (for Lehrs)

* assume all SO₂ injected is emitted (SO₂ is injected for lubrication purposes)

* a term used to describe glass tubes

*** assume SO₂ emissions from natural gas combustion are negligible

If required, the permittee shall demonstrate compliance with the allowable hourly SO₂ emission limitation above in accordance with 40 CFR, Part 60, Appendix A, Methods 1 - 4 and 6.

1.c Emission Limitation:
0.025 lb mercury/hr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable Hg limitation above based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Method 29.

To determine the actual maximum Hg emission rate (E), the permittee may use the following equation:

$$E = [E1 \times (1 - CE)] + E2$$

E = mercury emission rate (lbs/hr)

E1 = stack mercury emissions (0.00263 lb/hr, based on the results of the emission testing conducted in May, 1995 for this emissions unit)

CE = control efficiency of the control system (assumed to be 85 percent)

E2 = fugitive mercury emissions (0.00054 lb/hr, based on the results of testing conducted for the general ventilation hoods in August, 2000 for this emissions unit)

1.d Emission Limitation:
1.68 lb NH₃/hr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable NH₃ emission limitation through the record keeping requirements established in Section A.III.6 of this permit.

If required, the permittee shall demonstrate compliance with the hourly allowable NH₃ limitation above based on the results of emission testing conducted in accordance with US EPA's "PROCEDURE FOR COLLECTION AND ANALYSIS OF AMMONIA IN STATIONARY SOURCES," Conditional Test Method (CTM-027) (DRAFT 8/14/97).

V. Testing Requirements (continued)

- 1.e** VOC Content Limitation:
3.5 lbs VOC per gallon of coating, excluding water and exempt solvents

Applicable Compliance Method:

The permittee shall demonstrate compliance with the VOC content limitation above through the record keeping requirements established in Section A.III.1 of this permit.

- 2.** Formulation data or USEPA Method 24 shall be used to determine the VOC contents of all the coatings.
- 3.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted within 3 months following the issuance of this permit.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for Hg.
 - c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate: Method 29, 40 CFR, Part 60, Appendix A;*

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

* The permittee also shall conduct additional testing for Hg within 3 months after issuance of this permit. This emission testing shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency, and the testing shall be conducted shortly after the carbon adsorption canister has been replaced.

d. The test(s) shall be conducted while the emissions unit and the carbon adsorption canister* are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency .

* worst-case for the carbon adsorption canister should be shortly before the carbon canister is to be replaced

- 4.** 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, Northwest District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Northwest District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Northwest 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 emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northwest 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 appropriate Ohio EPA District Office or local air agency.

- 5.** for each run during any emission testing for this emissions unit, the permittee shall record the pressure drop across the carbon absorption canister, in inches of water.

VI. Miscellaneous Requirements

1. The permittee failed to account for the emissions for VOC, NO_x and CO from this emissions unit in its application for PTI # 03-5056, dated February 15, 1990. Therefore, as the initial step for this emissions unit to achieve compliance with the applicable requirements, the permittee shall submit a complete permit to install modification application within 2 months following the issuance of this permit.
2. The permittee incorrectly represented the maximum emission rates of particulates and NH₃ in its application for PTI # 03-5056, dated February 15, 1990. As a result, the permittee cannot demonstrate compliance with the current PTI limitations of 0.32 lb PE/hr and 1.68 lbs NH₃/hr. Therefore, as the initial step for this emissions unit to achieve compliance with the applicable requirements, the permittee shall submit a complete permit to install modification application within 2 months following the issuance of this permit.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: C-2A (P013)
Activity Description: East Spray Lehr

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
East Spray Lehr (with tin chloride application) direct-fired natural gas, 13.6 mmBtu/hr, with settling chamber and 2 wet scrubbers in series	OAC rule 3745-31-05 (PTI 03-5922)	0.38 lb particulate emissions (PE)/hr
		1.56 lbs nitrogen oxides (NOx)/hr
		0.04 lb sulfur dioxide (SO2)/hr
		0.91 lb volatile organic compounds (VOC) /hr
		0.37 lb hydrogen chloride (HCl)/hr
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-18-06(E), 3745-21-08(B) and 3745-23-06(B).
	OAC rule 3745-17-11(B)	none (See A.1.2.a.)
	OAC rule 3745-17-07(A)	none (See A.1.2.b.)
	OAC rule 3745-18-06(E)	Exempt, see A.1.2.c.
	OAC rules 3745-21-08(B) and 3745-23-06(B)	See A.1.2.d.

2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. 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 facility is located in Crawford County, which is identified as a P-2 county.
- 2.b This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

2. Additional Terms and Conditions (continued)

- 2.c** The maximum process weight rate for this emissions unit is less than 1000 lbs/hr. Therefore, pursuant to OAC rule 3745-18-06(C), this emissions unit is exempt from OAC rule 3745-18-06(E).
- 2.d** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 03-5922.

II. Operational Restrictions

- 1.** The pressure drop across each scrubber shall be continuously maintained at a value of not less than 50 inches of water at all times while the emissions unit is in operation.
- 2.** The water flow rate through each scrubber shall be continuously maintained at a value of not less than 17 gallons per minute at all times while the emissions unit is in operation.
- 3.** The pH of the scrubber water in each scrubber shall be maintained within the range of 5.5 to 8.5.
- 4.** The permittee shall burn only natural gas as fuel in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

- 1.** The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and each scrubber's water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

- a. The pressure drop across each scrubber, in inches of water, on a daily basis.
- b. The water flow rate of each scrubber, in gallons per minute, on a daily basis.
- 2.** The permittee shall properly operate and maintain equipment to continuously monitor and record the pH of the scrubber water in each scrubber while the emissions unit is in operation. The pH monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

- a. The pH of the scrubber water in each scrubber, on a daily basis.
- b. A log or record of all downtime for the capture (collection) system, control device and monitoring equipment while the emissions unit was in operation.
- 3.** For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

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

4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the scrubbers serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
5. Notwithstanding the frequency of the reporting requirements specified in section A.III.4, the permittee may reduce the visual observations from daily readings to weekly readings if the following are met:
 - a. for 1 full quarter the facility's visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.4.

The permittee shall revert to daily readings if any abnormal visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at the required levels:
 - a. The static pressure drop across each scrubber.
 - b. The water flow rate for each scrubber.
 - c. The pH of the scrubber water in each scrubber.

The deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
3. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when this emissions unit was in operation.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the scrubbers serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

V. Testing Requirements (continued)

1.a Emission Limitation:
0.38 lb PE/hr

Applicable Compliance Method:

To determine the actual maximum PE rate (E), the permittee may use the following equation:

$$E = E1 + E2$$

E1 = 0.15 lb PE/hr (determined by multiplying the maximum hourly natural gas burning capacity of the emissions unit (mm cu. ft./hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor for natural gas (1.9 lbs PE/mm cu. ft))

E2 = 0.10 lb PE/hr (determined based on the results of emission testing conducted for emissions unit P009 in November, 1991)

If required, the permittee shall demonstrate compliance with the limitation above in accordance with 40 CFR, Part 60, Appendix A, Methods 1 - 5.

1.b Emission Limitation:
1.56 lbs NOx/hr

Applicable Compliance Method:

Compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu. ft./hour) by the AP-42, Table 1.4-1 (revised 7/98) emission factor for natural gas (100 lbs NOx/mm cu. ft).

If required, the permittee shall demonstrate compliance with the limitation above in accordance with 40 CFR, Part 60, Appendix A, Methods 1 - 4 and 7.

1.c Emission Limitation:
0.04 lb SO2/hr

Applicable Compliance Method:

Compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu. ft./hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor for natural gas (0.6 lb SO2/mm cu. ft).

If required, the permittee shall demonstrate compliance with the limitation above in accordance with 40 CFR, Part 60, Appendix A, Methods 1 - 4 and 6.

1.d Emission Limitation:
0.91 lb VOC/hr

Applicable Compliance Method:

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

If required, the permittee shall demonstrate compliance with the limitation above in accordance with 40 CFR, Part 60, Appendix A, Method 25.

1.e Emission Limitation:
0.37 lb HCl/hr

Applicable Compliance Method:

The permittee shall determine compliance based on the results of emission testing conducted in accordance with Method 26 of 40 CFR, Part 60, Appendix A.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 6 months following the issuance of this permit.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for hydrogen chloride.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate: Method 26, 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

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, Northwest District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Northwest District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Northwest 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 emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northwest 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, Northwest District Office.

VI. Miscellaneous Requirements

1. The permittee incorrectly represented the maximum NOx emission rate in its application for PTI 03-5922, dated September 3, 1991. As a result, the permittee cannot demonstrate compliance with the current PTI limitations of 1.56 lbs NOx/hr. Therefore, as the initial step for this emissions unit to achieve compliance with the applicable requirements, the permittee shall submit a complete permit to install modification application within 2 months following the issuance of this permit.
2. The permittee failed to account for the CO emissions from this emissions unit in its application for PTI 03-5922, dated September 3, 1991. Therefore, as the initial step for this emissions unit to achieve compliance with the applicable requirements, the permittee shall submit a complete permit to install modification application within 2 months following the issuance of this permit.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: C-5 (P014)
Activity Description: L2 Spray Lehr - Sn Chloride application

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
tin chloride application (for L2 Spray Lehr), with settling chamber and 2 wet scrubbers in series	OAC rule 3745-31-05 (PTI 03-8163)	1.0 lb particulate emissions (PE)/hr
		0.47 lb tin/hr
		0.42 lb hydrogen chloride (HCl)/hr
	OAC rule 3745-17-11(B)	none (See A.1.2.a.)
	OAC rule 3745-17-07(A)	none (See A.1.2.b.)

2. Additional Terms and Conditions

- The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. 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 facility is located in Crawford County, which is identified as a P-2 county.
- This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

II. Operational Restrictions

- The pressure drop across each scrubber shall be continuously maintained at a value of not less than 50 inches of water at all times while the emissions unit is in operation.
- The water flow rate through each scrubber shall be continuously maintained at a value of not less than 17 gallons per minute at all times while the emissions unit is in operation.
- The pH of the scrubber water in each scrubber shall be maintained within the range of 5.5 to 8.5.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and each scrubber's water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

- a. The pressure drop across each scrubber, in inches of water, on a daily basis.
 - b. The water flow rate of each scrubber, in gallons per minute, on a daily basis.
2. The permittee shall properly operate and maintain equipment to continuously monitor and record the pH of the scrubber water in each scrubber while the emissions unit is in operation. The pH monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

- a. The pH of the scrubber water in each scrubber, on a daily basis.
 - b. A log or record of all downtime for the capture (collection) system, control device and monitoring equipment while the emissions unit was in operation.
3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the scrubbers serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
 4. Notwithstanding the frequency of the reporting requirements specified in section A.III.3, the permittee may reduce the visual observations from daily readings to weekly readings if the following are met:
 - a. for 1 full quarter the facility's visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to daily readings if any abnormal visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at the required levels:
 - a. The static pressure drop across each scrubber.
 - b. The water flow rate for each scrubber.
 - c. The pH of the scrubber water in each scrubber.

The deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when this emissions unit was in operation.
3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the scrubbers serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

- 1.a Emission Limitation:
1.0 lb PE/hr

Applicable Compliance Method:

If required, the permittee shall determine compliance with the limitation above in accordance with 40 CFR, Part 60, Appendix A, Methods 1 - 5. [The results of emission testing conducted on April 16, 1996 indicated that the PE rate was 0.13 lb PE/hr.]

- 1.b Emission Limitation:
0.47 lbs tin/hr

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the limitation above in accordance with 40 CFR, Part 60, Appendix A, Method 29. [The results of emission testing conducted on April 16, 1996 indicated that the tin emission rate was 0.06 lb tin/hr.]

- 1.c Emission Limitation:
0.42 lb HCl/hr

Applicable Compliance Method:

The permittee shall demonstrate compliance based on the results of emission testing conducted in accordance with Method 26 of 40 CFR, Part 60, Appendix A.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 6 months following the issuance of this permit.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for hydrogen chloride.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate: Method 26, 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

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, Northwest District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Northwest District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Northwest 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 emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northwest 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, Northwest District Office

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: C-4 (P015)
Activity Description: L2 Spray Lehr - Natural gas fired oven

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
L-2 Lehr oven - natural gas combustion	OAC rule 3745-31-05 (PTI 03-8163)	0.072 lb particulate emissions (PE)/hr 2.68 lbs nitrogen oxides (NOx)/hr The requirements of this rule also include compliance with the requirements of OAC rules 3745-18-06(E), 3745-21-08(B) and 3745-23-06(B).
	OAC rule 3745-17-11(B)	none (See A.I.2.a.)
	OAC rule 3745-17-07(A)	none (See A.I.2.b.)
	OAC rules 3745-21-08(B) and 3745-23-06(B)	See A.I.2.d
	OAC rule 3745-18-06(E)	Exempt, see A.I.2.c.

2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. 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 facility is located in Crawford County, which is identified as a P-2 county.
- 2.b This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c The maximum process weight rate for this emissions unit is less than 1000 lbs/hr. Therefore, pursuant to OAC rule 3745-18-06(C), this emissions unit is exempt from OAC rule 3745-18-06(E).
- 2.d The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 03-8163.

II. Operational Restrictions

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

III. Monitoring and/or Record Keeping Requirements

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

IV. Reporting Requirements

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

V. Testing Requirements

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

- 1.a Emission Limitation:
0.072 lb PE/hr

Applicable Compliance Method:

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

If required, the permittee shall demonstrate compliance with the limitation above in accordance with 40 CFR, Part 60, Appendix A, Methods 1 - 5.

- 1.b Emission Limitation:
2.68 lbs NO_x/hr

Applicable Compliance Method:

Compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu. ft./hour) by the AP-42, Table 1.4-1 (revised 7/98) emission factor for natural gas (100 lbs NO_x/mm cu. ft).

If required, the permittee shall demonstrate compliance with the limitation above in accordance with 40 CFR, Part 60, Appendix A, Methods 1 - 4 and 7.

VI. Miscellaneous Requirements

1. The permittee incorrectly represented the maximum PE rate in its application for PTI # 03-8163, dated October 31, 1994. As a result, the permittee cannot demonstrate compliance with its current PTI limit of 0.072 lb PE/hr. Therefore, as the initial step for this emissions unit to achieve compliance with the applicable requirements, the permittee shall submit a complete permit to install modification application within 2 months following the issuance of this permit.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: C-1B (P016)

Activity Description: Coater 2

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
phosphor coating - coater 2	OAC rule 3745-21-07(G)	none (See section A.I.2.a.)
	OAC rule 3745-17-11(B)(2)	none (See section A.I.2.b.)
	OAC rule 3745-17-07(A)	none (See section A.I.2.c.)

2. Additional Terms and Conditions

- 2.a This facility is not located in a "Priority I" county (it is located in Crawford County) as indicated in paragraph (A) of OAC rule 3745-21-06, and is not a "new source" as defined in OAC 3745-15-01(R). Therefore, pursuant to OAC rule 3745-21-07(A), it is exempt from the requirements of OAC rule 3745-21-07(G).
- 2.b The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. 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 facility is located in Crawford County, which is identified as a P-2 county.
- 2.c This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Facility Name: **General Electric Company - Bucyrus Lamp Plant**
Facility ID: **03-17-01-0010**
Emissions Unit: **C-1B (P016)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: C-1C (P017)

Activity Description: Coater 3

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
phosphor coating - coater 3	OAC rule 3745-21-07(G)	none (See section A.I.2.a.)
	OAC rule 3745-17-11(B)(2)	none (See section A.I.2.b.)
	OAC rule 3745-17-07(A)	none (See section A.I.2.c.)

2. Additional Terms and Conditions

- 2.a This facility is not located in a "Priority I" county (it is located in Crawford County) as indicated in paragraph (A) of OAC rule 3745-21-06, and is not a "new source" as defined in OAC 3745-15-01(R). Therefore, pursuant to OAC rule 3745-21-07(A), it is exempt from the requirements of OAC rule 3745-21-07(G).
- 2.b The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. 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 facility is located in Crawford County, which is identified as a P-2 county.
- 2.c This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Facility Name: **General Electric Company - Bucyrus Lamp Plant**
Facility ID: **03-17-01-0010**
Emissions Unit: **C-1C (P017)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: L-1,L-2 (P018)

Activity Description: Vertical lamp assembly line with Lehr Group 4

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
vertical lamp assembly line (Lehr group 4) - with cyclones and carbon adsorber	OAC rule 3745-17-11(B)(2)	none (See A.I.2.a.)
	OAC rule 3745-17-07(A)(1-3)	none (See A.I.2.b.)
	OAC rule 3745-21-07(G)	none (See A.I.2.c.)

2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. 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 facility is located in Crawford County, which is identified as a P-2 county.
- 2.b This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c This facility is not located in a "Priority I" county (it is located in Crawford County) as indicated in paragraph (A) of OAC rule 3745-21-06, and is not a "new source" as defined in OAC 3745-15-01(R). Therefore, pursuant to OAC rule 3745-21-07(A), it is exempt from the requirements of OAC rule 3745-21-07(G).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

Facility Name: **General Electric Company - Bucyrus Lamp Plant**
Facility ID: **03-17-01-0010**
Emissions Unit: **L-1,L-2 (P018)**

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: L-1,L-2 (P019)
Activity Description: Vertical lamp assembly line with Lehr Group 7

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
vertical lamp assembly line (Lehr group 7) - with cyclones and carbon adsorber	OAC rule 3745-17-11(B)(2)	none (See A.I.2.a.)
	OAC rule 3745-17-07(A)(1-3)	none (See A.I.2.b.)
	OAC rule 3745-21-07(G)	none (See A.I.2.c.)

2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. 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 facility is located in Crawford County, which is identified as a P-2 county.
- 2.b This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c This facility is not located in a "Priority I" county (it is located in Crawford County) as indicated in paragraph (A) of OAC rule 3745-21-06, and is not a "new source" as defined in OAC 3745-15-01(R). Therefore, pursuant to OAC rule 3745-21-07(A), it is exempt from the requirements of OAC rule 3745-21-07(G).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

Facility Name: **General Electric Company - Bucyrus Lamp Plant**
Facility ID: **03-17-01-0010**
Emissions Unit: **L-1,L-2 (P019)**

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: L-1, L-3 (P020)

Activity Description: Medium speed Horizontal (MSH) lamp assembly line with Lehr Group H

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
medium speed horizontal (MSH) lamp assembly line (Lehr group H) - with cyclones and carbon adsorber	OAC rule 3745-17-11(B)(2)	none (See A.I.2.a.)
	OAC rule 3745-17-07(A)(1-3)	none (See A.I.2.b.)
	OAC rule 3745-21-07(G)	none (See A.I.2.c.)

2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. 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 facility is located in Crawford County, which is identified as a P-2 county.
- 2.b This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c This facility is not located in a "Priority I" county (it is located in Crawford County) as indicated in paragraph (A) of OAC rule 3745-21-06, and is not a "new source" as defined in OAC 3745-15-01(R). Therefore, pursuant to OAC rule 3745-21-07(A), it is exempt from the requirements of OAC rule 3745-21-07(G).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

Facility Name: **General Electric Company - Bucyrus Lamp Plant**
Facility ID: **03-17-01-0010**
Emissions Unit: **L-1, L-3 (P020)**

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: L-1, L-3 (P021)

Activity Description: Medium speed Horizontal (MSH) lamp assembly line with Lehr Group I

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
medium speed horizontal (MSH) lamp assembly line (Lehr group I) - with cyclones and carbon adsorber	OAC rule 3745-17-11(B)(2)	none (See A.I.2.a.)
	OAC rule 3745-17-07(A)(1-3)	none (See A.I.2.b.)
	OAC rule 3745-21-07(G)	none (See A.I.2.c.)

2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. 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 facility is located in Crawford County, which is identified as a P-2 county.
- 2.b This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c This facility is not located in a "Priority I" county (it is located in Crawford County) as indicated in paragraph (A) of OAC rule 3745-21-06, and is not a "new source" as defined in OAC 3745-15-01(R). Therefore, pursuant to OAC rule 3745-21-07(A), it is exempt from the requirements of OAC rule 3745-21-07(G).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

Facility Name: **General Electric Company - Bucyrus Lamp Plant**

Facility ID: **03-17-01-0010**

Emissions Unit: **L-1, L-3 (P021)**

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: C-2B (P022)
Activity Description: West Spray Lehr

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
West Spray Lehr (with tin chloride application) direct-fired natural gas, 13.6 mmBtu/hr, with settling chamber and 2 wet scrubbers in series	OAC rule 3745-31-05 (PTI 03-5922)	0.38 lb particulate emissions (PE)/hr
		1.56 lbs nitrogen oxides (NOx)/hr
		0.04 lb sulfur dioxide (SO2)/hr
		0.91 lb volatile organic compounds (VOC)/hr
		0.37 lb hydrogen chloride (HCl)/hr
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-18-06(E), 3745-21-08(B) and 3745-23-06(B).
	OAC rule 3745-17-11(B)	none (See A.1.2.a.)
	OAC rule 3745-17-07(A)	none (See A.1.2.b.)
	OAC rule 3745-18-06(E)	Exempt, see A.1.2.c.
	OAC rules 3745-21-08(B) and 3745-23-06(B)	See A.1.2.d.

2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. 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 facility is located in Crawford County, which is identified as a P-2 county.
- 2.b This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

2. Additional Terms and Conditions (continued)

- 2.c** The maximum process weight rate for this emissions unit is less than 1000 lbs/hr. Therefore, pursuant to OAC rule 3745-18-06(C), this emissions unit is exempt from OAC rule 3745-18-06(E).
- 2.d** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 03-5922.

II. Operational Restrictions

- 1.** The pressure drop across each scrubber shall be continuously maintained at a value of not less than 50 inches of water at all times while the emissions unit is in operation.
- 2.** The water flow rate through each scrubber shall be continuously maintained at a value of not less than 17 gallons per minute at all times while the emissions unit is in operation.
- 3.** The pH of the scrubber water in each scrubber shall be maintained within the range of 5.5 to 8.5.
- 4.** The permittee shall burn only natural gas as fuel in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

- 1.** The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and each scrubber's water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

- a. The pressure drop across each scrubber, in inches of water, on a daily basis.
- b. The water flow rate of each scrubber, in gallons per minute, on a daily basis.
- 2.** The permittee shall properly operate and maintain equipment to continuously monitor and record the pH of the scrubber water in each scrubber while the emissions unit is in operation. The pH monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

- a. The pH of the scrubber water in each scrubber, on a daily basis.
- b. A log or record of all downtime for the capture (collection) system, control device and monitoring equipment while the emissions unit was in operation.
- 3.** For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

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

4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the scrubbers serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
5. Notwithstanding the frequency of the reporting requirements specified in section A.III.4, the permittee may reduce the visual observations from daily readings to weekly readings if the following are met:
 - a. for 1 full quarter the facility's visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.4.

The permittee shall revert to daily readings if any abnormal visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at the required levels:
 - a. The static pressure drop across each scrubber.
 - b. The water flow rate for each scrubber.
 - c. The pH of the scrubber water in each scrubber.

The deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
3. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when this emissions unit was in operation.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the scrubbers serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

V. Testing Requirements (continued)

- 1.a** Emission Limitation:
0.38 lb PE/hr

Applicable Compliance Method:

To determine the actual maximum PE rate (E), the permittee may use the following equation:

$$E = E1 + E2$$

E1 = 0.15 lb PE/hr (determined by multiplying the maximum hourly natural gas burning capacity of the emissions unit (mm cu. ft./hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor for natural gas (1.9 lbs PE/mm cu. ft))

E2 = 0.10 lb PE/hr (determined based on the results of emission testing conducted for emissions unit P009 in November, 1991)

If required, the permittee shall demonstrate compliance with the limitation above in accordance with 40 CFR, Part 60, Appendix A, Methods 1 - 5.

- 1.b** Emission Limitation:
1.56 lbs NOx/hr

Applicable Compliance Method:

Compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu. ft./hour) by the AP-42, Table 1.4-1 (revised 7/98) emission factor for natural gas (100 lbs NOx/mm cu. ft).

If required, the permittee shall demonstrate compliance with the limitation above in accordance with 40 CFR, Part 60, Appendix A, Methods 1 - 4 and 7.

- 1.c** Emission Limitation:
0.04 lb SO₂/hr

Applicable Compliance Method:

Compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu. ft./hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor for natural gas (0.6 lb SO₂/mm cu. ft).

If required, the permittee shall demonstrate compliance with the limitation above in accordance with 40 CFR, Part 60, Appendix A, Methods 1 - 4 and 6.

- 1.d** Emission Limitation:
0.91 lb VOC/hr

Applicable Compliance Method:

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

If required, the permittee shall demonstrate compliance with the limitation above in accordance with 40 CFR, Part 60, Appendix A, Method 25.

- 1.e** Emission Limitation:
0.37 lb HCl/hr

Applicable Compliance Method:

The permittee shall determine compliance based on the results of emission testing conducted in accordance with Method 26 of 40 CFR, Part 60, Appendix A.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 6 months following the issuance of this permit.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for hydrogen chloride.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate: Method 26, 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest 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, Northwest District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Northwest District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Northwest 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 emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northwest 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, Northwest District Office.

VI. Miscellaneous Requirements

1. The permittee incorrectly represented the maximum NO_x emission rate in its application for PTI 03-5922, dated September 3, 1991. As a result, the permittee cannot demonstrate compliance with the current PTI limitations of 1.56 lbs NO_x/hr. Therefore, as the initial step for this emissions unit to achieve compliance with the applicable requirements, the permittee shall submit a complete permit to install modification application within 2 months following the issuance of this permit.
2. The permittee failed to account for the CO emissions from this emissions unit in its application for PTI 03-5922, dated September 3, 1991. Therefore, as the initial step for this emissions unit to achieve compliance with the applicable requirements, the permittee shall submit a complete permit to install modification application within 2 months following the issuance of this permit.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: BR-1 (P033)
Activity Description: Bulb Crushing System

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Bulb Crushing System (consisting of a chopper hopper, crusher feeders, a silo, and a sieve)	OAC rule 3745-31-05 (A)(3) (PTI 03-13601)	0.46 lb of particulate emissions (PE)/hour, 2.01 tons of PE/year
		0.003 lb of Hg/hour, 0.013 ton of Hg/year See A.I.2.a.
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07 (A)(1). See A.I.2.b.
	OAC rule 3745-17-11 (B)(2)	
	OAC rule 3745-17-07 (A)(1)	Visible PE shall not exceed 20 percent opacity, as a six-minute average, except as provided by rule.

2. Additional Terms and Conditions

- 2.a Best available technology (BAT) for this emissions unit has been determined to be the following:
 - i. for the chopper hopper and the crusher: use of a control system consisting of a fabric filter (hose filter) followed by a carbon adsorption unit.
 - ii. for the sieve and silo: use of a control system consisting of a cyclone followed by a fabric filter (hose filter) and carbon adsorption unit.

The control systems for the chopper hopper, crusher, sieve and silo shall achieve an overall control efficiency of 99.5% (100% capture) for PE and Hg.
- 2.b The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

II. Operational Restrictions

1. The pressure drop across each fabric filter (hose filter) shall be maintained within the range of 0.2 - 4 inches of water while the emissions unit is in operation.
2. The pressure drop across each carbon adsorber shall be maintained within the range of 1 - 8 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across each fabric filter (hose 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). The permittee shall record the pressure drop across each fabric filter (hose filter) on a daily basis.
2. The permittee shall operate and maintain a continuous monitor that measures the pressure drop across the carbon adsorber serving this emissions unit. The monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

- a. The pressure drop across the carbon adsorber, in inches of water.
- b. A log or record of the downtime for the capture (collection) system, control device and monitoring equipment while the emissions unit was in operation.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
 - i. identification of all periods of time during which the pressure drop across either fabric filter (hose filter) did not comply with the allowable range specified in A.II.1.
 - ii. identification of all periods of time during which the pressure drop across either carbon adsorber did not comply with the allowable range specified in A.II.2.

The deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when this emissions unit was in operation.

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I of these terms and conditions shall be determined in accordance with the following method(s):
 - 1.a Emission Limitation
0.46 pound of PE per hour

Applicable Compliance Method

The hourly allowable PE limitation was established by multiplying the maximum bulb crushing rate of 6000 bulbs per hour by a "worst case" PE rate of 7.0 grams per bulb (based on a maximum phosphor content) and by an overall control factor of (1 - 0.995), and then dividing by 453.59.

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

V. Testing Requirements (continued)

- 1.b** Emission Limitation
2.01 tons of PE per year

Applicable Compliance Method

The annual allowable PE limitation was established by multiplying the hourly allowable PE limitation by 8,760, and then dividing by 2000. Therefore, provided compliance is maintained with the hourly limitation, compliance with the annual limitation shall be ensured.

- 1.c** Emission Limitation
0.003 lb Hg per hour

Applicable Compliance Method

The hourly allowable Hg emission limitation was established by multiplying the maximum bulb crushing rate of 6,000 bulbs per hour by the maximum Hg content of the bulbs of 0.050 gram per bulb and by an overall control factor of $(1 - 0.995)$, and then dividing by 453.59.

If required, the permittee shall demonstrate compliance with the hourly allowable Hg emission limitation above based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Method 29.

- 1.d** Emission Limitation
0.013 ton of Hg per year

Applicable Compliance Method

The annual allowable Hg emission limitation was established by multiplying the hourly allowable Hg emission limitation by 8,760, and then dividing by 2000. Therefore, provided compliance is maintained with the hourly limitation, compliance with the annual limitation shall be ensured.

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

Applicable Compliance Method

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

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: MX-1 (R001)
Activity Description: Varnish Mix Tank and planetary mixer

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
varnish mix tank and 'planetary' mixer, with baghouse	OAC rule 3745-31-05 (PTI 03-11289)	0.1 lb particulate emissions (PE)/hr
		1.17 lbs organic compounds (OC)/hr
		Visible PE shall not exceed 5% opacity, as a six-minute average.
	OAC rule 3745-17-11(B)	none (See A.I.2.a.)
	OAC rule 3745-17-07(A)	none (See A.I.2.b.)

2. Additional Terms and Conditions

- 2.a** The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. 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 facility is located in Crawford County, which is identified as a P-2 county.
- 2.b** This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c** The OC limitation of 1.17 lbs/hr is established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with this limit.
- 2.d** This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 8 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the process baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the process baghouse on a weekly basis.

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

2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each period where the recorded pressure drop was not within the range specified in Section A.II.1 above. The deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.
2. The permittee shall notify the Director (the Ohio EPA, Northwest District Office) in writing of any daily record showing the use of any photochemically reactive coating and/or cleanup material in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA, Northwest District Office) within 45 days after the event occurs.
3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I of these terms and conditions shall be determined in accordance with the following methods:
 - 1.a Emission Limitation:
0.1 lb PE/hr

Applicable Compliance Method:

To determine the actual maximum PE rate (E), the permittee may use the following equation:

$$E = \text{maximum process throughput}^*, \text{ in tons per hour} \times [EF \times (1-CE)]$$

$$E = \text{PE rate (lbs/hr)}$$

$$EF = 20 \text{ lbs PE/ton}^{**}$$

$$CE = \text{control efficiency of the baghouse control system (assumed to be 99 percent)}$$

* 232 lbs/hr, from the Title V permit application (80% is solids)

** based on AP-42, Table 6.4-1 (revised 5/83)

If required, the permittee shall demonstrate compliance with the limitation above in accordance with 40 CFR, Part 60, Appendix A, Methods 1 - 5.

V. Testing Requirements (continued)

- 1.b** Emission Limitation:
1.17 lbs OC/hr

Applicable Compliance Method:

The permittee may determine compliance with the limitation above as follows:

$$E = E1 + E2$$

where:

E = OC emission rate (lbs/hr)

E1 = the maximum process throughput* (in tons per hour) x (EF)

E2 = the maximum cleanup material usage rate (gallons/hr) x the maximum OC content of all the cleanup materials (lbs/gallon)

EF = 30 lbs OC/ton**

* 232 lb/hr, from the Title V permit application (the OC content is assumed to be 20%)

** based on AP-42, Table 6.4-1 (revised 5/83)

If required, the permittee shall demonstrate compliance with the limitation above in accordance with 40 CFR, Part 60, Appendix A, Method 25.

- 1.c** Emission Limitation:
Visible PE shall not exceed 5% opacity, as a six-minute average.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible emission limitation above in accordance with 40 CFR, Part 60, Appendix A, Method 9.

- 2.** Formulation data or USEPA Method 24 shall be used to determine the VOC contents of all the coatings.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
varnish mix tank and 'planetary' mixer - with baghouse	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

Pollutant: ethanol

TLV (ug/m3): 1,880,000

Maximum Hourly Emission Rate (lbs/hr): 0.63

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 28

MAGLC (ug/m3): 44,760

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

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

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

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

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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