



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

12/23/2015

Brian LaPoint
Closed Loop Glass Solutions
107 S 41st AVE
STE 100
Phoenix, AZ 85009

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0637015012
Permit Number: P0118427
Permit Type: Initial Installation
County: Hocking

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
Yes	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/survey.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, Southeast District Office at (740)385-8501 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael E. Hopkins, P.E.
Assistant Chief, Permitting Section, DAPC

Cc: U.S. EPA
Ohio EPA-SEDO; West Virginia



FINAL

Division of Air Pollution Control
Permit-to-Install
for
Closed Loop Glass Solutions

Facility ID:	0637015012
Permit Number:	P0118427
Permit Type:	Initial Installation
Issued:	12/23/2015
Effective:	12/23/2015



Division of Air Pollution Control
Permit-to-Install
for
Closed Loop Glass Solutions

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Final Permit-to-Install
Closed Loop Glass Solutions
Permit Number: P0118427
Facility ID: 0637015012
Effective Date: 12/23/2015

Authorization

Facility ID: 0637015012
Facility Description: Glass Furnace
Application Number(s): A0052777, A0054856
Permit Number: P0118427
Permit Description: Initial installation permit for a batch house for processing CRT glass and melt furnace for glass products and lead ingots. The emissions units are classified as new sources under 40 CFR Part 63, Subpart X.
Permit Type: Initial Installation
Permit Fee: \$1,000.00
Issue Date: 12/23/2015
Effective Date: 12/23/2015

This document constitutes issuance to:

Closed Loop Glass Solutions
1659 E Front St
Logan, OH 43138

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

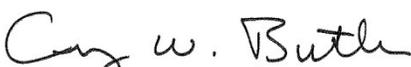
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Southeast District Office
2195 Front Street
Logan, OH 43138
(740)385-8501

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


Craig W. Butler
Director



Final Permit-to-Install
Closed Loop Glass Solutions
Permit Number: P0118427
Facility ID: 0637015012
Effective Date: 12/23/2015

Authorization (continued)

Permit Number: P0118427

Permit Description: Initial installation permit for a batch house for processing CRT glass and melt furnace for glass products and lead ingots. The emissions units are classified as new sources under 40 CFR Part 63, Subpart X.

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

Emissions Unit ID:	P001
Company Equipment ID:	Glass Furnace
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P002
Company Equipment ID:	Batch House
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



Final Permit-to-Install
Closed Loop Glass Solutions
Permit Number: P0118427
Facility ID: 0637015012
Effective Date: 12/23/2015

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) 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, Southeast 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, Southeast 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 to the Ohio EPA DAPC, Southeast 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, Southeast 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) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted

local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

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.

- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with 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.
- c) The permittee shall submit progress reports to the Ohio EPA DAPC, Southeast 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, Southeast 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, Southeast 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 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) not exempt from the requirement to obtain a Permit-to-Install.

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 permittee 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 "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director 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.

Unless otherwise exempted, no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

- 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 operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d) must be obtained before operating the source in a manner that would violate the existing Title V permit requirements.

13. Construction Compliance Certification

The applicant shall identify the following dates in the "Air Services" 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 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
Closed Loop Glass Solutions
Permit Number: P0118427
Facility ID: 0637015012
Effective Date: 12/23/2015

B. Facility-Wide Terms and Conditions



Final Permit-to-Install
Closed Loop Glass Solutions
Permit Number: P0118427
Facility ID: 0637015012
Effective Date: 12/23/2015

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.
2. The following emissions units in this permit are subject to National Emissions Standards for Hazardous Air Pollutants (NESHAP) from Secondary Lead Smelting 40 CFR Part 63, Subpart X, Maximum Achievable Control Standards (MACT): P001 and P002. The complete NESHAP/MACT requirements, including the NESHAP/MACT General Provisions, may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the appropriate Ohio EPA District Office or local air agency.



Final Permit-to-Install
Closed Loop Glass Solutions
Permit Number: P0118427
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C. Emissions Unit Terms and Conditions

1. P001, Glass Furnace

Operations, Property and/or Equipment Description:

18,000 ton per year, electric glass furnace equipped with a baghouse and thermal oxidation unit.

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) See b)(1)c., b)(2)c. and f)(1)a. –b.

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 06/30/08	The requirements of this rule are equivalent to the requirements of 40 CFR Part 63, Subpart X. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 06/30/08	See b)(2)b.
c.	OAC rule 3745-31-05(E) [Voluntary limitation to satisfy the maximum incremental impact of Pb emissions under the NAAQS]	Lead (Pb) emissions shall not exceed 0.000108 pound per hour (lb/hr) and 0.00047 ton per year (tpy). See b)(2)c. and c)(1)
d.	OAC rule 3745-17-07(A)	The requirements of this rule are less stringent than the requirements of 40 CFR Part 63, Subpart X.
e.	OAC rule 3745-17-11	The requirements of this rule are less stringent than the requirements of 40 CFR Part 63, Subpart X.
f.	40 CFR Part 63, Subpart X [In accordance with 40 CFR 63.6543(b) this facility is a new source subject to the emission limitations/control measures specified in this section.]	Process vent gases must be maintained at concentrations at or below the following: 0.20 mg Pb/dscm (0.000087 gr Pb/dscf); The baghouse serving the glass furnace shall be equipped with a high efficiency particulate air (HEPA) filter as a secondary filter.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See b)(2)d., c)(2), d)(4), e)(3), f)(1)c. and f)(2)
g.	40 CFR Part 63, Subpart A	Table I of 40 CFR Part 63, Subpart X, <i>Applicability of General Provisions to Subpart X identifies which parts of the General Provisions</i> , in 40 CFR 63.1-15 apply.

(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the volatile organic compound (VOC) and lead emissions from this emissions unit because the controlled annual emission rate for VOC and lead is each less than 10 tons per year, taking into account the federally enforceable rule limits of 40 CFR Part 63, Subpart X under 40 CFR §63.543(b).

- c. The permittee shall maintain a stack distance of at least 48.0 meters from any property line.
- d. The permittee shall comply with the applicable requirements necessary to demonstrate compliance with 40 CFR Part 63, Subpart X.

63.543(b)	Emission limitations
63.546(b)	Compliance dates
63.551	Implementation and enforcement
63.552	Affirmative defense to civil penalties for exceedance of emission limit during malfunction
Table 1 to Subpart X of Part 63	General Provisions Applicability to Subpart X

c) Operational Restrictions

- (1) The permittee shall not accept or store cathode ray tube (CRT) glass at the facility until it has a feasible means of recycling at the facility. The permittee shall notify Southeast District Office within 30 days of receipt of CRT glass.
- (2) The permittee shall comply with the applicable requirements necessary to demonstrate compliance with 40 CFR Part 63, Subpart X.

63.543(k)	General operational requirements
63.544	Total enclosure operational requirements
63.545	Fugitive dust operational requirements

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the afterburner or furnace exhaust stack when the emissions unit is in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The acceptable temperature setting shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate temperature range is established to demonstrate compliance. Following compliance testing, the permittee shall collect and record the following information each day the emissions unit(s) is/are in operation:
 - a. all 3-hour blocks of time, when the emissions unit(s) vented to the afterburner or exhaust stack in operation, during which the average combustion temperature within the afterburner or furnace exhaust stack was more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance; and
 - b. a log or record of the operating time for the capture (collection) system, afterburner, monitoring equipment, and the associated emissions unit(s).

These records shall be maintained at the facility for a period of three years.

- (2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable combustion temperature within the afterburner or furnace exhaust stack, during any period of time when the emissions unit(s) is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent compliant stack test. Until compliance testing has been

conducted, the furnace shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manual.

- (3) Whenever the monitored average combustion temperature within the afterburner or furnace exhaust stack deviates from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
- a. the date and time the deviation began;
 - b. the magnitude of the deviation at that time;
 - c. the date the investigation was conducted;
 - d. the name(s) of the personnel who conducted the investigation; and
 - e. the findings and recommendations.

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

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the temperature readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

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

The temperature range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted temperature range/limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

- (4) The permittee shall comply with the applicable requirements necessary to demonstrate compliance with 40 CFR Part 63, Subpart X.

63.548(a) – (d), (g), (k), and (l)	Monitoring requirements
63.550(a), (c)	Recordkeeping requirements

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
- each period of time (start time and date, and end time and date) when the average combustion temperature within the afterburner or furnace exhaust stack was outside of the range specified by the manufacturer and/or outside of the acceptable range following any required compliance demonstration;
 - any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the afterburner or furnace exhaust stack;
 - each incident of deviation described in “a” or “b” (above) where a prompt investigation was not conducted;
 - each incident of deviation described in “a” or “b” where prompt corrective action, that would bring the emissions unit(s) into compliance and/or the temperature within the afterburner or furnace exhaust stack into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - each incident of deviation described in “a” or “b” where proper records were not maintained for the investigation and/or the corrective action(s).

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

- (3) The permittee shall comply with the applicable requirements necessary to demonstrate compliance with 40 CFR Part 63, Subpart X.

63.550(a), (b), (d), (e)(1)-(3), (e)(6)-(7), and (e)(10)-(14)	Reporting requirements
63.549	Notification requirements

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

0.000108 lbPb/hr

Applicable Compliance Method

Pursuant to §63.7, the permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

i. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.

ii. The emission testing shall be conducted to demonstrate compliance with the allowable concentration of lead in the exhaust stream.

iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate:

Methods 1 – 4 located in 40 CFR Part 60, Appendix A

Method 12 or Method 29 located in 40 CFR Part 60, Appendix A

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

iv. The test(s) shall be conducted under maximum representative operating conditions for the process. During the performance test, you may operate the control device at maximum or minimum representative operating conditions for monitored control device parameters, whichever results in lower emission reduction. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

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



- vi. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- vii. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

b. Emission Limitation

0.00047 tpyPb

Applicable Compliance Method

Compliance shall be determined by multiplying the hourly emission limitation by a conversion factor of 8,760 hours/yr and 1 ton/2000. Provided compliance with the hourly emission limitation is shown, compliance with the annual limitation will be assumed.

- (2) The permittee shall comply with the applicable requirements necessary to demonstrate compliance with 40 CFR Part 63, Subpart X.

63.547	Test methods
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g) Miscellaneous Requirements

- (1) None.

2. P002, Batch House

Operations, Property and/or Equipment Description:

Batch House consists of loading area maintained in a total enclosure and maintained under negative pressure by a baghouse; leaded glass silo; screen glass silo, soda-lime glass silo; chemistry silo; and main conveyor in a total enclosure and maintained under negative pressure by a baghouse.

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific 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 06/30/08	The requirements of this rule are equivalent to the requirements established by 40 CFR Part 63, Subpart X. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 06/30/08	See b)(2)b.
c.	OAC rule 3745-17-07(A)	The requirements of this rule are less stringent than the requirements established by 40 CFR Part 63, Subpart X.
d.	OAC rule 3745-17-11	The requirements of this rule are less stringent than the requirements established by 40 CFR Part 63, Subpart X.
e.	40 CFR Part 63, Subpart X [In accordance with 40 CFR 63.543(b) this facility is a new source subject to the emission limitations/control measures specified in this section.]	Process vent gases must be maintained at concentrations at or below the following: 0.20 mg Pb/dscm (0.000087 gr Pb/dscf); The baghouse serving the batch house shall be equipped with a bag leak detection system (BLDS).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See b)(2)e., c)(1), d)(3), e)(3), and f)(2)
f.	40 CFR Part 63, Subpart A	Table I of 40 CFR Part 63, Subpart X, <i>Applicability of General Provisions to Subpart X identifies which parts of the General Provisions</i> , in 40 CFR 63.1-15 apply.

(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the lead emissions from this emissions unit because the controlled annual emission rate for lead is less than 10 tons per year, taking into account the federally enforceable rule limit of 0.000087 grains per dry standard cubic foot under 40 CFR §63.543(b).

- c. The permittee shall comply with the applicable requirements necessary to demonstrate compliance with 40 CFR Part 63, Subpart X.

63.543(b)	Emission limitations
63.546(b)	Compliance dates
63.551	Implementation and enforcement
63.552	Affirmative defense to civil penalties for exceedance of emission limit during malfunction
Table 1 to Subpart X of Part 63	General Provisions Applicability to Subpart X

c) Operational Restrictions

- (1) The permittee shall comply with the applicable requirements necessary to demonstrate compliance with 40 CFR Part 63, Subpart X.

63.543(k)	General operational requirements
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63.544(a)(8)-(9), (b), (c)(1)-(2), and (d)	Total enclosure operational requirements
63.545(a), (b), (c), and (d)	Fugitive dust operational requirements

d) Monitoring and/or Recordkeeping Requirements

- (1) The pressure drop across baghouse shall be maintained within the range of 2 to 10 inches of water while the emissions unit is in operation.
- (2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the emission unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

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

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

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

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the excursion ended;
- i. the total period of time (in minutes) during which there was an excursion;

- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

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

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

- (3) The permittee shall comply with the applicable requirements necessary to demonstrate compliance with 40 CFR Part 63, Subpart X.

63.548(a), (b), (c), (d), (e), (f), (k), and (l)	Monitoring requirements
63.550(a), (b), (c)(1)-(3), and (c)(6)-(12)	Recordkeeping requirements

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the range specified by the manufacturer and outside of the acceptable range following any required compliance demonstration;
 - b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;
 - c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;

- d. each incident of deviation described in “a” where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
- e. each incident of deviation described in “a” where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

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

- (3) The permittee shall comply with the applicable requirements necessary to demonstrate compliance with 40 CFR Part 63, Subpart X.

63.550(a), (d), (e)(1), (e)(4)-(6), (e)(11)-(12), and (e)(14)(i)-(ii)	Reporting requirements
63.549	Notification requirements

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

0.20 mg Pb/dscm (0.000087 gr Pb/dscf);

Applicable Compliance Method

Pursuant to §63.7, the permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- i. The emissions testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.
- ii. The emission testing shall be conducted to demonstrate compliance with the allowable concentration of lead in the exhaust stream.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate:

Methods 1 – 4 located in 40 CFR Part 60, Appendix A

Method 12 or Method 29 located in 40 CFR Part 60, Appendix A



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

- iv. The test(s) shall be conducted under maximum representative operating conditions for the process. During the performance test, you may operate the control device at maximum or minimum representative operating conditions for monitored control device parameters, whichever results in lower emission reduction. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.
- v. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- vi. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- vii. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

- (2) The permittee shall comply with the applicable requirements necessary to demonstrate compliance with 40 CFR Part 63, Subpart X.

63.547(a) and (b)	and Test methods
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g) Miscellaneous Requirements

- (1) None.