



State of Ohio Environmental Protection Agency

Street Address:

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

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

Mailing Address:

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

**RE: FINAL PERMIT TO INSTALL  
MARION COUNTY  
Application No: 03-16024**

**CERTIFIED MAIL**

	TOXIC REVIEW
	PSD
	SYNTHETIC MINOR
	CEMS
	MACT
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

**DATE: 2/17/2004**

Pioneer City Alloys  
Chris Newberry  
311 Rose Avenue  
Marion, OH 43302

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging 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 Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 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. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

Sincerely,

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

cc: USEPA

NWDO



Permit To Install  
Terms and Conditions

Issue Date: 2/17/2004  
Effective Date: 2/17/2004

**FINAL PERMIT TO INSTALL 03-16024**

Application Number: 03-16024  
APS Premise Number: 0351010001  
Permit Fee: **\$3000**  
Name of Facility: Pioneer City Alloys  
Person to Contact: Chris Newberry  
Address: 311 Rose Avenue  
Marion, OH 43302

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**311 Rose Avenue**  
**Marion, Ohio**

Description of proposed emissions unit(s):  
**(2) induction furnaces, sand tanks, silos, rammers + mullers; and core, shakeout + molding machines.**

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) 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 above described 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

Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. Permit to Install General Terms and Conditions

#### 1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

#### 2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from 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 appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

#### 3. Records Retention Requirements

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

#### 4. Inspections and Information Requests

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

be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

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

**6. Permit Transfers**

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

**7. 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.

**8. Termination of Permit to Install**

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. 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.

**9. Construction of New Sources(s)**

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions

and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. 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 the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install 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.

**10. 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.

**11. Applicability**

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

**12. Best Available Technology**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

**13. Source Operation and Operating Permit Requirements After Completion of Construction**

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

**14. Construction Compliance Certification**

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

**15. 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 this Permit to Install.

**B. Permit to Install Summary of Allowable Emissions**

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)  
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons Per Year</u>
<b>Fugitive PE</b>	<b>10.53</b>
<b>Fugitive Pb</b>	<b>0.08</b>
<b>OC</b>	<b>4.00</b>

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F003 - 1.25 tons/hr electric induction furnace (north furnace) [Modification of PTI #03-5821 issued on July 3, 1991 to separate furnaces, establish separate emission limitations and correct rule citations)	OAC rule 3745-31-05(A)(3)	3.51 tons fugitive particulate emissions (PE)/yr  0.04 ton fugitive lead (Pb)/yr  Visible fugitive PE shall not exceed 20 percent opacity, as a three-minute average (see A.2.a).
	OAC rule 3745-17-07(B)	See A.2.b and A.2.c  See A.2.d
	OAC rule 3745-17-08(B)	See A.2.e

**2. Additional Terms and Conditions**

- 2.a The visible particulate emissions limitation shall apply to the following:
  - i. The egress points (i.e., building windows, doors, roof monitors, etc.) serving emission unit F003.
  - ii. Visible particulate emissions due solely to the operation of emission unit F003.
- 2.b Best Available Technology (BAT) control requirements for this emissions unit has been determined to be the use of a building enclosure and compliance with the terms and conditions of this permit.
- 2.c The emission limitations of 3.51 tons PE/yr and 0.04 ton fugitive Pb/year were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, no recordkeeping, deviation reporting or compliance method calculations are required to demonstrate compliance with these limitations.

NOTE: These are batch operations and the annual limits are based upon the maximum possible annual hours of operation.

**2.d** This emissions unit is exempt from the visible emissions limitation specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).

**2.e** The emissions unit is not located within an "Appendix A" area as identified in OAC rule 3745-17-08 (it is located in Marion county). Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

## **B. Operational Restrictions**

1. The permittee shall only process "clean" raw materials in this emission unit (i.e., free of oils, greases, solvents, etc.).

## **C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. The permittee shall maintain records documenting each day during which the processing of materials other than "clean" raw materials occurred.

#### **D. Reporting Requirements**

1. The permittee shall submit semiannual written reports that (a) identify all days during which any abnormal visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the abnormal visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall notify the Northwest District Office in writing of any record showing the processing of materials other than "clean" raw materials specified in B.1. The notification shall include a copy of such record and shall be sent to the Northwest District Office within 45 days after the exceedance occurs.

#### **E. Testing Requirements**

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation: 3.51 tons fugitive PE/yr

Applicable Compliance Method: The tons/yr limitation is based on the emission unit's potential to emit\* and was established by combining the emissions from melting, charging and tapping operations and applying a 70% control factor for use of a building enclosure. Therefore, no recordkeeping, deviation reporting or compliance method calculations are required to demonstrate compliance with this limitation.

\*The potential to emit for this unit was determined as follows:

Melting - emissions associated with melting operations were established by multiplying the maximum production rate of 2600 tons per year by the emission factor from AP-42, Table 12.10-3 (1/95) of 0.9 lb PE/ton, applying a 70% control factor and dividing by 2000 lbs/ton. (0.35 ton fugitive PE/yr)

Charging - emissions associated with charging operations were established by multiplying the maximum production rate of 2600 tons per year by the company supplied emission factor of 5.4 lbs PE/ton, applying a 70% control factor and dividing by 2000 lbs/ton. (2.11 tons fugitive PE/yr)

Tapping - emissions associated with tapping operations were established by multiplying the maximum production rate of 2600 tons per year by the company supplied emission factor

of 2.7 lbs PE/ton, applying a 70% control factor and dividing by 2000 lbs/ton. (1.05 tons fugitive PE/yr)

- b. Emission Limitation: 0.04 ton fugitive Pb/yr

Applicable Compliance Method: The tons/yr limitation is based on the emission unit's potential to emit\*. Therefore, no recordkeeping, deviation reporting or compliance method calculations are required to demonstrate compliance with this limitation.

\*The potential to emit for this unit was determined by multiplying the maximum production rate of 2600 tons per year by the emission factor from AP-42, Table 12.10-3 (1/95) of 0.1 lb Pb/ton, applying a 70% control factor for the building enclosure and dividing by 2000 lbs/ton.

- c. Emission Limitation: Visible fugitive PE shall not exceed 20 percent opacity, as a three-minute average.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible emissions limitation above pursuant to Method 9 of 40 CFR, Part 60, Appendix A and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

**F. Miscellaneous Requirements**

None

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F004 - 1.25 tons/hr electric induction furnace (south furnace) [Modification of PTI #03-5821 issued on July 3, 1991 to separate furnaces, establish separate emission limitations and correct rule citations)	OAC rule 3745-31-05(A)(3)	3.51 tons fugitive particulate emissions (PE)/yr from melting  0.04 ton fugitive lead (Pb)/yr  Visible fugitive PE shall not exceed 20 percent opacity, as a three-minute average (see A.2.a).
	OAC rule 3745-17-07(B)	See A.2.b and A.2.c
	OAC rule 3745-17-08(B)	See A.2.d
		See A.2.e

**2. Additional Terms and Conditions**

- 2.a The visible particulate emissions limitation shall apply to the following:
  - i. The egress points (i.e., building windows, doors, roof monitors, etc.) serving emission unit F004.
  - ii. Visible particulate emissions due solely to the operation of emission unit F004.
- 2.b Best Available Technology (BAT) control requirements for this emissions unit has been determined to be the use of a building enclosure and compliance with the terms and conditions of this permit.
- 2.c The emission limitations of 3.51 tons PE/yr and 0.04 ton fugitive Pb/year were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, no recordkeeping, deviation reporting or compliance method calculations are required to demonstrate compliance with these limitations.

NOTE: These are batch operations and the annual limits are based upon the maximum possible annual hours of operation.

- 2.d** This emissions unit is exempt from the visible emissions limitation specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).
- 2.e** The emissions unit is not located within an "Appendix A" area as identified in OAC rule 3745-17-08 (it is located in Marion county). Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

**B. Operational Restrictions**

- 1. The permittee shall only process "clean" raw materials in this emission unit (i.e., free of oils, greases, solvents, etc.).

**C. Monitoring and/or Recordkeeping Requirements**

- 1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. The permittee shall maintain records documenting each day during which the processing of materials other than "clean" raw materials occurred.

#### **D. Reporting Requirements**

1. The permittee shall submit semiannual written reports that (a) identify all days during which any abnormal visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the abnormal visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall notify the Northwest District Office in writing of any record showing the processing of materials other than "clean" raw materials specified in B.1. The notification shall include a copy of such record and shall be sent to the Northwest District Office within 45 days after the exceedance occurs.

#### **E. Testing Requirements**

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation: 3.51 tons fugitive PE/yr

Applicable Compliance Method: The tons/yr limitation is based on the emission unit's potential to emit\* and was established by combining the emissions from melting, charging and tapping operations and applying a 70% control factor for use of a building enclosure. Therefore, no recordkeeping, deviation reporting or compliance method calculations are required to demonstrate compliance with this limitation.

\*The potential to emit for this unit was determined as follows:

Melting - emissions associated with melting operations were established by multiplying the maximum production rate of 2600 tons per year by the emission factor from AP-42, Table 12.10-3 (1/95) of 0.9 lb PE/ton, applying a 70% control factor and dividing by 2000 lbs/ton. (0.35 ton fugitive PE/yr)

Charging - emissions associated with charging operations were established by multiplying the maximum production rate of 2600 tons per year by the company supplied emission factor of 5.4 lbs PE/ton, applying a 70% control factor and dividing by 2000 lbs/ton. (2.11 tons fugitive PE/yr)

Tapping - emissions associated with tapping operations were established by multiplying the maximum production rate of 2600 tons per year by the company supplied emission factor

of 2.7 lbs PE/ton, applying a 70% control factor and dividing by 2000 lbs/ton. (1.05 tons fugitive PE/yr)

- b. Emission Limitation: 0.04 ton fugitive Pb/yr

Applicable Compliance Method: The tons/yr limitation is based on the emission unit's potential to emit\*. Therefore, no recordkeeping, deviation reporting or compliance method calculations are required to demonstrate compliance with this limitation.

\*The potential to emit for this unit was determined by multiplying the maximum production rate of 2600 tons per year by the emission factor from AP-42, Table 12.10-3 (1/95) of 0.1 lb Pb/ton, applying a 70% control factor for the building enclosure and dividing by 2000 lbs/ton.

- c. Emission Limitation: Visible fugitive PE shall not exceed 20 percent opacity, as a three-minute average.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible emissions limitation above pursuant to Method 9 of 40 CFR, Part 60, Appendix A and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

**F. Miscellaneous Requirements**

None

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F005 - Core making operation (core sand silo, mixer and core machine)	OAC rule 3745-31-05(A)(3)	0.43 ton fugitive particulate emissions (PE)/yr  3.98 tons fugitive organic compounds (OC)/yr  Visible fugitive PE shall not exceed 20 percent opacity, as a three-minute average (see A.2.a).  See A.2.b and A.2.c
	OAC rule 3745-17-07(B)	See A.2.d
	OAC rule 3745-17-08(B)	See A.2.e
	OAC rule 3745-21-07(G)(2)	None (See B.1)

**2. Additional Terms and Conditions**

- 2.a The visible particulate emissions limitation shall apply to the following:
  - i. The egress points (i.e., building windows, doors, roof monitors, etc.) serving emission unit F005.
  - ii. Visible particulate emissions due solely to the operation of emission unit F005.
- 2.b Best Available Technology (BAT) control requirements for this emissions unit has been determined to be the use of a building enclosure and compliance with the terms and conditions of this permit.

- 2.c** The emission limitations of 0.43 ton fugitive PE/yr and 3.98 tons OC/year were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, no recordkeeping, deviation reporting or compliance method calculations are required to demonstrate compliance with these limitations.

NOTE: These are batch operations and the annual limits are based upon the maximum possible annual hours of operation.

- 2.d** This emissions unit is exempt from the visible emissions limitation specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).
- 2.e** The emissions unit is not located within an "Appendix A" area as identified in OAC rule 3745-17-08 (it is located in Marion county). Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

## **B. Operational Restrictions**

1. The use of any photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5), in this emissions unit is prohibited.

## **C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible

emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. the company identification for each liquid organic material employed; and
  - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

#### **D. Reporting Requirements**

1. The permittee shall submit semiannual written reports that (a) identify all days during which any abnormal visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the abnormal visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of any noncomplying material (i.e., photochemically reactive material) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the exceedance occurs.

#### **E. Testing Requirements**

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation: 0.43 ton fugitive PE/yr

Applicable Compliance Method: The tons/yr limitation is based on the emission unit's potential to emit\*. Therefore, no recordkeeping, deviation reporting or compliance method calculations are required to demonstrate compliance with this limitation.

\*The potential to emit for this unit was determined by multiplying the maximum production rate of 2600 tons per year by the emission factor from AP-42, Table 12.10-3 (1/95) of 1.1 lbs PE/ton, applying a 70% control factor for the building enclosure and dividing by 2000 lbs/ton.

- b. Emission Limitation: 3.98 tons fugitive OC/yr

Applicable Compliance Method: The tons/yr limitation is based on the emission unit's potential to emit\*. Therefore, no recordkeeping, deviation reporting or compliance method calculations are required to demonstrate compliance with this limitation.

\*The potential to emit for this unit was determined by multiplying the maximum sand usage rate of 4680 tons per year by the emission factor from the Ohio Cast Metals Association Memo, dated 2/16/98 of 1.7 lbs OC/ton sand and dividing by 2000 lbs/ton.

- c. Emission Limitation: Visible fugitive PE shall not exceed 20 percent opacity, as a three-minute average.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible emissions limitation above pursuant to Method 9 of 40 CFR, Part 60, Appendix A and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

**F. Miscellaneous Requirements**

None

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F006 - Shakeout machine, conveying system, reclaim/return sand silos and (2) mullers	OAC rule 3745-31-05(A)(3)	2.65 tons fugitive particulate emissions (PE)/yr  Visible fugitive PE shall not exceed 20 percent opacity, as a three-minute average (see A.2.a).  See A.2.b and A..2.c
	OAC rule 3745-17-07(B)	See A.2.d
	OAC rule 3745-17-08(B)	See A.2.e

2. **Additional Terms and Conditions**

- 2.a The visible particulate emissions limitation shall apply to the following:
  - i. The egress points (i.e., building windows, doors, roof monitors, etc.) serving emission unit F006.
  - ii. Visible particulate emissions due solely to the operation of emission unit F006.
- 2.b Best Available Technology (BAT) control requirements for this emissions unit has been determined to be the use of a building enclosure and compliance with the terms and conditions of this permit.
- 2.c The emission limitation of 2.65 tons fugitive PE/yr was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, no recordkeeping, deviation reporting or compliance method calculations are required to demonstrate compliance with these limitations.

NOTE: These are batch operations and the annual limits are based upon the maximum possible annual hours of operation.

- 2.d** This emissions unit is exempt from the visible emissions limitation specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).
- 2.e** The emissions unit is not located within an "Appendix A" area as identified in OAC rule 3745-17-08 (it is located in Marion county). Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

**B. Operational Restrictions**

None

**C. Monitoring and/or Recordkeeping Requirements**

- 1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**D. Reporting Requirements**

1. The permittee shall submit semiannual written reports that (a) identify all days during which any abnormal visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the abnormal visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation: 2.65 tons fugitive PE/yr

Applicable Compliance Method: The tons/yr limitation is based on the emission unit's potential to emit\* and was established by combining the emissions from shakeout and sand handling operations and applying a 70% control factor for use of a building enclosure. Therefore, no recordkeeping, deviation reporting or compliance method calculations are required to demonstrate compliance with this limitation.

\*The potential to emit for this unit was determined as follows:

Shakeout - emissions associated with shakeout operations were established by multiplying the maximum production rate of 2600 tons per year by the emission factor from AP-42, Table 12.10-3 (1/95) of 3.2 lbs PE/ton, applying a 70% control factor and dividing by 2000 lbs/ton. (1.25 tons fugitive PE/yr)

Sand Handling - emissions associated with sand handling operations were established by multiplying the maximum production rate of 2600 tons per year by the emission factor from AP-42, Table 12.10-3 (1/95) of 3.6 lbs PE/ton, applying a 70% control factor and dividing by 2000 lbs/ton. (1.40 tons fugitive PE/yr)

- b. Emission Limitation: Visible fugitive PE shall not exceed 20 percent opacity, as a three-minute average.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible emissions limitation above pursuant to Method 9 of 40 CFR, Part 60, Appendix A and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

**F. Miscellaneous Requirements**

None

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F008 - Mold machines and mold wash operation	OAC rule 3745-31-05(A)(3)	0.43 ton fugitive particulate emissions (PE)/yr  0.02 ton fugitive organic compounds (OC)/yr  Visible fugitive PE shall not exceed 20 percent opacity, as a three-minute average (see A.2.a).  See A.2.b and A.2.c
	OAC rule 3745-17-07(B)	See A.2.d
	OAC rule 3745-17-08(B)	See A.2.e
	OAC rule 3745-21-07(G)(2)	None (See B.1)

**2. Additional Terms and Conditions**

- 2.a The visible particulate emissions limitation shall apply to the following:
  - i. The egress points (i.e., building windows, doors, roof monitors, etc.) serving emission unit F008.
  - ii. Visible particulate emissions due solely to the operation of emission unit F008.
- 2.b Best Available Technology (BAT) control requirements for this emissions unit has been determined to be the use of a building enclosure and compliance with the terms and conditions of this permit.

- 2.c** The emission limitations of 0.43 ton fugitive PE/yr and 0.019 ton OC/year were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, no recordkeeping, deviation reporting or compliance method calculations are required to demonstrate compliance with these limitations.

NOTE: These are batch operations and the annual limits are based upon the maximum possible annual hours of operation.

- 2.d** This emissions unit is exempt from the visible emissions limitation specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).
- 2.e** The emissions unit is not located within an "Appendix A" area as identified in OAC rule 3745-17-08 (it is located in Marion county). Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

## **B. Operational Restrictions**

1. The use of any photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5), in this emissions unit is prohibited.

## **C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible

emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. the company identification for each liquid organic material employed; and
  - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

#### **D. Reporting Requirements**

1. The permittee shall submit semiannual written reports that (a) identify all days during which any abnormal visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the abnormal visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of any noncomplying material (i.e., photochemically reactive material) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the exceedance occurs.

#### **E. Testing Requirements**

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation: 0.43 ton fugitive PE/yr

Applicable Compliance Method: The tons/yr limitation is based on the emission unit's potential to emit\*. Therefore, no recordkeeping, deviation reporting or compliance method calculations are required to demonstrate compliance with this limitation.

\*The potential to emit for this unit was determined by multiplying the maximum production rate of 2600 tons per year by the emission factor from AP-42, Table 12.10-3 (1/95) of 1.1 lb PE/ton, applying a 70% control factor for the building enclosure and dividing by 2000 lbs/ton.

- b. Emission Limitation: 0.02 ton fugitive OC/yr

Applicable Compliance Method: The tons/yr limitation is based on the emission unit's potential to emit\*. Therefore, no recordkeeping, deviation reporting or compliance method calculations are required to demonstrate compliance with this limitation.

\*The potential to emit for this emission unit was determined by multiplying the maximum OC content of 3.53 lbs OC/gal by the maximum annual mold wash usage rate of 10.4 gal/yr and dividing by 2000 lbs/ton.

- c. Emission Limitation: Visible fugitive PE shall not exceed 20 percent opacity, as a three-minute average.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible emissions limitation above pursuant to Method 9 of 40 CFR, Part 60, Appendix A and the modifications listed paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

**F. Miscellaneous Requirements**

None