



Environmental
Protection Agency

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director

4/20/2010

Certified Mail

Jeremy Breitner
GE Lighting Inc - Bucyrus Lamp Plant
GE Company - Bucyrus Lamp Plant
1250 South Walnut Street
Bucyrus, OH 44820

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

RE: FINAL AIR POLLUTION PERMIT-TO-INSTAL
Facility ID: 0317010010
Permit Number: P0105519
Permit Type: Initial Installation
County: Crawford

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Kevin Boyce," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. If you have any questions regarding this permit, please contact the Ohio EPA DAPC, Northwest District Office. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

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

Cc: U.S. EPA
Ohio EPA-NWDO; Canada



FINAL

**Division of Air Pollution Control
Permit-to-Install
for
GE Lighting Inc - Bucyrus Lamp Plant**

Facility ID: 0317010010
Permit Number: P0105519
Permit Type: Initial Installation
Issued: 4/20/2010
Effective: 4/20/2010

Division of Air Pollution Control
Permit-to-Install
for
GE Lighting Inc - Bucyrus Lamp Plant

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Authorization

Facility ID: 0317010010
Facility Description: Fluorescent Lamp Manufacturing
Application Number(s): A0038156, A0039044
Permit Number: P0105519
Permit Description: L-7 High Speed Horizontal Lamp Assembly Line - HSH IV
Permit Type: Initial Installation
Permit Fee: \$200.00
Issue Date: 4/20/2010
Effective Date: 4/20/2010

This document constitutes issuance to:

GE Lighting Inc - Bucyrus Lamp Plant
GE Company - Bucyrus Lamp Plant
1250 South Walnut Street
Bucyrus, OH 44820

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

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

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

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director



Authorization (continued)

Permit Number: P0105519
Permit Description: L-7 High Speed Horizontal Lamp Assembly Line - HSH IV

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	P035
Company Equipment ID:	L-7
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
 - (1) Standard Term and Condition A.2.a), Severability Clause
 - (2) Standard Term and Condition A.3.c) through A. 3.e) General Requirements
 - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
 - (4) Standard Term and Condition A.9., Reporting Requirements
 - (5) Standard Term and Condition A.10., Applicability
 - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
 - (7) Standard Term and Condition A.14., Public Disclosure
 - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (9) Standard Term and Condition A.16., Fees
 - (10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

- a) 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.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any 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 and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. 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 re-issuance, or modification.

- 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, revoked, or revoked and reissued, for cause. 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 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.

4. 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:
 - (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.
- 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, 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.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Northwest District Office.

- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Northwest District Office. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
 - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the Ohio EPA DAPC, Northwest District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. 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.
 - (4) This permit is for an emissions unit located at a Title V facility. 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 are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. 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, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Northwest District Office in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to 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 emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

- a) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.
- b) Any document (including reports) required to be submitted and required by a federally applicable requirement in this 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.

- c) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

- d) The permittee shall submit progress reports to the Ohio EPA DAPC, Northwest District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. 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.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Northwest District Office.

- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Northwest District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

11. Construction of New Sources(s) and Authorization to Install

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in Ohio EPA's "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

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

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

13. Construction Compliance Certification

The applicant shall identify the following dates in the online facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.

- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

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

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., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. 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. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in Air Services once the transfer is legally completed. The change must be submitted through Air Services within thirty days of the ownership transfer date.

18. 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.

19. 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.

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.

C. Emissions Unit Terms and Conditions



1. P035, L-7

Operations, Property and/or Equipment Description:

L-7 High Speed Horizontal Lamp Assembly Line - HSH IV

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

(1) b)(1)i.. b)(1)g., and d)(1).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	ORC 3704.03(T)	17.68 tons organic compounds (OC)/rolling, 12-month period from coating and cleanup operations 0.30 lb Nitrogen Oxide (NOx)/1000 bulbs from natural gas combustion and binder combustion
b.	OAC rule 3745-21-09 (U)(1)(c)	3.5 pounds of volatile organic compounds (VOC) per gallon of coating, excluding water and exempt solvents [for the coatings used for the metal parts (base cement coatings)]
c.	OAC rule 3745-21-07 (G)(2)	OC emissions shall not exceed 8 pounds per hour and 40 pounds per day (for the coatings/cleanup materials used for only the non-metal parts) [see b)(2)a.]
d.	OAC rule 3745-17-11 (B)(2)	See b)(2)b.
e.	OAC rule 3745-17-07 (A)(1)	See b)(2)c.
f.	OAC rule 3745-18-06 (E)	Exempt [see b)(2)d.]
g.	ORC 3704.03 (F)(3)(c) & (F) (4)	See d)(1)
h	OAC rule 3745-31-05(A)(3), as effective 11/30/01	0.01 lb particulate less than 10 micron in size (PM10)/hr & 0.04 ton PM10/yr from end brushing [see b)(2)j.] Visible particulate emissions PE from end brushing shall not exceed 5% opacity, as a six-minute average. 1.89 lbs carbon monoxide (CO)/hr and

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		8.28 tons CO/yr from natural gas combustion 1.21 lbs sulfur dioxide (SO ₂)/hr & 5.30 tons SO ₂ /hr from sulfur lubricant operations 11.17 tons NO _x /yr See b)(2)e. and b)(2)f.
i.	OAC rule 3745-31-05 (A)3(a)(ii), as effective 12/01/06	See b)(2)g.

(2) Additional Terms and Conditions

- a. This emissions unit becomes subject to the OC emission limitations of 8 lbs/hr and 40 lbs/day [OAC rule 3745-21-07 (G)(2)] on the days any photochemically reactive material (coating and/or cleanup material) is employed in an operation involving non-metal substrates, for coating/cleanup material used associated with non-metal substrates.

On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The requirements of amended OAC rule 3745-21-07 do not apply to emissions units that are installed after February 18, 2008. The following terms and conditions shall become void after U.S. EPA approves the rule revision: OAC rule 3745-21-07 (G)(2).

- b. The uncontrolled mass rate of particulate emissions (PE) 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.
- c. This emissions unit is exempt from the visible particulate emission 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.
- d. 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. The BAT requirements under OAC rule 3745-31-05(A)(3), effective 11/30/01 have been determined to be the following:

- i. The following mass emission rate limitations:
 - (a) 0.01 lb PM10/hr & 0.04 ton PM10/yr from end brushing;
 - (b) 1.89 lbs carbon monoxide CO/hr & 8.28 tons CO/yr from natural gas combustion;
 - (c) 1.21 lbs sulfur dioxide SO2/hr & 5.30 tons SO2/hr from sulfur lubricant operations
 - (d) 11.17 tons NOx/yr;
 - ii. Use of a baghouse (fabric filter) for particulate emissions from the end brushing operation; the fabric filter shall achieve an overall control efficiency of 99%, by weight;
 - iii. compliance with the requirements established under ORC 3704.03(T);
 - iv. compliance with OAC rule 3745-21-09(U)(1)(c); and
 - v. compliance with OAC rule 3745-21-07(G)(2).
- f. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05 (A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutant less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.
- g. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10, CO, and SO2 emissions from this air contaminant source since the uncontrolled potential to emit for PM10, CO and SO2 is less than 10 tons/year.

The potential to emit PM10 is 4.49 tons per year and was calculated by multiplying a maximum phosphor coating application rate of 12.56 lbs/1000 lamps by a maximum lamp production rate of 8500 lamps per hour and a removal rate of 1% of the phosphor applied. The potential to emit does not take into account the use of a baghouse as required under OAC rule 3745-31-05(A)(3), as effective 11/30/01.

The potential to emit CO is 8.28 tons per year and was calculated by multiplying the maximum natural gas usage rate of 22,464 cubic feet/hr by the AP-42

emission factor of 84 lbs of NO_x/mm cu.ft (AP-42, Section 1.4, Table 1.4-1 [revised 7/98]) by a maximum operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton.

The potential to emit SO₂ is 5.3 tons per year and is the summation of SO₂ emissions from the sulphur flare operations and the Lehr Oven. These emissions were calculated as follows:

Flare Operations - multiplying the maximum material usage rate of 0.00013 lb material/bulb by an emission rate of 1.0 lbs SO₂/bulb by a maximum bulb production rate of 8500 bulbs/hr.

- h. The emission limitations for, CO, NO_x and SO₂ established in this permit to install (PTI) reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limitations.
 - i. Sections b)(2)a. through b)(2)h. above are intended for clarification of current regulatory applicability and requirements at the time of permit issuance, and are not intended to address or prohibit any change that could otherwise be processed under OAC rule 3745-77-07 (I).
 - j. All emissions of particulate matter are PM₁₀.
- c) Operational Restrictions
- (1) None.
- d) Monitoring and/or Recordkeeping Requirements
- (1) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit-to-install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit-to-install.
 - (2) The permittee shall maintain daily records of the following information for this emissions unit:
 - a. the company name and identification number of each coating/ink applied to non-metal substrates;
 - b. the company name and identification number of each cleanup material employed; and
 - c. whether or not each coating/ink and cleanup material employed is a photochemically reactive material.

- (3) On any day when any photochemically reactive material is employed in an operation involving non-metal substrates, the permittee shall collect and record the following information for this emission unit for each such day:
- a. the company name and identification of the following
 - i. each coating and ink employed on non-metal substrates; and
 - ii. each photochemically reactive cleanup material employed;
 - b. the total number of lamps processed;
 - c. the OC emissions from all the coatings and inks employed on non-metal substrates, in pounds;
 - d. the OC content of each photochemically reactive cleanup material employed, in pounds per gallon;
 - e. the number of gallons of each photochemically reactive cleanup material employed;
 - f. the OC emissions from each photochemically reactive cleanup material employed [d)(3)d x d)(3)e], in pounds;
 - g. the total OC emissions from all the photochemically reactive cleanup materials employed [summation of d)(3)f for all photochemically reactive cleanup materials], in pounds;
 - h. the total number of hours the emissions unit was in operation while coating non-metal substrates and employing photochemically reactive cleanup materials;
 - i. the total OC emissions from all the coatings/inks and photochemically reactive cleanup materials employed [sum of d)(3)c and d)(3)g], in pounds; and
 - j. the average hourly OC emission rate [d)(3)i / d)(3)h], in pounds per hour (average).

[Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit. Also, the definitions of "photochemically reactive" is based upon OAC rule 3745-21-01(C)(5).

- (4) On the days when coating metal parts, the permittee shall collect and record the following information for this emissions unit for the coatings used for the metal parts:
- a. the company name and identification of each coating (base cement) employed; and
 - b. the VOC content of each coating (pounds/gallon, excluding water and exempt solvents) employed. [The VOC content excluding water and exempt solvents shall be calculated in accordance with the equation specified in paragraph (B)(8) of OAC rule 3745-21-10 for CVOC,2.]

- (5) In conjunction with the coating information required in d)(4) above, the permittee shall collect and record the following information each month for all OC emissions emitted (including OC emissions from the use of photochemically reactive materials, non-photochemically reactive materials, and base cement) from lamp processing for this emissions unit:
- the name and identification number of each coating, ink and base cement employed;
 - the total number of lamps processed;
 - the total number of bases cemented;
 - the total OC emissions from the coatings and inks employed, in pounds; and
 - the total OC emissions from all the base cement employed
- (6) The permittee shall collect and record the following information each month for all the cleanup materials employed in this emissions unit:
- the name and identification of each cleanup material employed;
 - the OC content of each cleanup material employed, in pounds per gallon;
 - the number of gallons of each cleanup material employed;
 - the OC emissions from each cleanup material employed [d)(6)b. x d)(6)c.];
 - the total OC emissions from all the cleanup materials employed [summation of d)(6)d. for all cleanup materials], in pounds.
- (7) The permittee shall collect and record the following each month for total OC emissions for this emissions unit:
- the total OC emissions each month calculated as follows:
$$\text{total OC emissions (tons/month)} = \{ \text{the total OC emissions from lamp processing [from d)(5)d]} + \text{the total OC emissions from base cementing [from d)(5)e]} + \text{the total OC emissions from cleanup materials usage [from d)(6)e]} / 2000;$$
 - the rolling, 12-month summation of OC emissions.
- (8) The permittee shall monitor at least once every fifteen minutes the pressure drop across the baghouse (fabric filter) serving the end brushing operation during operation of this emissions unit, and record the average of those values over the period during which this emissions unit operates each day. For purposes of this requirement, the permittee shall record one average total pressure drop value for the control device each day, for a period beginning at midnight or such time after midnight when the emissions unit begins to operate and ending at the time the emissions unit ceases that day or at midnight should the emissions unit operate beyond midnight. If the emissions unit starts and

stops more than once during this 24-hour period, the permittee shall record the average value for the time during this 24-hour period when the emissions unit is in operation. Hereinafter this value shall be called a "Daily Pressure Drop Value".

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

The Pressure Drop Ranges is:

- a. for the end brushing baghouse, 0.2 to 6.0 inches of water.

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

e) Reporting Requirements

- (1) The permittee shall notify the Northwest District Office in writing of any daily record showing the use of base cement exceeding 3.5 pounds of volatile organic compounds (VOC) per gallon of coating, excluding water and exempt solvents. The notification shall include a copy of such record and shall be sent to the Northwest District Office within 30 days following the end of the calendar month.
- (2) The permittee shall submit semiannual reports that identify the following information concerning the operation of the baghouse (fabric filter) during operation of this emissions unit:
 - a. the total duration (in days) that its Daily Pressure Drop Value was outside of its applicable Pressure Drop Range; and
 - b. any and all omissions of the monitoring, record keeping, investigation, and malfunction reporting requirements specified in d)(8) of this permit.

These semiannual reports shall be submitted by January 31 for the six-month period ending December 31 and by July 31 for the six-month period ending June 30

- (3) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the hourly and daily OC emission limitations of 8 and 40 pounds, respectively (on any day any PRM was employed while coating non-metal substrates);

The quarterly reports shall be submitted, each year by January 31, April 30, July 31, and October 31, and shall cover the previous calendar quarters unless an alternative schedule has been established and approved by the Director (Ohio EPA, Northwest District Office).

- (4) The permittee shall submit annual reports that summarize the actual annual OC emissions for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
- (5) The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.
- (6) Quarterly reports and summaries, annual reports, and semiannual reports shall be submitted, electronically through Ohio EPA Air Services, by the dates indicated for each type of submission.

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

- a. Emission Limitation:
17.68 tons OC/rolling, 12-month period

Applicable Compliance Method:

Compliance with the OC emission limitation above shall be demonstrated based on the monitoring and recordkeeping established in section d)(7) of this permit.

- b. Emission Limitation:
0.30 lb NO_x/1000 bulbs from natural gas combustion and binder combustion

Applicable Compliance Method:

The allowable NO_x emission limitation was established by summing NO_x emissions from natural gas combustion as well as emissions from the binder combustion as calculated below:

Natural gas combustion emissions were determined by multiplying the maximum natural gas usage rate of 22,464 cubic feet/hr by the AP-42 emission factor of 100 lbs of NO_x/mm cu. ft (AP-42, Section 1.4, Table 1.4-1 [revised 7/98]) dividing by 8500 lbs/hr and multiply by a factor of 1000

NO_x emissions from the binder combustion were determined by multiplying the maximum phosphor coating application rate of 12.22 lbs/gallon, by a maximum gallon usage of 0.0023 gallons phosphor coating/bulb, by 0.11 lb of binder/lb of phosphor coating, then by 0.0055 lb of NO_x/lb of binder, multiplying by a factor of 1000.

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

- c. Emission Limitation:
11.17 tons NOx/yr from natural gas combustion and binder combustion

Applicable Compliance Method:

The allowable NOx emission limitation was determined by multiplying the emission limitation of 0.30 lb NOx/1000 bulbs lamps by the maximum production rate of 8500 lamps per hour, and then by 8760 hours, and dividing by 2000. It shall be a rebuttable presumption that compliance with the annual emission limitation has been attained as long as compliance with the lb/1000 bulb emission limitation is maintained.

- d. Emission Limitation:
0.01 lb PM10/hr

Applicable Compliance Method:

The hourly allowable PM10 limitation was established by multiplying the maximum phosphor coating application rate of 12.56 lbs/1000 lamps by the production rate of 8500 lamps per hour, a removal rate of 1% of the phosphor applied, and then multiplying by a control factor (1-0.99*)

If required, the permittee shall demonstrate compliance in accordance with Methods 1-4 of 40 CFR, Part 60, Appendix A and Methods 201/201A and 202 of 40 CFR, Part 51, Appendix M .

*the baghouse control efficiency is assumed to be 99%

- e. Emission Limitation:
Visible PE shall not exceed 5% opacity, as a six-minute average (end brushing)

Applicable Compliance Method:

Compliance shall be determined in accordance with the test method and procedures in Method 9 of 40 CFR, Part 60, Appendix A.

- f. Emission Limitation:
1.89 lbs CO/hr

Applicable Compliance Method:

The hourly allowable CO emission limitation was established by multiplying the maximum natural gas usage rate of 22,464 cu. ft/hr by the AP-42 emission factor of 84 lbs of CO/mm cu.ft (AP-42, Section 1.4, Table 1.4-1 [revised 7/98]).

If required, the permittee shall demonstrate compliance in accordance with the Methods 1-4 and 10 of 40 CFR, Part 60, Appendix A.

- g. Emission Limitation:
1.21 lbs SO2/hr

Applicable Compliance Method:

The hourly allowable SO₂ emission limitation was established by summing the maximum of 0.11 lb of SO₂/hr injected in the Lehr and 1.1 lbs SO₂/hr injected in the flare machines.

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

h. Emission Limitations:

0.04 ton PM₁₀/yr
8.28 tons CO/yr
5.30 tons SO₂/yr

Applicable Compliance Method:

The annual emission limitation for each pollutant was determined by multiplying the hourly emission limitation for the specific pollutant by 8760, and then dividing by 2000. It shall be a rebuttable presumption that compliance with the annual emission limitation has been attained as long as compliance with the hourly emission limitation for the specific pollutant is maintained.

i. Emission Limitation:

3.5 pounds of VOC/gallon of coating, excluding water and exempt solvents [for the coatings used for the metal parts (base cement coatings)]

Applicable Compliance Method:

Compliance with the OC emission limitation above shall be demonstrated based on the monitoring and recordkeeping established in section d)(4) of this permit.

j. Emission Limitation:

OC emissions shall not exceed 8 pounds per hour and 40 pounds per day (for the coatings/cleanup materials used for only the non-metal parts)

Applicable Compliance Method:

Compliance with the OC emission limitation above shall be demonstrated based on the monitoring and recordkeeping established in section d)(3) of this permit.

- (2) Formulation data or U.S. EPA Method 24 shall be used to determine the OC/VOC contents of all the coatings and cleanup materials.

g) Miscellaneous Requirements

- (1) None.