



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

8/15/2013

Brian LaPoint  
 Closed Loop Glass Solutions  
 107 S 41st Ave  
 Ste 100  
 Phoenix, AZ 85009

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL  
 Facility ID: 0125044148  
 Permit Number: P0112822  
 Permit Type: Initial Installation  
 County: Franklin

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
Yes	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:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and the local newspaper, The Columbus Dispatch. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

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

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

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Ohio EPA DAPC, Central District Office at (614)728-3778.

Sincerely,

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

Cc: U.S. EPA Region 5 -Via E-Mail Notification  
 Ohio EPA-CDO



**PUBLIC NOTICE – PUBLIC HEARING**  
**OHIO ENVIRONMENTAL PROTECTION AGENCY**  
**ISSUANCE OF DRAFT PERMIT TO INSTALL**  
**CLOSED LOOP GLASS SOLUTIONS**

Public Notice is hereby given that the Ohio Environmental Protection Agency (EPA) has recommended to the Director that the Ohio EPA issue a draft action a Permit-to-Install (PTI) to Closed Loop Glass Solutions, located at 1635 Watkins Road, Columbus, Ohio. The draft permit, P0112822, was issued on 08/15/2013.

This draft permit proposes to allow the installation of a glass furnace that will accept several types of crushed glass that will be melted in a furnace to produce recycled high quality glass.

A public hearing and information session on the draft air permit will be held on Tuesday, September 24, 2013, at the Marion-Franklin High School Library, 1265 Koebel Road, Columbus, Ohio, 43207.

The public information session will commence at 6:00 p.m. and the hearing will follow immediately to accept comments on the draft permit. A presiding officer will be present and may limit oral testimony to ensure that all parties are heard.

All interested persons are entitled to attend or be represented and give written or oral comments on the draft permit at the hearing. Written comments on the draft permit must be received by the close of business on September 26, 2013. Comments received after this date will not be considered to be a part of the official record. Written comments may be submitted at the hearing or sent to: Barbara Walker, Ohio EPA Central District Office, P.O. Box 1049, Columbus, OH 43216-1049.

Copies of the draft permit application and technical support information may be reviewed at <http://epa.ohio.gov/dapc/permitsonline.aspx> by entering the permit # and/or copies made by first calling to make an appointment with Barbara Walker of the Ohio EPA Central District Office at the above address during normal business hours. Telephone number: (614) 728-3805.





## Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description:

Closed Loop Glass Solutions is a new glass recycling facility that will be located at 1635 Watkins Road, Columbus, Ohio, 43207. The facility will be receiving several types of glass cullet, including soda-lime glass, barium glass, leaded glass, or other material to ensure the desired chemistry. The glass cullet will arrive in sealed gaylords which will remain sealed until the material is put into the dump stations for the different silos. The facility will be producing insulation wool, lead ingots, and cullet.

3. Facility Emissions and Attainment Status:

The facility emissions are primarily PE and lead. The facility is subject to the requirements of the Secondary Lead Smelter MACT and is therefore a major source (Title V facility) as the facility has "buildings containing lead bearing materials" at a secondary lead smelter (the glass furnace melts lead-bearing scrap material into elemental lead at temperatures greater than 980 degrees Celsius). The facility is located in Franklin County, Ohio, which is in marginal non-attainment for ozone and annual PM<sub>2.5</sub>.

4. Source Emissions:

There will be only one baghouse that the furnace, silos, conveyor, etc. vent to during the process. Therefore, furnace charging process fugitive emissions and furnace emissions will be emitted through a common emissions point. The common baghouse will use HEPA filters as secondary filters and will therefore not be required to have a bag leak detection system ( 40 CFR 63.548(g))

There are two primary areas located in the facility: the furnace area (process area) and the receiving area/dump station enclosure.

Definitions:

Electric Furnace: Subpart X defines an electric furnace as "a melting furnace consisting of a vessel into which reverberatory furnace slag is introduced....." **NOTE: As the furnace located at Closed Loop Glass Solutions does not accept reverberatory furnace slag, the furnace is not considered an electric furnace under 40 CFR Part 63, Subpart X.**

Fugitive dust source: a stationary source that is not associated with a specific process or process fugitive vent or stack. Fugitive dust sources include, lead bearing material handling transfer points, lead bearing material storage areas.

Furnace and refining/casting area: Any area in which (1) smelting furnaces are located; (2) refining operations occur;



Material storage and handling area: any area in which lead-bearing materials are stored or handled not limited to, areas in which material are stored in open piles, bins or tubs.

Process fugitive emissions source: a source that is not a fugitive dust source. Process fugitive emissions sources include, smelting furnace charging points, smelting furnace lead and slag taps,

## **Process**

Several different types of glass cullet will be shipped to the facility in different sized gaylords. The gaylords will contain soda-lime glass, barium glass, leaded glass, or material to ensure the desired chemistry cullet is obtained. The gaylords will be sealed until the tote is inside the dump station itself and ready to be dumped. The dump stations are specific to the type of material being unloaded and will send the material directly to a silo. The smallest silo is the "chemistry" silo. Material will then move from the silo onto an enclosed conveyor and into the furnace charger/hopper. The dump stations, silos, and enclosed conveyor are all controlled by a baghouse (which is also enclosed and is controlled by the same baghouse).

Once the appropriate mixture is in the furnace charger, the furnace will be charged. There is a lead reservoir, where elemental lead will go and one glass cooling tank. The elemental lead will be processed into ingots in a lead processing enclosure and the desired glass will be processed in the finishing area. The furnace and the lead processing enclosure are controlled by a baghouse.

The non-leaded glass produced will be drawn from the furnace and then packaged for distribution. Gases from the furnace will go through condensing units to cool the vapors and to remove any remaining lead oxide. After the condensers, the gases will go through a recuperative thermal oxidizer (an electric powered ceramic heater) to remove any remaining hydrocarbons and to convert remaining CO to CO<sub>2</sub>.

In accordance with Subpart X, the following process areas are required to be within a permanent total enclosure (PTE): the furnace, furnace charging areas, lead taps, and areas where dust from the fabric filters, sweepings or used fabric filters are processed. PTEs are not required for: lead ingot product handling areas and areas where lead-bearing material is stored in closed containers or enclosed mechanical conveyors.

Fugitive dust sources have separate requirements under Subpart X. Fugitive dust sources include material storage and handling areas, which are defined as "any area ...in which lead-bearing materials are stored or handled...not limited to, areas in which material are stored in open piles, bins or tubs...." There are no locations within the facility where there will be lead-bearing materials that are stored or handled in open bins. The dump station enclosure will receive tubs that are sealed and the tubs will not be opened until they are within the dump station, which are controlled by a baghouse. There are no roadways associated with the facility. The buildings where lead-bearing material is not within sealed containers are part of the Process Fugitive Dust Sources and are therefore not subject to the fugitive dust source requirements.



**Process Vent Emission Limitations:**

The Pb emission limitation established in the MACT would allow for Pb concentrations to be higher than the allowable incremental impact under the NAAQS. Therefore the facility is accepting a voluntary restriction on their Pb emission limitation. Compliance with the more stringent Pb emission limitation will be demonstrated with the compliance tests and the lead CEMS required under the MACT.

The facility submitted SCREEN3 modeling outputs demonstrating that Pb concentrations at the fence line, when the fence line is 48m away, will be less than 1/4 of the NAAQS (Pb NAAQS is 0.15 micrograms per cubic meter, so the allowable incremental impact must be below 0.0375 micrograms per cubic meter).

**PE**

Particulate emissions may also come from the other cullet and the conveying of materials. The baghouse has a grain loading guarantee that will limit particulate emissions from the, including lead to 0.02 grains/dscf.

$$\begin{aligned} PE &= \text{grain loading} \times \text{air flow maximum (cfm)} \times 60 \text{ min/hr} \times 1 \text{ lb/7000 grain} \\ PE &= 0.02 \text{ grain/dscf} \times 2400 \text{ cfm} \times 60 \text{ min/hr} \times 1 \text{ lb/7000 grain} \\ PE &= 0.41 \text{ lb/hr} \end{aligned}$$

$$\begin{aligned} PE &= \text{grain loading} \times \text{air flow maximum (cfm)} \times 60 \text{ min/hr} \times 1 \text{ lb/7000 grain} \times 8760 \text{ hour/yr} \times 1 \text{ ton/2000 lbs} \\ PE &= 0.41 \text{ lb/hr} \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lbs} \\ PE &= 1.80 \text{ ton/yr} \end{aligned}$$

**VOC and CO**

There is no specified hydrocarbon emission limitation (as the furnace does not meet the definition of an electric furnace). BAT will be determined to be 20 ppmv, expressed as propane and corrected to 4% carbon dioxide – equivalent to the emission limitation if there were multiple emission points as in 40 CFR 63.543(f).

**NOTE: For ease in permitting language for the PTI, it will be assumed that hydrocarbon/VOC emissions will be less than 10 tons per year. A compliance test will be performed to determine a site specific VOC and CO emission factor, if emissions exist and the PTI will be modified if needed.**

5. Conclusion:

Annual compliance testing required within the MACT, permit monitoring and recordkeeping, while maintaining compliance with other terms and conditions of this permit, should ensure compliance with applicable state and federal rules.

6. Please provide additional notes or comments as necessary:

None



**Permit Strategy Write-Up**  
Closed Loop Glass Solutions  
**Permit Number:** P0112822  
**Facility ID:** 0125044148

7. Total Permit Allowable Emissions Summary (for informational purposes only):

<u>Pollutant</u>	<u>Tons Per Year</u>
Pb	>0.01
PE	1.80



**DRAFT**

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

Facility ID:	0125044148
Permit Number:	P0112822
Permit Type:	Initial Installation
Issued:	8/15/2013
Effective:	To be entered upon final issuance





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

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**Draft Permit-to-Install**  
Closed Loop Glass Solutions  
**Permit Number:** P0112822  
**Facility ID:** 0125044148

**Effective Date:** To be entered upon final issuance

## Authorization

Facility ID: 0125044148  
Facility Description:  
Application Number(s): A0046750  
Permit Number: P0112822  
Permit Description: Installation of a glass furnace  
Permit Type: Initial Installation  
Permit Fee: \$500.00 *DO NOT send payment at this time, subject to change before final issuance*  
Issue Date: 8/15/2013  
Effective Date: To be entered upon final issuance

This document constitutes issuance to:

Closed Loop Glass Solutions  
1635 Watkins Road  
Columbus, OH 43207

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

Scott J. Nally  
Director



**Draft Permit-to-Install**  
Closed Loop Glass Solutions  
**Permit Number:** P0112822  
**Facility ID:** 0125044148

**Effective Date:** To be entered upon final issuance

## Authorization (continued)

Permit Number: P0112822

Permit Description: Installation of a glass furnace

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

<b>Emissions Unit ID:</b>	<b>P001</b>
Company Equipment ID:	Glass Furnace
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



**Draft Permit-to-Install**  
Closed Loop Glass Solutions  
**Permit Number:** P0112822  
**Facility ID:** 0125044148  
**Effective Date:** To be entered upon final issuance

## **A. Standard Terms and Conditions**



## **1. Federally Enforceable Standard Terms and Conditions**

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
  - (1) Standard Term and Condition A.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.



**Draft Permit-to-Install**  
Closed Loop Glass Solutions  
**Permit Number:** P0112822  
**Facility ID:** 0125044148  
**Effective Date:** To be entered upon final issuance

## **B. Facility-Wide Terms and Conditions**



1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - (1) None.
  - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - (1) None.



**Draft Permit-to-Install**  
Closed Loop Glass Solutions  
**Permit Number:** P0112822  
**Facility ID:** 0125044148  
**Effective Date:** To be entered upon final issuance

## **C. Emissions Unit Terms and Conditions**



**1. P001, Glass Furnace**

**Operations, Property and/or Equipment Description:**

Glass furnace

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - a. b)(1)c., and b)(2)c.
  - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - a. 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 11/30/2001	<p>Particulate emissions shall not exceed 0.41 pound per hour and 1.80 tons per year.</p> <p>Hydrocarbon (HC) emissions shall not exceed 20 parts per million by volume (ppmv), expressed as propane and corrected to 4 percent carbon dioxide.</p> <p>The requirements of this rule also include compliance with the requirements of 40 CFR Part 63, Subpart X and OAC rule 3745-31-05(F).</p> <p>See b)(2)a.</p>
b.	OAC rule 3745-31-05(A)(3), as effective 12/01/2006	See b)(2)b.
c.	OAC rule 3745-31-05(F) (Voluntary limitation to satisfy the	Lead emissions shall not exceed 0.00108 pound per hour and 0.00047 ton per year.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	maximum incremental impact of Pb emissions under the NAAQS)	See b)(2)c.
d.	40 CFR Part 63, Subpart X (40 CFR 63.541 – 63.552)	<p>Lead compound concentrations in any process vent gas shall not exceed 0.20 milligrams per dry standard cubic meter (0.000087 grains per dry standard cubic foot).</p> <p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant OAC rule 3745-31-05(F).</p> <p>Should Subpart X be revised during the term of this permit, the permittee shall comply with the applicable requirements of the most recent promulgation.</p> <p>See b)(2)d., b(2)e.,</p>
e.	OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR §63.543.
f.	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR §63.543.

(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 State Implementation Plan:

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the calculated annual emission rate for VOC is less than 10 tons/year, taking into account the federally enforceable rule under 40 CFR Part 63, Subpart X.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the lead emissions from this air contaminant source since the calculated annual emission rate for lead is less than 10 tons/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 maintain a stack distance of at least 48.0 meters from a property line.
- d. At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.
- e. Table 1 to Subpart X of 40 CFR Part 63 – “General Provisions Applicability to Subpart X” identifies which parts of the General Provisions in 40 CFR Part 63.1-16 apply.

c) Operational Restrictions

- (1) The permittee shall operate the process fugitive emissions sources and fugitive dust sourced in a total enclosure that is maintained at negative pressure at all times and vented to a control device designed to capture lead particulate.

[40 CFR 63.544(a)]

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

[40 CFR Part 63, Subpart X]

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

[40 CFR Part 63, Subpart A]

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall prepare a standard operating procedures (SOP) manual that describes in detail procedures for inspection, maintenance, and bag leak detection and corrective action plans for all baghouses that are used to control process vents, process



fugitive, or fugitive dust emissions from any source subject to the lead emissions standards.

- (2) The permittee shall submit the SOP manual for baghouses to the Administrator or delegated authority for review and approval.
- (3) The procedures specified by the permittee in the SOP manual for baghouses shall include, at a minimum, a preventative maintenance schedule that is consistent with the baghouse manufacturer's instructions for routine and long-term maintenance.
- (4) The permittee shall construct and operate total enclosures for the smelting furnace, smelting furnace charging areas, and lead taps. The total enclosure must be free of significant cracks, gaps, corrosion, or other deterioration that could cause lead bearing material to be released from the primary barrier.

[40 CFR Part 63, Subpart X]

- (5) The total enclosure shall be continuously ventilated to ensure negative pressure values of at least 0.013 mm of mercury (0.007 inches of water).

[40 CFR Part 63, Subpart X]

- (6) 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  $\pm 1$  percent of the temperature being measured or  $\pm 5$  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, thermal oxidizer, monitoring equipment, and the associated emissions unit(s).

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

- (7) 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 thermal oxidizer shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manual.

[40 CFR 63.548(j)(4)]

- (8) 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.

[OAC rule 3745-31-05(E)]

- (9) The permittee shall comply with the applicable monitoring and/or recordkeeping requirements necessary to demonstrate compliance with 40 CFR Part 63, Subpart X.

[40 CFR Part 63, Subpart X]

- (10) The permittee shall comply with the applicable monitoring and/or recordkeeping requirements necessary to demonstrate compliance with 40 CFR Part 63, Subpart A.

[40 CFR Part 63, Subpart A]

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 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;
- 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 afterburner or furnace exhaust stack;
- c. each incident of deviation described in "a" or "b" (above) where a prompt investigation was not conducted;
- d. 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
- e. 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 reporting requirements necessary to demonstrate compliance with 40 CFR Part 63, Subpart X.

[40 CFR Part 63, Subpart X]

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

[40 CFR Part 63, Subpart A]

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:

0.00108 pound of lead per hour

Applicable Compliance Method:

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(s):

Methods 1 – 4 located in 40 CFR Part 60, Appendix A, and  
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 ton lead per year

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.

c. Emission Limitation:

20 ppmv HC, expressed as propane and corrected to 4% carbon dioxide

Applicable Compliance Method:

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(s):  
  
Methods 1 – 4 located in 40 CFR Part 60, Appendix A, and  
Method 25 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 testing requirements necessary to demonstrate compliance with 40 CFR Part 63, Subpart X.

[40 CFR Part 63, Subpart X]

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

[40 CFR Part 63, Subpart A]

g) Miscellaneous Requirements

- (1) None.