



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

7/2/2013

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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0165010026
Permit Number: P0114441
Permit Type: Initial Installation
County: Pickaway

Certified Mail

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

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) 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. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

How to appeal this permit

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 Josh Mandel," 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
77 South High Street, 17th Floor
Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

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. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/dapc/pemitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Ohio EPA DAPC, Central District Office at (614)728-3778 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA
Ohio EPA-CDO; Kentucky



FINAL

**Division of Air Pollution Control
Permit-to-Install
for
GE Circleville Lamp Plant**

Facility ID:	0165010026
Permit Number:	P0114441
Permit Type:	Initial Installation
Issued:	7/2/2013
Effective:	7/2/2013



Division of Air Pollution Control
Permit-to-Install
for
GE Circleville Lamp Plant

Table of Contents

Authorization	1
A. Standard Terms and Conditions	4
1. Federally Enforceable Standard Terms and Conditions	5
2. Severability Clause	5
3. General Requirements	5
4. Monitoring and Related Record Keeping and Reporting Requirements.....	6
5. Scheduled Maintenance/Malfunction Reporting	7
6. Compliance Requirements	7
7. Best Available Technology	8
8. Air Pollution Nuisance	8
9. Reporting Requirements	8
10. Applicability	9
11. Construction of New Sources(s) and Authorization to Install	9
12. Permit-To-Operate Application	10
13. Construction Compliance Certification	10
14. Public Disclosure	10
15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations	10
16. Fees.....	11
17. Permit Transfers	11
18. Risk Management Plans	11
19. Title IV Provisions	11



Final Permit-to-Install
GE Circleville Lamp Plant
Permit Number: P0114441
Facility ID: 0165010026
Effective Date: 7/2/2013

Authorization

Facility ID: 0165010026
Facility Description: Electric lamps
Application Number(s): A0047706, A0048099
Permit Number: P0114441
Permit Description: Installation of three energy efficient halogen (EEH) lamp lines at the Circleville Lamp Plant.
Permit Type: Initial Installation
Permit Fee: \$1,200.00
Issue Date: 7/2/2013
Effective Date: 7/2/2013

This document constitutes issuance to:

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

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

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

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

The above named entity is hereby granted a 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

A handwritten signature in black ink, appearing to read "Scott J. Nally".

Scott J. Nally



Final Permit-to-Install
GE Circleville Lamp Plant
Permit Number: P0114441
Facility ID: 0165010026
Effective Date: 7/2/2013

Director



Authorization (continued)

Permit Number: P0114441

Permit Description: Installation of three energy efficient halogen (EEH) lamp lines at the Circleville Lamp Plant.

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

Emissions Unit ID:	P028
Company Equipment ID:	Base cement mixing
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Group Name: EEH Basefill Machines

Emissions Unit ID:	K010
Company Equipment ID:	EEH Basefill Machine No. 1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	K011
Company Equipment ID:	EEH Basefill Machine No. 2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Group Name: EEH Lamp Assembly

Emissions Unit ID:	P056
Company Equipment ID:	EEH Lamp Assembly No. 1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P057
Company Equipment ID:	EEH Lamp Assembly No. 2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P058
Company Equipment ID:	EEH Lamp Assembly No. 3
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



Final Permit-to-Install
GE Circleville Lamp Plant
Permit Number: P0114441
Facility ID: 0165010026
Effective Date: 7/2/2013

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 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 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, Central 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, Central 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, Central 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, Central 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, Central 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, Central 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, Central 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.



Final Permit-to-Install
GE Circleville Lamp Plant
Permit Number: P0114441
Facility ID: 0165010026
Effective Date: 7/2/2013

B. Facility-Wide Terms and Conditions



Final Permit-to-Install
GE Circleville Lamp Plant
Permit Number: P0114441
Facility ID: 0165010026
Effective Date: 7/2/2013

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.



Final Permit-to-Install
GE Circleville Lamp Plant
Permit Number: P0114441
Facility ID: 0165010026
Effective Date: 7/2/2013

C. Emissions Unit Terms and Conditions



1. P028, Base cement mixing

Operations, Property and/or Equipment Description:

Base cement mixing

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Fugitive Particulate Emissions (PE) shall not exceed 0.48 pound per hour and 1.85 tons per year. See (2)a.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See (2)b.
c.	ORC 3704.03(T)	Fugitive Volatile Organic Compounds (VOC) shall not exceed 4.83 pounds per hour. See (2)c.
d.	OAC rule 3745-17-07(A)	See (2)d.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (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 the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) 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 OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the SIP.

BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE emissions from this air contaminant source since the uncontrolled potential to emit for PE is less than 10 tons/year.

- c. This VOC hourly limitation was based on the uncontrolled potential to emit.
- d. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation. Since the baghouse is vented inside the building the visible PE limits do not apply.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information each month for the base cement mixing:
 - a. the name and identification number for each cement, as applied;
 - b. the mass of VOC per volume of each cement, excluding water and exempt solvents, as applied; and
 - c. the amount of each cement mixed.

e) Reporting Requirements

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

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:
PE shall not exceed 0.48 pound per hour and 1.85 tons per year.

Applicable Compliance Method:
PE limit is based on an emission factor of 20 lb PE/ton solids, AP42 Table 6.4-1 (5/83). The maximum cement mixed per hour is 322 pounds or 0.16. The capture efficiency is assumed 85% and baghouse control is 99%. The annual



limit is based on the maximum cement production of 1231 tons of cement per year.

$$(0.16 \text{ tons/hr cement})(0.95 \text{ tons solids/ton cement})(20 \text{ lb PE/ton solids}) = 3.05 \text{ lb PE/hr PTE}$$

$$(3.05 \text{ lb PE/hr})(0.85)(1-0.99) = 0.03 \text{ lb PE/hr controlled emissions}$$

$$(3.05 \text{ lb PE/hr})(0.15) = 0.46 \text{ lb PE/hr fugitive}$$

$$\text{Total controlled and fugitive} = 0.49 \text{ lb PE/hr}$$

$$(1231 \text{ tons/yr cement})(0.95 \text{ tons solids/ton cement})(20 \text{ lb PE/ton})[(0.85)(1-0.99)+(0.15)] = (3707.16 \text{ lbs})(1 \text{ ton}/2000 \text{ lbs}) = 1.85 \text{ TPY PE}$$

Compliance shall be based on the recordkeeping requirements in section d)(1).

- b. Emission Limitation:
VOC shall not exceed 4.83 pounds per hour.

Applicable Compliance Method:

VOC limit is based on an emission factor of 30 lb VOC/ton solids, AP42 Table 6.4-1 (5/83). The maximum cement mixed per hour is 322 pounds or 0.16 tons. The annual limit is based on the maximum cement production of 1231 tons of cement per year.

$$(0.16 \text{ tons/hr})(30 \text{ lb VOC/ton solids}) = 4.83 \text{ lb VOC/hr}$$

Compliance shall be based on the recordkeeping requirements in section d)(1).

- g) Miscellaneous Requirements

- (1) None.



2. Emissions Unit Group -EEH Basefill Machines: K010,K011,

EU ID	Operations, Property and/or Equipment Description
K010	EEH Basefill Machine No. 1
K011	EEH Basefill Machine No. 2

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	ORC 3704.03(T)	<u>Emissions shall not exceed:</u> <u>K010</u> Volatile Organic Compounds (VOC) shall not exceed 0.62 pounds per hour. <u>K011</u> VOC shall not exceed 0.62 pounds per hour. See (2)a.

(2) Additional Terms and Conditions

a. This VOC hourly limitation was based on the uncontrolled potential to emit assuming that 11% of the VOC in the cement is lost in the basefill process.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the following information each month for the lubricant and shall maintain this information at the facility for a period of three years:

a. the name and identification number of each lubricant, as applied;



b. the mass of VOC per volume of each lubricant.

e) Reporting Requirements

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

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

K010:

VOC shall not exceed 0.62 pounds per hour.

K011:

VOC shall not exceed 0.62 pounds per hour.

Applicable Compliance Method:

This limit is based on the maximum usage amount of lubricant used in the process and the average amount of cement applied per base assuming that 11% of the VOC in the cement is lost in the basefill process.

Lubricant VOC emissions = (1.5 gal/day lubricant)(1 day/24 hours)(6.71 lb/gal lubricant)(0.97 lb VOC/lb lubricant) = 0.41 lb VOC/hr

Cement VOC emission factor = (4.30 lb cement/1000 bases)(0.053 lb VOC/lb cement)(0.11 lb VOC emitted/lb VOC) = 0.025 lb VOC emitted/1000 bases

Cement VOC emissions = (0.025 lb VOC emitted/1000 bases)(8250 bases/hr) = 0.21 lb VOC/hr

Total VOC emissions from each emissions unit = (0.41 + 0.21) = 0.62 lb VOC/hr

Compliance shall be based on the recordkeeping requirements in section d)(1).

g) Miscellaneous Requirements

(1) None.



3. Emissions Unit Group -EEH Lamp Assembly: P056,P057,P058,

EU ID	Operations, Property and/or Equipment Description
P056	EEH Lamp Assembly No. 1
P057	EEH Lamp Assembly No. 2
P058	EEH Lamp Assembly No. 3

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
- (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
- (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC 3745-31-05(A)(3), as effective 11/30/01	<u>Emissions shall not exceed:</u> <u>P056</u> Fugitive Volatile Organic Compounds (VOC) shall not exceed 0.21 pound per hour and 0.92 ton per year. <u>P057</u> Fugitive VOC shall not exceed 0.21 pound per hour and 0.92 ton per year. <u>P058</u> Fugitive VOC shall not exceed 0.21 pound per hour and 0.92 ton per year. See (2)a.
b.	OAC 3745-31-05(A)(3)(b), as effective 12/01/06	See (2)b.
c.	OAC rule 3745-17-07(A)	See (2)c.
d.	ORC 3704.03(T)	<u>Emissions shall not exceed:</u> <u>P056</u> Fugitive Particulate Emissions (PE) shall not exceed 0.50 pound per hour and 2.19 tons per year.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<u>P057</u> Fugitive PE shall not exceed 0.50 pound per hour and 2.19 tons per year. <u>P058</u> Fugitive PE shall not exceed 0.50 pound per hour and 2.19 tons per year.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (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 the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) 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 OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the SIP.

BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the uncontrolled potential to emit for PE is less than 10 tons/year.

c. The emissions from the E-Coat application process in this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation. Since the baghouse is vented inside the building the visible PE limits do not apply.

d. The VOC hourly limitation was based on the uncontrolled potential to emit assuming that 89% of the VOC in the cement is lost in the lamp assembly process.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the number of lamps assembled each month for each EEH Lamp Assembly line.



e) Reporting Requirements

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

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

P056

Fugitive PE shall not exceed 0.50 pound per hour and 2.19 tons per year.

P057

Fugitive PE shall not exceed 0.50 pound per hour and 2.19 tons per year.

P058

Fugitive PE shall not exceed 0.50 pound per hour and 2.19 tons per year.

Applicable Compliance Method:

PE limit is based on an emission factor of 0.61 lb PE/thousand lamps assembled. This emission factor does not include emissions from combustion of natural gas for the process heating. The maximum assembly rate is 5,000 lamps per hour. The capture efficiency is assumed to be 85% and baghouse control is 99%. The annual limit is based on 8760 hours per year.

Natural Gas Combustion

$$(0.0013 \text{ mmscf natural gas/hr})(12 \text{ lb PE/mmscf}) = 0.016 \text{ lb PE/hr}$$

$$(0.016 \text{ lb PE/hr})(8760 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) = 0.068 \text{ ton PE/yr}$$

Lamp Assembly

$$(5000 \text{ lamps/hr})(0.61 \text{ lb PE/thousand lamps}) = 3.05 \text{ lb PE/hr PTE}$$

$$(3.05 \text{ lb PE/hr})(0.85)(1-0.99) = 0.03 \text{ lb PE/hr controlled emissions}$$

$$(3.05 \text{ lb PE/hr})(0.15) = 0.46 \text{ lb PE/hr fugitive}$$

$$\text{Total controlled and fugitive} = 0.5 \text{ lb PE/hr}$$

$$(0.5 \text{ lb PE/hr})(8760 \text{ hr/yr}) / 2000 \text{ lb/ton} = 2.19 \text{ TPY PE}$$

Compliance shall be based on the recordkeeping requirements in section d)(1).

b. Emission Limitation:

P056

Fugitive VOC shall not exceed 0.21 pound per hour and 0.92 ton per year.

P057

Fugitive VOC shall not exceed 0.21 pound per hour and 0.92 ton per year.

P058



Fugitive VOC shall not exceed 0.21 pound per hour and 0.92 ton per year.

Applicable Compliance Method:

VOC limit is based on natural gas combustion emissions, an emission factor of 0.04 lb VOC/thousand lamps assembled and assuming that 89% of the VOC in the cement is lost in the lamp assembly process. The maximum natural gas combustion rate is 0.00133 MMscf per hour and the maximum lamp assembly rate is 5000 lamps per hour. The annual limit is based on maximum lamp production of 43,800,000 lamps per year, 5000 lamps per hour times 8760 hours per year.

Natural Gas Combustion

$(0.00133 \text{ MMscf natural gas/hr})(7.26 \text{ lb VOC/MMscf}) = 0.01 \text{ lb VOC/hr}$
 $(0.01 \text{ lb VOC/hr})(8760 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) = 0.04 \text{ lbs VOC/yr}$

Lamp Assembly

$(5000 \text{ lamps/hr})(0.04 \text{ lb VOC}/\text{thousand lamps}) = 0.21 \text{ lb VOC/hr}$
 $(0.21 \text{ lb VOC/hr})(8760 \text{ hr/yr}) / 2000 \text{ lb/ton} = 0.92 \text{ TPY VOC}$

Compliance shall be based on the recordkeeping requirements in section d)(1).

g) **Miscellaneous Requirements**

(1) None.